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THE HISTORIE OF THE WORLD:

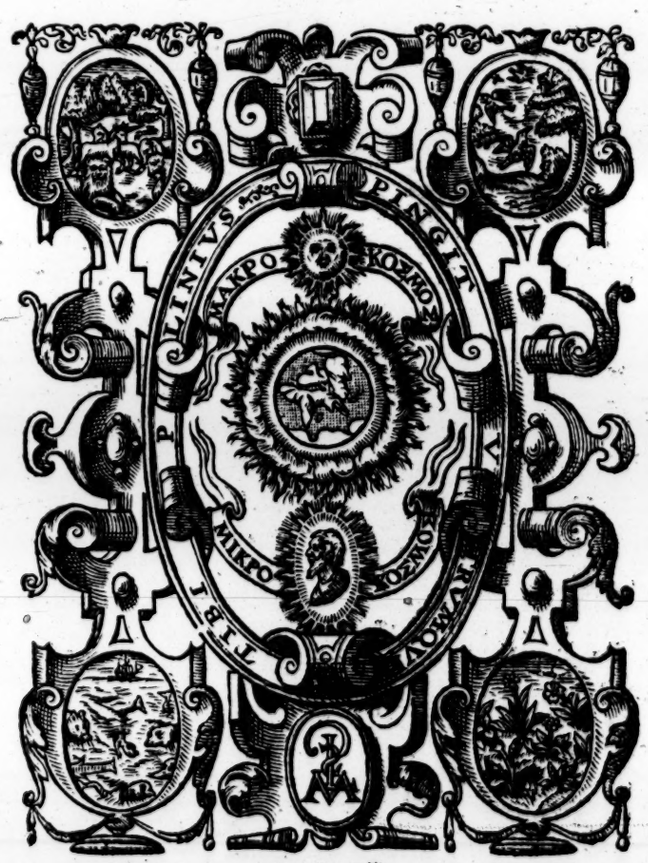
Commonly called,

THE NATVRALL HISTORIE OF C. PLINIVS SECVNDVS.

Translated into English by PHILEMON HOLLAND
Doctor of Physicke.

0-5-0

The first Tome:



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1634.

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The copie of the ſaid Letter, written as touching the Tranſlation of Plinie.

MY beloued, in twentie yeeres and better, ſo many tokens of our mutuall loue paſsing betweene vs, I need not now to profeſſe my affection to your ſelfe; and my daily conuerſing with you, hath yeelded my approbation of your tedious labor in tranſlating Plinie. Theſe few lines therefore ſhall onely ſerue to witneſſe vnto others the deſerued account which for your learning I haue alwaies made of you, and my conceit of this your trauaile in opening to your countrymen the treaſurie of Nature: therein to ſee and to admire the wiſedome, power, and the goodneſſe of the onely true God, the Framer of Nature. I am not of their minds, who deſire that all humane learning in Arts and Naturall Philoſophie ſhould be reſerued vnder locke and key of ſtrange language, without the which no other man ſhould haue acceſſe vnto it: For as ſuch knowledge is a branch of that excellencie wherein man was formed, ſo the repaire thereof (though it bee not the chiefe) is yet a thing vnworthily neglected, as well in regard of our owne comfort therein gained, as for the glory of God thereby promoted. And it was the wiſdome and prouident hand of the All-ſufficient, ſo to guide the wiſe heathen in Arts and Nature, that they ſhould publiſh ſuch their skill vnto their countrimen in mother tongue: partly to correct the rudeneſſe which is in ignorance, and in part to leaue them the more inexcuſable: In Tit.1. which regard, they may in ſome ſort be called, The Prophets and Teachers of the heathen. And though Plinie and the reſt were not able by Natures light to ſearch ſo far as to find out the God of Nature, who ſitteth in the glorie of light which none attaineth, but contrariwiſe in the vanitie of their imagination bewrayed the ignorance of fooliſh hearts, ſome doting vpon Nature her ſelfe, and others vpon ſpeciall creatures as their God: yet feare we not that Chriſtians in ſo cleare light ſhould be ſo farre bewitched by ſuch blind teachers, as to fall before theſe heathen Idols. Yea, though ſome of them (as namely Plinie) haue ſpoken diſhonourably of the onely true God and of his prouidence, becauſe they knew him not; which ſpeeches (if it might ſtand with the lawes of Tranſlation) I could wiſh were vtterly omitted; yet may we hope that Chriſtian men ſo long taught by the light of grace out of the holy word of God, will no leſſe therefore giue him his deſerued honour, than when they doe in like ſort heare the blaſphemie of Sanneherib king of Aſhur, who ſent to 2.Reg.19. raile vpon the liuing God. I feare not the corrupting of vnſtable minds any thing ſo much by theſe fooliſh Gentiles which are without, as by the deceitfull ſpirit of error ſpeaking in the mouth of men within: ſuch I meane as are within the boſome of the Church. Theſe are the foxes by whom we feare the ſpoile of the Lords vines when as the grapes firſt begin to Cant.2. cluſter; for whoſe taking I deſire that all Gods husbandmen would be more carefull. As for the ſpeeches of theſe blind heathen, the true Chriſtian may well thereby be prouoked to extoll the mercie of God, who ſitteth in ſo glorious a light as hath daſled the ſharpeſt ſight of Nature; but for our comfort hath put a vaile vpon his glorie, and by his grace hath ſo cleared

cleared the eye of our vnderſtanding, that we might ſee his face in his beloued, and know him to be the onely true God, and his bleſſed prouidence vpon all his creatures. And
Pſal.19. Rom.1. when they ſhall perceiue that the wiſeſt clearke in naturall skill could not learne by the booke of heauen and earth to know their Maker, whoſe glorie they declare, and handiworkes ſet
Gen.1. out; nor who it was that framed Nature, when by his word he firſt created them in ſuch excellencie, and then, by his bleſſing gaue, and by his prouidence working all in all, doth yet
Gen 3. Rom.8. maintaine ſuch an operatiue power, as by the which they are ſtill coutinued in their kindes: nor how it came to paſſe that Nature loſt her excellencie in all creatures, and her power vnto good was not onely weakened (whence we ſee her faile in many of her
Pſal.119. & 147. purpoſes) but alſo peruerted vnto euill; then (I ſay) they will the more be ſtirred vp by Gods grace to make reuerent account of the holy Scriptures, which God in rich mercie hath giuen to them to be a light in all things for to direct them through the errors in Natures blindneſſe, and to bring them to the heauenly Jeruſalem and happie world of all the holie where he dwelleth, whom they worſhip in vnitie and trinitie. Proceed then my beloued friend to bring vnto the birth your ſecond labour; whereof I pray that God may haue honour in the praiſe of his works throughout nature, and wiſh you comfort in good acceptance with the reader, and your countrie vſe and pleaſure in the skill thereof. Vnto him which onely hath immortalitie and dwelleth in that light which none attaineth, to God only wiſe be all honour and glorie. Iunij xij. 1601.

Your louing friend in the Lord,

H. F.

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TO THE RIGHT HONOVRABLE SIR *ROBERT CECIL* KNIGHT, PRINCIPALL SECRETARIE TO THE QVEENS MAIESTIE, MASTER OF COVRT OF THE WARDS AND LIVERIES, Chancellor of the Vniuerſitie of Cambridge, and one of her *Maieſties moſt Honorable Priuie Counſell.*

THe friendly acceptance which T. Livius *of Padua, hath found in this Realme, ſince time hee ſhewed himſelfe in Engliſh weed vnto her ſacred Majeſtie, hath trained ouer vnto him his neighbour* Plinius Secundus, *from Verona. Whome, being now arraied in the ſame habit, yet fearefull to ſet foot forward in the forreine ground, without the countenance of ſome worthie perſonage, who might both giue him his hand at his firſt entrance, in token of welcome, and alſo grace him afterwards with a fauourable regard to win acquaintance, I bumbly preſent vnto your Honour. For conſidering the qualitie of the man, a Philoſopher diſcourſing ſo deepely in all Learning, where may hee looke for better acceptance than of him, who is moſt iuſtly ſtyled, Patron of Learning? Which dignitie conferred of late vpon your H. by the generall ſuffrages of a Noble Vniuerſitie (and that for your ſingular inſight in all literature) as a complement to thoſe high places vnhereunto the fauour of a moſt prudent and iudicious Princeſſe hath aduanced you, and the ſame correſpondent to the ſame wiſedom, iuſtice, and eloquence, which concurre in your perſon, like the ſeuerall beauties of the Rubie, Amethyſt, and Emeraud meeting in one faire Opal, giueth a louely luſtre to your other titles, no leſſe, than if the nine* Muſes *and* Apollo, *repreſented naturally in that rich Agat of* K. Pyrrhus, *were inſerted therein. Now if, as wee read of* * Alexander *and* * Demetrius, *two mightie monarchs, who amid their deſſeines and making conqueſts and beſieging cities, beheld otherwhiles* Apelles *and* Protogenes *how they handled their pencils; it may pleaſe your Honour betweene the managing of State-affaires vnder her Majeſtie, to caſt your eie eftſoones vpon* Plinie *for your recreation, and ſee how liuely hee depeincteth, not* Venus Anadyomene, *drawne haply to the patterne of* Campaſpe *a courtizan; nor* Ialyſus *with his dog, in which picture,* fecit Fortuna naturam; *but euen Nature her ſelfe, the immediat mother and nource of all things vnder the Almightie; I ſhall not onely thinke him patronized thereby and ſufficiently commended to the world, but alſo acknowledge my ſelfe much deuoted to your H. and bound for euer to pray for the encreaſe thereof, with long life and true happineſſe.*

* Magnus.
* Polyorcetes.

Your Honours moſt readie at command,

Philemon Holland.

The Preface to the Reader.

HAppie were they in times paſt reputed (and not vnworthily) who had that gratious and heauenly gift, *aut facere ſcribenda, aut ſcribere legenda:* that is to ſay, either to do ſuch things as deſerued to bee written, or to write that which was worth the reading. Thoſe that could not attaine to theſe two branches of felicitie, and yet vtterly miſliked idlenes, contented themſelues in a third degree, namely to take in hand the old workes of their ancients, and by new labours to immortalize their memorie. Thus *Nicophanes* (a famous painter in his time) gaue his mind wholly to antique pictures, partly to exemplifie and take out their patternes after that in long continuance of time they were decaied; and in part to repaire and reforme the ſame, if haply by ſome iniurious accident they were defaced. The ingenious mind of this artizan thus deuoted to antiquitie, as I doe highly commend; ſo I cannot chuſe but embrace his policie, ſeeking hereby to auoid the enuie and reproofe of others. In this number I muſt range thoſe learned men in ſeuerall ages, who to illuſtrate the monuments left by former writers, haue annexed vnto them their Commentaries; to ſaue them entire and vncorrupt, haue ſet thereto iudiciall obſeruations; and to publiſh them for a generall benefit of poſteritie, haue tranſlated the ſame into their mother language. As for my ſelfe, ſince it is neither my hap nor hope to attaine to ſuch perfection, as to bring forth ſomewhat of mine owne which may quit the paines of a reader; and much leſſe to performe any action that might miniſter matter to a writer; and yet ſo farre bound vnto my natiue countrey and the bleſſed ſtate wherein I haue liued, as to render an account of my yeeres paſſed and ſtudies employed, during this long time of peace and tranquilitie, wherein (vnder the moſt gratious and happy gouernement of a peereleſſe Princeſſe, aſſiſted with ſo prudent, politique, and learned Counſell) all good literature hath had free progreſſe and flouriſhed, in no age ſo much: mee thought I owed this dutie, to leaue for my part alſo (after many others) ſome ſmall memoriall, that might giue teſtimonie another day what fruits generally this peaceable age of ours hath produced. Endeauoured I haue therefore to ſtand in this third ranke, and beſtowed thoſe houres which might be ſpared from the practiſe of my profeſſion, and the neceſſarie cares of this life, to ſatisfie my countrimen now liuing, and to gratifie the age enſuing, in this kinde. Like as therefore I haue trauelled alreadie in *Titus Liuius* a renowmed Hiſtoriographer, ſo I haue proceeded to deale with *Plinius Secundus* the elder, as famous a Philoſopher. Now albeit my intention and only ſcope was, to doe a pleaſure vnto them that could not read theſe authours in the original: yet needs I muſt confeſſe that euen my ſelfe haue not only gained thereby encreaſe of the Latine tongue (wherein theſe workes were written) but alſo growne to further knowledge of the matter and argument therein contained. For this benefit wee reape by ſtudying the bookes of ſuch ancient authours,

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That the oftner we read them ouer, the more ſtill we find and learne in them: as beeing ſo judiciouſly and pithily penned, that, as the Poet ſaid very well, *decies repetita placerent*. Well may the neweſt ſongs and laſt deuiſed plaies delight our ears at the firſt, and for the preſent rauiſh our ſenſes: like as horarie and earely Summer fruits content our taſt and pleaſe the appetite: but ſurely it is antiquitie that hath giuen grace, vigor, and ſtrength to writings; euen as age commendeth the moſt generous and beſt wines. In which regard, and vpon this experience of mine owne, I nothing doubt but they alſo whom I might iuſtly feare as hard cenſours of theſe my labours, will not onely pitie mee for my paines, but alſo in ſome meaſure yeeld mee thankes in the end, when either by the light of the Engliſh (if they be young ſtudents) they ſhall bee able more readily to goe away with the darke phraſe and obſcure conſtructions of the Latine; or (being great ſchollers and taking themſelues for deepe Critickes) by conferring the one with the other, haply to eſpie wherein I haue tripped, they ſhall by that meanes peruſe once againe, and conſequenly gather new profit out of that authour whom peraduenture they had laid by for many yeers as ſufficiently vnderſtood. When ſome benefit (I ſay) ſhall accrew vnto them likewiſe by this occaſion, I leſſe dread their fearefull doome, to which ſo wilfully I haue expoſed my ſelfe. Well I wiſt, that among the Athenians, order was taken by law, That an enterlude newly acted ſhould be heard with ſilence and applauſe: which cuſtome, as it was reſpectiue and fauourable to the firſt endeauours of the actours, ſo it implied an ineuitable danger of hiſſing out an vtter diſgrace, if afterwards they chanced to miſſe and faile in their parts. Hauing ſhewed my ſelfe once before vpon the ſtage, preſuming vpon this priuiledge and the curteſie of the theatre, I might haue now ſitten ſtill and ſo reſted: In mounting vp thus ſoon againe, I may ſeeme either in the aſſured confidence of mine owne worthineſſe, to proclaime a challenge to all mens cenſures; or elſe vpon a deepe conceit of ſome generall conniuencie make reckoning of an extraordinarie and wonderfull fauor. But as the choiſe that I haue made to publiſh the monuments of other men, without fathering any thing of mine owne, doth excuſe and acquit mee for the one; ſo the froward diſpoſition of carpers in theſe daies wherein wee liue, will checke the other. Howbeit conſidering ſuch paines vndergone by me one man, for the pleaſure of ſo many; ſo much time ſpent of mine, for gaining time to others; and ſome opportunities of priuat lucre ouerſlipt and loſt, to win profit vnto all; I feare not but theſe regards may deſerue a friendly acceptance, & counterweigh all defects and faults eſcaped, whatſoeuer. The perſuaſion hereof, but principally the priuitie of my affectionat loue vnto my countrey (which aſſured me of a ſafe-conduct to paſſe peaceably through their hands who are of the better ſort and well affected) induced mee to a reſolution not onely to enter vpon this new taske, but alſo to breake through all difficulties, vntill I had brought the ſame, if not to a full and abſolute perfection, yet to an end and finall concluſion. Beſides this naturall inclination and hope which carried mee this way, other motiues there were that made ſaile and ſet mee forward. I ſaw how diuerſe men before me had dealt with this authour, whiles ſome laboured to reforme whatſoeuer by iniurie of time was growne out of frame: others did their beſt to tranſlate him into their own tongue, and namely, the Italian and French: moreouer, the Title prefixed therto ſo vniuerſall as it is, to wit, *The Hiſtorie of the World*,

or *Reports of Nature*, imported (no doubt) that hee firſt penned it for the generall good of mankind. Ouer and beſides, the Argument enſuing full of varietie, furniſhed with diſcourſes of all matters, not appropriate to the learned only, but accommodat to the rude peiſant of the countrey; fitted for the painefull artizan in towne and citie: pertinent to the bodily health of man, woman, and child; and in one word, ſuiting with all ſorts of people liuing in a ſocietie and commonweale. To ſay nothing of the precedent giuen by the authour himſelfe who endited the ſame, not with any affected phraſe, but ſorting well with the capacitie euen of the meaneſt and moſt vnlettered: who alſo tranſlated a good part thereof out of the Greeke. What ſhould I alledge the example of former times, wherein the like hath euermore been approued and practiſed? Why ſhould any man therefore take offence hereat, and enuie this good to his naturall countrey, which was firſt meant for the whole world? and yet ſome there be ſo groſſe as to giue out, That theſe and ſuch like bookes ought not to bee publiſhed in the vulgar tongue. It is a ſhame (quoth one) that *Liuie* ſpeaketh Engliſh as hee doth: Latiniſts onely are to bee acquainted with him: as Who would ſay, the ſouldiour were to haue recourſe vnto the vniuerſitie for militarie skill and knowledge: or the ſcholler to put on armes and pitch a campe. What ſhould *Plinie* (ſaith another) bee read in Engliſh, and the myſteries couched in his bookes divulged: as if the husbandman, the maſon, carpenter, goldſmith, painter, lapidarie, and engrauer, with other artificers, were bound to ſeeke vnto great clearkes or linguiſts for inſtructions in their ſeuerall arts. Certes, ſuch *Momi* as theſe, beſides their blind and erronious opinion, thinke not ſo honourably of their natiue countrey and mother tongue as they ought: who if they were ſo well affected that way as they ſhould be, would wiſh rather, and endeauour by all meanes to triumph now ouer the Romans in ſubduing their literature vnder the dent of the Engliſh pen, in requitall fo the conqueſt ſometime ouer this Iſland, atchieued by the edge of their ſword. As for our ſpeech, was not Latine as common and naturall in Italie, as Engliſh here with vs. And if *Plinie* faulted not but deſerued well of the Romane name, in laying abroad the riches and hidden treaſures of Nature, in that Dialect or Idiome which was familiar to the baſeſt clowne: why ſhould any man be blamed for enterpriſing the ſemblable, to the commoditie of that countrey in which and for which he was borne. Are wee the onely nation vnder heauen vnworthie to taſt of ſuch knowledge? or is our language ſo barbarous, that it will not admit in proper tearmes a forreine phraſe? I honor them in my heart, who hauing of late daies troden the way before mee in *Plutarch*, *Tacitus*, and others, haue made good proofe, that as the tongue in an Engliſhmans head is framed ſo flexible and obſequent, that it can pronounce naturally any other language; ſo a pen in his hand is able ſufficiently to expreſſe Greeke, Latine, and Hebrew. And my hope is, that after mee there will ariſe ſome induſtrious *Flavij* who may at length *cornicum oculos configere*. For if my ſelfe, a man by profeſſion otherwiſe carried away, for gifts farre inferiour to many, and wanting ſuch helps as others bee furniſhed with, haue in ſome ſort taught thoſe to ſpeake Engliſh who were ſuppoſed very vntoward to bee brought vnto it; what may be expected at their hands, who for leiſure may attend better; in wit are more pregnant; and being graced with the opinion of men and fauour of the time, may attempt what they will, and effect whatſoe-

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ver they attempt with greater felicitie? A painfull and tedious travaile I confesse it is; neither make I doubt but many doe note mee for much follie in spending time herein, and neglecting some compendious course of gathering good, and pursing vp pence. But when I looke backe to the example of *Plinie*, I must of necessitie condemne both mine owne sloth, and also reproue the supine negligence of these daies. A courtiour he was, and great favourit of the *Vespasians* both father and sonne: an oratour besides, and pleaded many causes at the barre: a martiall man withall, and serued often times a leader and commander in the field: within the citie of Rome hee mannaged civile affaires, and bare honourable offices of State. Who would not thinke but each one of these places would require a whole man? and yet amid these occasions wherewith he was possessed, he penned Chronicles, wrate Commentaries, compiled Grammaticall treatises, and many other volumes which at this day are vtterly lost. As for the Historie of Nature now in hand, which sheweth him to be an excellent Philosopher and a man accomplished in all kinds of literature (the onely monument of his that hath escaped all dangers, and as another Palladium beene reserued entire vnto our time) wherein hee hath discoursed of all things even from the starrie heauen to the centre of the earth; a man would marveile how hee could possibly either write or doe any thing else. But considering the agilitie of mans spirit alwaies in motion: an ardent desire to benefit posteritie, which in these volumes hee hath so often protested; his indefatigable studie both day and night, euen to the iniurie of nature, and the same continued in euerie place, as well abroad as within-house; in his iourney vpon the high way, where his manner was to read and to indite; in his ordinarie passage through the streets betweene court and home, where he gaue himselfe no rest, but either read, or else found his notarie worke to write; and for that purpose rode vsually in an easie litter, with the said Notarie close by his side: lesse wonder it is, that hee performed his service to Prince and state according to his calling; and withall deliuered vnto posteritie so many fruits of wit and learning. For what is not the head of man able to compasse? especially making saile with a feruent desire and resolution to see an end, and besides taking the vantage of all moments, and losing no time, whereof hee was *unus omnium parcissimus*. Touching his affection to search into the secrets of Nature, it was that and nothing else that shortened his daies, and hastened his vntimely death: for hauing liued not much aboue the middle age of man, desirous he was to know the reason, Why the hill Nesuvius burned as it did? and approched so neare, that with the strong vapours and smoake issuing from thence, his breath was suddenly stopped, and himselfe found dead in the place: a man worthie to haue liued for euer. What remaineth now, but onely to recommend vnto my countrimen this worke of his (which for mine owne part I wish to bee immortall) were it not for one scruple to bee cleared, which at the first troubled my selfe a little, and might peraduenture otherwise offend some readers. In attributing so much vnto Nature, *Plinie* seemeth to derogat from the Almightie God, to him ἐναντία; and therefore dangerous (saith one) to bee divulged. Farre be it from mee, that I should publish any thing to corrupt mens manners, and much lesse to preiudice Christian religion. After conference therefore with sundrie diuines about this point, whom for their authoritie I reuerence; whose learning I honor and embrace; and in whom for iudgement & synceritie of religion

I rest,

I reſt, confirmed I was in my firſt purpoſe, and reſolved to finiſh that which I had begun, namely, not to defraud the world of ſo rich a gem, for one ſmall blemiſh appearing therein. And that it may appeare how I did not abound in mine owne ſence, but had regard as well to ſatisfie the conſcience of others as mine owne, I haue thought good to annex immediately hereunto, in manner of a Corollarie, the opinion of one graue and learned preacher concerning this doubt, as it was deliuered vnto mee in writing; which for that it is grounded vpon ſufficient reaſons, and according with the iudgement of the reſt, the leſſe I reſpect the raſh projects of ſome fantaſticall ſpirits: nothing doubting but the ſame will ſettle the minds of the weake, and free my labours from the taint of irreligion.

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THE FIRST BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

*The Preface or Epiſte Dedicatorie to * Prince Veſpaſian, his [friend] C. Plinius Secundus ſendeth greeting.* * i. Titus.

THeſe bookes containing the Hiſtorie of Nature, which a few daies ſince I brought to light (a new worke in Latine, and namely among the Romanes your Citizens and Countrymen) I purpoſe by this Epiſtle of mine to preſent and conſecrate vnto you, moſt ſweet and gentle Prince [for * this title accordeth fitteſt vnto you, ſeeing that the name of [*Moſt mighty] ſorteth well with the age of the Emperor your father:] which haply might ſeeme boldneſſe and preſumption in me, but that I know how at other times * *you were wont to haue ſome good opinion of my toies and fooleries.* Where, by the way, you muſt giue me leaue to mollifie a little the verſes which I borrow of my *countryman Catullus.* (See alſo how I light vpon * *a word* vſed among ſouldiers, which you are acquainted with, ſince time we ſerued both together in the camp:) For he as you wot full well, changing the former ſillables of his verſes one for another, made himſelfe ſomewhat more harſh than he would ſeeme to be vnto the fine eares of his familiar friends, the *Veranioli* & *Fabulli*. And withall, I would be thought by this my malapert writing vnto you, to ſatisfie one point, which, as you complained in your anſwer of late to another rude & audacious letter of mine, I had not performed, to wit, That all the world might ſee (as it were vpon record) how the Empire is managed by you and your father equally: and notwithſtanding this imperial majeſtie wherunto you are called, yet is your affability and maner of conuerſing with your old friends, fellow-like, & the ſame that alwaies heretofore it had been. For albeit you haue triumphed with him for your noble victories, bin Cenſor in your time, and Conſull * ſix times, executed the ſacred authoritie of the Tribunes, Patrones, and protectors of the Commons of Rome, together with him: albeit I ſay you haue otherwiſe ſhewed your noble heart in honouring and gracing both the court of the Emperor your father, and alſo the whole ſtate of Knights and Gentlemen of Rome, whiles you were captaine of the guard, and grand-maſter of his houſe and roiall pallace (in which places all, you carried your ſelfe reſpectiuely to the good of the Commonweale) yet to all your friends, and eſpecially to my ſelfe, you haue borne the ſame countenance as in times paſt within the campe, when wee ſerued vnder the ſame colours, and lodged together in one pauilion. So as in all this greatneſſe and high eſtate whereunto you are mounted, there is no other change and alteration ſeene in your perſon but this, That your power is now anſwerable to your will, & able you are to doe and performe that good which you euer meant, and ſtill intend.

* *Suaviſſimus.*

* *Maximus.*

* *Namque in ſoleis, id eſt eſſe aliquid putare nugas.* * *Conterraneum.*

It ſeemes that *Pliny* read thus in *Catullus*, *Tu putare namque Nugas eſſe aliquid meas ſoleas*, which indeed was but an hard compoſition and couching of the words.

* *Sexies*, or rather *Septies*, out of *Suetonius*.

And howſoeuer this great maieſtie, reſplendent in you on euery ſide, in regard of thoſe high dignities aboue rehearſed, may induce the whole world beſides to reuerence your perſon in all obeiſance; yet I for my part am armed onely with a kinde of audacitie and confidence to ſhew my dutie and devoire vnto you, after a more familiar manner than others: and therfore, this my aduenturous raſhnes, whatſoeuer, you muſt impute vnto your own courteſie: and if I chaunce to fault therein, thanke your ſelfe therefore, and ſeeke pardon at your own hands. Well, baſhfulneſſe I haue laid aſide, and put on a bold face, and all to no purpoſe. For why? although your gentleneſſe and humanitie be one way attractiue, and inuiteth me to draw neare vnto your preſence, yet another way you appeare in great maieſtie: the ſublimitie I ſay of your mind, your deepe reach, high conceit, and rare perfections, ſet me as far back: no lictors & huiſhers marching before you, ſo much, that I dare not approach. In the firſt place: was there euer any man, whoſe words paſſed from him more powerfull, & who more truly might be ſaid to flaſh forth as lightning the force of eloquence? What Tribune was there known at any time to perſuade & moue the people with good language, more effectually? How admirable was your vtterance in thoſe publicke Orations, wherin you thundred out the praiſe-worthy acts of the Emperor your father, that all the grand-place rung therwith? what a ſingular teſtimonie ſhewed you of rare kindneſſe & affection to your brother, in ſetting out his praiſes to the full? As for your skill in Poetrie, how excellent, how accompliſhed is it. Oh the bounty of your mind! Oh the fertility of your pregnant ſpirit! that you ſhould find means to imitate, yea, and to match your * brother in that kind. But who is able boldly to giue an eſtimate of theſe gifts to their worth? How may a man enter into the due conſideration therof, without feare of exquiſit cenſure, and exact iudgement of your wit, eſpecially being prouoked and challenged thereunto as you are. For to ſay a truth, the caſe of them who publiſh a worke in generall tearmes, is farre vnlike to theirs that will ſeem to dedicat it particularly, and by name, to a Prince ſo iudicious as your ſelfe. For had I ſet forth this my booke ſimply, and ſtaied there without any perſonal dedication, thē I might haue come vpon you & ſaid, Sir, what ſhould a mightie Commander and Generall of the field, as you are, buſie himſelfe to read ſuch matters? written theſe treatiſes were to the capacitie of the vulgar people, for baſe commons, rude husbandmen, and peaſants of the countrie, for poore artiſans; and in one word, to gratifie them who had no other means of great emploiment, nor time & leiſure but to ſtudie vpon ſuch points and nothing elſe: What ſhould you make your ſelfe a cenſor of this worke? and verily, when I made firſt ſhew of this enterpriſe of mine, I never reckned you in the number of thoſe iudges that ſhould paſſe their ſentence vpon theſe writings; I wiſt full well, that you were a greater perſon far, & I ſuppoſed that you would neuer abaſe your ſelfe nor ſtoupe ſo low as to read this booke of mine. Ouer and beſides, a common caſe it is, and incident to men of deepe learning and great conceit, that otherwhiles exception may be taken againſt them, and their iudgement reiected in this behalfe. Euen *M. Tullius* that renowmed Orator, and who for wit and learning had not his fellow, taking the vantage of that libertie, vſeth the benefit thereof: and (whereat wee may well maruell) maintaineth the action by an aduocate, and taketh example (for his defence) from *Lucilius*: for in one part of his workes thus hee ſaith, *I would not haue learned* Perſius *to read theſe bookes of mine, loth I am that hee ſhould cenſure mee.*

*For *Domitian Veſpaſian* was reputed an excellent Poet.

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As for *Lælius Decimus*, I am content to ſubmit them to his opinion. Now if ſuch an one as *Lucilius*, who was the firſt that durſt controule the writing of others, and tooke vpon him to ſcoffe at their imperfections, had rather thus to ſay; if *Cicero* tooke occaſion to borrow the ſaid ſpeech of him for to ſerue his owne turne, and namely in his Treatiſe of Politiques, where he wrote of a Common-weal; how much greater cauſe haue I to diſtruſt my ſelf, and to decline and auoid the cenſure of ſome judge of deepe vnderſtanding? But cut I am from this refuge and meanes of defence, in that I expreſſely make choiſe of you in this dedication of my worke: for one thing it is to haue a judge, either pricked by pluralitie of voices, or caſt vpon a man by drawing lots; and a farre other thing to chuſe and nominate him from all others: and great difference there is between that cheare and prouiſion which we make for a gheſt ſolemnely bidden and inuited, and the ſuddaine fare and intertainement which is ready for a ſtranger who commeth to our houſe vnlooked for. *Cato*, that profeſſed enemie of ambition, vain-glory, and indirect ſuit for offices, who took as great contentment in thoſe eſtates and dignities which he refuſed and reiected, as in them which he enioied, attained to this good name of vprightneſſe and ſinceritie, that when in the hotteſt broile about election of Magiſtrates that euer was in his time, they that ſtood therefore, put into his hands their mony vpon truſt, as a cautionary pawne and aſſurance of their integritie and fidelitie that way; they profeſſed that they did it in teſtimony of their conceit of his equitie and innocence, the chiefe and onely thing that a man is to regard in this life: whereupon enſued the noble and memorable exclamation of *M. Cicero*, who ſpeaking of the ſaid *Cato*, brake out into theſe words: Oh gentle *M Portius*, how happy and bleſſed art thou, whom no man was euer ſo hardie as to ſollicite to any leaud thing, or contrary to right and honeſtie! *L. Scipio*, ſurnamed *Aſiaticus*, at what time as hee appealed vnto the Tribunes of the Commons, and beſought their lawfull fauour (among whom, *C. Gracchus* was one, a man whom hee tooke for his mortall enemie) preſuming vpon the goodneſſe of his cauſe, gaue out and ſaid, That his very enemies, if they were his iudges, could not chuſe but quit him, and giue ſentence on his ſide. Thus wee ſee how euerie man maketh him peremtorily the ſupreme and higheſt iudge of his cauſe, whom himſelfe chuſeth and appealeth vnto: which manner of choiſe the Latines call *Prouocatio*. As for your ſelfe verily, who are ſet in the moſt eminent & chiefe place among men, and otherwiſe endued with ſingular eloquence and profound knowledge, no maruell is it, if thoſe that doe their dutie vnto you, ſalute you, kiſſe your hand, and come with great reſpect and reuerence: In which regard, exceeding care aboue all things would be had, that whatſoeuer is ſaid or dedicated vnto you, may beſeem your perſon, and be worth acceptation. And yet the gods reject not the humble prayers of poore countrey peaſants, yea, and of manie nations, who offer nothing but milke vnto them: and ſuch as haue no Incenſe, find grace and fauour many times with the oblation of a plaine cake made onely of Meale and ſalt; and neuer was any man blamed yet for his deuotion to the gods, ſo he offered according to his abilitie, were the thing neuer ſo ſimple.

For mine owne part, challenged I may be more ſtill for this my importune and inconſiderat boldneſſe, in that I would ſeeme to preſent theſe bookes vnto you, compriſed of ſo ſlender ſtuffe and matter as they be: for therein can be touched no

great wit (which otherwiſe in me was euer meane and ſimple) neither admit they any digreſſions, orations, ſpeeches, and diſcourſes, ne yet admirable caſes and variable chanſes, or any other occurrent, either pleaſant to rehearſe, or delectable to heare. The truth is this, the nature of all things in this world, that is to ſay, matters concerning our daily and ordinarie life, are here deciphered and declared, and that in barrein terms, without any goodly ſhew of gay and glorious phraſes: and whatſoeuer I haue put downe, concerne it doth the baſeſt points thereof, inſomuch as for the moſt part I am to deliver the thing in hand, either in ruſticall ſpeech, or elſe in forraine, nay, in barbarous language, ſuch alſo as may not well be vttered, but with reſeruing honour to the hearers, and reuerence to the readers.

Moreouer, the way that I haue entred into, hath not bin troden beforetime by other writers, being indeed ſo ſtrange and vncouth, as a mans mind would not willingly trauell therin. No Latin author among vs hath hitherto once ventured vpon the ſame argument, no one Grecian whatſoeuer hath gone through it and handled all: and no maruell, for many of vs loue not to take any paines, but ſtudy rather to pen matters of delight and pleaſure. True it is, I muſt needs ſay, that others haue made profeſſion hereof, but they haue done it with ſuch ſubtiltie and deepeneſſe, that all their trauels and writings by that means, lie as it were dead and buried in darkeneſſe. Now come I, and take vpon me to ſpeak of euery thing, and to gather as it were a compleat body of arts and ſciences (which the Greeks call ἐγκυκλοπαιδείαν) that are either altogether vnknowne, or become doubtfull, through the ouermuch curioſitie of fine wits: again, other matters are deciphered in ſuch long diſcourſes, that they are tedious to the readers, inſomuch as they loath and abhor them. A difficult enterpriſe it is therfore to make old ſtuffe new, to giue authoritie & credit to nouelties, to poliſh and ſmooth that which is worne and out of vſe, to ſet a gloſſe and luſtre vpon that which is dim and darke, to grace & countenance things diſdained, to procure beleefe to matters doubtful; & in one word, to reduce nature to all, and al to their own nature. And verily to giue the attempt only and ſhew a deſire to effect ſuch a deſſeigne as this, although the ſame be not brought about and compaſſed, were a braue and magnificent enterpriſe. Certes of this ſpirit am I, that thoſe learned men and great ſtudents, who making no ſtay, but breaking through al difficulties, haue preferred the profit of poſteritie before the tickling and pleaſure of itching eares in theſe daies; which I may proteſt that I haue aimed at, not in this worke only, but alſo in other of my bookes alreadie: and I profeſſe, that I wonder much at *T. Livius*, otherwiſe a moſt renowned & famous writer, who in a preface ro one of his books of the Roman hiſtory which hee cõpiled from the foundation of Rome, thus proteſted, That hee had gotten glorie ynough by his former writing, and might ſit ſtill now & take his eaſe, but that his mind was ſo reſtleſſe, and ſo ill could abide repoſe, that contrariwiſe it was fed and nouriſhed with trauel, & nothing elſe But ſurely me thinks, in finiſhing thoſe Chronicles, he ſhould in dutie haue reſpected the glory of that people which had conquered the World, and aduanced the honour of the Romane name, rather than diſplaied his owne praiſe and commendation: Ywis, his demerit had beene the greater, to haue continued his ſtory as he did, for loue of the ſubiect matter, and not for his priuat pleaſure; to haue I ſay performed that peece of worke more to gratifie the ſtate of Rome, than to content his owne minde and affection. As touching my ſelfe (foraſmuch as *Domitius Piſo* ſaith, That bookes ought to be

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treaſuries & ſtore houſes indeed, and not bare and ſimple writings) I may be bold to ſay and averre, That in 36 bookes I haue compriſed 20000 things, all worthie of regard & conſideration, which I haue recollected out of 2000 volumes or therabout, that I haue diligently read (and yet very few of them there be that, men learned otherwiſe, and ſtudious, dare meddle withall, for the deepe matter and hidden ſecrets therein contained) and thoſe written by 100 ſeuerall elect and approued authors: beſides a world of other matters, which either were vnknowne to our forefathers and former writers, or elſe afterward inuented by their poſteritie. And yet I nothing doubt that many things there be, which either ſurpaſſe our knowledge, or elſe our memorie hath ouerſlipt: for men we are, and men emploied in many affaires. Moreouer, conſidered it would be, that theſe ſtudies wee follow at vacant times and ſtolne houres, that is to ſay by night ſeaſon onely; to the end that you may know, how wee to accompliſh this haue neglected no time which was due vnto your ſeruice: The daies we wholly employ and ſpend in attendance about your perſon; we ſleepe onely to ſatisfie nature, euen as much as our health requireth, and no more; contenting our ſelves with this reward, That whiles wee ſtudy and muſe (as *Varro* ſaith) vpon theſe things in our cloſet, we gaine ſo many houres to our life; for ſurely we liue then only, when we watch and be awake. Conſidering now thoſe occaſions, thoſe lets and hinderances aboue-named, I had no reaſon to preſume or promiſe much; but in that you haue emboldened me to dedicate my bookes vnto you, your ſelfe performeth whatſoeuer in me is wanting: not that I truſt vpon the goodneſſe and worth of the worke, ſo much, as that by this means it will be better eſteemed and ſhew more vendible: for many things there be that ſeeme right deare and be holden for pretious, only becauſe they are conſecrate to ſome ſacred temples.

As for vs verily, we haue written of you all, your father *Veſpaſian*, your ſelfe, and your brother *Domitian*, in a large volume which wee compiled touching the hiſtorie of our times, beginning there where *Aufidius Baſſus* ended. Now if you demand and aske me, Where that hiſtorie is? I anſwer, that finiſhed it was long ſince, and by this time is iuſtified and approued true by your deeds: otherwiſe I was determined to leaue it vnto my heire, and giue order that it ſhould be publiſhed after my death, leſt in my life time I might haue bin thought to haue curried fauour of thoſe, whoſe acts I ſeemed to pen with flatterie, & beyond all truth. And therfore in this action I do both them a great fauour who haply were minded before me to put forth the like Chronicle, and the poſteritie alſo which ſhall come after; who, I make reckning and know, will enter into the liſts with vs, like as we haue done with our predeceſſors. A ſufficient argument of this my good mind & frank hart that way you ſhal haue by this, That in the front of theſe books now in hand, I haue ſet down the very names of thoſe writers, whoſe help I haue vſed in the compiling of thē: for I haue euer bin of this opinion, That it is the part of an honeſt minded man, & one that is ful of grace & modeſty, to confeſſe frankly by whom he hath profited & gotte any good: not as many of thoſe vnthankful perſons haue done, whom I haue alledged for my authors. For to tell you a plain truth, know thus much from me, that in conferring thē together about this worke of mine, I haue met with ſome of our moderne writers, who word for word haue exemplified & copied out whole books of old authors, and neuer vouchſafed ſo much as the naming of them, but haue taken their labors & trauels to themſelues.

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And this they haue not done in that courage and spirit to imitate, yea & to match them, as *Virgil* did *Homer*: much lesse haue they shewed that simplicitie and apert proceeding of *Cicero*, who in his bookes of Policie and Common-weale professeth himselfe to hold with *Plato*; in his Consolatorie Epistle written to his daughter, confesseth and saith plainely thus, I follow *Crantor*, and *Panætius* likewise in his Treatise concerning Offices. Which worthy monuments of his (as you know well) deserue not onely to be seene, handled, and read daily, but also to be learned by heart euery word. Certes, I hold it for a point of a base and seruile mind, and wherein there is no goodnesse at al, to chuse rather to be surprised and taken in theft, than to bring home borrowed good, or to repay a due debt, especially when the occupying, vse, and interest thereof, hath gained a man as much as the principall.

Now as touching the titles and inscriptions of Bookes, the Greekes therein haue a wonderfull grace and great felicitie: some haue intituled them Κηρία, whereby they would giue vs to vnderstand of A sweet hony-combe:* others Κέρας Ἀμαλθείας, that is to say, The horne of plenty and store: in such sort, that whosoeuer readeth these goodly titles, must needs hope for some great matters in such bookes, and as the proverb goeth, looke to drinke there or else no where, a good draught of hens milke. You shall haue moreouer their bookes set out with these glorious inscriptions, The Muses, The * Pandects, * Enchiridion, * Ἀσπίδες, * Πανδέκται: Goodly names all, and such, as who would not make default of appearance in court, and forfeit a recognisance or obligation, to vnclaspe such books and turne ouer the leafe? But let a man enter into them and reade forward, Lord! how little or no substance at all shall he find within the verie mids, answerable to that braue shew in the front or outside thereof? As for our countreymen (Latines I meane, and Romans) they be nothing so fine and curious as the Greeks, grosse are they in comparison of them in giuing titles to their books: they come with their Antiquities, Examples and Arts, and those also be such authors as are of the most pleasant and finest inuention amongst them all. *Valerius* who (as I take it) was named *Antias*, both for that hee was a Citizen of Antium, and also because the ancestors of his house were so called, vvas the first that gaue to a booke of his owne making, the title of *Lucubratio*, as a man would say, Candleworke or Night-studie. *Varro*, he tearmeth some of his Satyres *Sesculyxes* and *Flexibulæ*. *Diodorus* among the Greekes was the first that laied aside toyish titles, and because he would giue some braue name to his Chronicles, entituled it *Bibliotheca*, *i.* a Librarie. *Apion* the famous Grammarian, euen hee whom *Tiberius Cæsar* called the Cymball of the world (whereas indeed hee deserued to bee named a Timbrill or Drum rather, for ringing and sounding publique fame) was so vain-glorious, that he supposed all those immortalized, vnto whom hee wrote or composed any pamphlet whatsoeuer. For mine owne part, although I nothing repent mee that I haue deuised no pretier Title for my Booke than plaine *Naturalis Historia*, *i.* The reports of Nature, without more ceremonie; yet because I would not be thought altogether to course and rate the Greekes, I can be content, nay I am willing to bee thought in this behalfe like vnto those excellent grand-masters in Greece, for Painting and Imagerie, whom you shall finde in these Reports of mine, to haue entituled those rare and absolute peeces of worke (vvhich the more wee view and looke vpon, the more wee admire and wonder

* Tow. Hesichius. 2. Thessalus.

* Containing all things, as Tyro Tullius did
* A manuel to be carried alwaies in hand.
* Medow.
* A Table or Index.

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wonder at for their perfection) with halfe titles and vnperfect inſcriptions, in this manner, *Apelles* * *went in hand with this Picture:* or, *Polycletus was a making this Image:* as if they were but begun, neuer finiſhed and laid out of their hands: which was done (no doubt) to this end, that for all the varietie and diuerſitie of mens iudgements ſcanning of their workemanſhip, yet the Artificer thereby had recourſe to make excuſe; had meanes (I ſay) to craue and haue pardon for any faults and imperfections that could be found, as if hee meant to haue amended any thing therein amiſſe or wanting, in caſe hee had not beene cut off and preuented by death. Theſe noble workemen therefore herein ſhewed right great modeſtie, that they ſet ſuperſcriptions vpon all their painted tables, pourtraitures and perſonages, as if they had beene the laſt peeces of their workemanſhip, and themſelues diſſabled by vnexpected death that they could not make a finall end of any one of them: for there were not knowne (as I take it) aboue three in all, which had their abſolute titles written vpon them in this forme, *Ille fecit, i.* This *Apelles* wrought: and thoſe pictures will I write of in place conuenient: By which it appeared euidently, that the ſaid three tables were fully finiſhed, and that the workeman was ſo highly contented with their perfection, that he feared the cenſure of no man: No maruaile then, if all three were ſo much enuied and admired throughout the world, no marueile if euerie man deſired to be maſter of them.

* *Apelles faciebat.*

Now For my ſelfe, I know full well and confeſſe freely, that many more things may be added, not to this ſtory alone, but to all my bookes that I haue put forth alreadie: which I ſpeake by the way, becauſe I would preuent and auoid thoſe fault-finders abroad thoſe correctors and * ſcourgers of *Homer*, (for ſurely that is their very name (becauſe I hear ſay there be certaine Stoike Philoſophers, profeſſed Logicians, yea, and Epicurians alſo (for at Grammarians hands and Criticks I neuer looked for other) who are with child ſtill and trauaile vntill they be deliuered of ſomewhat againſt my bookes which I haue ſet forth as touching Grammer: and for this ten yeares ſpace, nothing is come to light, but euermore the fruit miſcarieth belike before the full time, as the ſlip of an vnperfect birth; whereas in leſſe ſpace than ſo, the verie Elephant bringeth forth her calfe, be it neuer ſo big. But this troubleth me neuer a whit, for I am not ignorant that a ſilly woman, euen an harlot, and no better, durſt encounter *Theophraſtus*, and write a booke againſt him, notwithſtanding hee was a man of ſuch incomparable eloquence that thereupon hee came by his diuine name *Theophraſtus*: from whence aroſe this prouerbe and by-word, *Marie then go chuſe a tree to hang thy ſelfe.* And ſurely I cannot containe and hold my tongue, but I muſt needs ſet downe the verie words of *Cato Cenſorius*, ſo pertinent to this purpoſe; whereby it may appeare, that euen *Cato* himſelfe a moſt worthy perſonage, who wrote of militarie Diſcipline, who had beene brought vp and trained to feats of warre vnder Great *Scipio Africanus*, or rather indeed vnder *Anniball*, who in the end could not endure *Africanus* himſelfe, but was able to controll him in martiall affaires: and who beſides hauing the conduct as L. Generall of the Romane armie, atchieued the better hand ouer his enemies in the field, and returned with victorie: this *Cato* (I ſay) could not auoid ſuch backbiters and ſlanderers, but knowing that there would be many of them readie to purchaſe themſelues ſome name and reputation by reprouing the knowledge and skill of others, brake out into

* *Homeromaſtiges.*

* If women may be allowed to controll mens writings, we may be weary of our liues and goe hāg our ſelues well enough.

a cer-

a certaine ſpeech againſt them: And what was it? I know right well (quoth hee, in that booke aforeſaid) that if theſe writings of mine come abroad once and be publiſhed to the view of the world, there will be many ſtep forth to quarrell and cauill therewith; ſuch fellows ſooneſt and moſt of all who are quite void of vertue and honeſtie, and know not what belongeth to true honour. But ſurely ſay what they will, I let their words runne by, like raine water. It was a prettie ſpeech alſo and a pleaſant apothegme, that *Plancus* vttered in the ſemblable caſe: for being informed that *Aſinius Pollio* was deuiſing and framing certaine inuectiue Orations againſt him, which ſhould be ſet forth either by himſelfe or his children, after the deceaſe of *Plancus* and not before, to the end that they might not bee anſwered by him; hee ſaid readily by way of a ſcoffe, That none but vaine bugs and hobgoblings vſe to fight with the dead: with which word hee gaue thoſe orations ſuch a counterbuffe, that (by the iudgement of the learned) none were accounted afterward more impudent and ſhameleſſe than they. For mine owne part, being ſure that theſe buſie bodies ſhall neuer be able to bite me (and verily *Cato* hath giuen ſuch fellowes a proper name, and called them *Vitiligatores*, by a tearme elegantly compounded of vices and quarrels: for to ſay a truth, what did they elſe but picke quarrels and make brawls?) I will proceed and go one ſtill in my intended purpoſe.

Now to conclude and knit vp mine Epiſtle: knowing as I doe, that for the good of the Commonweale, you ſhould be ſpared and not impeached by any priuat buſineſſe of your owne, and namely in peruſing theſe long volumes of mine; to preuent this trouble therefore, I haue adioyned immediatly to this Epiſtle, and prefixed before theſe books, the Summarie or Contents of euery one: and very carefully haue I endeauoured, that you ſhould not need to read them throughout, whereby all others alſo after your example, may eaſe themſelues of the like labour: and as any man is deſirous to know this or that, he may ſeeke and readily find in what place to meet with the ſame. This learned I of *Valerius Sorranus* one of our owne Latine writers, who hath done the like before me and ſet an Index to theſe Bookes which he entituled Exercitat.

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THE INVENTORIE OR INDEX

CONTAINING THE CONTENTS OF XXXVII BOOKS, TOVCHING THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS, WHICH IS RECEIVED FOR THE FIRST BOOKE OF THEM.

¶ *The Summarie of euery Booke.*

THe firſt Booke containeth the Dedicatorie Epiſtle or Preface of the whole worke, addreſſed to *Titus Veſpaſian* the Emperour. Alſo the names of the Authors out of which hee gathered the Hiſtorie, which he proſecuteth in 36 Bookes: together with the Summarie of euerie Chapter: and beginneth, *The Books, &c.*

The ſecond, treateth of the World, Elements, and Starres: and beginneth thus, *The World, &c.*

The third, deſcribeth the firſt and ſecond gulfe, which the Mediterranean ſea maketh in Europe: and beginneth in this manner, *Hitherto, &c.*

The fourth, compriſeth the third gulfe of Europe, beginning, *The third, &c.*

The fifth, containeth the deſcription of Affricke, and beginneth thus, *Africke, &c.*

The ſixt, handleth the Coſmographie of Aſia, beginning thus, *The ſea called, &c.*

The ſeuenth treateth of man, and his inuentions, beginning, *Thus as you ſee, &c.*

The eighth ſheweth vnto vs, land creatures and their kindes, and beginneth after this manner, *Paſſe we now, &c.*

The ninth, laieth before vs all fiſhes, and creatures of the water, beginning in this wiſe, *I haue thus ſhewed, &c.*

The tenth ſpeakes of flying foules and birds, and beginneth thus, *It followeth, &c.*

The eleuenth telleth vs of Inſects, and beginneth thus, *It remaineth now, &c.*

The twelfth treateth of drugs and odoriferous plants, beginning, *Thus you, &c.*

The thirteenth deſcribeth ſtrange and forreine trees: beginning with theſe words, *Thus farre forth, &c.*

The fourteenth ſheweth of vine-plants, &c. beginning thus, *Thus far forth, &c.*

The fifteenth comprehendeth all fruitfull trees, thus beginning, *There were, &c.*

The ſixteenth deſcribeth vnto vs all wild trees, beginning with, *Hitherto, &c.*

The ſeuenteenth containeth tame trees within hortyards, and beginneth with theſe words, *As touching the nature &c.*

The eighteenth booke treateth of the nature of corne, and all ſorts thereof, together with the profeſſion of husbandmen, and agriculture, beginning after this manner, *Now followeth, &c.*

The nineteenth diſcourſeth of Flax, Spart, and Gardenage, beginning after this manner, *In the former booke,&c.*

The twentieth ſheweth of garden herbs, good to ſerue both the kitchin for meat, and the Apothecaries ſhop for medicine, & beginneth thus, *Now will we,&c.*

The one and twentieth treateth of flours and garlands, & beginneth, *In Cato,&c.*

The two and twenty containeth the chaplets and medicines made of hearbes, with this beginning, *Such is the perfection,&c.*

The three and twentie ſheweth the medicinable vertues of wine, and tame trees growing in hortyards, beginning thus, *Thus haue we,&c.*

The foure and twentie declareth the properties of wild trees ſeruing in Phyſick, beginning thus, *Nature,&c.*

The fiue and twentie treateth of the herbes in the field comming vp of their own accord, and thus beginneth, *The excellencie,&c.*

The ſix and twentie ſheweth of many new and ſtrange maladies, the medicinable vertues alſo of certaine herbes, according to ſundry diſeaſes, beginning thus, *The very face,&c.*

The ſeuen and twenty goeth forward to certaine other hearbes and their medicines, and thus beginneth. *Certes,&c.*

The eight and twentie ſetteth downe certaine receits of remedies in Phyſicke, drawne from out of man and other bigger creatures, and it beginneth in this manner, *Heretofore,&c.*

The nine and twentie treateth of the firſt authours and inuentors of Phyſicke, alſo of medicines taken from other creatures, and beginneth, *The nature,&c.*

The thirtieth booke ſpeaketh of Magicke, and certaine medicines appropriat to the parts and members of mans bodie, beginning thus, *The vanitie,&c.*

The one and thirtie containeth the medicinable vertues of fiſhes and water creatures, with this beginning, *Now follow,&c.*

The two and thirtie ſheweth other properties of fiſhes, &c. and beginneth in this manner, *Now are we come,&c.*

The three and thirtie treateth of gold and ſiluer mines, and hath this beginning, *Time it is,&c.*

The foure and thirtie ſpeaketh of copper and braſſe mines, alſo of lead, alſo of excellent braſſe-founders and workemen in copper, beginning after this manner, *In the next place,&c.*

The fiue and thirtie diſcourſeth of painting, colour, and painters, beginning in this ſort, *The diſcourſe,&c.*

The ſix and thirtie treateth of marble and ſtone for building, and hath this beginning, *It remaineth,&c.*

The ſeuen and thirtie concludeth with pretious ſtones, and beginneth at theſe words, *To the end that,&c.*

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¶ IN THE SECOND BOOKE IS CONTAINED the diſcourſe of the World, of cœleſtiall impreſſions and meteors, *as alſo of them that appeare in the Aire, and vpon Earth.*

Chap.

1. Whether the World be finite and limited within certaine dimenſions or no? whether there be many, or but one?
2. The forme and figure of Heauen and the world.
3. The motion of Heauen.
4. Why the world is called Mundus?
5. Of the Elements.
6. Of the ſeuen Planets.
7. Concerning God.
8. The nature of the fixed ſtarres and Planets: their courſe and reuolution.
9. The nature of the Moone.
10. The eclipſe of Sun and Moone: alſo of the night.
11. The bigneſſe of ſtarres.
12. Diuerſe inuentions of men, and their obſeruations touching the cœleſtiall bodies.
13. Of Eclipſes.
14. The motion of the Moone.
15. Generall rules or canons touching planets or lights.
16. The reaſon why the ſame planets ſeeme higher or lower at ſundry times.
17. Generall rules concerning the planets or wandring ſtars.
18. What is the cauſe that planets change their colours?
19. The courſe of the Sunne: his motion: and from whence proceedeth the inequalitie of daies.
20. Why lightenings be aſſigned to *Iupiter*.
21. The diſtances betweene the planets.
22. The harmonie of ſtars and planets.
23. The geometrie and dimenſions of the world.
24. Of ſtars appearing ſodainly.
25. Of comets or blaſing ſtars, and other prodigious appearances in the skie: their nature, ſituation, and ſundry kinds.
26. The opinion of *Hipparchus* the Philoſopher as touching the ſtars, fire-lights, lamps, pillars or beames of fire, burning darts, gapings of the skie, and other ſuch impreſſions, by way of example.
27. Strange colours appearing in the firmament.
28. Flames and leams ſeene in the skie.
29. Circles of guirlands ſhewing aboue.
30. Of cœleſtiall circles and guirlands that continue not, but ſoone paſſe.
31. Of many Suns.
32. Of many Moones.
33. Of nights as light as day.
34. Of meteors reſembling fierie targuets.
35. A ſtrange and wonderfull apparition in the skie.
36. The extraordinarie ſhooting and motion of ſtars.
37. Of the ſtars named Caſtor and Pollux.
38. Of the Aire.
39. Of certaine ſet times and ſeaſons.
40. The power of the Dog-ſtar.
41. The ſundrie influences of ſtars according to the ſeaſons and degrees of the ſignes.
42. The cauſes of raine, wind, and clouds.
43. Of thunder and lightning.
44. Whereupon commeth the redoubling of the voice, called Echo.
45. Of winds againe.
46. Diuerſe conſiderations obſerued in the nature of winds.
37. Many ſorts of winds.
48. Of ſodaine blaſts and whirle-puffs.
49. Other ſtrange kinds of tempeſts & ſtorms.
50. In what regions there fall thunderbolts.
51. Diuers ſorts of lightnings, and wonderous accidents by them occaſioned.
52. The obſeruations [of the Tuſcanes in old time] as touching lightening.
53. Conjuring for to raiſe lightning.
54. Generall rules concerning leames and flaſhes of lightning.
55. What things be exempt and ſecured from lightning and thunderbolts.
56. Of monſtrous and prodigious ſhowres of raine,

Chap.
raine, namely of milke, bloud, flesh, yron, wooll, bricke, and tyle.
57. The rattling of harnesse and armour: the sound also of trumpets heard from heauen.
58. Of stones falling from heauen.
59. Of the Rain-bow.
60. Of Haile, Snow, frost, Mists, and Dew.
61. Of diuers formes and shapes represented in clouds.
62. The particular propertie of the skie in certaine places.
63. The nature of the Earth.
64. The forme and figure of the earth.
65. Of the Antipodes: and whether there bee any such. Also, as touching the roundnesse of the water.
66. How the water resteth vpon the Earth.
67. Of Seas and riuers nauigable.
68. What parts of the earth be habitable.
69. That the earth is in the mids of the world.
70. From whence proceedeth the inequalitie obserued in the rising and eleuation of the stars. Of the eclipse: where it is, & wherfore.
71. The reason of the day-light vpon earth.
72. A discourse thereof according to the Gnomon: also of the first Sun-dyall.
73. In what places and at what times there are no shadows cast.
74. Where the shadows fall opposite and contrary twice in the yeare.
75. Where the dayes bee longest, and where shortest.
76. Likewise of Dyals and Quadrants.
77. The diuers obseruations and acceptations of the day.
78. The diuersities of regions, and the reason thereof.
79. Of Earthquakes.
80. Of the chinks and openinst of the earth.
81. Signes of earthquake toward.
82. Remedies and helps againg eatthquakes comming.
83. Strange and prodigious wonders seen one time in the earth.
84. Miraculous accidents as touching earthquake.

Chap.
85. In what parts the seas went backe.
86. Islands appearing new out of the sea.
87. What Islands haue thus shewed, and at what times.
88. Into what lands the seas haue broken perforce.
89. What Islands haue bin ioyned to the continent.
90. What lands haue perished by water and become all sea.
91. Of lands that haue settled and beene swallowed vp of themselues.
92. What cities haue beene ouerflowed and drowned by the sea.
93. Wonderfull strange things as touching some lands.
94. Of certaine lands that alwaies suffer earthquake.
95. Of Islands that flote continually.
96. In what countries of the world it never raineth: also of many miracles as well of the earth as other elements hudled vp pell mell together.
97. The reason of the Sea-tides, as well ebbing as flowing, and where the sea floweth extraordinarily.
98. Wonderfull things obserued in the sea.
99. The power of the Moone ouer Sea and land.
100. The power of the Sun: and the reason why the sea is salt.
101. Moreouer, as touching the nature of the Moone.
102. Where the sea is deepest.
103. Admirable obseruations in fresh waters, as well of fountaines as riuers.
104. Admirable things as touching fire and water ioyntly together: also of Maltha.
105. Of Naphtha.
106. Of certaine places that burne continually.
107. Wonders of fire alone.
108. The dimension of the earth as well in length as in breadth.
109. The harmonicall circuit ond circumference of the world.

In sum, there are tn this boooke of histories, notable matters, and worthy obseruations, foure hundred and eighteene in number.

Latine Authours cited.

M. Varro, Sulpitius Gallus, Tiberius Cæsar Emperour, Q. Tubero, Tullius Tiro, L. Piso, T. Liuius, Cornelius Nepos, Statius Sebosus, Cæsius Antipater, Fabianus, Antias, Mutianus, Cecina, (who wrote of the Tuscane learning) *Tarquitius, L. Aquila, and Sergius Paulus.*

Forreine

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Plinies Naturall Historie.

Forreine Authours cited.

Plato, Hipparchus, Timæus, Sosigenes, Petosiris, Necepsus, the Pythagoreans, Posidonius, Anaximander, Epigenes, Gnomonicus, Euclides, Geranus the Philosopher, Eudoxus, Democritus, Crisodemus, Thrasillus, Serapion, Dicearchus, Archimedes, Onesicritus, Eratosthenes, Pytheas, Herodotus, Aristotle, Ctesius, Artemidorus the Ephesian, Isidorus Characenus, and Theopompus.

¶ IN THE THIRD BOOKE ARE COMPREHENded the Regions, Nations, Seas, Townes, Hauens, Mountains, Riuers, with their measures, and people, either at this day known, or in times *past, as followeth:*

Chap.
1. Of Europe.
2. The length and breadth of Bœtica, a part of Spaine, containing Andalusia, and the realme of Grenado.
3. That hither part of Spaine called of the Romans Hilpania Citerior.
4. The Prouince Nerbonencis, wherin is Dauphine, Languedoc, and Provance.
5. Italie, Tiberis, Rome, and Campaine.
6. The Island Corsica.
7. Sardinia.
8. Sicilie.
9. Lipara.
10. Of Locri and the frontiers of Italie.
11. The second gulfe of Europe.
12. The fourth region of Italie.
13. The fifth region.
14. The sixth region.
15. The eighth region.
16. Of the riuer Po.
17. Of Italie beyond the Po, counted the eleuenth region.
18. Venice, the tenth region.
19. Of Istria.
20. Of the Alps, and the nations there inhabiting.
21. Illyricum.
22. Liburnia.
23. Macedonie.
24. Noricum.
25. Pannonie, and Dalmatia.
26. Mœsia.

In this booke are described 26 Islands within the Adriatick and Ionian seas: their principall cities, townes and nations. Also the chiefe and famous riuers: the highest hills: speciall Islands besides: townes and countries that be perished. In summe, here are compriſed notable things, histories, matters memorable, and obseruations to the number of 326.

Latine Writers brought in for testimonie.

Turannius Graccula, Cor. Nepos, T. Livius, Cato Censorius, M. Agrippa, M. Varro, Divus Augustus the Emperour, Varro Attacinus, Antias, Hyginus, L. Vetus, Mela Pomponius, Curio the father, Cœlius Aruntius, Sebosus, Licinius Mutianus, Fabricius Thuscus, L. Atteius Capito, Verrius Flaccus, L. Piso, C. Ælianus, and Valerianus.

Forreine Authours.

Artimidorus, Alexander Polyhistor, Thucidides, Theophrastus, Isidorus, Theopompus, Metrodorus, Scepsius, Callicrates, Xenophon, Lampsacenus, Diodorus Syracusanus, Nymphodorus, Calliphanes, and Timagenes.

¶ IN THE FOVRTH BOOKE ARE COMPRISED Regions, Nations, Seas, Townes, Hills, Hauens, Riuers, with their dimensions *and people, either now or in times past knowne: viz.*

Chap.
1. Epirus.
2. Ætolia.
3. Locri.
4. Peloponnesus.
5. Achaia.
6. Arcadia.
7. Greece.

Chap.
7. Greece and Attica.
8. Thessalie.
9. Magnesia.
10. Macedonia.
11. Thracia.
12. The Islands lying between those countries: among which, Creta, Eubœa, the Cyclads, Sporades: also the Isles within Hellespont neare the sea Pontus, within Mœotis, Dacia, Sarmatia, and Scythia.
13. The Islands of Pontus, called Mer Major.
14. The Islands of Germanie.
15. Islands in the French Ocean.
16. Britaine and Ireland.
17. Gaule or France.
18. Of Galia Lugdunensis.
19. Of Aquitaine.
20. Of high Spaine, named Citerior.
21. Of Portugall.
22. Islands in the Ocean.
23. The dimension and measure of all Europe.

Herein are contained many principall townes and countries, famous riuers; Islands also, besides cities or nations that be perished: in sum, diuerse things, histories, and obseruations.

Latine Authours cited.

M. Varr, Cato Censorius, M. Agrippa, Divus Augustus, Varro Attacinus, Cor. Nepos, Hyginus, L. Vetus, Pomponius Mela, Licinius Mutianus, Fabricius Thuscus, Atteius Capito, and Atteius Philologus.

Of forreine Writers.

Polybius, Hecataeus, Hellanicus, Damastes, Eudoxus, Dicaearchus, Timosthenes, Ephorus, Crater, Grammaticus, Serapion of Antioch, Callimachus, Artemidorus, Apollodorus, Agathocles, Eumachus Siculus the Musitian, Alexander Polyhistor, Thucydides, Dociades, Anaximander, Philistides, Mallotes, Dionysius, Aristides, Callidemus, Menaechmus, Ædasthenes, Anticlides, Heraclides, Philemon, Menephon, Pythias, Isodorus, Philonides, Xenagoras, Astyonomus, Staphilus, Aristocritus, Metrodorus, Cleobulus, and Posidonius.

IN THE FIFTH BOOKE ARE CONTAINED

Regions, Nations, Seas, Townes, Hills, Riuers, with their measures, and people, either at this day being, or in times *past: that is to say,*

Chap.
1. Maurtania.
2. The Prouince Tingitana.
3. Numidia.
4. Affricke.
5. Cyrene.
6. Lybia Maræotis.
7. Islands lying about Affrick, & ouer-against Affricke.
8. The Æthiopians.
9. Asia.
10. Alexandria.
11. Arabia.
12. Syria, Palæstina, Phœnice.
13. Idumæa, Syria, Palæstina, Samaria.
14. Iudæa, Galilea.
15. Iordan the riuer.
16. The lake Asphaltites.
17. The Essenes.
18. The country Decapolis.
19. Tyrus and Sidon.
20. The mount Libanus.
21. Syria Antiochena.
22. The mountaine Casius.
23. Cœle-Syria.
24. The riuer Euphrates.
25. The region Palmyra.
26. Hierapolis the countrey.
27. Cilicia and the nations adioyning: Pamphilia, Isauria, Homonades, Pisidia, Lycaonia, the mountaine Taurus and Lycia.
28. The riuer Indus.
29. Laodicea, Apamia, Ionia, and Ephesus.
30. Æolis, Troas Pergamus.
31. Islands affront Asia, the Pamphilian Sea, Rhodus, Samus, and Chius.
32. Hellespont, Mysia, Phrygia, Galatia, Nicea, Bithynia, Bosphorus.

Herein

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Plinies Naturall History.

Herein you find townes and nations, Principall Riuers, Famous Hils, Islands, 117 Townes. Also that are lost and perished. In summe, many things, histories and obseruations memorable.

Latine Authors alledged.

Agrippa, Suetonius Paulinus, Varro Atacinus, Cornelius Nepos, Hyginus, L. Vetus, Mela, Domitius Corbulo, Licinius Mutianus, Claudius Cæsar, Aruntius, Livius the son, *Sebosus*, the Acts and Records of the Triumphs.

Forreine Writers.

King *Iuba, Hecataeus, Hellanicus, Damastes, Dicaearchus, Bion, Timosthenes, Philonides, Xenagoras, Astynomus, Staphilus, Aristotle, Dionysius Aristocritus, Ephorus, Eratosthenes, Hipparchus, Panatius, Serapion Antiochenus, Callimachus, Agathocles, Polybius, Timæus the Mathematician, Herodotus, Myrsilus, Alexander Polyhistor, Metrodorus, Posidonius who wrate Periplus or Periegesis, Sotades, Pertander, Aristarchus Sicyonius, Eudoxus, Antigenes, Callicratus, Xenophon Lampsacenus, Diodorus Syracusanus, Hanno, Himilco, Nymphodorus, Calliphon, Artemidorus, Megasthenes, Isidorus, Celobulus, Aristocreon.*

IN THE SIXTH BOOKE ARE CONTAINED

Regions, Nations, Seas, Cities, Hauens, Riuers, with their dimensions, *People also that be or haue been, to wit:*

Chap.

1. The sea called Pontus Euxinus, beforetime Axenus.
2. The nations of the Paphlagones and Cappadocians.
3. Cappadocia.
4. The nations of the countrey Themiscyra.
5. The Region Colchica. The Achæi, and the rest in that tract.
6. Bosphorus Cimmerius, and Mœotis.
7. The people about Mœotis.
8. The Armeniæ both.
9. Armenia the greater.
10. Albania, Iberia.
11. The Scluses and gates Caucasiæ.
12. Islands in Pontus.
13. Nations about the Scythian Ocean.
14. Media and the gates or streights Caspiæ.
15. Nations about the Hircane sea.
16. Also other nations confining vpon that Countrey.
17. People of Scythia.
18. The riuer Ganges.
19. The nations of India.
20. The riuer Indus.
21. The Arians and the nations bordering vpon them.
22. The Island Taprobane.
23. Capissene, Carmænia.
24. The Persian and Arabian gulfes.
25. The Island Cassandrus, and kingdomes of the Parthians.
26. Media, Mesopotamia, Babylon, Seleucia.
27. The riuer Tigris.
28. Arabia Nomades, Nabathæi, Omani, Tylos and Ogyris two Islands.
29. The gulfes of the red sea, the Troglodite and Æthyopian seas.
30. Diuerse nations of strange and wonderfull shapes.
31. Islands of the Æthyopian sea.
32. Of the fortunat Islands.
33. The diuision of the earth calculated by measures.
34. A diuision of the earth by climates, lines parallele, and equall shadowes.

Townes of name. 195. Nations of account. 566. Famous riuers. 180. Notable hils. 38. Principall Islands. 108. Cities and Nations perished. 195. In summe, there are rehearsed in this booke of other things, histories and obseruations. 2214.

Latine Authors alleadged.

M. Agrippa, Varro Atacinus, Cornelius Nepos, Hyginus, Lu. Vetus, Mela Pomponius, Domitius Corbulo, Licineus Mutianus, Claudius Cæsar, Aruntius Sebosus, Fabricius Tbuscus, T. Livius, Seneca, Nigidius.

Forreine

Forreine writers.

King *Iuba*, *Polybius*, *Hecataeus*, *Hellanicus*, *Damastes*, *Eudoxus*, *Dicæarchus*, *Beto*, *Timosthenes*, *Patrocles*, *Demodamas*, *Clitarchus*, *Eratosthenes*, *Alexander Magnus*, *Ephorus*, *Hipparchus*, *Panætius*, *Callimachus*, *Artemidorus*, *Apollodorus*, *Agathocles*, *Polybius*, *Eumachus Siculus*, *Alexander Polyhistor*, *Amometus*, *Metrodorus*, *Posidonius*, *Onesicritus*, *Nearchus*, *Megasthenes*, *Diognetus*, *Aristocreon*, *Bion*, *Dialdon*, *Simonides* the younger, *Basiles*, and *Xenophon Lampsacenus*.

¶ IN THE SEVENTH BOOKE ARE CONTAINED the wonderfull shapes of men in *diuerse countries*.

Chap.

1. The strange formes of many nations.
2. Of the Scythians, and other people of diuerse countries.
3. Of monstrous and prodigious births.
4. The transmutation of one sex into another. Also of twins.
5. Of the generation of man. The time of a womans child-bearing, from seuen moneths to eleuen, proued by notable examples out of histories.
6. Of conceptions, and children within the wombe. The signes how to know whether a woman goe with a sonne or a daughter, before she is deliuered.
7. Of the conception and generation of man.
8. Of Agrippæ, *i.* those who are borne with the feet forward.
9. Of strange births, namely, by meanes of incision, when children are cut out of their mothers wombe.
10. Of Vopisci, *i.* such as being twins were borne aliue, notwithstanding the one of them was dead before.
11. Histories of many children borne at one burden.
12. Examples of those that were like one to another.
13. The cause and manner of generation.
14. More of the same matter and argument.
15. Of womens monethly tearmes.
16. The manner of sundry births.
17. The proportion of the parts of mans body and notable things therein obserued.
18. Examples of extraordinary shapes.
19. Strange natures of men.
20. Of bodily strength and swiftnesse.
21. Of excellent sight.
22. Who excelled in hearing.
23. Examples of patience.
24. Who were singular for good memorie.
25. The praise of *C. Iulius Cæsar*.

Chap.

26. The commendation of *Pompey* the Great.
27. The praise of *Cato*, the first of that name.
28. Of valour and fortitude.
29. Of notable wits, or the praises of some for their singular wit.
30. Of *Plato*, *Ennius*, *Virgill*, *M. Varro*, and *M. Cicero*.
31. Of such as carried a maiestie in their behauiour.
32. Of men of great authority and reputation.
33. Of certaine diuine and heauenly persons.
34. Of *Scipio Nasica*.
35. Of Chastitie.
36. Of Pietie, and naturall kindnesse.
37. Of excellent men in diuerse sciences, and namely, in Astrologie, Grammer, and Geometrie, &c.
38. *Item*, Rare peeces of worke made by sundry artificers.
39. Of seruants and slaues.
40. The excellencie of diuerse nations.
41. Of perfect contentment and felicitie.
42. Examples of the varietie and mutabilitie of fortune.
43. Of those that were twice outlawed and banished: of *L. Sylla* and *Q. Metellus*.
44. Of another *Metellus*.
45. Of the Emperour *Augustus*.
46. Of men deemed most happy aboue all others by the Oracles of the gods.
47. Who was canonized a god whiles hee liued vpon the earth.
48. Of those that liued longer than others.
49. Of diuerse natiuities of men.
50. Many examples of strange accidents in maladies.
51. Of the signes of death.
52. Of those that reuiued when they were carried forth to be buried.
53. Of suddaine death.
54. Of sepulchres and burials.

55. Of

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Chap.
55. Of the ſoule: of ghoſts and ſpirits.
56. The firſt inuentors of many things.
57. Wherein all nations firſt agreed.
58. Of antique letters.
59. The beginning of Barbers firſt at Rome.
60. The firſt deuiſers of Dials and Clockes.

In ſumme, there be in this booke of ſtories ſtrange accidents and matters memorable 747.

Latine Authors alleadged.

Varrius, Flaccus, Cn. Gellius, Licinius Mutianus, Mutius, Maſſurius, Agrippina wife of Claudius, M. Cicero, Aſinius Pollio, Meſſala, Rufus, Cornelius Nepos, Virgil, Livie, Cordus, Meliſſus, Seboſus, Cornelius Celſus, Maximus Valerius, Trogus, Nigidius Figulus, Pomponius Atticus, Pedianus, Aſconius, Sabinus, Cato Cenſorius, Fabius Veſtalis.

Forreine Writers.

Herodotus, Ariſteus, Beto, Iſigonus, Crates, Agatharcides, Calliphanes, Ariſtotle, Nymphodorus, Apollonides, Philarchus, Damon, Megaſthenes, Cteſias, Tauron, Eudoxus, Oneſicratus, Clitarchus, Duris, Artemidorus, Hippocrates the Phyſitian, Aſclepiander the Phyſitian, Heſiodus, Anacreon, Theopompus, Hellanicus, Damaſthes, Ephorus, Epigenes, Beroſus, Peßiris, Neccepſus, Alexander Polyhiſtor, Xenophon, Callimachus, Democritus, Duillius, Polyhiſtor the Hiſtorian, Strato, who wrate againſt the Propoſitions, and Theoremes of Ephorus, Heraclides Ponticus, Aſclepiades who wrate Tragodamena, Philoſtephanus, Hegeſias, Archimachus, Thucidides, Mneſigiton, Xenagoras, Metrodorus Scepſius, Anticlides, and Critodemus.

¶ IN THE EIGHT BOOKE ARE CONtained the natures of land beaſts *that goe on foot.*

Chap.
1. Of land creatures: The good and commendable parts in Elephants: their capacitie and vnderſtanding.
2. When Elephants were firſt yoked and put to draw.
3. The docilitie of Elephants, and their aptneſſe to learne.
4. The clemency of Elephants: that they know their owne dangers. Alſo of the felneſſe of the Tigre.
5. The perceiuance and memory of Elephants.
6. When Elephants were firſt ſeene in Italie.
7. The combats performed by Elephants.
8. The manner of taking Elephants.
9. The manner how Elephants be tamed.
10. How long an Elephant goeth with young: and of their nature.
11. The countries were Elephants breed: the diſcord and warre betweene Elephants and Dragons.
12. The induſtrie and ſubtill wit of Dragons and Elephants.
13. Of Dragons.
14. Serpents of prodigious bigneſſe: of Serpents named Boæ.
15. Of beaſts engendred in Scythia, and the North countries.
16. Of Lions.
17. Of Panthers.
18. The nature of the Tygre: of Camels and the Pard-Cammell: when it was firſt ſeene at Rome.
19. Of the Stag-Wolfe named Chaus: and the Cephus.
20. Of Rhinoceros.
21. Of Onces, Marmoſets called Sphinges, of the Crocutes, of common Marmoſets, of Indian Bœufes, of Leucrocutes, of Eale, of the Æthiopian Bulls, of the beſt Mantichora, of the Sicorne or Vnicorne, of the Catoblepa, and the Baſiliske.
22. Of Wolues.
23. Of Serpents.
24. Of the rat of India called Ichneumon.
25. Of the Crocodiles and Skinke, and the Riuer-horſe.
26. Who ſhewed firſt at Rome the Water-horſe and the Crocodiles. Diuerſe reaſons in Phyſicke found out by dumb creatures.
27. Of beaſts and other ſuch creatures which haue taught vs certaine hearbes, to wit, the red Deere, Lizards, Swallowes, Tortoiſes, the

Chap.
the Weasell, the Stork, the Bore, the Snake, the Panther, the Elephant, Beares, Stocke-Doues, House-Doues, Cranes, and Rauens.
28. Prognostications of things to come, taken from beasts.
29. What cities and nations haue bin destroied by small creatures.
30. Of the Hiæna, the Crocuta and Mantichora: of Bieuers and Otters.
31. Of Frogs, sea or sea-Calues, and Stellions.
32. Of Deere both red and Fallow.
33. Of the Tragelaphis: of the Chamæleon, and other beasts that change colour.
34. Of the Tarand, the Lycaon, and the Wolfe called Thoes.
35. Of the Porc-espines.
36. Of Beares, and how they bring forth their whelpes.
37. The rats and mice of Pontus, and the Alps: also of Hedgehogs.
38. Of the Leontophones, the Onces, Graies, Badgers and Sqirrils.
39. Of Vipers, Snailes in shels, and Lizards.
40. Of Dogs.
41. Against the biting of a mad dog.
42. The nature of Horses.
43. Of Asses.
44. Of Mules.
45. Of Kine, Buls, and Oxen.
46. Of the Bœufe named Apis.
47. The nature of sheepe, their breeding and generation.
48. Sundry kinds of wooll and cloths.
49. Of sheepe called Musmones.
50. Of Goats and their generation.
51. Of Swine and their nature.
52. Of Parkes and Warrens for beasts.
53. Of beasts halfe tame and wild.
54. Of Apes and Monkies.
55. Of Hares and Connies.
56. Of beasts halfe sauage.
57. Of Rats and Mice: of Dormice.
58. Of beasts that liue not in some places.
59. Of beasts hurtfull to strangers.

In summe, there be in this Booke principall matters, stories, and obseruations worth the remembrance 788.

Latine Authors alledged.

Mutianus, Procilius, Verrius Flaccus, L. Piso, Cornelius Valerianus, Cato Censorius, Feneſtella, Trogus, Actius, Columella, Virgil, Varro, Lu. Metellus Scipio, Cornelius Celsus, Nigidius, Trebius Niger, Pomponius Mela, Manlius Sura.

Forreine writers.

King *Iuba, Polybius, Oneſicritus, Isidorus, Antipater, Aristotle, Demetrius* the naturall Philosopher, *Democritus, Theophrastus, Euanthes, Agrippa* who wrote of the *Olympionicæ, Hiero*, King *Attalus*, King *Philometer, Cteſias, Duris, Philistus, Architus, Philarchus, Amphilocus* the Athenian, *Anaxipolis* the Thasian, *Apollodorus* of Lemnos, *Aristophanes* the Milesian, *Antigonus*, the Cymæan, *Agathocless* of Chyos, *Apollonicus* of Pergamus, *Aristander* of Athens, *Bacchus* the Milesian, *Bion* of Soli, *Chæreas* the Athenian, *Diodorus* of Pyreæum, *Dio* the Colophonian, *Epigenes* of Rhodes, *Evagon* of Thassus, *Euphranius*, the Athenian, *Hegesias*, of Maronea, *Menander* of Pyreæum, *Menander* also of Heraclea, *Menecrates* the Poet, *Androcian* who wrote of Agriculture or Husbandry, *Æschrion* who likewise wrote of that argument, *Dionysius* who translated *Mago, Diophanes* who collected an Epitome or Breuiarie out of *Dionisius*, King *Archelaus*, and *Nicander.*

¶ IN THE NINTH BOOKE ARE CONTAIned the Stories and Natures of Fishes *and water-creatures.*

Chap.
1. The nature of water-creatures.
2. The reason why the creatures of the sea are of all other biggest.
3. The monstrous beasts of the Indian sea.
4. The greatest fishes and beasts in euerie part of the Ocean.
5. Of Tritones, Nereides, and sea Elephants: their shapes and formes.

6. Of

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Chap.
6. Of great Whales, called Balænæ and Orcæ.
7. Whether fishes doe take and deliuer their breath? whether they sleepe or no?
8. Of Dolphins and their wonderfull properties.
9. Of the Tursiones.
10. Of the sea Tortoises, and how they bee taken.
11. Who first deuised to sliue the Tortoise shels into leaues.
12. The skins and shels of the sea creatures: the diuision of them into their seuerall kinds.
13. Of the Seale or sea-Calfe.
14. Of fishes smooth and without haire: how they spawn and breed: and how many sorts there be of them.
15. The names and natures of many fishes.
16. The presages by fishes, and their variety.
17. Of the Mullet and other fishes. That the same fishes are not in request in all places.
18. Of the Barble, the sea Rauen Coracinus: of Stockfish and Salmon.
19. Of the Exœcetus, Calamaries, Lampreies, &c.
20. The diuision of fishes by the shapes of their bodies.
21. Of Eeles.
22. The manner of taking them in the lake Benacus.
23. The nature of the Lamprey.
24. Of flat and broad fishes.
25. Of the stay-ship Echeneis, and his wonderfull nature.
26. The changeable nature of fishes.
27. Of the fish called the Lanterne, and the sea Dragon.
28. Of fishes wanting bloud.
29. Of the Pourcuttle, the Cuttle fish, the Calamarie, and the fish called the Sayler or Mariner.
30. The fish Ozæna, and Nauplius: also of Lobsters.
31. Of Crabs, Sea Porkespines: and of the greater sort named Echinometræ.
32. Of Wilkes, Cockles, and shell fishes.
33. Of Scallops, Porcellanes, of the shell fish Murex, and other such.
34. The riches and treasures of the sea.

Chap.
35. Of Pearles, how they be engendred, and where: also how they be found.
36. The nature of the Purple fish and the Burrets or Murices.
37. How many kinds there be of purple fishes.
38. How the purple fishes be taken.
39. When purple was first worne in the city of Rome.
40. The price of purple clothes at Rome.
41. The dying of the Amethyst colour, of the Skarlet in grain, and the light Skarlet Hysginus.
42. Of the fish called the Nacre, and his guide or keeper Pinnoteres: also the intelligence of fishes and water creatures.
43. Of Scolopendres, sea Foxes, and the fishes Glani.
44. Of the fish called the sea Ram.
45. Of those things which haue a third nature, beeing neither liuing creatures, ne yet plants, to wit, of sea Nettles and Spunges.
46. Of Hound fishes or sea dogs.
47. Of sea fishes that haue stony shels: of those that haue no sence at all: of other nastie and filthie creatures.
48. Of sea fishes venomous.
49. The diseases incident to fishes.
50. The admirall generation of Fishes.
51. *Item*, Another discourse of their generation; and what fishes they bee which doe lay egges.
52. The matrices or wombes of fishes.
53. What fishes liue longest.
54. Of Oyster pits, and who did first deuise them.
55. Who first inuented stewes and ponds to feed Lampreies in.
56. The stewes and ponds for other shell Fishes, and who brought them vp first to be vsed.
57. Of fishes that haunt the land.
58. The rats of Nilus.
59. Of the fish called Anthias, and how hee is taken.
60. Of the sea starres.
61. Of the fishes Dactyli, and their admirable properties.
62. What fishes do entertain amitie one with another, and which be euer at warre.

In summe, this Booke containeth stories, notable things, and obseruations, to the number of 650, collected

Out of Latine Authors.

Turanius Graccula, Trogus, Mecænas, Alfius Flauus, Cornelius Nepos, Laberius, the writer of merry Epigrams, *Fabianus, Feneſtella, Mutianus, Ælius Stilo, Statius Seboſus, Meliſſus, Seneca, Cicero, Macer Æmylius, Meſſana Corvinus, Trebius Niger*, and *Nigidius*.

Out of Forreine Writers.

Ariſtotle, king *Archelaus, Callimachus, Democritus, Theophraſtus, Thraſyllus, Hegeſidemus*, of Cythnos, and *Alexander Polyhiſtor*.

¶ IN THE TENTH BOOKE ARE CONTAINED the natures and ſtories of Foules and *flying creatures*.

Chap.

1. The nature of Foules.
2. Of the Phœnix.
3. Of Ægles.
4. When the Romane legions vſed the Ægle ſtandard, and other enſignes. Alſo with what creatures Ægles maintaine fight.
5. A ſtrange and wonderfull caſe as touching an Ægle.
6. Of the Vultures or Geires.
7. Of the foule Sangualis.
8. Of Faulcons and Hawkes.
9. Of the Cuckow, which is killed by birds of her owne kind.
10. Of Kites or Puttockes.
11. A diuiſion of birds into generall kinds.
12. Of vnluckie and ominous birds, the Crow, the Rauen, and the Like-owle.
13. Of the foule that carieth fire in her mouth.
14. Of the bird Clivina.
15. Of many birds vnknowne.
16. Of foules that flie by night.
17. Of Howlets.
18. Of the Wood-pecker.
19. Of birds which haue clawes and crooked tallons.
20. Of Peacockes: and who killed them firſt for to be ſerued at the table.
21. Of Cockes: how they be cut: of a dunghill cocke that ſpake.
22. Of Geeſe: who firſt deuiſed to make a daintie diſh of the Gooſe liuer: the grauie or fat of Geeſe, called Comagenum.
23. Of Cranes, Storkes, Swans, ſtrange foules of outlandiſh countries, of Quailes, and the bird Glotis.
24. Of Swallowes and Martins, of Blackbirds, Thruſhes and Merles, of Sterlings, Turtle-doues, and Quoiſts or Ring-doues.
25. Of birds that tarie with vs all the yere long

Chap.

of birds that be for halfe a yeare onely, and others that remaine but three moneths.

26. Maruellous ſtories of birds.
27. Of birds called Seleucides.
28. Of the foule Ibis.
29. What birds will not abide in all places: which they be that change both hew and voice: alſo of Nightingales.
30. Of Merles or Ouſels.
31. The time wherein birds breed, lay, and ſit.
32. Of the birds Halciones, the nauigable daies that they doe ſhew: of the Sea-guls and Cormorants.
33. The induſtry and ſubtilty of birds in building their neaſts: of the ordinary Swallow, the riuer Swallow Argatilis: the bird Cinnamologie that ſteale Cinnamon, and of Partridges.
34. Of Houſe-doues.
35. Of Stock-doues.
36. Of Sparrowes.
37. Of the Keſtrell or Stannell.
38. Of the flight and gate of birds.
39. Of certaine footleſſe Martinets, called Apodes.
40. Of certain Guls that milk and ſuck Goats vdders, and be named Caprimulgi: alſo of Pelicanes named Plateæ.
41. The perceiuance and naturall wit of birds.
42. Of the Linnet, Popinjay, or Parret, and ſuch birds that will learne to ſpeake.
43. The intelligence and vnderſtanding that Rauens haue.
44. Of *Diomedes* his birds.
45. Of dull witted birds that will be taught nothing.
46. The manner how birds drinke.
47. Of foules called Himantipodes, and Onacrotali, and of other ſuch ſtrange birds.

48. The

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Chap.
48. The names of many birds, & their natures.
49. Of ſtrange and new birds, ſuch alſo as bee holden for fabulous.
50. Who deviſed firſt to cram hens & capons; of bartons, mewes, and coupes to keepe and feed foules: and the firſt inuentor thereof.
51. Of *Æſopes* platter.
52. The generation of birds, and what fourfooted beaſts do lay eggs as well as birds.
53. The knitting of eggs within the body, the laying, couving and ſitting of them, the maner and time of birds engendring.
54. The accidents that befall to broodie birds whiles they ſit, and the remedies thereof.
55. Auguries and preſages by egges.
56. What Hens be of the beſt kind.
57. The diſeaſes incident to Hens & the cure.
58. The maner how birds conceiue: what number of egs they lay, & how many they hatch
59. Of Peacockes and Geeſe.
60. Of Herons and Bitters. The way to preſerue and keepe eggs.
61. The only bird that bringeth forth her yong aliue, & feeds the ſame at the pap with milk
Chap.
62. The conception of the Viper, and how ſhe is deliuered of her young, alſo what land creatures lay egges.
63. The ordinary generation of land creatures.
64. The diverſitie of liuing creatures in the maner of their engendring.
65. The yong ones that mice and rats do breed
66. Whether of the marrow of a mans backe bone a ſerpent will engender.
67. Of the Salamander.
68. What things bee engendred of thoſe that were never engendred, and contrariwiſe, what creatures they be, which being engendered themſelues, breed not.
69. The ſences of living creatures.
70. That fiſhes doe both heare and ſmell.
71. That the ſence of feeling is common to all liuing creatures.
72. What creatures liue of poyſons, and eat earth.
73. Of the meat and drink of diuers creatures.
74. What creatures evermore diſagree: and which they be that agree well together.
75. Of the ſleepe of liuing creatures.

This booke hath in it of notable matters, hiſtories and obſeruations 904, gathered out of

Latine Authors and records.

Manilius, Cornelius Valerianus, the publike records and regiſters, *Vmbritius* ſurnamed *Melior*, *Maſſurius Sabinus*, *Antiſtius Labeo*, *Trogus Cremutius*, *M. Varro*, *Macer Æmilius*, *Meliſſes*, *Mutianus*, *Nepos*, *Fabius Pictor*, *T. Lucretius*, *Cornelius Celſus*, *Horatius*, *Deſulo*, *Hyſginus*, *Sarſennæ*, both father and ſonne, *Nigidius* and *Manlius Sura*.

Forreine Writers.

Homer, *Phæmonoes*, *Philemon*, *Boethius* who wrote a treatiſe called Ornithagonia, *Hylas* who made a diſcourſe of Auguries, *Ariſtotle*, *Theophraſtus*, *Callimachus*, *Æſchylus*, *Hiero*, *Philometor*, *Archytas*, *Amphilochus* the Athenian, *Anaxipolis* the Thaſian, *Apollodorus* of Lemnos, *Ariſtophanes* the Mileſian, *Antigonus* the Cymæan, *Agathocles* of Chios, *Apollonius* of Pergamus, *Ariſtander* the Athenian, *Bacchius* the Mileſian, *Bion* of Soli, *Chæreas* the Athenian, *Diodorus* of Pryæne, *Dion* the Colophonian, *Democritus*, *Diophanes* of Nicæa, *Epigenes* of Rhodes, *Evagoras* of Thaſos, *Euphonius* of Athens, king *Iuba*, *Androcion* who wrote of Husbandrie, and *Æſcrion* likewiſe who wrote thereof, *Dionyſius* who tranſlated *Mago*, and *Diophanes*, who reduced his worke into an Epitome, *Nicander*, *Oneſicritus*, *Philarchus*, and *Heſiodus*.

¶ IN THE ELEVENTH BOOKE ARE CONTAIned the ſtories and natures of ſmall creatures and ſuch as *creepe on the ground.*

Chap.
1. Of Inſects in generall.
2. The naturall induſtrie of thoſe Inſects.
3. Whether Inſects doe breath, and whether they haue bloudor no.
Chap.
4. The matter & ſubſtance of the Inſects body.
5. Of Bees.
6. The government and order which Bees keep by inſtinct of Nature.

Chap.

7. Diuers operations of the Bees, & the tearms thereto belonging.
8. Of what floures Bees do make their cellars, combes, and other workes.
9. What persons tooke a great loue to Bees, and delighted to nourish them.
10. The manner of Bees when they be at their businesse.
11. Of Drones.
12. The nature of Honey.
13. Which is the best Honey.
14. The seuerall and particular kinds of Hony in diuerse places.
15. The markes and tokens of good Honey.
16. Of a third kind of Honey, and how a man should know good Bees.
17. The regiment and policie that Bees obserue.
18. Diuerse sorts of Bees, and what things be hurtfull to Bees.
19. The diseases incident to Bees.
20. How to keepe the cast of Bees when they swarme, that they flie not away, also how to recover Bees, in case their breed and race be lost.
21. Of Wespes and Hornets.
22. Of silke flies, their wormes and Iackes called Bombylis and Necydalus, and who first deuised silke-cloth.
23. Of the silke-worme in the Iland Choos.
24. Of the Spiders and their generation.
25. Of Scorpions.
26. Of Stellions and Grashoppers.
27. In what countries there bee no Grashoppers, and where they sing not.
28. The wings of Insects, of Beetles and their kinds.
29. Of Locusts.
30. Of Ants or Pismires in Italie.
31. Of Indian Ants or Emmets.
32. The diuerse sorts of Insects.
33. Of certaine creatures breeding of wood, and liuing of wood.

Chap.

34. Of a certain creature that hath no passage to void excrements.
35. Of Moths and Gnats.
36. Of flies liuing in the fire, named Pyrales or Pyraustæ.
37. A discourse Anatomicall of all parts and members of the bodie.
38. Of Bloud, also in what creatures bloud wil sooneſt clutter and congeale, and whose wil not at all. What creatures haue the grosseſt and heauieſt bloud, and which the fineſt and thinneſt: and lastly who haue no bloud at all.
39. Whether the soueraignetie, and excellencie of sence consisteth in bloud. Of the skin and hide, of the haires and dugs of liuing creatures.
40. What creatures haue notable dugs or teats aboue the reſt.
41. Of Milke, and what milke will make no cheese.
42. Diuerse kinds of Cheese.
43. How the lims and members of mans body differeth from other creatures.
44. The resemblance that Apes haue to vs.
45. Of Nailes.
46. Of Houfes.
47. Of birds feet and their clawes.
48. Of Insects feet from two to an hundred.
49 Of Dwarfes in each kind, and the genitall parts.
50. Of Tailes.
51. Of Voices.
52. Of superfluous members of the bodie. The sayings of *Aristotle* as touching long life.
53. Of the wind & breath that liuing creatures take. What things if they be tasted be venomous and deadly. The food of man, as well for meat as drinke. What causes they be that hinder digestion.
54. How to encrease or diminish the corpulencie of the bodie, and what things with taſt onely, will allay hunger and quench thirſt.

In summe, this Booke containerh notable things, stories, and obseruations, 2270.

Latine Authours cited.

M. Varro, Hyginus, Scropha, Sarcena, Celsus Cornelius, Æmilius Macer, Virgil, Columella, Iulius Aquila, who wrate of the Tuscane discipline, *Tarquilius*, who likewise wrote of the same, and *Vmbritius* that trauelled in that argument, *Cato Censorius, Domitius Calvinus, Trogus, Melissus, Fauonius, Fabianus, Mutianus, Nigidius, Manilius*, and *Opius*.

Forreine Writers.

***. As touching the worke of Bees.

Aristotle, Democritus, Neoptolemus, who wrote * Militurgia, *Aristomachus*, who likewise made a Treatise

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Treatiſe of the ſame, and *Philiſtus* alſo that did the like, *Nicander*, *Menecrates*, *Dionyſius*, that tranſlated *Mago*, *Empedocles*, *Callimachus*, K. *Attalus*, *Apollodorus*, who wrote of venomous beaſts, *Hippocrates*, *Eriphilus*, *Eraſiſtratus*, *Aſclepius*, *Themiſo*, *Poſidonius* the Stoicke, the two *Menanders*, one of Priene, and the other of Heraclea, *Euphronius* of Athens, *Theophraſtus*, *Heſiodus*, and K. *Philometor*.

¶ IN THE TWELFTH BOOKE ARE CONTAINED diſcourſes of Trees

Chap.

1. The honor done to trees, of the Plane-trees: when they were firſt brought into Italy, and of their nature.
2. Of the dwarfe Planes growing low, and who was the firſt that cut and ſhred trees into arbours.
3. Of ſtrange trees, and principally of the Citron tree in Aſſyria.
4. Of India trees, and when Ebene was firſt ſeen at Rome.
5. Of a certaine Thorn and Fig-tree of India.
6. Of a tree named Pala: alſo of other Indian trees that are nameleſſe, and of thoſe that beare wooll and cotton.
7. Of Pepper trees and Clove trees, and many others.
8. Of Macir or Sugar, and the trees growing in the region Ariana.
9. Of Bdellium, and of trees along the Perſian gulfe.
10. Of trees growing in the Iſland within the Perſian gulfe, and thoſe that beare Cotton.
11. Of Goſſampine trees, and thoſe which ſerue to make cloth, and wherein conſiſteth the fruit of certaine trees.
12. Of Coſtus, Spiknard, & diuers ſorts of Nard
13. Of Aſarabacca, Amomum, Amonius, and Cardamomum.
14. Of Frankincenſe, & trees that yeeld Incenſe
15. Of Myrrhe and Myrrhe trees.
16. Of ſundry ſorts of Myrrh, the nature thereof, and the price.
17. Of Maſticke, Ladanum, and Bruta, of Enhæmum, Strobus, and Styrax.
18. Of the felicitie and happineſſe of Arabia.
19. Of Cinnamon, and the wood therof called Xylocinnamum, and of Caſia.
20. Of Iſocinnamon or Canel, of Caucamum and Tarum.
21. Of Serichatum, Gabalium, and Ben, otherwiſe called Myrobalanus.
22. Of Dates called Phœnicobalanus, & ſweet Calamus.
23. Of Ammoniacum, and the ſweet Moſſe called Sphagdus, or Vſnea.
24. Of Cyprus, Aſpalathus and Marum.
25. Of Baulme, as well the liquor called Opobalſamum, as the wood Xylobalſamum, of Storax and Galbanum.
26. Of Panace, Spondylium, and Malobathrum or Folium Indicum.
27. Of the oile of green Oliues called Omphacium, and of Verjuice.
28. Of Bryon, and the wild Vine Oenanthe, of the Firre Elate, of Cinnamon, and the oyle of Nuts called Caryopus,

In ſumme, this booke containeth in it of notable matters, hiſtories, and obſeruations, 974.

Latine Authours alledged.

M. Varro, *Mutianus*, *Virgil*, *Fabian*, *Seboſus*, *Pomponius Mela*, *Flavius Proculus*, *Trogus*, *Hyginus*, *Claudius Cæſar*, *Cornelius Nepos*, *Sextius Niger*, who wrate in Greeke of Phyſicke, *Caſſius Hemina*, *L. Piſo*, *Tuditanus*, and *Antias*.

Forreine Writers.

Theophraſtus, *Herodotus*, *Calliſthenes*, *Iſidorus*, *Clitarchus*, *Anaximenes*, *Dioris*, *Nearchus*, *Oneſicratus*, *Polycritus*, *Olympiodorus*, *Diognetus*, *Nicobulus*, *Anticlides*, *Charax* of Mitylene, *Menechmus*, *Dorotheus*, *Xenias* the Athenian, *Lycus*, *Antæus*, *Ephippus*, *Chæreas*, *Democles*, *Ptolomæus*, *Lagus*, *Marſyas* the Macedonian, *Zoilus* likewiſe of Macedonie, *Democritus*, *Amphilocus*, *Ariſtomachus*, *Alexander Polyhiſtor*, king *Iuba*, *Apollodorus* the authour of the treatiſe concerning ſweet odours, *Heraclides* the Phyſitian, *Archidemus* likewiſe the Phyſitian, *Dionyſius*, *Democlides*, *Euphron*, *Obſenides*, *Diagoras*, *Iolla* (all ſix Phyſitians) *Heraclides* of Tarentum, *Xenocritus* of Epheſus, and *Eratoſthenes*.

¶ IN THE THIRTEENTH BOOKE ARE CONtained Treatises of Ointments and of Trees *by the sea side.*

Chap.
1. Of sweet ointments & perfumes: when they came to bee first knowne at Rome, and of their composition.
2. What ointment was that which they called Roiall: which bee Diapasmate or drie perfumes, and how they be kept.
3. The ryotous and superfluous expences that the Romanes were at for such ointments: and when they were first taken vp and vsed in Rome.
4. Of Palmes or Date trees, their nature and sundry sorts.
5. The trees of Syria.
6. Of the Terebinth tree.
7. Of the Ægyptian Figtree or Sycomore, and that of Cypresse.
8. Of the fruit which is called Ceraunia Siliqua.
9. Of the Peach-tree or Persica of Ægypt: and the Ægyptian Thorn, wherof commeth Acacia.
10. Of the Plum tree and others about Memphis.
11. Sundry sorts of gums, and of the Papyr reed.
12. Diuers kinds of Paper, how Paper is made,

Chap.
the triall of good Paper, the faults of Paper, and the paste that goeth to the making of Paper.
13. The bookes of king *Numa*.
14. The tree of Æthyopia.
15. The trees of Atlas, Citron trees, what points are commendable or otherwise faultie therein.
16. Of the tree Thya.
17. Of the tree Lotus.
18. Of the body and roots of Lotus.
19. Of Patyurus, of the Pomgranat, and the floure of the Pomgranat.
20. Of plants and shrubs in Asia and Greece.
21. Of Thymelæa, Chamelæa, Tragacanthe, Tragium or Scorpio, of Tamariske, Brya, and Galla.
22. Of Euonymus or Spyndle tree, of Adrachne Congygria, and Thapsia.
23. Of Capparis or Cynosbatos, or Opheostaphyle, and of Sari.
24. Of the royall thorne of Babylon, and Cytisus or tree Trifolie.
25. Of shrubs and trees growing vpon our Mediterranean seas, the red sea and the Indian sea.

In summe, there be compriſed in this book of notable things, stories, and obseruations, foure hundred fiftie and eight.

Latine Authours cited.

Marcus Varro, Mutianus, Virgil, Fabianus, Sebosus, Pomponius Mela, Flavius Proculus, Trogus, Hyginus, Clandius Cæsar, Cornelius Nepos, Sextius Niger, who wrote in Greeke of Physicke, *Cassius Hemina, L. Piso, Tuditanus*, and *Antias*.

Forreine Writers.

Theophrastus, Herodotus, Callisthenes, Isidorus, Clitarchus, Anaximenes, Durie, Nearchus, Onesicritus, Policritus, Olympiodorus, Diognetus, Cleobulus, Anticlides, Charax the Mitylenæan, *Menæchmus, Dorotheus, Xenias* the Athenian, *Lycus, Antæus, Ephippus, Dio, Adimanthus, Ptolomæus Lagus, Marsyas* and *Zoilus*, both Macedonians, *Democritus, Amphilochus, Alexander Polyhistor, Aristomachus*, king *Iuba, Apollodorus* who wrate of Odours, *Heraclides* the Physician, *Botrys, Archidemus, Dionysius, Democlides, Euphron, Menesicles, Diagoras* and *Iolla* Physicians all, *Heraclides* of Tarentum, and *Xenocritus* the Ephesian.

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¶ IN THE FOVRTEENTH BOOKE ARE contained Treatises of Vine-trees and *Vine-yards*.

Chap.
1. Of Vines and their nature, the manner how they beare grapes.
2. Sundry kinds of Vines in generall.
3. More kinds of Vines according to the propertie of countries where they grow.
4. Notable considerations as touching the planting and ordering of Vines.
5. The nature of wine.
6. The best and most kindly wines.
7. Wines outlandish and beyond sea.
8. Of the wine called Biæon, seuen kinds therof
9. Of sweet wines fourteene sorts.
10. Of second wines or houshold wines.
11. What good wines began of late to bee in request at Rome.
12. Obseruations of wine, set downe by king *Romulus*.
Chap.
13. The ancient vsage of wine, and the wines of old time.
14. Of cellars for wine, and the wine Opimianum.
15. *Cæsars* liberalitie in wine, and when first there were foure sorts of wine set downe.
16. Of artificiall or set wines.
17. Of Hydromell and Oxymell.
18. Prodigious and strange kinds of wine.
19. What wines might not be vsed in sacrifices, and with what sorts new wines are sophisticated.
20. Sundry sorts of Pitch and Rosin: of the manner of sophisticating new wines: of vinegre and wine lees.
21. Of wine cellars.
22. Of auoiding drunkennesse.

In summe, it containeth notable matters, histories and obseruations 510, gathered out of

Latine Authors.

Cornelius Valerius, Virgil, Celsus, Cato Censorius, Sarsennæs both father and sonne, *Scropha, Varro, Decimus Syllanus, Fabius Pictor, Trogus Hyginus, Flaccus Verrius, Græcinus Iulius, Accius, Columella, Massurius Sabinus, Feneſtella, Tergilla, M. Actius Plautus, Fabius, Dorsennus, Scævola, Ælius, Atteius Capito, Cotta Messalinus, L. Piso, Pompeius Lenæus, Fabianus, Sextius Niger*, and *Vibius Rufus*.

Forreine Authours.

Hesiodus, Theophrastus, Aristotle, Democritus, king *Attalus*, K. *Philometer, Architas, Xenophon, Amphilochus* the Athenian, *Anaxipolis* the Thasian, *Apollodorus* the Lemnian, *Aristophanes* the Milesian, *Antigonus* the Cymæan, *Agathocles* the Chian, *Apollonius* of Pergamus, *Aristander* of Athens, and likewise *Batrys* the Athenian, *Bacchius* the Milesian, *Bion* of Soli, *Chereas* the Athenian, and *Cheristus* likewise of Athens, *Diodorus* of Priene, *Dio* the Colophonian, *Epigenes* the Rhodian, *Evagoras* the Thasian, *Euphron* of Athens, *Androcion, Æscrion* and *Lysimachus*, who wrote al three of Agriculture, *Dionysius* who translated *Mago, Diophanes* who brought *Dionysius* into an Epitome, *Asclepiades* the Physitian, *Onesicritus* and king *Iuba*.

¶ THE FIFTEENTH BOOKE TREATETH OF the nature of Trees fruitfull, and planted in *Hort-yards*.

Chap.
1. The nature of fruitfull trees.
2. Of the oyle of Olives.
3. The nature of the Olive & yong Olive trees
4. The nature of the oile Olive.
5. The manner of husbanding Olive rowes.
6. How to keepe Olives and make oile therof.
Chap.
7. Of artificiall oile.
8. Of the dregs or Oliue cake, being pressed.
9. Of fruits of trees good to eat, their seuerall kinds and natures.
10. Of Pine nuts foure kinds.
11. Of the Quince.

Chap.
12. Of Peaches foure sorts.
13. Of Plums eleuen kindes.
14. Sundry kindes of Apples, and namely, nine and twentie sorts.
15. Of Peares and Wardens: of sundrie strange deuises to graffe trees.
16. Of preseruing and keeping Apples & such like fruits.
17. The manner how to keepe Quinces, Pomgranats, Peares, Wardens, Soruises, and Grapes.
18. Of Figs nine and twentie sorts.
19. Of the wild Figtree: of caprification or the manner how to bring Figgs to maturitie by the meanes of certaine flies.
20. Of Medlars, and three sorts of them.
Chap.
21. Foure kinds of Soruoises.
22. Of the Walnut.
23. Of Chestnuts eight kinds.
24. Of Charobs called Siliquæ, of Apples, of Mulberies, of Graines, Pippins and Kernils within the fruits, also of berries.
25. Of Cherries eight sorts.
26. Of the Corneill fruit, and Lentisk.
27. Sundry sorts of juices, and odours.
28. Of the juices in fruits and trees: of colors, smells, and the natures of diuerse fruits, also the singularities and commendations of them.
29. Of the Myrtle eleuen kinds thereof.
30. Of the Lawrell or Bay-tree, thirteene sorts of it.

In summe, there be compriſed in this booke of notable matters, ſtories, and obſeruations 520, collected out of

Latine Authours.

Feneſtella, Fabianus, Virgill, Cornelius, Valerianus, Celſus, Cato Cenſorius, Sarſennæ (both father and ſonne) *Scropha, Mar. Varro, D. Syllanus, Fabius Pictor, Trogus, Hyginus, Flaccus Verrius, Græcinus, Atticus, Iulius Sabinus, Tergilla, Cotta Meſſalinus, Columella, L. Piſo, Pompeius Lenæus, M. Accius Plautius, Fabius Dorſenus, Scæuola, Ælius, Atteius Capito, Sextus Niger*, and *Vibius Rufus*.

Forreine writers.

Heſiodus, Ariſtotle, Democritus, king *Hiero, Architas*, king *Philometor*, king *Attalus, Xenophon, Amphilochus* the Athenian, *Anaxipolis* the Thaſian, *Apollodorus* of Lemnos, *Ariſtophanes* the Mileſian, *Antigonus* the Cymæan, *Agathocles* of Chios, *Apollodorus* of Pergamus, *Ariſtander* the Athenian, *Bacchus* the Mileſian, *Bion* of Soli, *Chæreas* of Athens, and *Chariſtus* likewiſe the Athenian, *Diodorus* of Priene, *Dion* the Colophonian, *Epigenes* the Rhodian, *Evagoras* the Thaſian, *Euphronius*, the Athenian, *Androcion* and *Æſchrion* (who writ both of Husbandry) *Dionyſius*, that tranſlated the books of *Mago*, and *Dionyſius* the Epitomiſt, who brought them all into a Breuiarie. *Aſclepiades* and *Eraſiſtratus*, both Phyſitians, *Comiades*, who wrate as touching the confectures of wine, *Ariſtomachus, Hiceſius*, who both treated of the ſame matter, *Themiſon* the Phyſition, *Oneſicritus*, and king *Iuba*.

¶ IN THE SIXTEENTH BOOKE ARE CONtained the natures of wild trees.

Chap.
1. Countries wherein no trees doe grow: miraculous wonders of trees in the North countries.
2. Of the great forreſt Hircynia.
3. Trees that beare maſt.
4. Of the Ciuick guirland, and who in old time were adorned and honoured with chaplets of tree leaues.
5. Of Maſt thirteene kinds.
6. Of Beech Maſt, and other ſorts of Maſt: of Coale, and the feeding of Hogs.
7. Of Gals, and how many things beſides Maſt and Acornes Maſt trees do beare.
8. Of Cachrys, and of the Skarlet graine: alſo of Agaricke and Corke.
9. Of what trees the barke is in vſage.
10. Of ſhindles to couer houſes, of the Pine-tree and the wild Pine, of the Fir & Pitch-tree, of the Larch-tree, of the Torch-tree Tœda, aad the Eugh-tree.

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Chap.
11. The manner of making ſundrie ſorts of Pitch and Tar: how the virgin pitch called Cedrium is made: of the thicke ſtone pitch how it is made: and the waies to boile roſin.
12. Of the ſhip pitch called Zopiſſa: of Sapium: and thoſe trees that yeeld timber good for building.
13 Of the Aſh tree, foure kinds.
14. Of the Teil or Linden tree, two ſeuerall ſorts thereof.
15. Ten diuerſe ſorts of Maples.
16. Of the knot in Maple called Bruſcus and Molluſcum: of a kind of Fiſticke tree called Staphylodendron: of Box tree three ſorts.
17. Of the Elme, foure kinds.
18. The nature of trees according to their ſcituation and places where they grow.
19. A generall diuiſion of trees.
20. What trees neuer ſhed their leaues quite: of the Oleander tree called Rhododendron.
21. Againe what trees loſe not their leaues, but ſhew alwaies greene, which be they that ſhed their leaues in part. In what countries no trees at all doe loſe their leaues.
22. The nature of thoſe trees which let fall their leaues, and which haue leaues of ſundry colours.
23. Three ſorts of Aſps or Poplers: & of what trees the leaues do alter their forme and faſhion.
24. What leaues vſe to turne euerie yeere: the manner how to order the leaues of Date trees and to vſe them. Alſo ſtrange and admirable things as touching leaues.
25. The order and courſe that Nature holdeth in plants: the bloſſomes of trees: their manner of conception, blouming, budding, and bearing fruit: and in what order they put out floures.
26. Of the Corneil tree: the right ſeaſon wherin euerie tree beareth fruit: what trees bee fruitleſſe, and therefore are ſuppoſed vnhappie: which they bee that ſoone loſe their fruit: and laſt of all what trees ſhew fruit before they be put forth.

Chap.
27. Of trees that beare fruit twice and thrice in one yeere: what trees ſodainely wax old: the age of trees.
28. Of the Mulberrie tree.
29. Of trees growing wild.
30. Of the Box tree, and the great Beane tree or Lotus.
31. Of the boughs, branches, barke, rinde, and root of trees.
32. Of prodigious trees that preſage ſomewhat to come: of trees that ſpring and grow of themſelues. Alſo a diſcourſe, that all trees grow not in euery place: and what trees will not liue but in this or that one place.
33. Of the Cyprus tree. Alſo, that the ground will bring forth ſome new plants that neuer were ſet, ſowne, or growing there before.
34. Of Yvie.
35. Of the Ivie called Smilax.
36. Of Reeds, Canes, and ſhrubs growing in water.
37. Of the oſier or willow, eight ſorts thereof: alſo what twigs beſides oſiers and willowes are good for winding and to bind withall: of buſhes and grieues.
38. The juice and liquor of trees: the nature of their wood and timber: alſo of hewing downe and falling trees.
39. Of the Larch tree, the Fir and the Sapine: the time of cutting them downe, and ſuch like.
40. Sundry ſorts of wood: the extraordinarie bigneſſe of trees: what wood is not ſubject to be worme-eaten nor to decay: other trees that be euerlaſting.
41. Of Woodwormes.
42. Of timber fit for carpentrie and building: what timber is good for this or that vſe; and namely, which is beſt and more firme and durable for rouſes of houſes.
43. The maner of glewing bourds and planks: alſo of rent and clouen ſtuffe.
44. The age of trees: which be they that laſt not long: of Miſſelto, and of the Prieſts Druydæ.

In ſumme, this booke comprehendeth of notable things, hiſtories, and obſeruations, an hundred and fiue and thirtie.

Latine Authors alledged.

M. Varro, Facialis, Nigidius, Cornelius Nepos, Hyginus, Maſſurius, Cato, Mutianus, Lucius Piſo, Trogus, Calphurnius, Baſſus, Cremutius, Sextius Niger, Cornelius Bocchus, Vitruvius, and *Gracinus.*

The first Booke of

Forreine Writers.

Alexander Polyhistor, Hesiodus, Theophrastus, Democritus, Homer, Timæus the Mathematician.

¶ THE SEVENTEENTH BOOKE CONTAIneth the nature of trees planted, set, and well *kept in Hort-yards.*

Chap.

1. Trees of wonderfull price.
2. Of the nature of heauen and the skie respectiue vnto trees: and what part of the skie they ought to regard.
3. The societie and accord of the clymat and the soile requisit for trees.
4. The qualities of the grounds in diuers regions.
5. Sundry kinds of ground and earth.
6. Of a kind of earth or marle that they in Britaine and France set much store by.
7. What the Greekes haue taught, and what rules they haue giuen as touching this point
8. Of more kinds of earth.
9. The vse of ashes, and of dung: what plants will enrich the ground and make it more battell: contrariwise, which they bee that burne out the heart thereof.
10. The planting or setting of trees: how to make a sion or slip to take and grow againe that is plucked from the root of the stocke.
11. Of transplanting out of Seminaries, yong trees that came of pepins and seeds.
12. The spaces betweene, and distance to bee regarded in planting trees: the shadow and droppings, either from house eaues or other trees.
13. What trees grow apace, and which thriue but slowly: also of the Savine.
14. The setting and graffing imps and sions of trees in the stocke or cliffe.
15. Of the manner how to graffe a vine.
16. Of inoculation or graffing in the leafe or scutcheon with a plaster.

Chap.

17. An example or experiment of this kinde of graffing.
18. The order of planting and husbanding oliues: and which is the proper time for graffing.
19. What trees loue the companie and societie of others: the skill of baring the roots about trees, cutting off their superfluous spurns, and raising hils about the roots.
20. Of willow banks and rows of osiers: of places where reeds and canes are nourished: of other plants vsed to be cut, for poles, pearches, stakes, and forkes.
21. The manner of planting vines: the skill of trimming them.
22. The furrow about vines: and the pruning of them.
23. The manner of planting trees to serue for vines to run vpon.
24. How to keepe and preserue grapes: the diseases incident to trees.
25. Of sundrie prodigious and monstrous sights shewed in trees: also of an olive yard which in old time remooued, and was transplanted from one side of a great high way to the other.
26. Remedies against the diseases and imperfections or faults in trees.
27. Of scarification and paring of trees: and the manner of dunging them.
28. Divers medicines against venomous beasts and pismires, and other creatures noisome and hurtfull to trees.

In summe, here bee contained notable matters, stories, and obseruations, to the number of fiue hundred eightie and one.

Latine Authors alledged.

Cornelius Nepos, Cato Censorius, M. Varro, Celsus, Virgil, Hyginus, Sarsennæ both father and sonne, *Scrophas, Calphurnius, Bassus, Trogus, Æmilius Macer, Græcinus, Columella, Atticus, Iulius, Fabianus, Sura Manlius, Dorsenus Mundus, Caius Epidicus,* and *L Piso.*

Forreine Writers.

Isidorus, Theophrastus, Aristotle, Democritus, Theopompus, king *Hiero,* K. *Attalus,* K. *Philometor, Archytas,*

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Archytas, *Xenophon*, *Amphilochus* the Arhenian, *Anaxipolis* the Thaſian, *Apollodorus* of Lemnos, *Ariſtophanes* the Mileſian, *Antigonus* the Cymæan, *Agathocles* the Chian, *Apollonius* of Pergamus, *Bacchius* the Mileſian, *Bion*, *Chærea* the Athenian, alſo *Chæriſtus* of Athens, *Diodorus* of Priene, *Dion* the Colophonian, *Epigenes* the Rhodian, *Evagon* the Thaſian, *Euphron* the Athenian, *Androcion*, *Æſchrion*, *Lyſimachus*, who all three wrote of Agriculture: *Dionyſius* who tranſlated the bookes of *Mago*, and *Diophanes*, who out of *Dionyſius* collected a Breviarie, and *Ariſtander* who made a treatiſe of Wonders and portenteous tokens.

¶ THE EIGHTEENTH BOORE IS A TREATISE of Agriculture or Husbandrie.

Chap.

1. That our anceſtors in old time were exceeding much giuen to husbandrie. Alſo, the ſingular care that men had to looke vnto hortyards and gardens.
2. Of the firſt chaplets and guirlands vſed at Rome.
3. Of the acre of ground and halfe acre, called at Rome *Iugeris & Actus*. The antient ordinances concerning cattell: in what time the market for victuals was exceeding cheap at Rome: and who were famous & renowmed for husbandrie and tilling the ground.
4. The ancient manner of tilling the earth.
5. Where a ferme houſe is to bee ſeated and built conueniently: certain rules in old time concerning tillage.
6. A diſcourſe as touching the praiſe of huſbandmen: what rules are to be obſerued to come by a good peece of land.
7. Diuers kinds of corne, and their nature.
8. That all ſorts of graine will not grow euery where. Of other kindes of corne in the Levant or Eaſt countries.
9. Of baking and paſtrie: of grinding and of meale.
10. Of the fine cocked flour: of the white flour of wheat, and of other ſorts of floure: the manner of moulding and making dough, and baking.
11. The manner of making and laying leaven: alſo of making paſt & bread: and when Bakers were firſt knowne at Rome. Of ſieves, ſerces, and bulters; and of ſodden wheat or frumentie.
12. Of pulſe.
13. Of Rapes and Navewes in the Amiternine tract.
14. Of Lupines.
15. Of Vetches and Ervile.
16. Of Fenigreeke: of Meſſelline or dredge-corne: of Mung-corne or Bollimong for provander: of Clauer or three-leafed graſſe called Medica; and of another Trefoile named Cytiſus.
17. The faults and diſeaſes in corne, graine, and pulſe, and their remedies: what corne or pulſe ought to be ſowne with reſpect to the ground.
18. Of prodigious tokens obſerued in corne. The skill of ploughing the ground: the diuers ſorts of culters & ſhares in the plough.
19. The ſeaſons of the yere fit to till & plough the ground. The manner of putting oxen in the yoke for the plough.
20. Of breaking clods or harrowing: of another kinde of tilling: the earing or ſecond tilth or ſtirring the ground. And cutting the corne.
21. The manner of tilling and husbanding land.
22. Examples of diuers grounds: of ſuch as are wondrous fertile: of a vine that beareth grapes twice in the yeare. The difference of waters.
23. The qualitie of the ground or ſoile: of compoſt or dunging lands.
24. The goodneſſe of choiſe ſeeds: the manner of good ſowing: how much ſeed of any corn an acre will take to be well ſowne. The ſeaſons of ſeedneſſe.
25. The obſeruation of the ſtars for their apparition or occultation, their riſing and ſetting, as well for day as night.
26. A recapitulation and briefe ſummarie of all things belonging to husbandrie. What is to bee done in the field euery moneth of the yeere.
27. That husbandmen ſhould not ſo much regard the ſigne or the ſtars, as the fit ſeaſon of the time for ſeednes. The riſing or fall, the apparition or occultation of planets obſerued in ſome hearbes. Of the riſing and ſetting of ſtars.
28. Of medows: how they are to be repaired and

Chap.
and brought into hart: of sith-stones, hooks, sickles, and sithes: the time of sowing corne, and what fixed starres are of power about that time.
29. Of the seasons and times to be marked as well in summer as winter: what remedy for barraine and leane ground.
30. Of the harueſt: of wheat, of chaffe: how to keepe corne.
31. Of vintage, and autumne, and the constitution thereof.
32. What regard is to be had in the moon and her age, in husbandrie.
33. The consideration of the winds for agricul (ture.
34. The bounds, limits, bawks, and waies, to be obserued in cornefields.
35. Signes whereby a man may prognosticat the disposition of the weather.

In summe, there be contained in this book of notable matters, stories, and obseruations, two thousand and six hundred.

Latine Authors alledged in this booke.

Massurius Sabinus, Cassius Hemina, Verrius Flaccus, L. Piso, Cornelius Celsus, Turannius Graccula, D. Syllanus, M. Varro, Cato Censorius, Scrofa, Sarsennæ both father and sonne, *Domitius Calvinus, Hyginus, Virgill, Trogus, Ouid, Gracinus, Columella, Tubero, L. Aruntius* who wrote in Greeke of Astronomie, and *Cæsar Dictator* who likewise wrote of the same argument, *Sergius Paulus, Sabinus Fabianus, M. Cicero, Calphurnius Bassus, Atteius Capito, Manlius Sura,* and *Actius* who compiled a booke called Praxidica.

Forreine Authours.

Hesiodus, Theophrastus, Aristotle, Democritus, K. *Hiero,* K. *Philometor,* K. *Attalus,* K. *Archelaus, Archytas, Xenophon, Amphilochus* of Athens, *Anaxipolis* of Thasus, *Aristophanes* the Milesian, *Apollodorus* the Lemnian, *Antigonus* the Cymæan, *Agathocles* of Chios *Apollonius* of Pergamus, *Aristander* the Athenian, *Bacchius* the Milesian, *Bion* of Soli, *Chærea* of Athens, *Chæristus* likewise the Athenian, *Diodorus* of Priene, *Dion* of Colophon, *Epigenes* of Rhodes, *Evagoras* the Thasian, *Euphronius* the Athenian, *Andration, Æschrio,* and *Lysimachus,* who wrote all three of Husbandrie, *Dionysius* that translated the works of *Mago,* and *Diophanes* who drew the same into an Epitome, *Thales, Eudoxus, Philippus, Callippus, Dositheus, Permeniscus, Meliton, Criton, Oenopides, Zeno, Euctemon, Harpalus, Hecatæus, Anaximander, Sosigenes, Hipparchus, Aratus, Zoroastres,* and *Archibius.*

¶ THE NINETEENTH BOOKE CONTAINETH a discourse of the nature of Flax, and other wonderfull matters.

Chap.
1. The sowing of Line seed: diuers kinds of flax: how it is dressed: of naperie & napkins: of linnen that will not burne nor consume with fire: and when curtains were deuised at Rome about the theatres.
2. The nature of a kind of broom called Spart, when it came to be vsed first, how it is to be ordered & dressed, what plants both spring and also liue without roots.
3. Of Mysy, and of Mushroms, of Tadstoles or Mushromes that bee broad and without a taile called Pezici, of Laserpitium, and Magydaris, of Maddir, and the Fullers root Radicula, *i.* Sopeweed.
4. The manner of dressing and trimming gardens: also the ordering and due placing of other plants good for to be eaten; ouer and
Chap.
besides corn, and the fruit of trees & shrubs.
5. The nature, the sundry sorts, and the stories of many plants that grow in gardens.
6. Of the roots, leaues, floures, and colours of garden hearbes.
7. How many daies it will be after the seeds of herbes be sowne, or their slips set, ere they come vp: the nature of seeds: how herbes are to be sown or set, and in what course and ranke: which herbes are but one of a kinde, and which they be that haue many kinds.
8. The nature of such garden herbes as are good for the pot, or to make sallads, and to season meat withal; their kinds to the number of 46, with their stories & descriptions.
9. Of Fennell, and Hempe.
10. The diseases and maladies that annoy gardens:

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Chap.
dens, the remedies againſt the ſame: as alſo how to kill ants, caterpillers, and gnats.
21. What ſeeds be more or leſſe able to endure any hardneſſe or injurie, and which they be that ſalt waters are good for.

Chap.
22. The manner of watering gardens: what herbes they be, which beeing tranſplanted and removed, prooue the better: and finally, the juice, the ſweet ſauours, and reliſhnes of garden-herbes.

In ſumme, here are compriſed memorable things, ſtories, and obſeruations, a thouſand one hundred fortie and three.

Latine Authours cited.

M. Actius Plantus, M. Varro, D. Syllanus, Cato Cenſorius, Hyginus, Virgil, Mutianus, Celſus, Columella, Calphurnius Baſſus, Manlius Sura, Sabinus Tyro, Licinius Macer, Q. Hirtius, Vibius Rufus, Ceſennius who wrote Sepurica, [*i.* a treatiſe of Gardening] *Caſtritius* likewiſe, and *Firmius*, (who both twaine made a worke of the ſame matter) and laſt of all *Petreius*.

Forreine Writers.

Herodotus, Theophraſtus, Democritus, Ariſtomachus, Menander, (who wrote a booke intituled Brochreſta, *i.* of things profitable for our life and diet) and *Anaxilaus*.

¶ THE TWENTIETH BOOKE COMPRISETH medicines out of thoſe Simples which are ſet and *ſowed in Gardens.*

Chap.
1. Of the wild Cucumber, and the juice therof Elaterium.
2. Of the Cucumber as wel that which wandereth & groweth abroad called Anguinum, as that of the garden: alſo of the Pompion.
3. Of the wild gourds, and the Rape or Naves.
4. Diuers ſorts of Navewes: of the wild Radiſh, of the garden Radiſh, and the Parſnep or Carot.
5. Of Staphylinum or the tame Parſnip. The herbe Gingidium or Chervill: of Seſelis or Siler-mountaine: of Elecampane, and of Onyons.
6. Of Porret or Leekes vſed to be cut, and of cabbage Leeks or headed, alſo of Garlicke.
7. Of wild Lettuce or Hawke-weed, called alſo Lactuca Caprina, of another kinde named Eſopus, of Woad, & tame garden Lettuce.
8. Diuerſe kindes of Beets, of Endive, and Cichorie, of garden Endiue.
9. Of Cawle or Coleworts, of the wild Coleworts Lapſana, of Soldanella, of Squilla or the Sea-onion, of Scallions or Chibbols, and of Dog-leeks.
10. Of Sparage both tame and wild, of Libycum and Clarie.
11. Of Parſley, of Baulme, Smallage, & mountaine Parſley.
12. Of Aliſanders, and garden Baſill.

Chap.
13. Of wild Baſill, of Rocket, of Creſſes, and Rue.
14. Of wild Mints, of garden Mints, of Peniroyall, of Nep, and Cumin.
15. Of Æthiopian Cumin, which ſtaieth vrine, of Capers, of Lovach, of Panace, of wild Origan or Majoram ſavage.
16. More of wild Oragan and Heracleotica, called alſo Gallinacea Cunila, *i.* Small majoram, Savorie or Orgament, Roſemarie, ſweet Majoram of the garden and of the mountaine.
17. Of Cockweed, Pepperwort, or Dittander, of garden Origan, of a kinde of Orgament called Onitis of Praſon, of Tragoriganum or wild Peniroyall, the water Lillie or Nenuphar, of Lepidium, of Gith or Nigella Romana, and of Aniſe.
18. Of Dill, of Sacopænium, of Sagapen, of Poppies both white and blacke: the manner how to draw the juice of herbes: and of Opium.
19. Of the wild Poppie, of horned Poppie, of Glaucium or Paralium, of Heraclium or Aphrum, of the confection Diacodium made of Poppie heads, of Tythimall.
20. Of Purcellane or Peplium, of Coriander and Orach.
21. Of Mallowes, and Malope, of Althæa or Marſh-

Chap.
Marshmallow, of Dockes, foure Docke or Sorell, the water Docke, the herbe Patience or Bulapathum.
22. Three kindes of Senvie, of Horehound, of running Thyme, of water Mints or Savorie, of Lineseed and Bleets.
Chap.
23. Of Meu, of garden Fennell, of wild Fennell or Myrsineum, of Hempe, of Fennel-geant, of Thystles, and Artichokes.
24. The confection called Triacle, the composition of *Antiochus*.

In summe, there be be comprised in this book of medicines, stories, and obseruations, one hundred sixtie and seven.

Out of Latine Authors.

Cato Censorius, Mar. Varro, Pompeius Lenæus, Gallio, Hyginus, Sextius Niger who wrote in Greeke, and *Iulius Bassus* likewise, who wrote in the same language, *Celsus*, and *Antonius Cæsar*.

Forreine Authours.

Democritus, Theophrastus, Orpheus, Menander who made the booke *Biochresta, Pythagoras*, and *Nicander*.

Out of Physitians.

Nicander, Hippocrates, Chrysippus, Diocles, Ophion, Heraclides, Hicesius, Dionysius, Apollodorus of Tarentum, *Apollodorus* the Citien, *Praxogoras, Philistonicus, Medius, Dienches, Cleophantus, Philistio, Asclepiades, Cratevas, Petronius, Diodorus, Iolla, Erasistratus, Diagoras, Andreas, Menesicles, Epicharmus, Damion, Dalion, Sosimenes, Theopolemus, Metrodorus, Solon, Lycus, * Olympiades* of Thebes, *Phyllinus, Petreius, Miction, Glaucia* and *Xenocrates*.

* A woman who was a Midwife.

¶ IN THE XXI. BOOKE ARE CONTAINED the natures of Floures and Hearbs to make *Guirlands of*.

Chap.
1. The nature of floures and herbes that serve for Chaplets, the wonderfull varietie of floures.
2. Of Chaplets and nosegaies of floures. Who first deuised to set floures in order one with another. When Coronets or Guirlands of floures were inuented and took their name, and vpon what occasion.
3. Who first gaue a present of a Chaplet garnished with siluer and gold foile. In what honor and estimation such Guirlands were in old time. The honour done of old to *Scipio*. Of Coronets or Chaplets platted, wrythed, and braided. Also of a notable act of queen *Cleopatra* in making of Chaplets.
4. Of Roses set in guirlands. Diuerse sorts of Roses, and where they be set and doe grow.
5. Three kinds of Lillies. The strange manner of setting them.
6. Of Violets, Marigolds, of Baccharis, Combretum, Asarabacca or Folefoot, and Saffron.
7. Of the floures vsed in antient time in Guirlands & Chaplets. The great diuersity that is in aromaticall and odoriferous simples: of Lavander, Spike, and Polium.
8. The colours of cloth resembling floures. Of floure-Gentle or Passee-velours: of Chrysocome or Chrysites.
9. The honor done by Guirlands, and their excellencie: of Cyclaminum, of Melilot, of Claver or Trefoile, whereof there bee three sorts.
10. Of Origan, Thyme, Honey of Athens, of Doniza or Fleabane, of Iupiters floure, of Helenium or Elecampane, of Sothernwood, and Camomile.
11. Of Majoran, of Nyctigretum and Melilote, the white Violet or stocke Gillofre, of Codiaminum, also of wild bulbs or Rampions, of Heliochrysum, & Lychnis or Rose Campion, and many other herbes growing on this side the sea.
12. The manner how to nourish and keepe Bees: of their maladies and remedies thereto.

13. Of

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Chap.
13. Of Honey that is venomous, remedies againſt ſuch venomous Honey, as alſo againſt another kind thereof, which maketh folke to be mad that taſte thereof.
14. Of a certain Hony that flies will not touch nor come neare to. Of Bee-hiues. The way how to keepe the Bees when they are at a fault for meat: and how their Wax is made.
15. Of herbes good to eat which come vp of their owne accord, and namely, thoſe that are prickie.
16. Of Thyſtles, of Parietarie of the wall, of Brambles and Orchanet.
17. The difference of many ſorts of herbes in their leafe. Which they be that doe floure all the yeere long, of the Daffodill, of Liſtana, and of the Gladen or Sword-graſſe.
18. Of diuers ſorts of Reeds, and of Cyperus, of the medicinable vertues which they haue, of Cypirus, and Squinanth.
19. The medicinable vertues of Roſes, of the Lillie, of Narciſſus, of the Violet, and of Baccharis or Ladies gloues, of Combretum and Aſarabacca.
20. Of Nard Celticke and Saffron, the vertues thereof and vſe in Phyſicke, of the ſweet ointment Crocomagma made of Saffron,

Chap.
of Spike or Lauender, of Polium, and Flour de lis, of Heliochryſum, Chryſocome, and Melilot.
21. Of ſweet Trifolie, of Thyme, the wild yellow Lillie Hemerocallis or the day-floure, of Elecampane and Sothernwood.
22. the medicinable vertues of Camomile and Marjoram.
23. The vertues of Corne Roſe or Paſſe-flours Anemone.
24. The properties medicinable of Filipendula.
25. The vertues of Heliochryſum.
26. The medicines of Crowtoes.
27. The vertues of the Perywinckle, Butchers broome, of Sampier, and wild Baſill.
28. The medicinable vertues of Colocaſia, or the Ægyptian Beane.
29. The properties of Anthalium.
30. The vertues of Fewerfue.
31. The vertues of Night-ſhade or Petie Morell, and Alkakengi.
32. Of Corchorus, *i.* Chickeweed, and of Cnicus, *i.* Carthanus or baſtard Saffron.
33. Of the herbe Perſoluta.
34. Of the weights and meaſures vſed in old time.

In ſumme, there be in this booke to be found medicines, ſtories, and worthy obſeruations, ſeuen hundred and thirtie.

Latine Authours alledged.

Cato Cenſorius, M. Varro, Maſſurius, Antias, C. Helius, Veſtimus, Vibius, Ruffinus, Hyginus, Pomponius Mela, Pompeius Lenæus, Cornelius Celſus, Calphurnius Baſſus, P. Largius, Licinius Macer, Sextius, and *Iulius Baſſus,* who both wrote in Greeke, and *Antonius Caſtor.*

Forreine Writers.

Theophraſtus, Democritus, Orpheus, Pythagoras, Mago, Menander who wrote the Treatiſe Biochreſta, *Nicander, Homer, Heſiodus, Muſæus, Sophocles,* and *Anaxilaus.*

Phyſicians.

Mneſtheus and *Callimachus,* who wrote both of Guirlands made of floures, *Phanias* the naturall Philoſopher or Phyſician, *Simus, Timariſtus, Hippocrates, Chryſippus, Diocles, Ophion, Heraclides, Hiceſias, Dionyſius, Apollodorus* of Citia, *Apollodorus* of Tarentum, *Praxagoras, Pliſtonicus* the Phyſician, *Dieuches, Cleophantus, Philiſtio, Aſclepiades, Cratevas, Petronius, Diodotus, Iolla, Eraſiſtratus, Diagoras, Andreas, Mneſicles, Epicharmus, Damion, Dalion, Xoſimenes, Theopolemus, Metrodorus, Solon, Lycus, Olympias* the midwife of Thebes, *Phillinus, Petreius, Miction, Glaucias,* and *Xenocrates.*

¶ IN THE XXII. BOOKE ARE CONTAINED discourses as touching the estimation of Herbes.

Chap.

1. Of certaine nations that vse herbes to beautifie their bodies.
2. Of clothes died with the juice of herbes.
3. Of the Chaplet made of the common medow grasse.
4. How rare these Guirlands of grasse were.
5. Which were the only men that had the honour to be crowned with the sad Chaplets.
6. The onely Centurion allowed to weare the said Guirlands.
7. Medicinable vertues obserued in the rest of herbes and floures that serue for Guirlands, and first of Eringe or sea Holly.
8. Of the Thystle or hearbe which they call Centum-capita.
9. Of Acanus and Liquerice.
10. Of Brambles or Thystles called Tribuli, their kinds and vertues.
11. The vertues and properties of the hearbe Stœbe.
12. Of Hippophyes, and of Hippope, *i.* the Tazill, and their properties.
13. Of the Nettle and the medicinable vertues of it.
14. Of the white dead Nettle or Archangell Lamium, and the vertues of it.
15. Of the hearbe Scorpius or Caterpillers, the kinds and vertues thereof.
16. Of Leucacantha or our ladies Thystle, and the vertues of it.
17. Of Parietarie of the wall called Helxine or Perdicum, of Feuerfew or Motherwort, Parthenium, of Sideritis, *i.* wall Sauge or stone Sauge, and the vertues thereof good for Physicke.
18. Of Chamæleon, the sundry sorts and properties that it hath.
19. Of Coronopus, *i.* Crow-foot Plantaine or Buckhorn Plantain, and the vertues therof.
20. Of Orchanet, as well the right as the bastard, and the vertues of them both.
21. Another kind of Orchanet called Onochelis, of Camomile, of the hearbe Lotus or common Melilot, of Lotometra, which is a kind of garden Lotus or sallade Clauer, of Heliotropia, *i.* Turnsoll or Solcium, and Tricoccum, a kind thereof, of Maiden haire called Adiantum and Callitricum.
22. Of bitter Lectuce or wild Cichorie, of Thesium, of Daffodill, of Halimus, of Brankursine, of Bupreſtis, of Elaphoboscum or Gratia Dei, of Scandix, *i.* wild Cheruill or shepheards needle, of the wild wort Iasione, of bastard Persly, Caucalis, of Lauer, or Sillybum, of Scolimus, *i.* the Artichoke or Limonia, of Sowthystle, of Chondrilla, and of Mushromes.
23. Of Toadstools, of Silphium, & of Laserjuice
24. The nature of Hony, of Mead or Hydromel: how it commeth that the fashions are changed in certaine kinds of meat, of honied wine, of wax. A discourse against the composition of many simples.
25. The medicinable vertues of corne.

In summe, here you shall find of medicines, stories, and obseruations, 906, gathered out of

The same Authours which were named in this booke before, and besides out of *Chrysermus*, *Eratosthenes*, and *Alcæus*.

¶ IN THE XXIII. BOOKE IS CONTAINED a Treatise of Hort-yard trees.

Chap.

1. The medicinable qualities of grapes fresh and new gathered, of Vine cuttings and of grape kernils, of the grape Theriace, or Treacle Grape, of dried Grapes or Raisins, of Astaphus, of Staueſacre, called also Pituitaria, of the wild Vine, of the white Vine which is called Bryonie, of the blacke Vine, of new wines, of diuerse and sundry sorts of wines, and also of vinegre.

2. Of

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Chap.
2. Of the medicinable vertues of vinegre Sqilliticke, of Oxymell or honied vinegre, of cuit, of the dregs or lees of wine, vinegre, and cuit.
3. The vertue of Oliues, of the leaues of the Oliue, of the floure and aſhes of the Oliue, of the white and blacke fruit of the Oliue: alſo of the dregs or grounds of oile.
4. Medicinable properties obſerued in the leaues of the wild Oliue, of the oile made of the wild vine floures, of the oile Cicinum, the oiles of Almonds, Baies, and Myrtles, the oile of Chamamyrſine or grand Myrtle, alſo of Cypreſſe, of Cytrons, &c walnuts, &c.
5. The Ægyptian Palmetree that beareth Ben, alſo of the Date tree called Elate, and the vertues of them.
6. The medicinable vertues of ſundry plants, namely, in their floure, leafe, fruit, boughs, barke, wood, juice, root, and aſhes.
7. Of peares, and the obſeruations to them belonging, of Figges both wild and ſauage: of Erineum, and other ſorts of plants, with their vertues.
8. Of Pine-nuts, and Almonds, of the Filbard and Walnut, of Fiſtickes and Cheſtnuts, of Charobs, Corneiles, Strawberrie trees, and Baies.
9. Of the Myrtle gentle, of Myrtidanum, and the wild Myrtle.

In ſumme, there be noted in this booke medicines, ſtories, and obſeruations, a thouſand foure hundred and nineteene.

Latine Authours cited.

C. Volgius, Pompeius Lenæus, Sextius Niger, and *Iulius Baſſus*, who wrote both in Greeke, *Antonius Caſtor, M. Varro, Cornelius Celſus*, and *Fabianus*.

Forreine Writers.

Theophraſtus, Democritus, Orpheus, Pythagoras, Mago, Menander the author of the booke Biochreſta, *Nicander, Homer, Heſiodus, Muſæus*, and *Anaxilaus*.

Phyſicians.

Mneſtheus, Callimachus, Phanias the naturall Philoſopher, *Simus, Tamariſtus, Hippocrates, Chryſippus, Diocles, Ophion, Heraclides, Hicelius, Dionyſius, Apollodorus* of Cittia, *Apollodorus* the Tarentine, *Praxagoras, Pliſtonicus, Medius, Dieuches, Cleophantus, Philiſtio, Aſclepiades, Cratevas, Petronius, Diodotus, Iolla, Eraſiſtratus, Diagoras, Andreas, Mneſicles, Epicharmus, Damion, Dalion, Soſimenes, Theopolemus, Metrodorus, Solon, Lycus, Olympias* the midwife of Thebes, *Phyllinus, Petreius, Miction, Glaucia*, and *Xenocrates*,

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THE XXIIII. BOOKE TREATETH OF Trees growing wilde.

Chap.
1. Medicinable vertues obſerued in wild trees.
2. The Ægyptian Beane tree, Lotus.
3. Maſt and Acornes.
4. The grain or berrie of the tree Ilex, of Gals, of Miſſelto, of little bals and maſt of trees, the root of Cirrus, and of Corke.
5. Of the Beech, the Cypreſſe tree, the tall Cedar, the fruit or berry therof, and of Galbanum.
6. Of Ammoniacum, Storax, Spondylium, Spagnus, the Terebinth tree, of Chamæpitys or Iva Muſcata, of Eſula or Pityuſa, of Roſins, of the Pitch-tree and the Lentiske.
7. Of ſtiffe Pitch, of Tarre, of Pitch twice boyled, of Piſſaſphalt, of Sopiſſa, of the Torch tree and Lentiske.
8. The vertues of the Plane tree, the Aſh, the Maple, the Aſpe, the Elme, the Linden tree or Teil, the Elder, and Iuniper.
9. Of the Willow, the Sallow Amerina, and ſuch like, good for windings and bands, alſo of Heath or Ling.
10. Of Virga Sanguinea, of the Oiſier, of the Priuet, the Aller, of Yvie, of Ciſtus or Ciſſus, of Erythranum, of ground Yvie or Alehouſe, of Withwind, of Perwinke or Leſſeron.
11. Of

Chap.

11. Of Reeds, of Paper cane, of Ebene, of Oleander, of Rhus or Sumach, of Madder, of Alysium, of Sopeweed, of Apaynum, of Rosemarie and the seed thereof, of Selago, of Samulus, of Gums, and the medicinable vertues of them all.

12. Of the Arabian thorne or thistle, of Bedegnar, of Acanthium and Acacia.

13. Of the common and wild thistle, of Erysisceptrum, of the thorne or thystle Appendix, of Pyxacanthum or the Barbarie tree: of Paliurus, of the Holly, of the Eugh tree and other bushes, with their vertues in Physicke.

14. Of the sweet Brier or Eglantine, of the Respice bush, of the white bramble Rhamnus, of Lycium, of Sarcocolla, of the composition named Oporice, and all their medicines.

15. Of Germander, of Perwinke or Lowrie, of Chamæ lea or Oliuell, of Chamæsyce, of ground yvie, of Lauander Cotton, of Ampelopraſos or Vine Porret, of Stachys or wild Sauge, of Clinopodium or Horsetime, of Cudweed, of Perwinke of Ægypt, and their properties.

16. Of Wake-Robin, of Dragonwort or Serpentine of the garden, the greater Dragonwort, of Arisaron, of yarrow, and Millefoile: of bastard Nauew, of Myrrhis, and Onobrychis, with their vertues.

17. Of Coriacesia, Callicia, and Menais, with three and twentie other hearbes, and their properties, which are held by some to serue in Magick. Of Considia and Aproxis: with others that reduce and reuiue loue againe.

18. Of Eriphia, Lanaria, and water Yarrow, with their vertues.

19. Of the herbes that growe vpon the head of statues and Images, of the hearbes that come out of riuers, of the herbe called Lingua simply, *i.* the tongue: of herbes growing within sieues, and vpon dnnghils, of Rhodora, of the herbe Impia, *i.* the child before the parents, of the herbe Pecten veneris, of Nodia, of Cleiuers or Goose Erith, of Burs, of Tordile, of Dent de chien or Quiches, of Dactylus and Fenigreek, with their vertues.

In summe, herein are compriſed medicines, stories, and obseruations, a thousand foure hundred and eighteene: collected out of

Latine Authors.

C. Volgius, Pompeius Lenæus, Sextius Niger, and *Iulius Bassus*, who wrate both in Greeke; *Antonius Castor, M. Varro, Cornelius Celsus*, and *Fabius*.

Forreine Writers.

Theophrastus, Apollodorus, Democritus, Orpheus, Pythagoras, Mago, Menander the author of the booke Biochresta, *Nicander, Homer, Hesiodus, Museus, Sophocles*, and *Anaxilaus*.

Physitians.

Mnestheus, Callimachus, Phanias the naturall Philosopher, *Simo, Timaristus, Hippocrates, Chrysippus, Diocles, Ophion, Heraclides, Hicesius, Dionysius, Apollodorus* of Cittia, *Apollodorus* the Tarentine, *Praxagoras, Plistonicus, Medius, Dieuchus, Cleophantus, Philistio, Asclepiades, Cratevas, Petronius Diodotus, Iolla, Erasistratus, Diagoras, Andreas, Mnesicles, Epicharmus, Damion, Sosimenes, Theopolemus, Solon, Lycus, Metrodorus, Olympias* the Midwife of Thebes, *Phyllinus, Petreius, Miction, Glaucia*, and *Xenocrates*.

¶ IN THE XXV. BOOKE ARE CONTAINED the natures of hearbes and weeds that come vp of themselues. The reputation that hearbes haue been of. When *they began first to be vsed.*

Chap.

1. The properties and natures of wild herbes growing of their owne accord.

2. What Authours haue written in Latine of the nature and vse of hearbes. When the knowledge of simples began first to be practised at Rome. What Greeke Authours first

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Chap.
firſt wrote of herbes, the inuention and finding out of ſundry hearbes, the Phyſicke of old time. What is the cauſe that Simples are not ſo much in requeſt and vſe for Phyſicke as in old time. The medicinable vertues of the Eglantine and Serpentary or Dragon.

3. Of a certaine venomous fountaine in Almaine, the vertues and properties of the herbe Britannica, what diſeaſes cauſe the greateſt paines.

4. Of Moly, of Dodecatheos, of Pæonium, named otherwiſe Pentorobus, and Glycyſide, of Panace or Aſclepios, of Heraclium, of Panace Chironeum, of Panace Centaureum or Pharnaceum, of Heraclium Siderium, of Henbane.

5. Of the herbe Mercurie female, of Parthenium, of Hermu-Pœa, or rather Mercurie: of Yarow, of Panace Heracleum, of Sideritis, of Milleſoile, of Scopa regio, of Hemionium, Teucrium, Splenium, Melampodium or blacke Ellebore, and how many kinds there be of them. The medicinable vertues of blacke and white Ellebore: when Ellebore is to be giuen, how it is to be taken, to whom it is not to be giuen, alſo that it killeth Mice and Rats.

6. Of Mithridatium, of Scordotis or Scordium, of Polemonia, otherwiſe called Philetæria or Chiliodynama, of Eupatorie or Agrimonie, of great Centaurie otherwiſe called Chironium, of the leſſe Centaurie or Libadium, called Fel Terræ, *i.* the gall of the Earth. Of Triorches, and their vertues.

7. Of Clymenus, Gentian, Lyſimachia and Parthenius or Motherwort, Mugwort, Ambroſe, Nenuphar, Heraclium, and Euphorbia, with all their vertues medicinable.

Chap.

8. Of Plantaine, Bugloſſe, Hounds tongue, Oxe-eye or May weed, of Scythica, Hippice and Iſchæmon, of Betonie, Cantabrica, Settarwort, of Dittander or Hiberis, of Celendine the greater, Celendine the leſſe or Pilewort, of Canaria, of Elaphoboſcos, of Dictamnum, of Ariſtolochia or Hartwort, how fiſhes will come to it for loue of bait, and ſo are ſoone caught. The counterpoyſons againſt ſtinging of ſerpents, by theſe herbes abouenamed.

9. Of Argemonia, of Agaricke, Echium, Henbane, Vervaine, Blattaria, Lemonia, Cinquefoile, Carot, Perſalata, the Clot Burre, Swines bread or Cyclaminus, Harſtrang: all very good for the ſting of ſerpents.

10. Of Danewort or Walwort, of Mullin, of Thelyphonon. Remedies againſt the ſting of Scorpions, the biting of Toades and mad Dogs, and generally againſt all poyſons.

11. Receits and remedies againſt head-ach and diſeaſes of the head.

12. Of Centaurie, Celendine, Panace, and Henbane, and Euphorbium, all ſoueraigne medicines for the eies.

13. Of Pimpernell or Corchorus, of Mandragoras or Circeium, of Henbane, of Crethmoagrion, of Molybdæna, of Fumiterre, of Galengale, of Floure de lis, of Cotyledon, or Vmbilicus Veneris, of Houſleeke or Sengreene, of Pourcellane, of Groundſwell, of Ephemerum, of great Tazill, of Crow-foot: which affourd medicines againſt the infirmities and diſeaſes of the eyes, eares, noſthrils, teeth, and mouth.

In ſumme, this Booke doth yeeld of medicines, ſtories, and obſeruations, a thouſand two hundred ninetie and two.

Latine Authours cited.

M. Varro, C. Volgius, Pompeius Lenæus, Sextius Niger, and *Iulius Baſſus*, who both wrote in Greeke, *Antonius Caſtor*, and *Cornelius Celſus*.

Forreine Writers.

Theophraſtus, Apollodorus, Democritus, king *Iuba, Orpheus, Pythagoras, Mago, Menander* who wrote Biochreſta, *Nicander, Homer, Heſiodus, Muſæus, Sophocles, Xanthus*, and *Anaxilaus*.

Phyſitians.

Mneſtheus, Callimachus, Phanias the naturall Philoſopher, *Timariſtus, Simus, Hippocrates, Chryſippus, Diocles, Ophion, Heraclides, Hiceſius, Dionyſius, Apollodorus* the Tarentine, *Praxagoras*,

Pliſtonicus, Medius, Dieuches, Cleophantus, Philiſtio, Aſclepiades, Crateuas, Iolla, Eraſiſtratus, Diagoras, Andreas, Mneſicles, Epicharmus, Damion, Theopolemus, Metrodorus, Solon, Lycus, Olympias the mid-wife of Thebes, *Phyllinus, Petreius, Miction, Glaucias* and *Xenocrates.*

¶ IN THE XXVI. BOOKE ARE CONTAINED the medicines for the parts *of mans bodie.*

Chap.

1. Of new maladies, and namely of Lichenes, what they be, and when they began to raign in Italie firſt. Of the Carbuncle, of the white Morphew or Leproſie called Elephantiaſis, and of the Collicke.
2. The praiſe of *Hippocrates.*
3. Of the new practiſe in Phyſicke, of the Phyſician *Aſclepiades*, and by what meanes hee aboliſhed the old manner of practiſe, and ſet vp a new.
4. The ſuperſtitious follie of Magicke is derided. Alſo a diſcourſe touching the foule tettar called Lichenes, the remedie thereof: and alſo the infirmities of the throat and chawes.
5. Receits and remedies againſt the kings euil: alſo for the diſeaſes of the fingers and the breaſt, and againſt the Cough.
6. Of Mullin, of Cacalia, Tuſſilage or Fole-foot, of Bechium, and Sauge, all herbes for to cure the cough.
7. For the paines of the ſides and chiſt, for the difficultie of breath, and thoſe that cannot take wind but ſitting or ſtanding vpright, for the pains of the liuer and the heart-ach, medicines appropriat to the lungs, difficultie of vrine, and the cough, for the breaſt, for inward vlcers, for the kidnies and imbecilitie of the liuer, to ſtay vomit and yexing, alſo for the pleuriſie and diſeaſe of the ſides and flankes.
8. Of all diſeaſes of the bellie and the parts either within it or neare vnto it. How to ſtay the flux thereof, or to make it looſe and ſoluble.
9. Of Peniroiall and Argemone.
10. Of water Lillie or Nenuphar, of abſtinence from *Venus*, of prouocation to fleſhly luſt, of Ragwort or Satyrium, called Erythraicum, of Crategis and Syderitis.
11. Generall remedies for infirmities of the feet, anckles, joints, and ſinewes. Remedies againſt diſeaſes that hold and poſſeſſe the whole bodie. Of Mirthryda. Medicines and meanes to procure ſleepe: againſt the palſie, agues with cold fits, feauers or agues incident vnto labouring Horſes, Aſſes, and Mules: againſt frantick perſons. Of the herbe Chamæacta, of Houſleeke or ſtone-crop, and Pricke-madame, of S. *Antonies* fire.
12. Remedies againſt diſlocations in the joints, againſt the yellow jaundiſe, fellons, fiſtulaes, ſwelling of ventoſitie, burnes, ſcalds, and other diſeaſes, for ſinewes, and to ſtanch bloud.
13. Of the herb called Horſe-taile, Nenuphar, Harſtrange, Syderitis, of many other remedies good to reſtraine the flux of bloud: of Stephanomelis and Eriſithale, remedies againſt the wormes.
14. For vlcers, old ſores, and greene wounds: to take away werts, and of the herbe Polycnemon.
15. Many good experiments either for to prouoke or to ſtay the flux of womens months: ſoueraigne remedies for the diſeaſes of the matrice: alſo to caſt forth the fruit within the wombe, or to containe it the full time, for to take away the blemiſhes and ſpots in the skin, and namely of the face, to colour the haire, to cauſe the haire to fall, alſo againſt the ſcab or maunge of foure-footed beaſts.

In ſumme, this booke leadeth you to medicines, ſtories and obſeruations, a thouſand two hundred ninetie and two: collected out of

Latine Authours.

M. Varro, C. Volgius, Pompeius Lenæus, Sextius Niger, and *Iulius Baſſus*, who writ both in Greeke, *Antonius Caſtor*, and *Cornelius Celſus.*

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Forreine Writers.

Theophraſtus, *Apollodorus*, *Democritus*, *Iuba*, *Orpheus*, *Pythagoras*, *Mago*, *Menander* the author of Biochreſta, *Nicander*, *Homer*, *Heſiodus*, *Muſæus*, *Sophocles*, *Xanthus* and *Anaxilaus*.

Phyſicians.

Mneſtheus, *Callimachus* the profeſſour of Phyſicke, *Timariſtus*, *Simus*, *Hippocrates*, *Chryſippus*, *Diocles*, *Ophion*, *Heraclides*, *Aiceſius*, *Dionyſius*, *Apollodorus* the Tarentine, *Praxagoras*, *Pliſtonicus*, *Medius*, *Dieuchus*, *Cleophantus*, *Philiſtio*, *Aſclepiades*, *Crateuas*, *Iolla*, *Eraſiſtratus*, *Diagoras*, *Andreas*, *Mneſicles*, *Epicharmus*, *Damion*, *Theopolemus*, *Metrodorus*, *Solon*, *Lycus*, *Olympias* the Midwife of Thebes, *Phyllinus*, *Petreius*, *Miction*, *Glaucias* and *Xenocrates*.

¶ THE XXVII. BOOKE COMPREHENDETH all other ſorts of herbes.

Chap.

1. The reſt of Herbes.
2. Of Aconitum, and how this herbe killeth Leopards or Panthers.
3. That God is the Creator of all things.
4. Of the hearbe Æthiopis, Ageratum, Aloe, Alcea, Alypum, Alſine, Androſacum, Androcæmon, Ambrocia, Reſtharrow, Anagyron, and Anonymon.
5. Of the great Burre, Of Cliuers or Gooſe graſſe, Aſplenum, Aſclepias, or Swallowwort, Aſter or Bubonium, Aſcyrum or Aſcyroeides, Aphace, Alcibium, and Cockes combe.
6. Of Alus.
7. Of ſea Weeds or Reits, of Elder, wild Vine, and Wormewood.
8. Of Ballote or ſtinking Horehound, of Botrys or Oke of Ieruſalem, of Brabyla, of Bryon or Corallina, of Bupleuron, and Catanance, of Calla, Cerceia, Cirſium and Cratægonum, Thelygonum, Crocodilium, Dogs ſtone, Chryſolachanum, Cucubalum, and Conſerua or the riuer Spunge.
9. Of the graine called Coccos, Gnidia, of Tazill, of Oke fearne, of Dryophonum, of Elatine, of Empetrum or Perce-Pierre, of Epipactus or Elleborius, of Epimedum, Enneaphyllon, *i.* the nine leafed herbe, of Oſmund or fearne, of Fenmur Bubulum, *i.* Ox thigh, of Galeopſis or Galeobdolon, of Glaux or Eugalactum.
10. Of Glaucium, of Pæonie, Cudweed or Chamæzelum, of Galedragum, Holcos, Hyoſiris, Holoſteum, and Hypophæſtum.
11. Of Hypogloſſa, and Hypecoon, Idæa, Iſopyron, Spurge, Pat-delion, Lycopſis, Greimile, &c.
12. Of Medium, Mouſe-eare, Myagros, an herb called Natrix, Othone, Onoſma, Onopordos, Toads flax, Woodſoure or Alleluiah, Crowfoot, Knotgraſſe, Camomile, Phyteuma, Phyllon, Phellandrion, Phalaris, Polyrrhizon, Proſerpinaca or Knotgraſſe, Rhacoma, Reſeda, and Stœchas.
13. Of Nightſhade and Dwale, of Smyrnium, Orpinum, Trichomanes, Thalietrum, Thlaſpi, Tragonias, Tragonis and Tragopogos, the ſerpent Spondylis. To conclude, that ſome diſeaſes and venomous things be not in all countries.

In ſumme, herein are comprehended medicines, ſtories, and notable obſeruations, 702.

Latine Authours cited.

Pompeius Lenæus, *Sextius Niger*, and *Iulius Baſſus*, who wrate both in Greeke, *Antonius Caſtor* and *Cornelius Celſus*.

Greeke Writers.

Theophraſtus, *Apollodorus Cittienſis*, *Democritus*, *Ariſtogiton*, *Orpheus*, *Pythagoras*, *Mago*, *Menander* that wrote the Treatiſe Biochreſta, and *Nicander*.

Phyſicians.

Mneſtheus and his fellowes, as they went in the former booke.

¶ IN

¶ IN THE XXVIII. BOOKE ARE COMPREhended the medicinable vertues from *liuing creature*.

Chap.

1. The medicines and vertues obſerued in liuing creatures.
2. Whether charmes and bare words or characters auaile ought in Phyſicke. The prodigious tokens and preſages may take effect in ſome, and may be auerted and made fruſtrate by others.
3. Remedies euen in the bodies of men againſt enchauntments and Magicke.
4. Of certaine ſorceries, alſo the vertue of a mans ſpittle.
5. The regard of diet for a mans health.
6. of ſneeſing, the moderation to bee vſed in the act of *Venus* or companie with a woman, of other preſeruatiues of health.
7. What remedies and medicines a womans mans bodie doth affourd.
8. The medicinable properties in certaine ſtrange beaſts, namely, the Elephant, Lion, Cammell, Hyæna, Crocodile, Chamæleon, Skinke, Riuer-horſe, and Once.
9. The medicines which we haue from the bodies of wild beaſts and tame of the ſame kind. The vertue of milk, butter, and cheeſe, the obſeruations thereto belonging: alſo of fat or greaſe.
10. Remedies receiued from Bores and Swine, from Goats and wild Horſes: alſo from other beaſts, ſeruiug to cure all manner of diſeaſes.
11. Other remedies for many kinds of maladies, taken from liuing creatures.
12. For the ſpots and wems in the viſage: for the infirmities of the necke and of the breaſt.
13. Againſt the diſeaſes of the ſtomacke, loines, and reines.
14. To ſtay a laske, againſt the looſeneſſe of the ſtomacke, to cure the bloudie flix: the inflations of the bellie, ruptures, the prouocation to the ſeege without effect, the broad flat long wormes in the bellie, and the collicke.
15. Againſt the torments and paines in the bladder, againſt the ſtone, the infirmities in the priuie parts of man or woman: as alſo in the fundament, and the twiſt or groine, and the cure thereof.
16. For the gout, the falling euill, for thoſe that bee blaſted or ſtrucken with a planet, and bones broken.
17. Againſt Melancholie, and thoſe whoſe braines bee troubled with fanſies, the lethargie, dropſie, wild fire or tetter, and the paines or ach of the ſinewes, apt remedies.
18. To ſtaunch bloud, to cure vlcers or old ſores, cankers and ſcabs.
19. Medicines appropriat to womens diſeaſes.
20. Strange and wondrous things obſerued in ſundry beaſts.

In ſumme, here be reported medicines, ſtories, and obſeruations, to the number of a hundred eightie and fiue.

Latine Authours alledged.

M. Varro, L. Piſo, Fabianus, Verres, Antias, Verrius Flaccus, Cato Cenſorius, Seruius Sulpitius, Licinius Macer, Celſus, Maſſurius, Sextius Niger who wrate in Greeke, *Bythus* the Dyrrhachian, *Ophilius* the Phyſitian, and *Granius* the Phyſitian.

Forreine Writers.

Democritus, Apollodorus who wrate a book entituled Myrſis, *Miletus, Artemon, Sextilius, Antæus, Homer, Theophraſtus, Lyſimachus, Attalus, Xenocrates* who wrote a booke called Diophros, and *Archelaus* likewiſe that wrote ſuch another, *Demetrius, Sotira, Elephantis, Salpe*, and *Olympias* of Thebes, fiue women and midwiues, *Diotimus, Iolla, Miction* of Smyrna, *Æſchines* the Phyſician, *Hippocrates, Ariſtotle, Metrodorus, Icacidas* the Phyſitian, *Heſiodus, Dialcon, Cæcilius, Bion* the authour of the booke Peri Dynamæan, *Anaxilaus*, and king *Iuba*.

¶ IN

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¶ IN THE XXIX BOOKE ARE CONTAINED medicines from other liuing creatures.

Chap.
1. The firſt beginning and originall of the Art of Phyſicke: when Phyſicians began firſt to viſit Patients lying ſicke in their beds: the firſt Phyſitians that practiſed the cure of ſick perſons, by frictions, ointments, baths, hot-houſes, &c. Of *Chryſippus* and *Eraſiſtratus* their courſe and manner of practiſe: of Empiricke Phyſicke: of *Herophilus* and other famous Phyſitians: how often the Art and ſtate of Phyſicke hath altered: the firſt profeſſed Phyſician at Rome; when it was that hee practiſed: what opinion the ancient Romans had of Phyſicians: finally the imperfection and faults in that Art.
2. The medicinable vertues and properties obſerued in wooll.
3. The nature of eggs, and the vertues thereof good in Phyſicke.
4. Remedies in Phyſicke receiued from doggs and other creatures that are not tame but wild: alſo from foules: and namely againſt the ſtings of the venomous ſpiders Phalangia.
5. Of the Oſtrich greace, and the vertues thereof: of a mad dog: alſo remedies had from him, a lizard, geeſe, doues, and weaſils.
6. Medicines againſt the falling of the haire, and to make it grow againe: to kill nits: to recouer the haire of the eye-lids: to cure the dimneſſe and redneſſe, and generally all diſeaſes and accidents of the eyes, as alſo the ſwellings and inflammations in the kernils vnder the eares.

In ſum, there be medicines and other things worth obſeruation in this booke, to the number of fiue hundred twentie and one.

Latine Authors alledged.

M. Varro, L. Piſo, Verrius Flaccus, Antias, Nigidius, Caſſius Hemina, Cicero, Plautus, Celſus, Sextius Niger who wrote in Greeke, *Cæcilius* the Phyſician, *Metellus Scipio, Ovid* the Poet, and *Licinius Macer*.

Forteine Authours.

Philopater, Homerus, Ariſtotle, Orpheus Democritus, Anaxilaus.

Phyſitians.

Botrys, Apollodorus, Archidemus, Anaxilaus, Ariſton, Xenocrates, Diodorus, Chryſippus the Philoſopher, *Horus, Nicander, Apollonius* of Pytane.

¶ IN THE XXX. BOOKE ARE CONTAINED. medicines for liuing creatures, ſuch as were not obſerued *in the former Booke.*

Chap.
1. The beginning of the black Science & Art magicke, when it began, who practiſed it firſt, and who were they that brought it into requeſt and reputation. Alſo the reſt of the medicines taken from beaſts.
2. Sundrie kinds of Magicke: the execrable and curſed parts plaid by *Nero*, and of Magicians.
3. Of Wants or Mouldwarps: of liuing creatures as well tame as ſauage which affourd remedies, and thoſe are digeſted in order according to the diſeaſes.
4. How to make the breath ſweet: againſt mols and ſpots disfiguring the face: remedies for to cure the diſeaſes of the throat and chaws.
5. Againſt the Kings euill, and namely when the ſwelling is broken and doth run: to eaſe the pain of the ſhoulders, the heart and the parts about it.
6. For

Chap.
6. For the diseases of the lungs and liver: also to cure the casting and reiection of bloud vpward.
7. Remedies for the bloudie flix, and generally for all diseases of the bellie and the guts.
8. For the gravell and stone, for paines of the bladder, for swelling of the stones and the groine, of apostems or swellings in the kirnels and emunctories.
9. Against the gout of the feet and paines of other ioynts.
10. Remedies against many diseases that hold the whole bodie.
11. Against the jaundise, the phrensie, fevers, and dropsie.
12. Against the wild fire, carbuncles, fellons or vncoms, burnes, scaldings, and shrinking of the sinews.
13. To staunch bloud, to allay swellings in wounds: also to cure vlcers, greene wounds, and other maladies, diverse remedies, all taken from liuing creatures.
14. To cure womens secret maladies, and to helpe conception.
15. Many receits and remedies huddled together one with another.
16. Certaine miraculous things obserued in beasts.

In summe, this booke sheweth vnto vs medicines and memorable obseruations 54.

Latine Authors cited.

M. Varro, Nigidius, M. Cicero, Sextius Niger who wrate in Greeke, and *Licinius Macer.*

Forreine Writers.

Eudoxus, Aristotle, Hermippus, Homer, Apion, Orpheus, Democritus, and *Anaxilaus.*

Physicians.

Botrys, Horus, Apollidorus, Menander, Archimedes, Ariston, Xenocrates, Diodorus, Chrysippus, Nicander, Apollonius, Pitanæus.

¶ THE XXXI. BOOKE SHEWETH MEDICINES gathered from fishes and water creatures: also it deliuereth vnto vs strange *and wonderfull things as touching the Waters.*

Chap.
1. Admirable matter obserued in the waters.
2. The difference of waters.
3. The nature and qualitie of waters: how to know good and wholesome waters from them that be naught.
4. The reason of some waters, that spring on a suddain, & so likewise cease and giue ouer.
5. Many historicall obseruations of waters.
6. The manner of water conduits, and how to draw them from their heads: when and how waters are to bee vsed which naturally are medicinable: how farre forth navigation or sailing vpon the salt water is good for the health: medicines made of sea water.
7. Divers kinds of salt: the preparing and making thereof, together with the vertues medicinable of salt, and other considerations thereto belonging.
8. Of the fish Scamber or the Mackrell: of fish pickle: of Alex, a kind of brine or fish sauce
9. The nature of Salt, and the medicines made of it.
10. Sundrie sorts of Nitre, the handling and preparation thereof, the medicines and obseruation to it pertaining.
11. The nature of Spunges.

This booke comprehendeth medicines and notable obseruations 266.

Latine Authours alledged.

M Varro, Cassius of Parma, *Cicero, Mutius, Cor. Celsus, Trogus, Ovid, Polybius,* and *Sornatius.*

Forreine Writers.

Callimachus, Ctesias, Eudicus, Theophrastus, Eudoxus, Theopompus, Polyclitus, Iuba, Lycus, Apion, Epigenes,

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Epigenes, Pelops, Apelles, Democritus, Thrasillus, Nicander, Memander the Comicall Poet, *Attalus, Sallustius, Dionysius, Andreas, Nicreatus, Hippocrates, Anaxilaus.*

¶ IN THE XXXII. BOOKE ARE CONTAINED other medicines behind, from fishes and water creatures.

Chap.
1. Of the fish Echeneis, his wonderfull propertie: of the Torpedo, and the Sea-hare: maruellous things reported of the red sea.
2. The naturall industrie, docilitie, and gentlenesse of some fish: where they will come to hand and take meat at a mans hand: in what countries fishes serue in stead of oracles.
3. Of those fishes that liue both on land and water: the medicines and obseruations as touching Castoreum.
4. Of the sea Tortoise: many vertues medicinable obserued in sundry fishes.
5. Receits of medicins taken from water creatures, digested and set in order according to sundry diseases; & first against poyson and venomous beasts.
6. Of Oisters, Purple shell-fishes, & sea-weeds called Reits: their vertues medicinable.
7. Medicins against the shedding of the haire: how to fetch haire againe: also against the infirmities of eies, ears, teeth, and to amend the vseemely spots in the face.
8. Many medicins set down together vnorderly.
9. Remedies for the diseases of the liuer and sides, stomacke and bellie: others also disorderly put downe.
10. Against feuers and agues of all sorts, and many other infirmities.
11. A rehearsall of all creatures liuing in the sea, to the number of 122.

In summe, ye haue here medicines, stories, and obseruations, 928.

Latine Authors.

Licinius Macer, Trebius Niger, Sextius Niger who wrote in Greeke, *Ouid* the Poet, *Cassius Hemina, Mecænas*, and *L. Atteius.*

Forreine Writers.

K. *Iuba, Andreas*, * *Salpe, Pelops, Apelles* of Thasos, *Thrasillus*, and *Nicander.*

* A Woman.

¶ THE XXXIII. BOOKE DECLARETH the natures of Mettals.

Chap.
1. In what estimation were the mines of gold at the first in the old world: the beginning of gold rings: the proportion of gold that our ancestors had in their treasure: the degree of knights or gentlemen at Rome: the priuiledge to weare gold rings, and who only might so do.
2. The courts and chambers of judges or justices at Rome: how often the gentlemen of Rome and men of armes changed their title: the presents giuen to valiant souldiours for their braue seruice in the wars: the first crowns of gold that were seene.
3. The ancient vse of gold besides, both in men & women: of the golden coine: when copper and brasse money was first stamped: when gold and siluer was put into coine: before mony was coined, how they vsed brasse for exchange in old time. At the first taxation and leuie made of Tribute, what was thought to be the greatest wealth; and at what rate were the best men sessed. How often and at what time gold grew into credit and estimation.
4. The mines of gold, and how naturally it is found: when the statue or image of gold was first seene: medicinable vertues in gold.
5. Of Borras, and six properties of Borras in matters of Physicke: the wonderfull nature that it hath to soder all mettals, and giue them their perfection.
6. Of Siluer, Quick-siluer, Antimonie, or Alabaster: the drosse or refuse of siluer: also the scum or some of siluer called Litharge.
7. Of Vermilion: in what account it was in old time among the Romanes: the inuention thereof:

Chap.
thereof: of Cinnabaris or Sangdragon vsed in painting and Physick: diuers sorts of vermillion, and how painters vse it.
8. Of Quicksiluer artificiall: the maner of gilding siluer: of touchstones: diuers experiments to trie siluer: the sundry kinds therof
9. Of mirroirs or looking-glasses: of the siluer in Ægypt.
10. Of the excessiue wealth of some men in money: who were reputed for the richest men: when it was that at Rome they began to make largesse and scatter money abroad to the commons.
11. Of the superfluitie of coine, and the frugalitie of others as touching siluer plate, beds and tables of siluer: when began first the making of excessiue great and massiue platters and chargers of siluer.
12. Of siluer statues: the grauing and chasing in siluer, & other workmanship in that mettall
13. Of Sil, of Azur, of superfice Azur named Nestorianum: also of the Azur called Cœlum: that euery yere these kinds be not sold at one price.

This booke hath in it of medicines, stories, and obseruations, 1215.

Latine Authors alledged.

L. Piso Antius, Verrius, M. Varro, Cor. Nepos, Messula, Rufus, Marsus the Poet, *Buthus, Iulius Bassus*, and *Sextius Niger*, (who wrote both of Physicke in Greeke) and *Fabius Vestalis*.

Forreine Writers.

Democritus, Metrodorus Sceptius, Menæchmus, Xenocrates, and *Antigonus*, who wrate all three of the feat and skill of grauing, chasing and embossing in mettall: *Heliodorus*, who wrote a booke of the rich ornaments and oblations of the Athenians: *Pasiteles*, who wrote of wonderfull pieces of worke: *Nymphodorus, Timæus* who wrate of Alchymie or minerall Physicke: *Iolla, Apollodorus, Andreas, Heraclydes, Diagoras Botryensius, Archimedes, Dionysius, Aristogenes, Democritus, Mnesicles, Attalus* the Physician, *Xenocrates* the sonne of *Zeno*, and *Theomnestes*.

¶ THE XXXIIII. BOOKE TREATETH of other Mettals.

Chap.
1. Mines of Brasse, Copper, Iron, Lead, & Tin.
2. Sundry kinds of Brasse, namely Corinthian, Deliacke, and Ægineticke.
3. Of goodly candlesticks, & other ornaments of temples.
4. The first images made at Rome: the originall of statues: the honour done to men by statues: sundry sorts and diuers forms of them.
5. Of statues pourtraied in long Robes; and of many others who first erected images vpon columnes and pillars at Rome: when they were allowed first at the cities charges: also what maner of statues the first wer at Rome.
6. Of statues without gowne or cassocke, and some other: the first statue pourtraied on horsebacke at Rome: when the time was that all Images as well in publike places as priuat houses were abolished at Rome and put downe: what women at Rome were allowed to haue their statues; and which were the first erected in publike place by forrein nations.
7. The famous workemen in making & casting Images: the excessiue price of Images: of the most famous and notable colosses or gyant-like images in the citie of Rome.
8. Three hundred sixtie and six peeces of work wrought in brasse by most curious and excellent artificers.
9. What difference there is in Brasse: the diuers mixtures with other mettals: how to keepe brasse.
10. Of Brasse ore called Cadmia, and for what it is good in Physicke.
11. The refuse or scum of Brasse, Verdegris: the skales of brasse and copper, steele, copper rust, or Spanish greene: of the collyrie or eye-salue called Hieracium.
12. Of a kinde of Verdegris named Scolecia: of Chalcitis, *i.* red Vitrioll, Mysy, Sory, and Copporose or Vitrioll, *i.* blacke Nil.
13. Of the foile of Brasse named white Nil or Tutia: of Spodium, Antispodium, of Diphryges, and the Trient of Servilius.

14. Of

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Chap.
14. Of Iron and mines of Iron: the difference alſo of Iron.
15. Of the temperature of Iron: the medicinable vertues of Iron, and the ruſt of Braſſe and Iron: the skales of Iron, and the liquid plaſtre named of the Greekes Hygemplaſtrum.
16. The mines of Lead: of white and blacke Lead.
17. Of Tin, Of Argentine Tin, and ſome other minerals.
18. Medicins made of Lead & refuſe of Lead, of Lead ore, of Ceruſe or Spaniſh white, of Sandaricha of red Orpiment.

In ſumme, here are contained natable matters, ſtories, and obſeruations, 815.

Latine Authours cited.

L. Piſo, Antias, Verrius, M. Varro, Meſſala, Rufus, Marſus the Poet, *Buthus, Iulius Baſſus*, and *Sextius Niger*, who wrote both in Greeke of Phyſicke, and *Fabius Veſtalis*.

Forreine Writers.

Democritus, Metrodorus Scepſius, Menechmus, Xenocrates, Antigonus, and *Duris*, (who all foure wrote of grauing, chaſing, and emboſſing mettals, a worke entituled *Toreutice:*) *Heliodorus*, who deſcribed the ornaments and oblations hanged vp in Athens: *Nymphodorus, Andreas, Heraclides, Diagoras, Botryenſis, Iolla, Apollodorus, Archimedes, Dionyſius, Ariſtogenes, Diomedes, Mneſicles, Xenocrates* the ſonne of *Zeno*, and *Theomneſtus*.

¶ IN THE XXXV. BOOKE IS SHEWED IN what account Painting was in old time.

Chap.
1. The honour and regard of Pictures in times paſt.
2. In what price Images were of old.
3. When Images were firſt erected and ſet vp in publicke place, as alſo in priuat houſes, with their ſcutcheons and armes: the beginning of pictures: the firſt draught of Picturs in one ſimple colour: the firſt Painters, and how ancient they were in Italie.
4. Of Roman Painters: the firſt time that Painting and Picturs grew into credit: who they were that drew their victories in colors vpon tables, and ſet them forth to be ſeen: and when forrein Pictures began to be of ſome good reckoning at Rome.
5. The art and cunning of drawing pictures: the colours that painters vſe.
6. Of colours naturall and artificiall.
7. What colour will not abide to be laid wet: what colours they painted withall in old time: at what time firſt the combats of ſword-fencers at ytterance, were ſet forth in painted tables to be ſeene.
8. How ancient the art of Painting is, when it began: a catalogue of the excellent workemen in that kind, and how their workemanſhip was priſed and eſteemed.
9. The firſt that contended & ſtroue who could paint beſt: alſo who firſt vſed the pencill.
10. Of Pictures ſo liuely drawne that birds were deceiued therwith: what is the hardeſt point in Painting.
11. The way to ſtill birds that they ſing and chatter not: who was the firſt that deuiſed to enamell, or to ſet colours with fire, and with the pencill painted arched roufs and vaults; and among, the wonderful priſes that Pictures were ſet at in old time.
12. The firſt inuentors of potterie: of Images made of clay and caſt in moulds: alſo of veſſels made of earth, and their price.
13. Sundry ſorts of earth for potters: of the duſt or ſand of Puteoli: of other kindes of earth which turne to be hard ſtone.
14. Of walls made by caſting in moulds: alſo of bricke walls, and the manner of making them.
15. Of Brimſtone & Alume, their diuers kinds and vſe in Phyſicke.
16. Of ſundry ſorts of earth, & namely Samia, Eretria, Chia, Selenuſia, Pingitis, and Ampelitis, and the vſe they haue in Phyſicke.
17. Sundry ſorts of chalke for fullers to ſcoure clothes, to wit, Cimolia, Sarda, Vmbrica, of a kind of earth called Saxum, as alſo that giueth a ſiluer color & is called Agentaria.
18. Who

Chap.
18. Who were they that enriched their slaues after they were entranchised, and who they were of slaues came vp and grew to great wealth and power.

Chap.
19. Of the earth that coms out of the Island Galeta: of the earth Clupea: also, of that which commeth from the Balear Islands, and the Isle Ebusa.

In sum, the medicins, histories, and obseruations in this booke, amount to 956.

Latine Authors alledged.

Messala the Oratour, *Messala* the Elder, *Fenestella*, *Atticus*, *Verrius*, *M. Varro*, *Cor. Nepos*, *Decius Eculeo*, *Mutianus*, *Melissus*, *Vitruvius*, *Cassius Seuerus Longulanus*, *Fabius Vastalis*, who also wrote of Painting.

Forreine Writers.

Pasiteles, *Apelles*, *Melanthius*, *Asclepiodorus*, *Euphranor*, *Parasius*, *Heliodorus*, who wrote of the Pictures and other ornaments set vp at Athens, *Metrodorus* (who likewise wrote of Architecture, to wit, Masonrie and Carpentrie:) *Democritus*, *Theophrastus*, *Apion* the Grammarian who also made a booke af Minerall or Chymicke Physicke, *Nymphodorus*, *Andreas*, *Heraclides*, *Iolla*, *Apollodorus*, *Diagoras Botryensis*, *Archidemus*, *Dionysius*, *Aristogenes*, *Demanes*, *Menesicles*, *Xenocratos*, the scholler of *Zeno*, and *Theomnestus*.

¶ THE XXXVI. BOOKE TREATETH of Stones.

Chap.
1. The nature and propertie of stones: the superfluitie and expense about buildings, of marble.
2. Who first shewed at Rome columnes of marble in publike place.
3. The first that brought columns of marble to Rome out of forreine countries.
4. The first workemen that were commended for cutting in marble, and at what time that inuention began.
5. Excellent peeces of worke in marble to the the number of 126. The cunning and curious workmen themselues: of the white marble of the Island Paros. The stately and admirable sepulchre Mausoleum.
6. When they began at Rome to build with marble: who was the first that ouercast the outside of walls with marble: at what times this or that kind of marble was taken vp in building at Rome: who cut marble first and brought it into leaues or thin plates by cutting: the manner thereof: also of sand.
7. Of the hard stone of Naxos, and Armenia: sundry kinds of marble.
8. Of the Alabastre marble of Lygdinum and Alabandicum.
9. Of the great obeliske at Thebes in Ægipt, and at Alexandria: of that also which is in the great cirque or shew-place at Rome.

Chap.
10. Of that obeliske which standeth in Mars field at Rome, and serueth for a Gnomon or Stile in a quadrant or dyall.
11. Of a third obeliske at Rome in the Vatican.
12. Of the Pyramides in Ægipt, and a monstrous Sphynx of a wonderfull height.
13. Of the Mazes or Labyrinths in Ægipt, the Isle Lemnos, and in Italie.
14. Of hanging gardens made vpon terraces: of a great towne where all the houses were built vpon vaults and arches, seeming to hang in the aire: also of the temple of *Diana* in Ephesus.
15. Of the stately temple of Cyzicum: of a certaine rocke of stone called Fugitiue: of an Echo that rendreth the voice seuen fold: of an house built without naile or pin: of the sumptuous and wonderfull buildings at Rome.
16. Sundry kinds of the Loadstone: the medicinable vertues and properties thereof.
17. Of certain stones which soone eat & consume dead bodies that be laid therein: of others againe that preserue them long: of the stone Asius, and the vertues of it.
18. Of Iuorie digged out of the earth: of stones conuerted into bones: of stones that represent palms imprinted in them, and of other kinds.

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Chap.
19. Of Curalius, or a kind of Marqueſite called Pyrites, and the vertues thereof: of the ſtone Oſtracites, and Amiantus & the properties of it: of the ſtone Melitites, and the power thereof: of the Geat and his medicinable properties: of Spunge ſtones: of the ſtone Phrygius and his nature.
20. Of the Bloud-ſtone, and fiue ſorts of it; and of Schiſtus.
21. Foure kinds of the Ægle ſtone, of the ſtone within the bellie of them called Callimus: of the ſtones Samius and Arabus: alſo of Pumiſh ſtones.
22. of ſtones meet for to make Apothecaries mortars, of ſoft ſtones, of the ſtone Specularis, & of Flints, of the ſhining ſtone Phengites, of whetſtones, and other ſtones meet for building: of ſtones that will reſiſt the fire and abide all weather and tempeſt.
Chap.
23. Of Ceſterns, of Limeſtone, ſundry ſorts of ſand, the tempering of ſand and lime for mortar: the ill building of ſome walls: of parget and roughcaſt: alſo columnes and buttreſſes in building.
24. The medicinable vertues of Quickelime, of Maltha, and Plaſter.
25. Of pauements: when they were firſt vſed at Rome: of terraces and paued floores lying open to the aire aboue: of certaine pauements called Græcanica: and when arched and embowed worke firſt began.
26. The firſt inuention of glaſſe: the manner of making it of a kind of glaſſe called Obſidianum: ſundry ſorts of glaſſe in great varietie.
27. Wonderfull operations of fire: the vertues thereof medicinable, and the prodigious ſignifications and preſages by fire.

In ſumme, here you may find medicines, ſtories, and obſeruations, in all 523.

Latine Authors.

M. Varro, Cælius, Galba, C. Iulius, Mutianus, Cor. Nepos, L. Piſo, Tubero, Seneca, Fabius Vaſtalis, Annius, Fæcialis, Fabius, Cato Cenſorius, and *Vitruvius*.

Forreine Writers.

Theophraſtus, Praxitiles, K. *Iuba, Nicander, Sotacus, Sudines, Alexander, Polyhiſtor, Apion, Pliſtonicus, Duris, Herodotus, Euemerus, Ariſtagoras, Dionyſius, Artemidorus, Butoridas, Antiſthenes, Democritus, Demoteles*, and *Lyceas*.

¶ IN THE XXXVII. BOOKE IS DECLARED the originall of pretious ſtones.

Chap.
1. The pretious ſtone of *Polycrates* the tyrant, alſo of K. *Pyrrhus*: who were the beſt lapidaries, & could cut excellently wel in ſtone: the firſt man that at Rome ware a pretious ſtone vpon his finger.
2. The rich ſtones that were ſhewed in the triumph of *Pompey* the Great: the nature and vertues of the Cryſtall ſtone: the coſtly veſſels made thereof, and the ſuperfluous expence that way: when the veſſels of Caſſidoine called Myrhhina, were firſt inuented: the waſtfull expence in them: the nature and properties of them: what lies the Greekes haue told as touching Amber.
3. The true original and beginning of Amber: the medicinable vertues thereof: the ſundry kinds, and the exceſſiue coſt that folke were at to get them: of Lincurium and the pre-
Chap.
perties of it.
4. Of Diamonds, and their kinds: their vertues: alſo of Pearls.
5. Of the Hemerauld and diuers ſorts of it: of other greene pretious ſtones cleare and tranſparant.
6. Of the true Opall ſtones, their diuers kinds, and which be counterfeit: the meanes how to try them: alſo of diuers other rich ſtones
7. Of Rubies and carbuncles: which be counterfeit: the waies to proue whether they be good or no. Alſo of other ardent ſtones like fire.
8. Of the Topaze, and all the kinds: of the Turquois: of other greene ſtones that bee not cleare through.
9. Sundry ſorts of the Iaſper ſtone.
10. Of certaine pretious ſtones ſet downe in order

Chap.
order according to the Alphabet.
11. Of some pretious stones which take their denomination of the parts of mans bodie: also from other liuing creatures, & of those which haue the names from other things.
Chap.
12. Of other new stones growing naturally: of counterfeit and artificiall stones: of their sundry formes and fashions.
13. The manner and way how to proue fine stones from other.

In summe, here are to be read of notable matters, worthy histories, and speciall obseruations, to the number of 1300, gathered out of

Latine Authours.

M. Varro, the Records of Romane triumphs, *Mecœnas*, *Iacchus*, and *Cornelius Bocchus*.

Forreine Writers.

K. *Iuba*, *Xenocrates* the disciple of *Zeno*, *Sudines*, *Æschylus*, *Philoxenus*, *Euripides*, *Nicander*, *Satyrus*, *Theophrastus*, *Chares*, *Philomenes*, *Democrates*, *Xenotimus*, *Metrodorus*, *Sotacus*, *Pytheas*, *Timæus* the Sicilian, *Niceas*, *Theocrestus*, *Asaruba*, *Mnasea*, *Theomenes*, *Ctesias*, *Mithridates*, *Sophocles*, K. *Archelaus*, *Callistratus*, *Democritus*, *Ismenias*, *Olympicus*, *Alexander Polyhistor*, *Apion*, *Horus*, *Zoroastres*, and *Zactalias*.

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THE SECOND BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

CHAP. I.

¶ *Whether the World be finite, and but one.*

C THE World, and this, which by another name men haue thought good to call heauen (vnder the pourprise and bending cope whereof, all things are emmanteled and couered) beleeue we ought in all reason to be a God, eternall, vnmeasurable, without beginning, and likewise endlesse. What is without the compasse hereof, neither is it fit for men to search, nor within mans wit to reach and conceiue. Sacred it is, euerlasting, infinit, all in all, or rather it selfe all and absolute: finite and limited, yet seeming infinite: in all motions orderly and certaine: howbeit in shew and iudgement of man, vncertaine: comprehending and containing all whatsoeuer, both without and within: Natures worke, and yet very Nature it selfe, producing all things. Great folly it is then, and meere madnesse, that D some haue deuised and thought in their minde to measure it; yea, and durst in writing set down the dimensions thereof: that others againe, by occasion hereupon taken or giuen, haue deliuered and taught, That worlds there were innumerable: as if we were to beleeue so many natures as there were Heauens: or if all were reduced to one, yet there should be so many Sunnes and Moones neuertheless, with the rest also of those vnmeasurable and innumerable starres in that one: as though in this pluralitie of worlds we should not alwaies meet with the same question still at euery turne of our cogitation, for want of the vtmost and some end to rest vpon: or if this infiniteness could possibly be assigned to Nature, the worke-mistresse and mother of all; the same might not be vnderstood more easily in that one Heauen which wee see; so great a worke especially and frame as it is. Now surely a fantasticall folly it is of all other follies, to go E forth of it, and so to keepe a seeking without, as if all things within were well and clearely knowne already; as who would say, a man could take the measure iust of any third thing, who knoweth not his owne: or the minde of man see those things, which the very World it selfe may not receiue.

CHAP. II.

¶ *Of the forme and figure of the World.*

F THat the forme of heauen is round, in fashion of an absolute and perfect globe, the name thereof principally, and the consent of all men agreeing to call it in Latine *Orbis*, (*i.*) a roundle; as also many naturall reasons, do euidently shew: to wit, not onely for that such a figure euery way falleth and bendeth vpon it selfe, is able to beare and vphold it selfe, includeth and compriseth it selfe, hauing need thereto of no ioints, as finding in any part thereof no end nor beginning: or because this forme agreeth best to that motion, whereby euer and anon it must turne about:

(as hereafter it ſhall appeare) but alſo becauſe the eieſight doth approue the ſame: in that look G
which way ſoeuer you will thereupon, it ſeemeth to bend downeward, round, and euen on all ſides, ſhewing a iuſt Hemiſphere; a thing not incident poſſibly to any other figure.

Chap. III.

¶ *Of the motion of Heauen.*

THat the world thus framed, in a continuall and vnceſſant circuit, with vnſpeakable ſwiftneſſe turneth round about in the ſpace of foure and twenty houres, the riſing and ſetting ordinarily of the Sunne hath left cleare and doubtleſſe. Now, whether it be-
ing in height infinite, and therefore the ſound of ſo huge a frame, whiles it is whir- H
led about, and neuer reſteth in that reuolution, cannot be heard with our eares, I cannot ſo eaſily reſolue and pronounce: no more I aſſure you, than I may auouch the ringing of the ſtarres that are driuen about therewith, and roll with all their owne ſpheres: or determine, that as the Heauen moueth, it doth repreſent indeed a pleaſant and incredible ſweet harmonie both day and night: although to vs within, it ſeemeth to paſſe in ſilence. That there be imprinted therein the pourtraicts of liuing creatures, and of all things beſides without number, as alſo that the body thereof is not all ouer ſmooth and ſlicke (as we ſee in birds egs) which excellent Authors haue termed *Tenerum* is ſhewed by good arguments: for that by the fall of naturall ſeeds from thence of all things, and thoſe for the moſt part blended and mixed one with another, there are ingendred in the world, and the ſea eſpecially, an infinite number of ſtrange and monſtrous I
ſhapes. Ouer and beſides, our eie-ſight teſtifieth the ſame; whiles in one place there appeareth the reſemblance of a waine or chariot, in another of a beare, the figure of a bull in this part, of a
* letter in that, and principally the middle circle ouer our head, more white than the reſt, to-
* Δ ward the North pole.

Chap. IIII.

¶ *Why the World or Heauen is called Mundus.*

VErily for mine owne part, moued I am and ruled by the generall conſent of all nations. For, the World, which the Greekes by the name of ornament, called K
κοσμος, we for the perfect neatneſſe and abſolute elegancie thereof, haue termed *Mundus*. And without all queſtion, Heauen we haue named *Cælum*, as it were Engrauen and garniſhed, according as *M. Varro* interpreteth it. And hereto maketh much the orderly ranke of things therein, and namely the circle called *Signifer*, or the Zodiake ſet forth and diuided by the formes of twelue liuing creatures therein portraied: together with the manner of the Sunnes race throughout them, keeping euer the ſame courſe ſtill, for ſo many ages paſt.

Chap. V.

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¶ *Of the foure Elements.*

NEither ſee any doubt made as touching the Elements, That they be foure in number. The higheſt, Fire: from whence are thoſe bright eies of ſo many ſhining ſtarres. The next, Spirit which the Greekes and our countrey men by one name called Aire: Vitall this element is, and as it giueth life to all things, ſo it ſoone paſſeth through all, and is intermedled in the whole: by the power wherof, the earth hangeth poiſed and ballanced iuſt in the midſt, together with the fourth element of the Waters. Thus by a mutuall entertainment one of another, diuers natures are linked and knit together: ſo as the light elements are kept in & reſtrained by certain weights of the heauier, that they flie not out: and contrariwiſe the maſſier be held vp, that they M
fall not downe, by means of the lighter, which couet to be aloft. So, through an equall endeuor to the contrary, each of them hold their owne, bound as it were by the reſtleſſe circuit of the very world: which, by reaſon that it runneth euermore vpon it ſelfe, the earth falleth to be loweſt, and the middle of the whole: and the ſame hanging ſteadily by the poles of the heauen, peiſeth thoſe

20030
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A thoſe elements by which it hangeth in a counterballance. Thus it alone reſteth vnmoueable; whiles the whole frame of the world turneth about it: and as it is knit and vnited by all, ſo all reſt and beare vpon the ſame.

Chap. VI.

¶ *Of the ſeuen Planets.*

B BEtweene the earth and heauen there hang in the ſame ſpirit or element of aire aboue named, ſeuen ſtars, ſeuered one from another, and diſtant aſunder certaine ſpaces, which of their variable motion wee call wandring planets, whereas indeed none ſtray and wander leſſe than they. In the middeſt of them the Sun taketh his courſe, as being the greateſt and moſt puiſſant of all the reſt: the very ruler, not of times and ſeaſons onely, and of the earth, but alſo of the ſtarres and heauen it ſelfe. Beleeue we ought, this Sun to be the very life, and (to ſpeake more plainely) the ſoule of the whole world, yea, and the principall gouernance of nature: and no leſſe than a God or diuine power, conſidering his workes and operations. He it is that giueth light to all things, and riddeth them from darkneſſe: he hideth the other ſtarres, and ſheweth them again: he ordereth the ſeaſons in their alternatiue courſe: he tempereth the yeare, ariſing euer freſh and new againe, for the benefit and good of the world. The lowring dimneſſe of the skie he diſpatcheth, yea, and cleareth the darke miſts and clowdineſſe of mans minde: to other ſtars likewiſe he lendeth out his owne light. Moſt excellent, right ſingular he is, as ſeeing all, & hearing C all. For this, I ſee, is the opinion of *Homer* (the prince of learning) as touching him alone.

Chap. VII.

¶ *Of God.*

D IS Suppoſe therefore that to ſeeke after any ſhape of God, and to aſſigne a forme and image to him, bewraieth mans weakeneſſe. For God, whoſoeuer hee be [if haply there be any other, but the very world] and in what part ſoeuer reſiant, all ſenſe he is, all ſight, all hearing: he is all life, all ſoule, all of himſelfe. And verily to beleeue that there be gods innumerable, and thoſe according to mens vertues and vices, to wit, Chaſtitie, Concord, Vnderſtanding, Hope, Honour, Clemencie, Faith; or (as *Democritus* was of opinion) that there are two gods onely, and no more; namely, Puniſhment, and Benefit: Theſe conceits, I ſay, make mens idleneſſe and negligence the greater. But all commeth of this, That fraile and craſie mortall men, remembring wel their owne infirmitie, haue digeſted theſe things apart, to the end that each one might from thence chuſe to worſhip and honour that whereof he ſtood in need moſt. And hereupon it is, that in ſundry nations we finde the ſame gods named diuerſly, according to mens deuotion: and in one region ye ſhall haue innumerable gods. The infernall powers beneath likewiſe, yea, and many plagues haue been raunged by themſelues, and reckoned for gods in their kinde, whileſt E with trembling feare wee deſire that they were pacified. Which ſuperſtition hath cauſed a chappell to be dedicated to the Feuer, in the mount Palatium, euen by publicke order from the State. Likewiſe an altar to *Orbona*, neere the temple of *Lares*: becauſe another erected to Bad Fortune in Eſquiliæ. And thereby we may conceiue that there are a greater number of gods in heauen aboue, than of men vpon earth: ſince that euery one of their owne accord make ſo many gods as they liſt, fitting themſelues with *Iunoes* and *Genij* for their patrons. Now certain Nations there be that account beaſts, yea, and ſome filthie things for gods; yea and many other matters more ſhamefull to be ſpoken: ſwearing by ſtinking meats, by garlicke, and ſuch like. But ſurely, to beleeue that gods haue contracted mariage, and that in ſo long continuance of rime no children ſhould be borne between them: alſo that ſome are aged, and euer hoarie and F gray: others againe young and alwaies children: that they be blacke of colour and complexion, winged, lame, hatched of egs, liuing and dying each other day; are meere fooleries, little better than childiſh toies. But it paſſeth and exceedeth all ſhameleſſe impudencie, to imagine adulteries amongſt them: eftſoones alſo chiding, ſcolding, hatred, and malice: and more than that, how there be gods, patrons of theft and wickedneſſe. Whereas in very deed, a god vn-

to a man is he, that helpeth a man: and this is the true and direct path-way to euerlaſting glo- G
ry. In this way went the noble Romans in old time: and in this tract at this day goeth, with heauenly pace, *Veſpaſian Auguſtus*, both he and his children: *Veſpaſian*, I ſay, the moſt mightie ruler of the whole world: whiles he relieueth the afflicted State of the Romane Empire and Common-weale. And this is the moſt antient manner of requitall to ſuch benefactours, That they ſhould be canonized gods. And hereof came the names as well of all other gods, as of the ſtars and planets (which I haue mentioned before) in recognisance of mens good deſerts. As for *Iupiter* verily and *Mercurie*, and other princes raunged among the gods, who doubteth that they were called otherwiſe among themſelues? and who confeſſeth not how theſe be celeſtiall denominations, to expreſſe and interpret their nature.

*Here let Chriſtians take heed, and be thankefull to God for the light reuealed vnto them out of the holy ſcriptures.

Now, That the ſoueraigne power and deity, whatſoeuer it is, ſhould haue regard of mankind H
* is a toy and vanity worthy to be laughed at. For can we chuſe but beleeue, can we make any doubt, but needs that Diuinity and Godhead muſt be polluted with ſo baſe & manifold a miniſtery? And hardly in manner may it be iudged, whether of the twain be better and more expedient for mankinde to beleeue, that the gods haue regard of vs; or to be perſuaded that they haue none at all: conſidering, That ſome men haue no reſpect and reuerence at all of the gods; others againe ſo much, as it is a very ſhame to ſee their ſuperſtition. Addicted theſe are and deuoted to ſerue them by forrein magicke ceremonies: they weare their gods vpon their fingers in rings, yea, they worſhip and adore monſters: they condemne and forbid ſome meats; yet they deuiſe others for them. Impoſe they do vpon them hard and vengible charges to execute, not I
ſuffering them to reſt and ſleep in quiet. They chuſe neither mariages nor children, ne yet any one thing els, but by the approbation & allowance of ſacred rites and myſteries. Contrariwiſe, others there are ſo godleſſe, that in the very capitoll they vſe deceit, and forſweare themſelues euen by *Iupiter*, for all that he is ready to ſhoot his thunderbolts: and as ſome ſpeed wel enough with their wicked deeds and irreligion; ſo others again feele the ſmart and are puniſhed by the ſaints whom they adore, and the holy ceremonies which they obſerue.

Howbeit, betweene both theſe opinions, men haue found out to themſelues a middle Godhead and diuine power, to the end that we ſhould giue ſtil a more vncertaine coniecture as touching God indeed. For throughout the whole world, in euery place, at all times, and in all mens mouths, Fortune alone is ſought vnto and called vpon: ſhe only is named and in requeſt; ſhee K
alone is blamed, accuſed, and endited. None but ſhe is thought vpon; ſhe only is praiſed, ſhe only is reproued and rebuked: yea, and worſhipped is ſhe with railing and reprochfull tearms: and namely when ſhe is taken to be wauering & mutable: and of the moſt ſort ſuppoſed alſo blind; rouing at randon, vnconſtant, vncertaine, variable, and fauoring the vnworthy: whatſoeuer is laid forth, ſpent, and loſt, whatſoeuer is receiued, woon and gotten: all that comes in, all that goes out is imputed to Fortune: and in all mens reckonings and accounts ſhe makes vp the booke, and ſets all ſtreight. So abiect we are, ſo ſeruile alſo and enthralled to Lots, that euen the very chance of Lots is taken for a god, than which nothing maketh vs more doubtfull and ignorant of God.

Now there are another ſort, that reiect Fortune & Chance both, and wil not abide them, but L
attribute the euents and iſſues of things, to their owne ſeuerall ſtars, and go by the fatall horoſcope or aſcendent of their natiuitie: affirming that the ſame ſhall euer befall, which once hath bin ſet downe and decreed by God: ſo as he for euer after may ſit ſtill and reſt himſelfe. And this opinion beginneth now to ſettle and take deep root, inſomuch as both the learned, and alſo the rude and ignorant multitude, run that way on end. From hence (behold) proceed the warnings & admonitions of lightenings, the fore-knowledge by Oracles, the predictions of Soothſayers, yea, and other contemptible things not worthy to be once ſpoken of; as ſneeſing, and ſtumbling with the foot, are counted matters of preſage. *Auguſtus Cæſar* of famous memorie hath made report and left in writing, that his left foot ſhooe was vntowardly put on before the right, on that very day, when he had like to haue miſcarried in a mutiny among his ſouldiers. M

Thus theſe things euery one doe enwrap and entangle ſilly mortall men, void of all forecaſt and true vnderſtanding: ſo as this only point among the reſt remaines ſure and certain, namely, That nothing is certaine: neither is there ought more wretched and more proud withall; than man. For all liuely creatures elſe take care onely for their food, wherein Natures goodnes and bountie of it ſelfe is ſufficient: which one point verily is to be preferred before all good

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20030

A things whatſoeuer, for that they neuer thinke of glory, of riches, of ſeeking for dignities and promotions, nor ouer and aboue, of death. Howbeit, the beleefe that in theſe matters the gods haue care of mens eſtate, is good, expedient, and profitable in the courſe of this life: as alſo that the vengeance and puniſhment of malefactors may well come late (whiles God is buſily occupied otherwiſe in ſo huge a frame of the world) but neuer miſſeth in the end: and that man was not made next in degree vnto God, for this, That he ſhould be wel-neare as vile and baſe as the bruit beaſts. Moreouer, the chiefe comfort that man hath, for his imperfections in Nature, is this, That euen God himſelfe is not omnipotent, and cannot do all things: for neither he is able to worke his owne death, would he neuer ſo faine, as man can do when he is wearie of his life; the beſt gift which he hath beſtowed vpon him, amid ſo great miſeries of his life (nor indow
B mortall men with euerlaſting life: ne yet recall, raiſe, and reuiue thoſe that once are departed
2 and dead) nor bring to paſſe, that one who liued, did not liue; or he that bare honorable offices, was not in place of rule and dignity. Nay, he hath no power ouer things done and paſt, ſaue only obliuion: no more than he is able to effect (to come with pleaſant reaſons and arguments to proue our fellowſhip therin with God) that twiſe ten ſhould not make twenty: and many ſuch things of like ſort. Whereby (no doubt) is euidently proued, the power of Nature, and how it is ſhe, and nothing els, which we call God. I thought it not impertinent thus to diuert and digreſſe to theſe points, ſo commonly divulged, by reaſon of the vſuall and ordinarie queſtions as touching the Eſſence of God. Every thing is possible to God, but what is an absolute
Contradiction — 1. 2. And not Contradictions — therefore both possible & probable —

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Chap. VIII.

¶ *Of the Nature of Planets, and their circuit.*

LEt vs returne now to the reſt of Natures workes. The ſtars which we ſaid were fixed in heauen, are not (as the common ſort thinketh) aſſigned to euery one of vs; and appointed to men reſpectiuely; namely, the bright & faire for the rich; the leſſe for the poore: the dim for the weak, the aged and feeble: neither ſhine they out more or leſſe according to the lot and fortune of euery one, nor ariſe they each one together with that perſon vnto whom they are appropriate; and die likewiſe with the ſame: ne yet as they ſet and fall, do they ſignifie that any bodie is dead.
D There is not, ywis, ſo great ſocietie betweene heauen and vs, as that together with the fatall neceſſitie of our death, the ſhining light of the ſtarres ſhould in token of ſorrow go out and become mortall. As for them, the truth is this; when they are thought to fall, they doe but ſhoot from them a deale of fire, euen of that aboundance and ouermuch nutriment which they haue gotten by the attraction of humiditie and moiſture vnto them, like as we alſo obſerue daily in the wikes and matches of lampes or candles burning, with the liquour of oile. Moreouer, the cœleſtiall bodies, which make and frame the world, and in that frame are compact and knit together, haue an immortall nature; and their power and influence extendeth much to the earth; which by their effects and operations, by their light and greatneſſe might be knowne, notwithſtanding they are ſo high and ſubtill withall, as we ſhal in due place make demonſtration. The
E manner likewiſe of the heauenly Circles and Zones ſhall be ſhewed more fitly in our Geographicall treatiſe of the earth, foraſmuch as the conſideration thereof appertaineth wholly thereunto: onely we will not put off, but preſently declare the deuiſers of the Zodiake, wherin the ſignes are.

The obliquitie and crookedneſſe thereof, *Anaximander* the Mileſian is reported to haue obſerued firſt, and thereby opened the gate and paſſage to Aſtronomie, and the knowledge of all things: and this happened in the 58 Olympias. Afterwards *Cleoſtratus* marked the ſignes therin, and namely thoſe firſt of *Aries* and *Sagitarius*. As for the ſphere it ſelfe, *Atlas* deuiſed long before. Now for this time we will leaue the very bodie of the ſtarry heauen, and treat of all the reſt betweene it and the earth.

F Certaine it is, that the Planet which they call *Saturne*, is the higheſt; and therefore ſeemeth leaſt: alſo that he keepeth his courſe, and performeth his reuolution in the greateſt circle of all: and in thirtie yeares ſpace at the ſooneſt, returneth againe to the point of his firſt place. Moreouer, that the mouing of all the Planets, and withall of Sun and Moone, go a contrarie courſe vnto the ſtarrie heauen, namely, to the left hand (*i.* Eaſtward:) whereas the ſaid heauen alwaies

haſteneth to the right[*i.* Weſtward.] And albeit in that continuall turning with exceeding celerity, thoſe planets be lifted vp aloft, and carried by it forcible into the Weſt, and there ſet: yet by a contrarie motion of their owne, they paſſe euery one through their ſeuerall waies Eaſtward, and all for this, that the aire rolling euer one way, and to the ſame part, by the continuall turning of the heauen, ſhould not ſtand ſtill, grow dul, & as it were congealed, whiles the globe thereof reſteth idle, but diſſolue and cleaue, parted thus, & diuided, by the reuerberation of the contrarie beams, and violent croſſe influence of the ſaid planets. Now, the Planet *Saturne* is of a cold and frozen nature, but the circle of *Iupiter* is much lower than it, and therfore his reuolution is performed with a more ſpeedy motion, namely, in twelue yeres. The third of *Mars*, which ſome call the Sphere of *Hercules*, is firy and ardent, by reaſon of the Suns vicinity, and wel-neere in two yeares runneth his race. And hereupon it is, that by the exceeding heate of *Mars*, and the vehement cold of *Saturne*, *Iupiter*, who is placed betwixt, is well tempered of them both, and ſo becommeth good and comfortable. Next to them is the race of the Sun, conſiſting verily of 360 parts [or degrees:] but to the end that the obſeruation of the ſhadowes which he caſteth, may return againe iuſt to the former marks, fiue daies be added to euery yeare, with the fourth part of a day ouer and aboue. Whereupon euery fifth yeere leapeth, and one odde day is ſet to the reſt: to the end that the reckoning of the times and ſeaſons might agree vnto the courſe of the Sun. Beneath the Sun a goodly faire ſtar there is, called *Venus*, which goeth her compaſſe, wandring this way and that, by turnes: and by the very names that it hath, teſtifieth her emulation of Sun and Moone. For all the while that ſhe preuenteth the morning, and riſeth Orientall before, ſhe taketh the name of *Lucifer* (or Day-ſtar) as a ſecond Sun haſtning the day. Contrariwiſe, when ſhe ſhineth from the Weſt Occidentall, drawing out the day light at length, and ſupplying the place of the Moone, ſhe is named *Veſper*. This nature of hers, *Pythagoras* of Samos firſt found out, about the 42 olympias, which fel out to be the 142 yere after the foundation of Rome. Now this planet in greatneſſe goeth beyond all the other fiue: and ſo cleare and ſhining withall, that the beames of this one ſtar caſt ſhadowes vpon the earth. And hereupon commeth ſo great diuerſitie and ambiguitie of the names thereof: whiles ſome haue called it *Iuno*, other *Iſis*, and otherſome the Mother of the gods. By the naturall efficacie of this ſtar, all things are engendred on earth: for whether ſhe riſe Eaſt or Weſt, ſhe ſprinckleth all the earth with dew of generation, and not onely filleth the ſame with ſeed, cauſing it to conceiue, but ſtirreth vp alſo the nature of all liuing creatures to engender. This planet goeth through the circle of the Zodiake in 348 daies, departing from the Sun neuer aboue 46 degrees, as *Timæus* was of opinion. Next vnto it, but nothing of that bigneſſe and powerful efficacie, is the ſtar *Mercurie*, of ſome cleped *Apollo*: in an inferiour circle he goeth, after the like manner, a ſwifter courſe by nine daies: ſhining ſometimes before the Sun-riſing, otherwhiles after his ſetting, neuer farther diſtant from him than 23 degrees, as both the ſame *Timæus* and *Soſigenes* doe ſhew. And therefore theſe two planets haue a peculiar conſideration from others, and not common with the reſt aboue named. For thoſe are ſeene from the Sun a fourth, yea, and third part of the heauen: oftentimes alſo in oppoſition ful againſt the Sun. And all of them haue other greater circuits of full reuolution, which are to be ſpoken of in the diſcourſe of the great yeare.

Saturne. *Iupiter.* *Mars.* *The Sunne.* *Venus.* *Mercury.*

G H I K

How much was the great Mart mistaken? L

Chap. IX.

¶ *Of the Moones nature.*

The Moone.

BVt the Planet of the Moone, being the laſt of all, moſt familiar with the earth, and deuiſed by Nature for the remedie of darkneſſe, out-goeth the admiration of all the reſt. She with her winding and turning in many and ſundry ſhapes, hath troubled much the wits of the beholders, fretting and fuming, that of this ſtarre, being the neereſt of all, they ſhould be moſt ignorant, growing as it doth, or elſe waining euermore. One while bended pointwiſe into tips of hornes: another whiles diuided iuſt in the halfe, and anon againe in compaſſe round: ſpotted ſometime and darke, and ſoone after on a ſudden exceeding bright: one while big and full, and another while all at once nothing to bee ſeene. Sometime ſhining all night long, and otherwhiles late it is ere ſhe riſeth: ſhee alſo helpeth the Sunnes light ſome part of the day: eclipſed, and yet in that eclipſe to be ſeene. The ſame at the moneths end lieth hidden, at what time (it is ſuppoſed) ſhee laboureth,

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A reth and trauelleth not. At one time yee ſhall ſee her below, and anon aloft: and that not after one manner, but one while reaching vp cloſe to the higheſt heauen, and another while ready to touch the mountains: ſometimes mounted on high into the North, and ſometime caſt down below into the South. Which ſeuerall conſtitutions and motions in her, the firſt man that obſerued, was *Endymeon*: and thereupon the voice went, That he was enamoured vpon the Moone. Certes, thankfull we are not, as we ought to be, vnto thoſe who by their trauell and carefull endeuour haue giuen vs light in this light. But delighted rather we are wonderouſly (ſuch is the peſtilent wit and wicked diſpoſition of man) to record in Chronicles, bloudſhed and murders: that lewd acts and miſchieuous deeds ſhould be knowne of them, who otherwiſe are ignorant of the world it ſelfe. Well, to proceed, the Moon being next to the Centre, and therfore of leaſt
B compaſſe, performes the ſame courſe and circuit in ſeuen and twentie daies, and one third part of a day; which *Saturne* the higheſt planet runnes (as we ſaid before) in thirty yeres. After this, making ſtay in coniunction with the Sun two daies, forth ſhe goes, and by the thirtieth day at the moſt, returneth to the ſame point and miniſtery againe: the miſtreſſe, if I may ſo ſay, and the teacher of all things Aſtronomicall, that may be known in heauen. Now by her meanes are we taught that the yeere ought to be diuided into twelue moneths: for as much as, the Moone meeteth or ouertaketh the Sun ſo many times before he returneth to the ſame point where he began his courſe. Likewiſe that ſhee loſeth her light (as the reſt of the planets) by the brightnes of the Sun, when ſhe approcheth neere. For borrowing wholly of him her light, ſhee doth ſhine: much like to that which we ſee glittering and flying too and fro in the reflection and re-
C uerberation of the Sun-beames from the water. And hereupon it is, that ſhe, by her more mild and vnperfect power diſſolueth, yea and increaſeth, ſo great moiſture as ſhe doth; which the ſun beames may conſume. Hence it comes alſo, that her light is not euen and equall in ſight, becauſe then only when ſhe is oppoſite vnto the Sunne, ſhe appeareth full: but all other daies ſhe ſheweth no more to vs here on earth, than ſhe conceiueth light of the Sunne. In time verily of coniunction or change, ſhe is not ſeene at all: for that whiles ſhe is turned away, all the draught of light, ſhe caſteth thither backe againe, from whence ſhe receiued it. Now, that theſe planets are fed doubtles with earthly moiſture, it is euident by the Moone: which ſo long as ſhe appeareth by the halfe in ſight, neuer ſheweth any ſpots, becauſe as yet ſhee hath not her full power of light ſufficient, to draw humour vnto her. For theſe ſpots be nothing elſe but the dregs of
D the earth, caught vp with other moiſture among the vapors.

Chap. X.

¶ *Of the Sunne and Moones eclipſe: and of the Night.*

MOreouer, the eclipſe of the Moone and Sunne (a thing throughout the vniuerſall contemplation of Nature moſt maruellous, and like a ſtrange and prodigious wonder) doth ſhew the bigneſſe and ſhadow of theſe two planets. For euident it is, that the Sunne is hidden by the comming betweene of the Moone: and the Moone againe by the oppoſition of the Earth: alſo that the one doth quit the other, in that the Moone by her inter-
E poſition bereaueth the Earth of the Sunnes raies, and the earth againe doth the ſemblable by the Moone. Neither is the Night any thing elſe but the ſhade of the Earth. Now the figure of this ſhadow reſembleth a pyramis, pointed foreward, or a top turned vp ſide downe: namely, when as it falleth vpon it with the ſharpe end thereof, nor goeth beyond the heights of the Moone; for that no other ſtarre is in that manner darkened: and ſuch a figure as it, alwaies endeth point-wiſe. And verily, that ſhadowes grow to nothing in great ſpace of diſtance, appeareth by the exceeding high flight of ſome foules. So as the confines of theſe ſhadowes, is the vtmoſt bound of the aire, and the beginning of the fire. Aboue the Moone all is pure and lightſome continually. And we in the night doe ſee the ſtarres, as candles or any other lights from out of darkeneſſe. For theſe cauſes alſo the Moone in the night ſeaſon is eclipſed onely.
F But the reaſon why the Sun and Moone, are not both in the eclipſe ta ſet times and monethly, is the winding obliquitie of the Zodiake, and the wandering turnings of the Moone one while farre South, and another while as much North (as hath been ſaid:) and for that theſe planets do not alwaies in their motion meet juſt in the points of the eclipticke line, to wit, in the head or taile of the Dragon.

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Chap. XI.

¶ *Of the magnitude of Starres.*

THe reaſon of this lifteth vp mens mindes into heauen: and as if they beheld and looked downe from thence, diſcouer vnto them the magnitude of the three greateſt parts of the whole world. For the Sunnes light could not wholly be taken away from the earth, by the Moone comming betweene, in caſe the earth were bigger than the Moone. But the huge greatneſſe of the Sunne is more certainely knowne, both by the ſhadow of the Earth, and the bodie of the Moone: ſo as it is needleſſe to ſearch and inquire into the largeneſſe thereof, either by proofe of eie-ſight, or by coniecture of the minde. How vnmeaſurable it is, appeareth H
euidently by this, That trees which are planted in limits from Eaſt to Weſt, caſteth ſhadowes equall in proportion; albeit they be neuer ſo many miles aſſunder in length: as if the Sunne were in the middeſt of them all. This appeareth alſo about the time of the equinoctiall in all regions meridionall, when the Sunne ſhineth directly plumbe ouer mens heads, and cauſeth no ſhadow. In like manner, the ſhadowes of them that dwell Northerly vnder the Solſtitiall circle in Summer, falling all at noone tide, Northward, but at Sunne-riſing, Weſtward, doing the ſame demonſtration. Which poſſibly could not be, vnleſſe the Sunne were far greater than the earth. Moreouer, in that, when he riſes, he ſurpaſſes in breadth the hil Ida, compaſſing the ſame at large both on the right hand and the left, and namely, being ſo farre diſtant as he is. The eclipſe of the Moone doth ſhew alſo the bigneſſe of the Sunne, by an infallible I
demonſtration; like as himſelfe eclipſed, declareth the littleneſſe of the earth. For whereas there be of ſhadowes three formes and figures: and euident it is, that if the darke materiall body which caſteth a ſhadow, be equall in bigneſſe to the light, then the ſhadow is faſhioned like a colume or piller, and hath no point at the end: if it be greater, it yeeldeth a ſhadow like a top directly ſtanding vpon the point, ſo as the nether part therof is narroweſt, and then the ſhadow likewiſe is of infinite length: but if the ſaid body be leſſe than the light, then is repreſented a pyramidall figure like an hey-cocke, falling out ſharpe pointed in the top; which manner of ſhadow appeareth in the Moones eclipſe: it is plaine, manifeſt, and without all doubt, that the Sunne is much bigger than the earth. The ſame verily is ſeen by the ſecret and couert proofes of Nature it ſelfe. For why in diuiding the times of the yeere, departeth the Sunne from vs in K
the winter? marry, euen becauſe by meanes of the nights length and cooleneſſe, he would refreſh the earth, which otherwiſe no doubt he ſhould haue burnt vp: for, it notwithſtanding, he burneth it in ſome meaſure, ſo exceſſiue is the greatneſſe thereof.

Chap. XII.

¶ *The inuentions of man as touching the obſeruation of the heauens.*

THe reaſon verily of both eclipſes, the firſt Romane that publiſhed abroad and diuulged, was *Sulpitius Gallus*, who afterward was Conſull, together with *M. Marcellus*: but at that time being a Colonell, the day before that King *Perſeus* was vanquiſhed by L
Paulus, he was brought forth by the Generall into open audience before the whole hoſt, to fore-tell the eclipſe which ſhould happen the next morning: whereby he deliuered the armie from all penſiueneſſe and feare, which might haue troubled them in the time of battell, and within a while after he compiled alſo a booke thereof. But among the Greeks, *Thales Meleſius* was the firſt that found it out, who in the eight and fortieth Olympias, and the fourth yeere thereof, did prognoſticate and foreſhew the Sunnes eclipſe that happened in the reigne of *Halyattes*, and in the 170. yeere after the foundation of the citie of Rome. After them, *Hipparchus* compiled his Ephemerides, containing the courſe and aſpects of both theſe planets, for ſix hundred yeeres enſuing: comprehending withall the moneths according to the calculation & reckonings of ſundry nations, the daies, the houres, the ſcituation of places, the aſpects, M
and latitudes of diuers townes and countries; as the world will beare him witneſſe: and that no leſſe aſſuredly, than if he had been priuie to Natures counſels. Great perſons and excellent theſe were doubtleſſe, who aboue the reach of all capacitie of mortall men, found out the reaſon of the courſe of ſo mighty ſtarres and diuine powers: and whereas the fillie minde of men

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A was before ſet and to ſeeke, fearing in theſe eclipſes of the ſtarres, ſome great wrong and violence, or death of the planets, ſecured them in that behalfe: in which dreadful feare ſtood *Steſichorus* and *Pindarus* the Poets (notwithſtanding their lofty ſtile,) and namely at the eclipſe of the Sun, as may appeare by their poems. As for the Moone, mortall men imagine, that by magicke, ſorceries, and charmes, ſhe is inchanted, and therefore helpe her in ſuch a caſe when ſhe is eclipſed by diſſonant ringing of baſons. In this fearefull fit alſo of an eclipſe, *Nicias* the Generall of the Athenians, as a man ignorant of the courſe thereof, feared to ſet ſaile with his fleet out of the hauen, and ſo greatly endangered and diſtreſſed the ſtate of his countrey. Faire chieue yee then for your excellent wit, O noble Spirits, interpretors of the heauens, capable of Natures works, and the deuiſers of that reaſon whereby ye haue ſurmounted both God and
B man. For who is he, that ſeeing theſe things, and the painfull ordinarie trauels, ſince that this terme is now taken vp, of the ſtars; would not beare with his owne infirmitie, and excuſe this neceſſitie of being born to die? Now for this preſent I will briefly and ſummarily touch thoſe principall points which are confeſſed and agreed vpon as touching the ſaid eclipſes, hauing lightly rendred a reaſon thereof in moſt needfull places: for neither ſuch prouing and arguing of theſe matters belongs properly to our purpoſed worke; neither is it leſſe wonder to be able to yeeld the reaſon and cauſes of all things, than to be reſolute and conſtant in ſome.

Chap. XIII.

¶ *Of Eclipſes.*

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CErtaine it is, that all Eclipſes in 222 moneths haue their reuolutions, and return to their former points: as alſo that the Sun's eclipſe neuer happeneth but vpon the change of the Moone, namely either in the laſt of the old, or firſt of the new, which they call conjunction: and that the Moone is neuer eclipſed but in the full, and alwaies ſomewhat preuents the former Eclipſe. Moreouer, that euery yeare both planets are eclipſed at certaine dayes and houres vnder the earth. Neither be theſe eclipſes in all places ſeene when they are aboue the earth, by reaſon ſomerimes of cloudy weather, but more often, for that the globe of the earth hindereth the ſight of the bending conuexitie of the heauen. Within theſe two hundred yeres was it found out by the witty calculation of *Hipparchus*, that the Moone ſometimes was eclip-
D ſed twice in fiue moneths ſpace, and the Sun likewiſe in ſeuen: alſo that the Sun and Moone twice in thirty dayes were darkned aboue the earth: howbeit ſeene this was not equally in all quarters, but of diuers men in diuers places: and that which maketh me to maruell moſt of all in this wonder, is this, that when agreed it is by all, that the Moone light is dimmed by the ſhadow of the earth, one while this eclipſe hapneth in the Weſt, and another while in the Eaſt: as alſo by what reaſon it hapned, that ſeeing after the Sunne is vp, that ſhadow which dusketh the light of the Moone muſt needs be vnder the earth; it fell out once, that the Moone was eclipſed in the Weſt, and both planets to be ſeene aboue the ground in our horiſon: for that in twelue daies both theſe lights were miſſing, and neither Sun nor Moon were ſeen, it hapned in our time, when both the *Veſpaſians* (Emperors) were Conſuls, the father the third time, and the
E ſon the ſecond.

Chap. XIV.

¶ *Of the Moones motion.*

CLeare it is, that the Moone alwaies in her encreaſing hath the tips of her hornes turned from the Sun toward the Eaſt: but in the waine contrariwiſe Weſtward. Alſo that ſhe ſhines the firſt day of her apparition, $\frac{1}{4}$ parts, and the foure and twentieth part of an houre, and ſo riſeth in proportion the ſecond day forward, vnto the full: and likewiſe decreaſeth in the ſame manner to the change. But alwaies ſhe is hidden in the change within four-
F teene degrees of the Sunne. By which argument we collect, that the magnitude of the other Planets is greater than that of the Moone, for ſo much as they appeare otherwhiles when they be but ſeuen degrees off. But the cauſe why they ſhew leſſe, is their altitude: like as alſo the fixed ſtarres, which by reaſon of the brightneſſe of the Sunne are not ſeene in the day time; whereas indeed they ſhine as clearely by day as by night. And that is manifeſtly proued by

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ſome eclipſes of the Sun, and exceeding deepe pits, for ſo they are to be ſeene by day light. G

Chap. XV.

¶ *Generall rules touching the motions and lights of other Planets.*

THoſe three which we ſay are aboue the Sun be hidden when they goe their courſe together with him. They ariſe in the morning, and be called Orientall Matutine, and neuer depart farther than eleuen degrees. But afterwards meeting with his raies and beames, they are couered, and in their triple aſpect retrograde, they make their morning ſtation a hundred and twenty degrees off, which are called the firſt; and anon in a contrarie aſpect or oppoſition, 180 degrees off, they ariſe in the euening, and are Occidentall Veſpertine. In like ſort H approching from another ſide within an hundred and twenty degrees, they make their euening ſtations, which alſo they call the ſecond, vntill he ouertake them within twelue degrees, and ſo hide them, and theſe are called the euening ſettings. As for *Mars*, as he is neerer vnto the Sun, ſo feeleth he the Sun beames by a quadrant aſpect, to wit ninetie degrees, whereupon that motion tooke the name, called the firſt and ſecond Nonagenarie from both riſings. The ſame planet keepeth his ſtationarie reſidence ſix moneths in the ſignes: whereas otherwiſe of his owne nature but two moneths. But the other planets in both ſtations or houſes continue not all out foure moneths apiece. Now the other two inferiour planets vnder the Sun go downe and are hidden after the ſame manner in the euening Coniunction, and in as many degrees they make their morning riſing: and from the fartheſt bounds of their diſtance they follow I the Sun, and after they haue once ouertaken him, they ſet againe in the morning, and ſo outgo him. And anon keeping the ſame diſtance, in the euening they ariſe againe vnto the ſame limits which we named before, from whence they are retrograde, and return to the Sun, and by the euening ſetting they be hidden. As for *Venus*, ſhe likewiſe maketh two ſtations, according to the two manners of her apparance, morning and euening, when ſhe is in fartheſt bounds and vtmoſt points of her Epicycle. But *Mercurie* keepeth his ſtations ſo ſmall a while that they cannot be obſerued. This is the manner and order as well of the lights and appearances of the planets, as of their occultations, and keeping cloſe intricate in their motion, and enfolded within many ſtrange wonders. For change they do their magnitudes and colours; ſometime they approch into the North, the ſame againe go backe toward the South, yea, and all on a K ſudden they appeare one while neerer to the earth, and another while to the heauen: wherein if we ſhall deliuer many points otherwiſe than former Writers, yet confeſſe we do, that for theſe matters we are beholden vnto them, who firſt made demonſtration of ſeeking out the wayes thereto: howbeit let no man diſpaire, but that hee may profit and goe forward alwaies in further knowledge from age to age. For, theſe ſtrange motions fall out vpon many cauſes. The firſt is, by reaſon of thoſe eccentrique circles or Epicycles in the ſtars, which the Greekes call *Abſides*; for needs we muſt vſe in this treatiſe the Greeke termes. Now euery one of the planets haue particular Auges or circles aforeſaid by themſelues, and theſe different from thoſe of the ſtarry heauen: for that the earth from thoſe two points which they call Poles, is the very centre of the heauen, as alſo of the Zodiacke, ſcituate ouerthwart betweene them. All which L things are certainly knowne to be ſo by the compaſſe, that neuer can lie. And therefore for euery centre there ariſe their owne *Abſides*, whereupon it is, that they haue diuers circuits, and different motions, becauſe neceſſarie it is, that the inward and inferiour *Abſides* ſhould be ſhorter.

Chap. XVI.

¶ *Why the ſame Planets ſeeme ſometime higher, and ſome lower.*

THe higheſt *Abſides* therefore from the centre of the earth are of *Saturne*, in the ſigne Scorpio: of *Iupiter*, in Virgo: of *Mars*, in Leo: of the Sun, in Gemini: of *Venus* in M Sagittarius: of *Mercury* in Capricorne: and namely in the middle or fifteenth degree of the ſaid ſignes: and contrariwiſe the ſaid planets in the ſame degrees of the oppoſite ſignes are loweſt, and to the centre of the earth neereſt. So it commeth to paſſe, that they ſeeme to moue more ſlowly when they goe their higheſt circuit: not for that

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A that naturall motions doe either haſten or ſlacke, which be certaine and ſeuerall to euery one: but becauſe the lines which are drawne from the top of the *Abſis*, muſt needs grow narrow and neere together about the centre, as the ſpokes in cart wheeles: and the ſame motion by reaſon of the neereneſſe of the centre, ſeemeth in one place greater, in another leſſe. The other cauſe of their ſublimities is, for that in other ſignes they haue the *Abſides* eleuated higheſt from the centre of their own eccentrique circles. Thus *Saturne* is in the height of his Auge in the 20. degree of Libra, *Iupiter* in the 15. of Cancer, *Mars* in the 28. of Capricorne, the Sunne in the 29. of Aries, *Venus* in the 16. of Piſces, *Mercurie* in the 15. of Virgo, and the Moone in the 4. of Taurus. The third reaſon of their altitude or eleuation, is not taken from their Auges or circles accentrique, but vnderſtood by the meaſure and conuexitie of heauen, for that theſe planets ſeeme to
B the eie as they riſe and fall, to mount vp or ſettle downward through the aire. Hereunto is knit and vnited another cauſe alſo, to wit, the Zodiaks obliquitie, & latitude of the planets, in regard of the eclipticke: For through it the ſtarres which we called wandering, do moue and take their courſe. Neither is there any place inhabited vpon earth, but that which lieth vnder it. For al the reſt without the poles, are fruitles, deſart, and ill fauoured. Only the planet *Venus* goeth beyond the circle of the Zodiake, 2. degrees: which is ſuppoſed to be the very efficient cauſe, that certaine liuing creatures are ingendred and bred euen in the deſart and vnhabitable parts of the world. The Moone likewiſe rangeth throughout all the bredth of it, but neuer goeth out of it. Next after theſe, the ſtarre of *Mercurie* hath the largeſt ſcope in the Zodiake, but yet ſo, as of 12. degrees (for that is the bredth thereof) he wandreth but 8. and thoſe not equally, but two in
C the midſt, foure aboue, and two beneath. Then the Sunne in the midſt, goeth alwaies betweene the two extremities of the Zodiake: but in his declining courſe from South and North, he ſeemeth to wind bias after the maner of Dragons or Serpents, vnequally. *Mars* in his latitude leaueth the eclipticke line foure halfe degrees, *Iupiter* two degrees and a halfe, *Saturne* no more but two, like as the Sunne. Thus you ſee the manner of the latitudes, as they deſcend Southward, or aſcend Northward. And vpon this is the reaſon grounded alſo of the 3. opinion of them, who imagine that the planets do ariſe and mount from the earth vpward into heauen. For very many haue thought, although vntruly, that they climbe in this manner. But to the end that they may be reproued and confuted, we muſt lay open an infinite and incomprehenſible ſubtiltie, & that which containeth all thoſe cauſes & reaſons aboueſaid. Firſt therfore this is agreed on and re-
D ſolued, that theſe ſtars or planets in their euening ſetting, are neereſt to the earth, both in regard of latitude, & alſo of altitude: and then they be called Occidentall Veſpertine, when the Sun toward the euening couereth them with his raies: alſo, when they be fartheſt from the earth, as wel in latitude as eleuation, they be Orientall Matutine, & ariſe or appeare in the morning before the Sun is vp: as alſo that then they are Stationaries in their houſes, which be in the middle points of the latitudes which they call eclipticks. Likewiſe, confeſſed it is, that ſo long as the planets are neer to the earth, their motion ſeemeth to encreaſe & be quicke: but as they depart on high, to decreaſe and be ſlow. And this reaſon is approued & confirmed principally by the eleuations and depreſſions of the Moone. As doubtles it is alſo, and held for an infallible rule, that euery planet being Orientall Matutine, riſeth euery day higher than other. The ſuperior
E three aboue the Sun diminiſh euen from their firſt ſtations vnto the ſecond. Which being ſo, it will plainly appeare, that euery planet Orientall Matutine, riſing before the Sun, beginns to mount the latitude Septentrionall, & decline from the Ecliptick Northward: in ſuch ſort, that from the time they begin to diſmarch, their motion increaſes by little and little more ſparely. But in the firſt Stations, they are at the higheſt altitude & aſcent: for then and not before, the numbers begin to be withdrawne, & the planets to go backward, and be retrograde. Whereof a particular reaſon by it ſelfe may be giuen, in this maner: The Planets being ſmitten in that part wherof we ſpake, they are both inhibited by the triangular beames or Trine aſpect of the ſun, to hold on a ſtraight and direct courſe in the longitude of heauen, and ſo be retrograde: and ſo are raiſed vp aloft by the firie power of the ſaid ſun. This cannot preſently at the firſt be vn-
F derſtood by our eieſight: whereupon they are ſuppoſed to ſtand, and hereof their Stations took the name. Then proceedeth forward the violence of the Sun beames or aſpect, and the vapour thereof by repercuſſion, forceth them to be euidently retrograde, and go backward. And much more is this perceiued in their euen riſing, when they be Orientall Veſpertine, when the Sun is wholly againſt them, and when they be driuen to the very top of their *Abſides*, and ſo not ſeene

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at all, becauſe they are at the higheſt, and goe their leaſt motion, which is ſo much the leſſe, G when as it hapneth in the higheſt ſignes of their Auges or *Abſides*. From the euen ariſing after the Sunne ſetting, they deſcend toward the latitude meridion all, for now the motion leſſe diminiſheth, but yet encreaſeth not before the ſecond ſtations: for that they are forced to deſcend, by reaſon of the Sun beames comming from the other ſide of their Epycicle: and the ſame force beareth them downeward againe to the earth, which by the former triangular aſpect raiſed them aloft towards heauen. So much skilleth it whether the ſaid beames came from beneath or aboue. The ſame happeneth much more in the euen ſetting, when they be hidden with the raies of the Sun. This is the reaſon of the ſuperiour planets aboue the Sunne: but the Theorique is more difficult of the reſt, and hath by no man before vs been deliuered.

H

Chap. XVII.

¶ *Generall rules as touching the Planets.*

FIrſt and formoſt therefore let vs ſet downe the cauſe why *Venus* ſtarre neuer departeth from the Sunne more than 46. degrees, and *Mercurie* not aboue 23. and (being as they are diuers Planets) why oftentimes they retyre backe vnto the Sunne within that compaſſe. For to be reſolued in this point, note we muſt, that both of them haue their *Abſides* turned oppoſite to the reſt, as being ſeated vnder the Sun: and ſo much of their circles is vnderneath, as the forenamed were aboue: and therefore farther off they cannot be, becauſe the curuature and roundle of their *Abſides* in that place hath no I greater longitude. Therefore both edges of their *Abſides*, by a like proportion keepe an indifferent meane, & their courſe is limited: but the ſhort ſpaces of the longitudes, they recompence againe with the wandring of their latitudes. But what is the reaſon that they reach not alwaies to 46. degrees, and to 23? yes ywis do they: but this the Canonicall Aſtronomers haue miſſed of in their Aphoriſmes. For it is apparent, that their *Abſides* alſo or Auges do moue, becauſe they neuer ouerpaſſe the Sunne. And therefore when their edges from either ſide are perceiued to fall vpon the very point, then the planets alſo are ſuppoſed to reach vnto their longeſt diſtances: but when their edges or the points of their Epicicles be ſhort ſo many degrees, the ſtarres themſelues are thought to returne more ſpeedily in their retrogradation, than in their direct courſe forward, albeit the vtmoſt extremitie which they both haue, is euer the ſame. And from K hence is the reaſon vnderſtood of the contrary motions of theſe two planets. For the ſuperiour planets moue moſt ſwiftly in the euen ſetting, but theſe moſt ſlowly. They, I ſay, be fartheſt from the earth, when they moue ſloweſt; and theſe when they goe ſwifteſt: for as in the former the neereneſſe of the centre haſteneth them; ſo in theſe, the extremitie of the circle: they, from their morne riſing begin to ſlack their celeritie; but theſe, to encreaſe it: they returne back from their morning Station to their euening manſion; but *Venus* contrariwiſe is retrograde from the Station Veſpertine, to the Matutine. Howbeit, ſhe from the morne riſing beginneth to climbe the [illegible]itude Septentrionall: but to follow the altitude and the Sunne, from the morning ſtation; as being moſt ſwift, and at the higheſt, in the morn ſetting. Moreouer, ſhee beginnes to digreſſe in latitude, and to diminiſh her motion from the morn riſing: but, to be retrograde, and withall to L digreſſe in altitude, from the euening ſtation. Againe, the planet *Mercury*, being Oriental Matutin, begins both waies to climb, that is, to mount higher day by day; but to digreſſe in latitude, being Orientall Veſpertine: and when the Sunne hath ouertaken him within the diſtance of fifteene degrees, he ſtands ſtill for foure daies vnmoueable. Within a while he deſcendeth from his altitude dayly, and goeth backe retrograde from the euen ſetting, namely, when the Sunne hideth him with his raies, to the Moone riſing, when hee appeareth before the Sunne is vp. This ſtarre onely, and the Moone, deſcend in as many daies as they aſcend. But *Venus* aſcendeth vp to her ſtation in fifteene daies and the vantage. Againe, *Saturne* and *Iupiter* are twice as long deſcending, and *Mars* foure times. See how great variety is in their nature, but the reaſon thereof is euident. For they which go againſt the vapour and heate of the Sunne do alſo hardly M deſcend. Many ſecrets more of Nature, and lawes whereunto ſhe is obedient, might be ſhewed about theſe things. As for example: The planet of *Mars*, whoſe courſe of all others can be leaſt obſerued, neuer maketh ſtation but in quadrate aſpect: as for *Iupiter*, in triangle aſpect: and very ſeldome ſeuered from the Sunne 60. degrees, which number maketh ſix angled formes of the heauen,

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A heauen, that is to ſay, is the iuſt ſixth part of the heauen: neither doth *Iupiter* ſhew his riſing in the ſame ſigne this yeare, as in the former, ſaue onely in two ſignes, *Cancer* and *Leo*. The planet *Mercurie* ſeldome hath his euen riſing in *Piſces*, but very often in *Virgo*, and the morne riſing in *Libra*. In like manner, the morne riſing in *Aquarius*, but very ſeldome in *Leo*. Neither becommeth he retrograde in *Taurus* and *Gemini*: and in *Cancer*, not vnder the 25 degree. As for the Moone, ſhe entreth not twice in coniunction with the Sun in any other ſigne but in *Gemini*; and ſometime hath no coniunction at all, and that only in *Sagitarius*. As for the laſt and firſt of the Moone, to be ſeene in one and the ſelfe ſame day or night, hapneth in no other ſigne but *Aries*, and few men haue had the gift to ſee it: and hereupon came *Linceus* to be ſo famous
B for his eye ſight. Alſo the planets *Saturne* and *Mars* are hidden with the Sun beames, and appeare not in the heauen at the moſt 170 dayes: *Iupiter* 36, or at leaſt ten daies wanting, *Venus* 69, or when leaſt 52. *Mercury* 31, or at leaſt 17.

Chap. XVIII.

¶ *What is the cauſe that the Planets alter their colour.*

THe reaſon of the Planets altitudes is it that tempereth their colours, according as they be neerer or farther off from the earth. For they take the likeneſſe of the aire, into the coaſts whereof they enter in their aſcent: and the circle or circumference of another Planets motion coloureth them as they paſſe either way, aſcending or deſcending. The colder
C ſetteth a pale colour, the hotter a red, and the windie a fearefull and rough hue. Onely the points and coniunctions of the *Abſides*, and the vtmoſt circumferences ſhew a darke blacke. Each planet hath a ſeuerall colour: *Saturne* is white, *Iupiter* cleare and bright, *Mars* fierie and red, *Venus* Orientall (or *Lucifer*) faire, Occidentall (or *Veſper*) ſhining, *Mercury* ſparkeling his raies; the Moone pleaſant, the Sunne when he riſeth burning, afterwards glittering with his beames. Vpon theſe cauſes the ſight is intangled, and diſcouereth euen thoſe ſtars alſo which are contained and fixed in the ſky, more or leſſe. For one while a number of them appeare thicke about the halfe Moone, when in a cleare and calme night ſhe gently beautifieth them. Another while they are ſeen but here and there, inſomuch as we may wonder that they are fled vpon the full Moone, which hideth them: or when the beams either of the Sun or other aboue
D ſaid haue dazled our ſight. Yea, the very Moone her ſelfe hath a feeling doubtleſſe of the Sun beames, as they come vpon her: for thoſe raies that come ſidelong, according to the conuexitie of the heauen, giue but a darke and dim light to the Moone, in compariſon of them that fall directly with ſtraight angles. And therefore in the quadrangle aſpect of the Sun ſhe appeareth diuided in halfe: in the triangle ſhe is well neere inuironed, but her circle is half emptie and void, howbeit in the oppoſition ſhe ſeemeth full: and againe, as ſhe is in the waine ſhe repreſenteth the ſame formes, decreaſing by quarters as ſhe increaſed, with like aſpects as the other three planets aboue the Sun.

Chap. XIX.

E ¶ *The reaſon of the Suns motion, and the vnequalitie of daies.*

AS for the Sun himſelfe, a man may obſerue foure differences in his courſe, twice in the yeare making the night equall with the day, to wit, in the Spring and Autumne, for then he falleth iuſt vpon the entre of the earth, namely in the eight degree of *Aries* and *Libra*. Twice likewiſe exchanging the compaſſe of his race; to lengthen the day from the *Bruma* or mid-winter, in the eighth degree of Capricorne: and againe to lengthen the night from the Sommer Sunſted, being in as many degrees of *Cancer*. The cauſe of vnequall daies is the obliquitie of the Zodiake: whereas the one halfe iuſt of the world, to wit, ſix ſignes of the Zodiake, is at all times aboue and vnder the earth. But thoſe ſignes which mount vpright in their
F riſing, hold light a longer tract, and make the daies longer: whereas they which ariſe crooked and go by as paſſe away in ſhorter and ſwifter time.

CHAP.

G

Chap. XX.

¶ *Why lightnings are attributed to Iupiter.*

MOſt men are ignorant of that ſecret, which by great attendance vpon the heauens, deepe Clerkes and principall men of learning haue found out: namely, that they be the fires of the three vppermoſt planets, which falling to the earth carry the name of lightnings: but thoſe eſpecially which are ſeated in the midſt, to wit, about *Iupiter*, haply becauſe participating the exceſſiue cold and moiſture from the vpper circle of *Saturne*, and the immoderate heate from *Mars* that is next vnder, by this meanes he diſchargeth the ſuperfluitie, and hereupon it is commonly ſaid, that *Iupiter* ſhooteth and darteth lightnings. Therefore, as out of a H
burning piece of wood a cole of fire flieth forth with a cracke; euen ſo from a ſtar is ſpit out as it were and voided forth this cœleſtiall fire, carrying with it preſages of future things: ſo as the heauen ſheweth diuine operations euen in theſe parcels and portions which are reiected and caſt away as ſuperfluous. And this moſt commonly hapneth when the aire is troubled, either becauſe the moiſture that is gathered moueth and ſtirreth forward that aboundance to fall; or elſe for that it is diſquieted with the birth (as it were) proceeding from a great bellied ſtarre, and therefore would be diſcharged of ſuch excrements.

Chap. XXI.

I

¶ *The diſtances of the Planets.*

MAny haue eſſaied to finde out the diſtance and eleuation of the planets from the earth, and haue ſet downe in writing, that the Sun is diſtant from the Moon 18 degrees, euen much as the Moone from the earth. But *Pythagoras*, a man of a quicke ſpirit, hath collected, that there are 126000 furlongs from the earth to the Moone, and a duple diſtance from her to the Sun, and ſo from thence to the twelue ſignes three times ſo much. Of which opinion was alſo our countreyman *Gallus Sulpitius*.

Chap. XXII.

K

¶ *Of the Planets muſicke and harmonie.*

BVt *Pythagoras* otherwhiles vſing the termes of Muſicke, calleth the ſpace betweene the earth and the Moone a Tonus, ſaying, that from her to *Mercurie* is halfe a tone; and from him to *Venus* in manner the ſame ſpace. But from her to the Sun as much and half again: bnt from the Sunne to *Mars* a Tonus, that is to ſay, as much as from the earth to the Moone. From him to *Iupiter* halfe a Tonus: likewiſe from him to *Saturne* halfe a Tonus: and ſo from thence to the ſigniſer Sphere or Zodiacke, ſo much and halfe againe. Thus are compoſed ſeuen tunes, which harmonie they call Diapaſon, that is to ſay, the Generalitie, or whole ſtate of
conſent and concord, which is perfect muſicke. In which, *Saturne* moueth by the Dorick tune: L
Mercury by Phthongus; *Iupiter* by the Phrygian; and the reſt likewiſe. A ſubtilty more pleaſant yw is than needfull.

Chap. XXIII.

¶ *The Geometry or dimenſion of the world.*

A Stadium or Furlong maketh of our paces an hundred twentie and fiue, that is to ſay, ſix hundred twenty and fiue foot. *Poſſidonius* ſaith, That from the earth it is no leſſe than forty ſtadia, to that height or altitude wherein thicke weather, windes, and clouds doe engender. Aboue which, the aire is pure, cleare, and light, without any troubled darkeneſſe. M
But from the cloudy and muddy region to the Moone is 2000000 ſtadia: from thence to the Sun fiue thouſand. By means of which middle ſpace betweene it commeth to paſſe, that ſo exceeding great as the Sun is, he burneth not the earth. Many there be moreouer, who haue taught, that the clouds are eleuated to the hight of nine hundred ſtadia. Vnknown theſe points

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A are, and ſuch as men cannot wind themſelues out of: but as well may they now be deliuered to others, as they haue bin taught to vs: in which notwithſtanding, one infallible reaſon of a Geometricall collection which neuer lieth, cannot be reiected, if a man will ſearch deep into theſe matters. Neither need a man to ſeeke a iuſt meaſure hereof; for to deſire that, were in maner a point of fond and fooliſh idleneſſe, as if men had nothing elſe to do, but onely to make an eſtimate, and reſolue vpon a gueſſe and coniecture therof. For, whereas it is plaine and apparent by the courſe of the Sunne, that the circle through which he paſſeth, doth containe three hundred threeſcore, and almoſt ſix degrees: and alwaies the dimetrent line, or diameter, taketh a third part of the circumference, and little leſſe than a ſeuenth part of a 3. it is plain, that deducting one halfe thereof (by reaſon that the earth ſcituate as a centre, commeth betweene) the ſixt part
B well neere of this great circuit which he makes about the earth (ſo farre as our mind doth comprehend) is the very height from the earth vp to the Sunne, but the twelfth part to the Moone, becauſe ſhe runneth ſo much a ſhorter compaſſe than the Sun: whereby it appeareth, that ſhe is in the middeſt betweene the earth and the Sun. A wonder it is to ſee how farre the preſumpteous minde and heart of man will proceed, and namely being inuited and drawne on by ſome little ſucceſſe, as in the aboue named matter. The reaſon whereof miniſtreth plenteous occaſion of impudencie, for they who dared once to giue a gueſſe at the ſpace betweene the Sun and the earth, are ſo bold to do the like from thence to heauen. For preſuming, that the Sunne is in the middeſt, they haue at their fingers ends by and by the very meaſure alſo of the whole world. For look how many ſeuen parts the dimetrent hath, ſo many 22. parts or thereabout hath the whole
C circle: as if they had gotten the juſt and certain meaſure of the heauen by leuel, and the plumb or perpendicular line. The Ægyptians according to the reckoning which *Petoſiris* and *Necepſos* haue inuented, do collect, That euery degree in the circle of the Moone, which is the leaſt (as hath been ſaid) of all other, containeth 33. ſtadia, and ſomewhat more: in *Saturne*, the greateſt of all the reſt, duple ſo much: and in the Sunne, which we ſaid was the middeſt, the halfe of both meaſures. And this computation hath very great importance, for he that will reckon the diſtances betweene the circle of *Saturne* and the Zodiake, by this calculation ſhall multiplie an infinite number of Stadia.

Chap. XXIIII. ¶ *Of ſudden Starres.*

D THere remaine yet ſome few points as touching the world: for in the very heauen there be Starres that ſuddenly ariſe and appeare, whereof be many kindes.

Chap. XXV.

¶ *Of Comets or blazing ſtars, and cæleſtiall prodigies, their nature, ſcituation, and diuers ſorts.*

E THeſe blaſing ſtarres the Greekes call *Cometas*, our Romanes *Crinitas*: dreadfull to be ſeene, with bloudy haires, and all ouer rough and ſhagged in the top like the buſh of haire vpon the head. The ſame Greekes call thoſe ſtarres *Pogonias*, which from the nether part haue a maine hanging downe, in faſhion of a long beard. As for thoſe named *Acontiæ*, they brandiſh and ſhake like a ſpeare or dart, ſignifying great ſwiftneſſe. This was it, whereof *Tiberius Cæſar* the Emperour wrot an excellent Poeme in his fift Conſulſhip, the laſt that euer was ſeen to this day. The ſame, if they be ſhorter and ſharpe pointed in the top, they vſe to call *Xiphiæ*: and of all other paleſt they be, and glitter like a ſword, but without any reies or beames: which another kind of them, named *Diſceus* (reſembling a diſh or coit, whereof it beareth the name, but in colour like to amber) putteth forth here and there out of the brimmes and edges thereof. As for *Pitheus*, it is ſeene in forme of tunnes, enuironed within a ſmokie light, as if it were a concauitie. *Ceratias* reſembleth an horne: and ſuch a one appeared when the whole manhood of Greece fought
F the battell of Salamis. *Lampadias* is like to burning torches: and *Hippeus* to horſe maines, moſt ſwift in motion, & turning round. There is alſo a white Comet with ſiluer haires, ſo bright and ſhining, that hardly a man can endure to looke vpon it, and in mans ſhape it ſheweth the very image of a god. Moreouer, there be blazing ſtarres that become all ſhaggie, compaſſed round with hairie fringe, and a kind of maine. One heretofore appearing in the forme of a main, chan-

Pogonias. *Acontias.* *Xyphias.* *Diſceus.* *Pitheus.* *Ceratias.* *Lampadias.* *Hippeus.*

ged into a speare, namely in the 108 Olympia's, and the 398 yeare from the foundation of Rome. Noted it hath bin, that the shortest time of their appearance is a seuen-night, and the longest eighty daies: some of them moue like the wandering planets; others are fixed fast, and stir not. All in maner are seen vnder the very North star called *Charlemaignes* Wain: some in no certain part thereof, but especially in that white, which hath taken the name of the * Milk circle. *Aristotle* saith that many are seene together, a thing that no man else hath found out, so far as I can learne. Mary, boisterous windes and much heate of weather are foretokened by them. There are of them seene also in Winter season, and about the Antarticke South pole; but in that place without any beames. A terrible one likewise was seene of the people in Ethiopia and Egypt, which the King who reigned in that age named Typhon. It resembled fire, and was pleited and twisted in manner of a wreath, grim and hideous to be looked on, and no more truly to be counted a star than some knot of fire. Sometimes it falleth out, that the planets and other stars are bespred all ouer with haires: but a Comet lightly is neuer seen in the west part of the heauen.

* Galazi.

Typhon.

A fearefull star for the most part this Comet is, and not easily expiated; as it appeared by the late ciuill troubles when *Octauius* was Consul: as also a second time, by the intestine war of *Pompey* and *Cæsar*. And in our dayes about the time that *Claudius Cæsar* was poysoned, and left the Empire to *Domitius Nero*, in the time of whose reigne and gouernment there was another in manner continually seen, and euer terrible. Men hold opinion, that it is materiall for presage to obserue into what quarters it shooteth, or what stars power and influence it receiueth: also what similitudes it resembleth, and in what parts it shineth out and first ariseth. For if it be like vnto flutes or hautboies it portendeth somewhat to Musitians: if it appeare in the priuy parts of any signe, then let ruffians, whore-masters, and such filthy persons take heed. It is respectiue to fine wits, and learned men, if it put forth a triangular or foure-square figure, with euen angles, to any scituations of the perpetuall fixed stars. And it it is thought to presage, yea to sprinkle and put forth poison, if seen in the head of the Dragon either North or South.

In one only place of the whole world, namely in a Temple at Rome, a Comet is worshipped and adored, euen that which by *Augustus Cæsar* himselfe, of happy memorie, was iudged verie lucky and happy to him; who when it began to appeare, gaue attendance in person, as ouerseer of those playes and games which he made to *Venus genetrix*, not long after the death of his father *Cæsar*, in the colledge by him instituted and erected: testifying his ioy in these words, *In those very daies during the solemnities of my Plaies, there was seen a blasing star for seuen daies together, in that region of the sky which is vnder the North star* Septentriones. *It arose about the* 11 *houre of the day, bright it was and cleare, and euidently seene in all lands: by that star it was signified, as the common sort beleeued, that the soule of* (Iulius) Cæsar *was receiued among the diuine powers of the immortal gods. In which regard, that marke or ensigne of a star was set to the head of that statue of* Iulius Cæsar, *which soone after we dedicated in the Forum Romanum.* These words published he abroad: but in a more inward ioy, to himselfe he interpreted and conceiued thus of the thing, That this Comet was made for him, and that himselfe was in it borne. And verily, if we wil confesse a truth, a healthfull, good, and happy presage that was to the whole world. Some there be who beleeue, that these be perpetuall stars, and go their course round, but are not seen vnlesse they be left by the Sun. Others againe are of opinion, that they are ingendred casually by some humour, and the power of fire together, and thereby do melt away and consume.

Chap. XXVI.

¶ *Hipparchus his opinion of the Stars. Also historicall examples of Torches, Lamps, Beames, Fiery Darts, opening of the Firmament, and other such impressions.*

Hippaachus the foresaid Philosopher (a man neuer sufficiently praised, as who proued the affinitie of stars with men, and none more than he; affirming also that our soules were parcell of heauen) found out and obserued another new star ingendred in his time, and by the motion thereof on what day it first shone, he grew presently into a doubt, Whether it hapned not very often that new stars should arise; and whether those starres also moued not, which we imagined to be fixed. The same man went so farre, that he attempted (a thing euen hard

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A hard for God to performe, to deliuer to poſteritie the iuſt number of ſtarres. He brought the ſame ſtars within the compaſſe of rule and art, deuiſing certaine inſtruments to take their ſeueral places, and ſet out their magnitudes: that thereby it might be eaſily diſcerned, not only whether the old died, and new were borne, but alſo whether they moued, and which way they tooke their courſe, likewiſe whether they increaſed or decreaſed. Thus he left the inheritance of heauen vnto all men, if haply any one could be found able to enter vpon it as lawfull heire.

There be alſo certaine flaming torches ſhining out in the ſky, howbeit neuer ſeene but when they fall. Such a one was that which at the time that *Germ. Cæſar* exhibited a ſhew of Sword-fencers at vtterance, ran at noontide in ſight of all the people. And two ſorts there be of them,
B namely *Lampades*, which they call plaine torches; and *Bolides*, *i.* Lances, ſuch as thé Mutinians ſaw in their calamitie when their city was ſacked. Herein they differ, for that thoſe lampes or torches make long traines, whiles the forepart only is on a light fire: but *Bolis* burnes all ouer, and draweth a longer taile. There appeare and ſhine out after the ſame manner certain beams, which the Greekes call *Docus*: like as when the Lacedemonians being vanquiſhed at ſea, loſt the empire and dominion of Greece. The firmament alſo is ſeene to chinke and open, and this they name *Chaſma*.

Lampades. *Bolides.* *Docus.* *Chaſma.*

Chap. xxvij.

¶ *Of the ſtrange colours of the Sky.*

C THere appeareth in the Sky alſo a reſemblance of bloud, and (than which nothing is more dread and feared of men) a fiery impreſſion, falling from out of heauen to earth; like as it hapned in the 3 yeare of the 107 Olympias, at what time King *Philip* made all Greece to ſhake with fire and ſword. And theſe things verily I ſuppoſe to come at certaine times by courſe of nature, like as other things, and not as the moſt part thinke, of ſundry cauſes, which the ſubtill wit and head of man is able to deuiſe. They haue indeed been fore-runners of exceeding great miſeries; but I ſuppoſe thoſe calamities hapned not becauſe theſe impreſſions were, but theſe therefore were procreated to foretell the accidents that enſued afterward. Now for that they fall out ſo ſeldome, the reaſon thereof is hidden and ſecret, and ſo not knowne, as the riſing of planets aboue ſaid, the eclipſes, and many other things.

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Chap. xxviij. ¶ *Of the Heauen flame.*

LIkewiſe there are ſeen ſtars together with the Sun all day long; yea, and very often about the compaſſe of the Sun other flames, like vnto garlands of corne eares; alſo circles of ſundry colours, ſuch as thoſe were when *Auguſtus Cæſar* in the prime of his youth entered the city of Rome after the deceaſe of his father, to take vpon him his great name and imperial title.

Chap. xxjx. ¶ *Of Cæleſtiall Crownes.*

E ALſo the ſame garlands appeare about the Moone and other goodly bright ſtars which are fixed in the firmament. Round about the Sun there was ſeene an arch, when *Lu. Opimius* and *Q. Fabius* were Conſuls: as alſo a round circle, when *L. Porcius* and *M. Acilius* were Conſuls.

Chap. xxx. ¶ *Of ſudden Circles.*

THere appeared a circle of red colour when *L. Iulius* and *P. Rutilius* were Conſuls. Moreouer, there are ſtrange eclipſes of the Sunne, continuing longer than ordinarie; as namely when *Cæſar* Dictator was murthered. Moreouer, in the wars of *Antony* the Sun continued almoſt a whole yeare of a pale wan colour.

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Chap. xxxj. ¶ *Many Suns.*

OVer and beſides, many Suns are ſeene at once, neither aboue nor beneath the bodie of the true Sunne indeed, but croſſe-wiſe, and ouerthwart: neuer neere nor directly againſt the earth, neither in the night ſeaſon, but when the Sun either riſeth or ſetteth. Once

they are reported to haue beene ſeene at noone day in Boſphorus, and continued from morne G
to euen. Three Suns together our Anceſtors in old time haue often beheld, as namely when *Sp. Poſthumus*, with *Q. Mutius*, *Q. Martius*, with *M. Porcius*, *M. Antonius*, with *P. Dolabella*, and *Mar. Lepidus*, with *L. Plancus*, were Conſuls. Yea, and we in our daies haue ſeene the like, when *Cl. Cæſar* (of famous memorie) was Conſul, together with *Cornelius Orfitus* his Colleague. More than three we neuer to this day finde to haue been ſeene together.

Chap. XXXII. ¶ *Many Moones.*

THree Moones alſo appeared at once, and namely when *Cn. Domitius* and *C. Fannius* were Conſuls, which moſt men called Night Sunnes.

Chap. XXXIII. ¶ *Day light in the Night.* H

OVt of the Firmament by night there was ſeen a light, when *C. Cælius* and *Cn. Papyrius* were Conſuls, yea and oftentimes beſides, ſo as the night ſeemed as light as the day.

Chap. XXXIV. ¶ *Burning Shields or Targuets.*

A Burning ſhield ran ſparkling from the Weſt to the Eaſt, at the Suns ſetting, when *L. Valerius* and *C. Marius* were Conſuls.

Chap. XXXV. ¶ *A ſtrange ſight in the Sky.*

BY report there was once ſeene, and neuer but once, when *Cn. Octauius* and *C. Scribonius* were I
Conſuls, a ſparkle to fall from a ſtar: and as it approched the earth, it waxed greater; and after it came to the bigneſſe of the Moone it ſhined out and gaue light, as in a cloudy and darke day: then being retyred againe into the ſky, it became, to mens thinking, a burning Lampe. This, *Licinius Syllanus* the Proconſull ſaw, together with his whole traine.

Chap. XXXVI. ¶ *The running of Stars to and fro in the Sky.*

SEene there be alſo Stars to ſhoot hither and thither, but neuer for nought and to no purpoſe: for, from the ſame quarter where they appeare, there riſe terrible windes, and after them ſtormes and tempeſts both by ſea and land.

Chap. xxxvij. ¶ *Of the Stars called Caſtor and Pollux.* K

I Haue ſeene my ſelfe in the campe, from the ſoldiers ſentinels in the night watch, the reſemblance of lightning to ſticke faſt vpon the ſpeares and pikes ſet before the rampier. They ſettle alſo vpon the croſſe Saile yards and other parts of the ſhip, as men do ſaile in the ſea, making a kinde of vocall ſound, leaping to and fro, and ſhifting their places as birds do which fly from bough to bough. Dangerous they be and vnlucky when they come one by one without a companion; and they drowne thoſe ſhips on which they light, and threaten ſhipwrack, yea, and they ſet them on fire if haply they fall vpon the bottome of the keele. But if they appeare two and two together, they bring comfort with them, and foretell a proſperous courſe in the voiage, as by whoſe comming, they ſay, that dreadfull, curſed, and threatning meteor cal- L
led Helena is chaſed and driuen away. And hereupon it is that men aſſigne this mighty power to *Caſtor* and *Pollux*, and inuocate them at ſea no leſſe than gods. Mens heads alſo in the euen tyde are ſeene many times to ſhine round about, and to be of a light fire, which preſageth ſome great matter. Of all theſe things there is no certain reaſon to be giuen, but ſecret theſe be, hidden with the maieſtie of Nature, and reſerued within her cabinet.

Chap. xxxviij. ¶ *Of the Aire.*

IT remaineth now (thus much and thus far being ſpoken of the world it ſelfe) to wit, the ſtarry heauen and the planets) to ſpeake of other memorable things obſerued in the Skie. For
euen that part alſo hath our forefathers called *Cælum, (i.)* the Skie, which otherwiſe they M
name aire: euen all that portion of the whole, which ſeeming like a void and empty place, yeeldeth this vitall ſpirit whereby all things do liue. This region is ſeated beneath the Moone, and farre vnder that Planet (as I obſerue it is in a manner by euery man agreed vpon.) And mingling together an infinite portion of the ſuperiour cœleſtiall nature or elementarie fire,

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A with an huge deale likewiſe of earthly vapours, it doth participate confuſedly of both. From hence proceed clouds, thunders, and thoſe terrible lightenings. From hence come haile, froſts, ſhoures of raine, ſtormes and whirlewindes: from hence ariſe the moſt calamities of mortall men, and the continuall warre that nature maketh with her owne ſelfe. For theſe groſſe exhalations as they mount vpward to the heauen, are beaten backe and driuen downeward by the violence of the ſtarres: and the ſame againe when they liſt, draw vp to them thoſe matters, which of their owne accord aſcend not. For thus we ſee, that ſhoures of raine do fall, foggie miſts and light clouds ariſe, riuers are dried vp, haile ſtormes come downe amaine, the Sunne beames doe ſcorch and burne the ground, yea, and driue it euery where to the middle centre: but the ſame againe vnbroken, and not loſing their force, rebound backe and take vp with them whatſoeuer
B they haue drunke vp and drawne. Vapours fall from aloft, and the ſame returne againe on high: winds blow forcibly, and come emptie, but backe they goe with a bootie, and carry away euery thing before them. So many liuing creatures take their wind and draw breath from aboue: but the ſame laboureth contrariwiſe, and the earth infuſeth into the aire a ſpirit and breath, as if it were cleane void and empty. Thus whiles the Nature goes too and fro, as forced by ſome engin, by the ſwiftneſſe of the heauen, the fire of diſcord is kindled and groweth hot. Neither may ſhe abide by it, and ſtand to the fight, but being continually carried away, ſhe rolleth vp and down: and as about the earth ſhee ſpreadeth and pitcheth her tents, as it were, with an vnmeaſurable globe of the heauen, ſo euer and anon of the clouds ſhe frameth another skie. And this is that region where the winds raigne. And therefore their kingdome principally is there to be ſeene,
C where they execute their forces, and are the cauſe well neere of all other troubles in the aire. For thunderbolts and flaſhing lightenings moſt men attribute to their violence. Nay, more than that, therefore it is ſuppoſed that otherwhiles it raineth ſtones, becauſe they were taken vp firſt by the winde: ſo as we may conclude, that they cauſe many like impreſſions in the aire. Wherefore many matters beſides are to be treated of together.

Chap. XXXIX. ¶ *Of ordinary and ſet ſeaſons.*

D IT is manifeſt, that of times and ſeaſons, as alſo of other things, ſome cauſes be certaine; others, caſuall and by chance; or, ſuch as yet the reaſon thereof is vnknowne. For who need to doubt, that Summers and Winters, and thoſe alternatiue ſeaſons which we obſerue by yearely courſe, are occaſioned by the motion of the Planets. As therefore the Sunnes nature is vnderſtood by tempering and ordering the yeare: ſo the reſt of the ſtarres and planets alſo haue euery one their proper and peculiar power, and the ſame effectuall to ſhew and performe their owne nature. Some are fruitfull to bring forth moiſture, that is turned into liquid raine: others to yeeld an humour either congealed into froſts, or gathered and thickened into ſnow, or elſe frozen and hardened into haile: ſome afford winds: others warmth: ſome hot and ſcorching vapours: ſome, dewes: and others, cold. Neither yet ought theſe ſtarres to be eſteemed ſo little as they ſhew in ſight, ſeeing that none of them is leſſe than the Moone, as may appeare by the reaſon of their exceeding height. Well then, euery one in their own motion, exerciſe their ſeuerall
E natures: which appeareth manifeſtly by *Saturne* eſpecially, who ſetteth open the gates for raine and ſhoures to paſſe. And not onely the ſeuen wandering ſtarres be of this power, but many of them alſo that are fixed in the firmament; ſo often as they be either driuen by the exceſſe and approch of thoſe planets, or pricked and prouoked by the caſting and influence of their beams; like as we find it happeneth in the ſeuen ſtars called *Suculæ*, which the Grecians of raine name *Hyades*, becauſe they euer bring foule weather. Howbeit ſome, of their owne nature, and at certaine ſet times do cauſe raine, as the riſing of the Kids. As for *Arcturus*, he neuer lightly appeareth without ſome tempeſtuous and ſtormie haile.

Chap. XL. ¶ *The power of the Dog-ſtarre.*

F WHo knoweth not, that when the Dogge-ſtarre ariſeth, the heate of the Sunne is fiery and burning? the effects of which ſtarre are felt exceeding much vpon the earth. The ſeas at his riſing do rage and take on, the wines in ſellars are troubled, pooles alſo and ſtanding waters doe ſtirre and moue. A wilde beaſt there is in Ægypt, called *Orix*, which the Ægyptians ſay doth ſtand full againſt the Dog-ſtarre when it riſeth,

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looking wistly vpon it,and testifieth after a sort by sneezing,a kind of worship. As for dogs,no man doubteth verily,but all the time of the canicular daies they are most ready to run mad. G

Chap. XLI.

¶ *That the starshaue their seuerall influences in sundry parts of the signes, and at diuers times.*

MOreouer, the parts of certaine signes haue their peculiar force,as appeareth in the Equinoctiall of Autumne,and in mid-winter;at what time we perceiue, that the Sun maketh tempests. And this is proued,not onely by raines and stormes,but by many experiments in mens bodies,and accidents to plants in the countrey. For some men are stricken by the Planet,and blasted : others are troubled and diseased at certaine times ordinarily, in their belly,sinewes,head,and minde. The Oliue tree,the Aspe or white Poplar, and Willowes, turne or wryth their leaues about at Mid-summer,when the Sun entreth Cancer. And contrariwise, in very Mid-winter,when he entreth Capricorne,the herbe Penyroiall floureth fresh,euen as it hangs within house,drie and ready to wither. At which time all parchments & such like bladders or skinnes are so pent and stretched with spirit and wind,that they burst withall. A man might maruell hereat,who marketh not by daily experience, that one herbe called * *Heliotropium*,regardeth and looketh toward the Sun euer as he goeth, turning with him at all houres, notwithstanding he be shadowed vnder a cloud. Now certaine it is,that the bodies of Oysters, Muskles,Cocles,and all shell fishes,grow by the power of the Moone, and thereby againe diminish : yea,and some haue found out by diligent search into Natures secrets, that the fibres or filaments in the liuers of rats and mice, answer in number to the daies of the Moones age : also that the least creature of all others,the Pismire,feeleth the power of this Planet, and alwaies in the change of the Moone ceaseth from worke. Certes,the more shame it is for man to be ignorant and vnskilfull,especially seeing that he must confesse, that some labouring beasts haue certaine diseases in their eyes,which with the Moone do grow and decay. Howbeit the excessiue greatnesse of the heauen and exceeding height thereof,diuided as it is into 72 signes, maketh for him,and serueth for his excuse. Now these signes are the resemblances of things or liuing creatures,into which the skilfull Astronomers haue with good respect digested the firmament. For example sake, in the taile of Taurus there be seuen, which they named in old time *Vergiliæ*;in the forehead other seuen called *Suculæ*;and *Boötes*,who followeth after the wain or great Beare *Septentriones*. H I K

* Some take it for Ruds or Wert-wort: others for Turn-sol, or the Marygold.

Chap. XLII.

¶ *The causes of raine,showers,winds,and cloudes.*

ICannot denie but without these causes there arise raines and windes : for that certaine it is, how there is sent forth from the earth a mist sometimes moist, otherwhiles smokie,by reason of hot vapours and exhalations. Also that clouds are ingendered by vapours which are gone vp on high,or else of the aire gathered into a waterie liquour : that they be thicke, grosse, and of a bodily consistence,wee guesse and collect by no doubtful argument,considering that they ouer-shadow the Sun,which otherwise may be seene through the water,as they know well that diue to any depth whatsoeuer. L

Chap. XLIII.

¶ *Of Thunder and Lightening.* M

DEnie I would not therefore,but that the fierie impressions from starsaboue may fall vpon these clouds,such as we oftentimes see to shoot in cleare and faire weather: by the forceble stroke whereof,good reason it is,that the aire should be mightily shaken, seeing that arrowes and darts when they are discharged,sing and keepe a noise as they flie. But when they incounter a cloud,there arises a vapor with a dissonant sound (like as when a red hot yron maketh

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A keth an hiſſing being thruſt into water) & a ſmokie ſume walmeth vp with many turnings like waues. Hereupon ſtormes do breed. And if this flatuoſitie or vapour doe ſtruggle and wreſtle within the cloud, from thence it commeth that thunderclaps be heard; but if it breake through ſtill burning, then flieth out the thunderbolt: if it be longer time a ſtrugling, and cannot pierce through, then leams and flaſhes are ſeene. With theſe, the cloud is clouen; with the other, burſt in ſunder. Moreouer, thunders are nothing els but the blows and thumps giuen by the fires beating hard vpon the clouds: and therefore preſently the firy chinkes and rifts of thoſe clouds do glitter and ſhine. Poſſible it is alſo, that the breath and winde eleuated from the earth, being repelled back, and kept downe by the ſtars, & ſo held in and reſtrained within a cloud, may thun-
B der, whiles Nature choketh the rumbling ſound, all the while it ſtriueth and quarelleth; but ſendeth forth a crack when it breaketh out, as we ſee in a bladder puffed vp with winde. Likewiſe it may be, that the ſame wind or ſpirit whatſoeuer, is ſet on fire by fretting and rubbing, as it violently paſſeth headlong downe. It may alſo be ſtricken by the conflict of two clouds, as if two ſtones hit one againſt another; and ſo the leams and flaſhes ſparkle forth, ſo as all theſe accidents happen by chance-medley, and be irregular. And hereupon come thoſe bruitiſh & vain lightenings, ſuch as haue no natural reaſon, but are occaſioned by theſe impreſſions aboueſaid. With theſe are mountains and ſeas ſmitten: and of this kind be all other blaſts and bolts that do no hurt to liuing creatures. As for thoſe that come from aboue, and of ordinary cauſes, yea, and from their proper ſtars, they alwaies preſage and foretell future euents. In like manner as touching the windes, or rather blaſts, I would not denie but that they may proceed from a dry
C exhalation of the earth, void of all moiſture: neither is it impoſſible, but that they do ariſe out of waters, breathing and ſending out an aire, which neither can thicken into a miſt, nor gather into clouds: alſo they may be driuen by the lugitation and impulſion of the Sun, becauſe the winde is conceiued to be nought els but the fluctuation and waiuing of the aire, and that by many means alſo: for ſome we ſee to riſe out of riuers, firths, and ſeas, euen when they be ſtil and calme: as alſo others out of the earth, which winds they name *Altani*. And thoſe verily when they come backe againe from the ſea, are called *Tropæi*: if they go onward, *Apogæi*.

Chap. XLIIII.

¶ *What is the reaſon of the reſounding and doubling of the Eccho.*

D

BVt the windings of hils, and their often turuings, their many tops, their creſts and ridges alſo bending like an elbow or broken, and arched as it were into ſhoulders, together with the hollow noukes of vallies, do cut vnequally the aire that reboundeth them fro: which is the cauſe of reciprocall voices called Ecchoes, anſwering one another in many places, when a man doth holla or houpe among them.

Chap. XLV.

¶ *Of Windes againe.*

E NOw there be certaine caues and holes which breed windes continually without end: like as that is one which we ſee in the edge of Dalmatia, with a wide mouth gaping, & leading to a deep downfall: into which if you caſt any matter of light weight, be the day neuer ſo calm otherwiſe, there ariſeth preſently a ſtormie tempeſt like a whirle puffe. The places name is Senta. Moreouer, in the prouince Cyrenaica there is reported to be a rock conſecrated to the South-wind, which without prophanation may not be touched with mans hand; but if it be, preſently the South wind doth ariſe and caſt vp heaps of ſand. Alſo in many houſes there be hollow places deuiſed & made by mans hand for receipt of wind, which being incloſed with ſhade and darkneſſe, gather their blaſts. Whereby we may ſee how all winds haue one cauſe or other. But great difference there is betweene ſuch blaſts and winds. As for theſe, they be ſetled
F and ordinarie, continually blowing; which, not ſome ſmal tracts & particular places, but whole lands do feele; which are not light gales nor ſtormy puffes, named *Aurꝛ* and *Procellæ*, but ſimply called winds, by the Maſculine name *Venti*: which whether they ariſe by the continuall motion of the heauen, and the contrary courſe of the Planets; or whether this winde be that ſpirit of Nature that engendreth all things, wandering to and fro as it were in ſome wombe; or rather

the

the aire, beaten and driuen by the vnlike influences and raies of the ſtraying ſtarres or planets, G
and the multiplicitie of their beames: or whether all winds come from their owne ſtars, namely theſe planets neerer at hand; or rather fall from them that be fixed in the firmament. Plaine and euident it is, that guided they by an ordinary law of Nature, not altogether vnknowne, although it be not yet throughly knowne.

Chap. XLVI.

¶ *The Natures and obſeruations of the Windes.*

THe old Greeke writers, not ſo few as twentie, haue ſet downe and recorded their obſeruations of the Winds. I maruell ſo much the more, that the World be- H
ing ſo at diſcord, and diuided into kingdomes, that is to ſay, diſmembred as it was; ſo many men haue had care to ſeek after theſe things, ſo intricate and hard to be found out, and namely in time of wars, and amid thoſe places where was no ſafe lodging nor abode, and eſpecially when pyrats and rouers, common enemies to mankinde, held welneere all paſſages: I maruell, I ſay, that at this day each man in his owne tract and countrey taketh more light and true knowledge of ſome things by their commentaries and bookes, who neuer ſet foot there, than they doe by the skill and information of home-born inhabitants; whereas now in time of ſo bleſſed and ioious peace, and vnder a prince who taketh ſuch delight in the progreſſe of the State and of all good arts, no new thing is learned by farther inquiſition, nay, nor ſo much as the inuentions of old writers are throughly vn- I
derſtood. And verily it cannot be ſaid, that greater rewards were in thoſe daies giuen, conſidering that the bountie of Fortune was diſperſed, and put into many mens hands: and in truth moſt of theſe deepe Clerkes and learned men, ſought out theſe ſecrets for no other reward or regard, than to doe good vnto poſteritie. But now, mens manners are waxen old and decay; now, all good cuſtomes are in the waine: and notwithſtanding that the fruit of learning be as great as euer it was, and the recompences as liberall, yet men are become idle in this behalfe. The ſeas are open to all, an infinite multitude of ſaylers haue diſcouered all coaſts whatſoeuer, they ſaile through and arriue familiarly at euery ſhore: all for gaine and lucre, but none for knowledge and cunning. Their mindes altogether blinded, and bent vpon nothing but coue- K
touſneſſe, neuer conſider that the ſame might with more ſafetie be performed by skill and learning. And therfore ſeeing there be ſo many thouſand poore ſailers that hazard themſelues on the ſeas, I will treat of the winds more curiouſly and exquiſitly than perhaps beſeemes the preſent worke that is begun.

Chap. XLVII.

¶ *Many ſorts of Windes.*

MEn in old time obſerued foure Windes only, according to ſo many quarters of the world (and therefore *Homer* nameth no more:) a blockiſh reaſon this was, as ſoone
after it was iudged. The Age enſuing added eight more; and they were on the o- L
ther ſide in their conceit too ſubtill and conciſe. The Modern ſailers of late daies found out a meane betweene both: and they put vnto that ſhort number of the firſt, foure windes and no more, which they tooke out of the later. Therefore euery quarter of the Heauen hath two windes apiece. From the equinoctiall Sunne-riſing bloweth the Eaſt-winde *Sub-ſolanus*: from the riſing thereof in the Mid-winter, the South-eaſt *Vulturnus*. The former of theſe twaine the Greekes call *Apeliotes*, and the later *Eurus*. From the Mid-day, riſeth the South winde: and from the Sun-ſetting in Mid-winter the South-weſt, *Africus*. They alſo name theſe two, *Notus* and *Libs*. From the Equinoctiall going down of the Sun, the Weſt winde *Fauonius* commeth: but from that in Summer ſeaſon, the North-weſt *Corus*. And by
the ſame Greekes they are termed *Zephyrus* and *Argeſtes*. From the North waine or pole Ar- M
cticke, bloweth the North winde *Septentrio*: betweene which and the Sun-riſing in Summer, is the North-eaſt winde *Aquilo*, named *Aparctias* and *Boreas* by the Greekes. A greater reckoning than this for number, is brought in by ſome, who haue thruſt in foure more betweene; namely, *Thracias* betweene the North and the Summer-ſetting of the Sunne: in like manner

Cacias

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A *Cæcias* in the midſt betweene the North-eaſt *Aquilo*, and that of the Sun riſing in the Equinoctiall *Sub-ſolanus*. Alſo, after the Sun-riſing in Sommer, *Phœnicias* in the middeſt, betweene the South-eaſt and the South. Laſt of all, betweene the South and the South-weſt, *Lybonotus*, iuſt in the middeſt, compounded of them both, namely, betweene the Nooneſtead, and the Sunſetting in Winter. But here they could not lay a ſtraw, and ſee to make an end. For others haue ſet one more yet called *Meſe*, betweene the North-eaſt winde *Borias* and *Cæcias*: alſo *Euronotus* betweene the South and the Southweſt winds. Beſides all theſe, there be ſome winds appropriate and peculiar to euery nation, which paſſe not beyond one certaine tract and region: as namely *Scyros* among the Athenians, declining a little from *Argeſtes* a winde vnknowne to other parts
B of Greece. In ſome other place it is more aloft, and the ſame then is called *Olympias*, as comming from the high hill Olimpus. But the vſuall and cuſtomable manner of ſpeech vnderſtandeth by all theſe names *Argeſtes* only. Some call *Cæcias*, by the name of *Helleſpontias*, and giue the ſame winds in ſundry places diuers names. In the prouince likewiſe of Narbone, the moſt notorious winde is *Circius*, and for violence inferiour to none, driuing directly before it very often, the current at Oſtia, into the Ligurian ſea. The ſame wind is not only vnknown in all other climats of the heauen, but reacheth not ſo much as to Vienna, a citie in the ſame prouince. As great & boiſterous a wind as he is otherwiſe, yet a reſtraint he hath before he come thither, and is kept within few bounds by the oppoſition of a meane and ſmall hill. *Fabianus* alſo auouches, that the South winds enter not ſo far as into Ægypt. Whereby, the law of Nature ſheweth it ſelfe plainely, that euen windes haue their times and limits appointed.

C To proceed then; the Spring openeth the ſea for ſailers: in the beginning whereof, the Weſt winds mitigate the Winter weather, at what time as the Sun is in the 25 degree of Aquarius, and that is the ſixt day before the Ides of February. And this order holdeth in manner with all other winds, that I will ſet downe one after another; ſo that in euery leape yeare ye anticipate and reckon one day ſooner, and then againe keep the ſame rule throughout all the foure yeares following. Some call *Fauonius* (which beginneth to blow about the 7 day before the Calends of March) by the name of *Chelidonius*, vpon the ſight of the firſt Swallows; but many name it *Orinthias*, comming the 71 day after the ſhorteſt day in winter; by occaſion of the comming of birds: which wind bloweth for nine dayes. Oppoſite vnto *Fauonius* is the VVind which we called *Sub-ſolanus*. Vnto this VVind is attributed the riſing of the *Vergiliæ* or ſeuen ſtars, in as ma-
D ny degrees of Taurus, ſix daies before the Ides of May; which time is a ſoutherly conſtitution: and to this Winde the North is contrarie. Moreouer, in the hotteſt ſeaſon of the Sommer, the Dog-ſtar ariſeth, at what time as the Sun entreth into the firſt degree of Leo, which commonly is the 15 day before the Calends of Auguſt. Before the riſing of this ſtar for eight daies ſpace or thereabout, the Northeaſt winds are aloft, which the Greekes call *Prodromi*, *i.* forerunners. And two daies after it is riſen, the ſame winds hold ſtill more ſtiffely, and blow for the ſpace of fortie daies, which they name *Eteſiæ*. The Suns heate redoubled by the hotneſſe of that ſtar, is thought to be aſſwaged by them: and no winds are more conſtant, nor keep their ſet times better than they. Next after them come the Southerne winds againe, which are vſually vp, vntill the ſtar *Arcturus* riſeth, and that is nine daies before the Æquinoctiall in Autumne. With it
E entereth *Corus*, and thus *Corus* beginneth the Autumne. And to this *Vulturnus* is contrarie. After that Æquinoctiall, about 44 daies the *Virgiliæ* go downe, and begin winter, which ſeaſon vſually falleth vpon the third day before the Ides of Nouember. This is the winter Northeaſt wind, which is far vnlike to that in Sommer, oppoſit and contrary to *Africus*. Now, a ſeuen night before the Mid-winter day, and as much after, the ſea is allaied and calme for the ſitting and hatching of the birds Halciones, whereupon theſe daies tooke the name *Alcionis*: the time behind, plaieth the part of Winter. And yet theſe boiſterous ſeaſons full of tempeſts, ſhut not vp the ſea: for pyrats and rouers at the firſt forced men with preſent perill of death, to run headlong vpon their death, and to hazard themſelues in Winter ſeas; but now a daies couetouſneſſe cauſeth men to do the like.

F The coldeſt winds of all other, be thoſe which we ſaid to blow from the North-pole, and together with them their neighbor, *Corus*. Theſe winds do both allay and ſtill all others, and alſo ſcatter and driue away clouds. Moiſt winds are *Africus*, and eſpecially the South wind of Italy called *Auſter*. Men report alſo, that *Cæcias* in Pontus gathereth & draweth to it ſelfe clouds. *Corus* and *Vulturnus* are dry, but onely in the end when they giue ouer. The Northeaſt and the North;

North,engender ſnow. The North winde alſo bringeth in haile,ſo doth *Corus*. The South wind G
is exceeding hot and troublous withall. *Vulturnus* and *Favonius* be warme. They alſo be drier than the Eaſt:and generally all winds from the North and Weſt are drier than from the South and Eaſt. Of all winds the Northern is moſt heathfull : the Southern wind is noiſome, and the rather when it is drie;haply,becauſe that when it is moiſt,it is the colder. During the time that it bloweth,liuing creatures are thought to be leſſe hungry:the *Eteſiæ* giue ouer ordinarily in the night,& ariſe at the third houre of the day. In Spaine and Aſia they blow from the Eaſt:but in Pontus,from the North : in other quarters from the South. They blow alſo after the Mid-winter,when they be called *Orinthiæ*,but thoſe are more milde,& continue fewer daies. Two there be that change their nature together with their ſite and place:the South winde in Affrick bringeth faire weather,and the North wind there is cloudy. All winds keep their courſe in order for the more part,or els when one ceaſeth,the contrary beginneth. When ſome are laid,& the next H
to them do ariſe,they go about from the left hand to the right,according to the Sun. Of their manner and order monthly,the prime or fourth day after the change of the Moone, doth moſt commonly determine. The ſame windes wil ſerue to ſaile contrariwiſe,by means of ſetting out the ſailes: ſo as many times in the night,ſhips in ſailing run one againſt another. The South winde raiſeth greater billowes and more ſurging waues than the North : for that the South wind ariſeth below from the bottome of the Sea;the other bluſtereth aloft, and troubleth the top of the water. And therfore after Southern winds,earth-quakes are moſt hurtful. The South wind in the night time is more boiſterous,the Northerne wind in the day. The winds blowing from the Eaſt,hold and continue longer than thoſe from the Weſt. The Northern winds giue I
ouer commonly with an odde number: which obſeruation ſerueth to good vſe in many other parts of naturall things,and therfore the male winds are iudged by the odde number. The Sun both raiſeth,and alſo laieth the windes. At riſing and ſetting hee cauſeth them to be aloft : at noon-tide he repreſſeth and keepeth them vnder,in Summer time. And therefore at mid-day or mid-night commonly the winds are down and lie ſtill,for both cold and heat if they be immoderate,do ſpend and conſume them. Alſo rain doth lay the winds : and moſt commonly from thence they are looked for to blow,where clouds break and open the skie to be ſeen. And verily *Eudoxus* is of opinion (if wee liſt to obſerue the leaſt reuolutions) that after the end of euery fourth yere,not only all winds,but other tempeſts and conſtitutions alſo of the weather,return again to the ſame courſe as before. And alwaies the Luſtrum or computation of the fiue yeres K
beginneth at the leap yere,when the Dog-ſtar doth ariſe. Thus much touching general winds.

Chap. XLVIII.

¶ *Of ſudden Blaſts.*

NOw wil we ſpeake of ſudden blaſts;which being riſen (as hath bin ſaid before) by exhalations of the earth,and caſt downe againe ; in the meane while appeare of many faſhions, encloſed within a thin courſe of clouds newly ouercaſt. For ſuch as be vnconſtant,wandering,and ruſhing in manner of land flouds (as ſome men were of opinion,as wee haue ſhewed) bring forth thunder and lightening. But if they come with a greater force, ſway , and violence,and withall burſt and cleaue a dry cloud aſunder all abroad,they breed a ſtorme,which of L
the Greeks is called *Ecnephias* : but if the clift or breach be not great,ſo that the wind be conſtrained to turne round,to roll and whirle in his diſcent,without fire(*i.*) lightening,it makes a whirle-puffe or ghuſt called *Typhon*(*i.*) the ſtorme *Ecnephias* aforeſaid,ſent out with a winding violence. This takes with it a piece broken out of a congealed cold cloud,turning,winding,and rolling it round,and with that weight maketh the owne fall more heauie, and changeth from place to place with a vehement and ſudden whirling ; the greateſt danger and miſchiefe that poore ſailers haue at ſea,breaking not onely their croſſe ſaile yards, but alſo writhing and burſting in pieces the very ſhips : and yet a ſmall matter is the remedy for it, namely, the caſting of vinegre out againſt it as it commeth,which is of nature moſt cold. The ſame ſtorme beating M
vpon a thing,is it ſelfe ſmitten backe againe with a violence, and ſnatcheth vp whatſoeuer it meeteth in the way aloft into the skie,carrying it back,and ſwallowing it vp on high. But if it breake out from a greater hole of the ſaid cloud,by it ſo borne down,and yet not altogether ſo broad as the abouenamed ſtorm *Procella* doth,nor without a cracke ; they call this boiſterous

winde

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A wind *Turbo*, caſting downe and ouerthrowing all that is next it. The ſame, if it be more hot and catching a fire as it rageth, is named *Preſter*; burning, and withall laying along, whatſoeuer it toucheth and encountereth.

Chap. XLIX.

¶ *Other enormious kindes of Tempeſts.*

NO *Typhon* commeth from the North, ne yet any *Ecnephias* with ſnow, or while ſnow lieth on the ground. This tempeſtuous winde, if when it brake the cloud burned light withall, hauing fire of the owne before, and catched it not afterward, it is very lightning; and
B differeth from *Preſter*, as the flame from a cole of fire. Againe, *Preſter* ſpreadeth broad with a flaſh and blaſt; the other gathereth round with forcible violence. *Typhon* moreouer or *Vortex*, differeth from *Turben* in flying backe, and as much as a craſh from a cracke. The ſtorme *Procella* from them both, in breadth: and to ſpeake more truly, rather ſcattereth than breaketh the cloud. There riſeth alſo vpon the ſea a darke miſt, reſembling a monſtrous beaſt; and this is euer a terrible cloud to ſailers. Another likewiſe called a Columne or Pillar, when the humour and water ingendred is ſo thicke and ſtiffe congealed, that it ſtandeth compact of it ſelfe. Of the ſame ſort alſo is that cloud which draweth water to it, as it were into a long pipe.

Chap. L.

C

¶ *In what Lands Lightenings fall not.*

IN Winter and Summer ſeldome are there any Lightnings, and that is long of contrary cauſes: becauſe in Winter the aire is driuen cloſe together, and thickened with a deeper courſe of clouds: beſides, all the exhalations breathing and riſing out of the earth, being ſtark, congealed, and frozen hard, do extinguiſh cleane what firie vapour ſoeuer otherwiſe they receiue: which is the reaſon that Scythia and other cold frozen quarters thereabout, are free from lightenings. And Ægypt likewiſe vpon the contrarie cauſe, and exempt from Lightnings; namely, exceeding heate: for the hot and dry exhalations of the earth, gather into very ſlender, thin, and
D weake clouds. But in the Spring and Autumne, lightnings are more rife; becauſe in both thoſe ſeaſons, the cauſes as well of Summer as Winter, are confuſed and corrupt. And this is the reaſon alſo, that lightnings are common in our Italie; for that the aire being more moueable and wauering, by reaſon of a kinder Winter and a cloudie Summer, is alwaies of the temperature of Spring or Autumne. In thoſe parts alſo of Italy which lie off from the North, and encline to warmth (as namely in the tract about Rome and Campania) it lightneth in Winter and Summer alike, which happeneth in no other part thereof.

Chap. LI.

¶ *Sundry ſorts of Lightnings, and Wonders thereof.*

E VErie many kindes of Lightnings are ſet downe by Authors. Thoſe that come drie, burne not at all, but onely diſſipate and diſperſe. They that come moiſt, burne not neither, but blaſt things, and make them looke duskiſh. Now a third kinde there is, which they call Bright and Cleare, and that is of a moſt ſtrange and wonderfull nature; whereby tuns and ſuch like veſſels are drawne drie, and their ſides, hoops, and heads, neuer toucht therewith or hurt, nor any other ſhew and token thereof is left behinde: Gold, copper, and ſiluer money is melted in the bags, and yet the very bags no whit ſcorched, no nor the wax of the ſeale hurt and defaced, or put out of order. *Martia* a noble Ladie of Rome being great with childe, was ſtrucke with lightning: the childe ſhe went withall was killed within her, and ſhe without any harme at all
F liued ſtill. Among the *Catiline* prodigies it is found vpon Record, that *M. Herennius* (a Counſellor and States-man of the incorporate towne Pompeianum) was in a faire and cleare day ſmitten with Lightning.

Chap. LII.

¶ *Of obſeruations as touching Lightning.*

THe Antient Tuſcanes by their learning do hold, that there be nine gods that ſend forth Lightnings, and thoſe of eleuen ſorts: for *Iupiter* (ſay they) caſteth three at once. The Romans haue obſerued two of them, and no more; attributing thoſe in the day time to *Iupiter*, and them in the night to *Summanus* or *Pluto*. And theſe verily be more rare, for the cauſe aforenamed; namely, the coldneſſe of the aire aboue. In Hetruria, they ſuppoſe that lightnings break alſo out of the earth, which they call *Infera, i*. Infernall; and ſuch be made in Mid-winter. And theſe they take to be terrene and earthly, and of all moſt miſchieuous and execrable: neither be thoſe generall and vniuerſall lightnings, nor proceeding from the ſtars, but from a very neere and more troubled cauſe. And this is an euident argument for diſtinction, that all ſuch as fall from the vpper skie aboue, ſtrike aſlant and ſide-wiſe: but thoſe which they call earthly, ſmite ſtraight and directly. But the reaſon why theſe are thought to iſſue forth of the earth is this; becauſe they fall from out of a matter nearer to the earth, foraſmuch as they leaue no markes of a ſtroke behind: which are occaſioned by force not from beneath, but comming full againſt. Such as haue ſearched more ſubtilly into theſe matters, are of opinion, that theſe lightnings come from the Planet *Saturne*, like as the burning lightning from *Mars*: And with ſuch lightning was Volſinij (a moſt welthy citie of the Tuſcanes) burnt full and whole to aſhes. Moreouer, the Tuſcanes call thoſe lightnings Familiar, which preſage the fortune of ſome race, and are ſignificant during their whole life: and ſuch are they that come firſt to any man, after he is newly entred into his owne patrimonie or familie. Howbeit their iudgement is, that theſe priuat lightnings are not of importance and fore-tokening aboue ten yeres; vnleſſe they happen either vpon the day of firſt mariage, or of wedding. As for publique lightnings, they be not of force aboue 30 yeares, except they chance at the very time that townes or colonies be erected and planted.

Chap. LIII. ¶ *Of raiſing or calling out Lightnings by Coniuration.*

IT appeareth vpon record in Chronicles, that by certaine ſacrifices and prayers, Lightnings may be either compelled or eaſily intreated to fall vpon the earth. There goeth a report of old in Hetruria, that ſuch a lightning was procured by exorciſmes and coniurations, when there entered into the citie Volſinij (after all the territory about it was deſtroyed) a monſter which they named *Volta*. Alſo, that another was raiſed and coniured by *Porſenna* their King. Moreouer, *L. Piſo* (a writer of good credit) reporteth in his firſt booke of Annales, that *Numa* before him practiſed the ſame feat many a time and often: and when *Tullus Hoſtilius* would haue imitated him and done the like (for that he obſerued not all the ceremonies accordingly) was himſelfe ſtrucke and killed with lightning. And for this purpoſe, ſacred groues we haue and altars, yea and certaine ſacrifices due thereto. And among the *Iupiters* ſurnamed *Statores, tonantes*, and *Feretrij*, we haue heard that one alſo was called *Elicius*. Sundry and diuers are mens opinions as touching this point, and euery man according to his owne liking and fancie of his minde. To beleeue that Nature may be forced and commanded, is a very audacious and bold opinion: but it is as blockiſh on the other ſide, and ſenceleſſe, to make her benefits of no power and effect; conſidering that in the interpretation of Lightning, men haue thus farre forth proceeded in skill and knowledge, as to foretell when they will come at a ſet and preſcript day: and whether they will fordoe and fruſtrate the dangers pronounced, or rather open other deſtinies, which lie hidden: and an infinite ſort of publicke and priuat experiments of both kinds are to be found. And therefore (ſince it hath ſo pleaſed Nature) let ſome men be reſolued herein, and others doubtfull: ſome may allow thereof, and others condemne the ſame. As for vs, we will not omit the reſt which in theſe matters are worth remembrance.

Chap. LIIII. ¶ *Generall rules of Lightning.*

THat the Lightning is ſeene before the Thunderclap is heard, although they come indeed iointly both together, it is certainely knowne. And no maruell, for the eye is quicker to ſee light, than the eare to heare a ſound. And yet Nature doth ſo order the number and meaſure,

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A measure, that the stroke and the sound should accord together. But when there is a noise, it is a signe of the lightning proceeding of some naturall cause, and not sent by some god: and yet euermore this is a breath or winde that commeth before the thunderbolt: and hereupon it is, that euery thing is shaken and blasted ere it be smitten, neither is any man stricken, who either saw the lightning before, or heard the thunderclap. Those lightnings that are on the left hand, be supposed to be luckie and prosperous, for that the East is the left side of the world: but the coming therof is not so much regarded as the return, whether the fire leap back afresh the stroke giuen; or whether after the deed done and fire spent, the spirit and blast aboue said retire backe
B againe. In that respect the Tuscans haue diuided the heauen into 16 parts. The first is from the North to the Suns rising in the Equinoctiall line: the second, to the Meridian line, or the South: the third, to the Sun-setting in the Equinoctiall: and the fourth taketh vp all the rest from the said West to the North star. These quarters againe they haue parted into foure regions apiece: of which eight from the Sun-rising, they called the Left, & as many again from the contrary part, the Right. Which considered, most dreadfull and terrible are those lightnings, which from the Sun-setting reach into the North; and therefore it skilleth very much, from whence lightnings come, and whither they go. the best thing obserued in them is, when they re-
C turn into the Easterly parts. And therefore when they come from that first and principall part of the skie, and haue recourse again into the same, it is holden for passing good hap: & such was the signe and token of victories giuen (by report) to *Sylla* the Dictatour. In all other parts of the element they be lesse fortunate or fearful. They that haue written of these matters, haue deliue-
red in writing, that there be lightnings, which to vtter abroad is held vnlawful, as also to giue eare vnto them, if they be disclosed, vnlesse they be declared either to parents, or to a friend and gueſt. How great the vanity is of this obseruation, was at Rome, vpon the blasting of *Iunoes* temple, found by *Scaurus* the Consull, who soone after was President of the Senate. It lightneth without thunder, more in the night than day time. Of all creatures that haue life and breath, man only it doth not alwaies kill; the rest, it dispatcheth presently. This priuiledge & honour we see Nature hath giuen to him; whereas otherwise so many great beasts surpasse him in
D strength. All other creatures smitten with lightning, fall downe vpon the contrary side; man onely (vnlesse he turne vpon the parts stricken) dyeth not. Those that are smitten from aboue vpon the head, lie downe and sinke directly. He that is stricken watching, is found dead with his eies winking and close shut; but whosoeuer is smitten sleeping, is found open eied. A man thus comming by his death, may not by law be burned: Religion hath taught, that he ought to be enterred and buried in the earth. No liuing creature is set a fire by lightning, but it is breathlesse first. The wounds of them that be smitten with thunderbolts, are colder than all the body besides.

Chap. LV.

¶ *What things are not smitten with Lightning.*

E OF all those things which grow out of the earth, Lightning blasteth not the Laurell tree, nor entreth at any time aboue fiue foot deep into the ground; and therefore, men fearfull of lightning, suppose the deeper caues to be the surest and most safe: or els booths made of skins of sea-beasts, which they call Seales, or Sea-calues; for of all creatures in the sea, this alone is not subiect to the stroke of lightning; like as of all flying foules the Eagle, (which for this cause is imagined to be the armour-bearer of *Iupiter*, for this kinde of weapon.) In Italie betweene Tarracina and the temple of *Feronia*, they gaue ouer in time of warre, to make towers and forts, for not one of them escaped, but was ouerthrowne with lightning.

Chap. LVI.

F ¶ *Of strange and prodigious raine, to wit, of Milke, Bloud, Flesh, Iron, Wooll, Tyles, and Brickes.*

BEsides these things aboue, in this lower region vnder heauen, we finde recorded in monuments, that it rained milke and bloud, when *M. Acilius* and *C. Porcius* were Consuls. And many times else besides it rained flesh, as namely, whiles *L. Volumnius* and *Serv. Sul-*

pitius were Conſuls: and look what of it the foules of the aire caught not vp nor carried away, it neuer putrified. In like manner, it rained yron in the Lucanes countrey, the yere before that *M. Craſſus* was ſlaine by the Parthians, and together with him all the Lucanes his ſouldiers, of whom there were many in his army. That which came downe in this raine reſembled in ſome ſort Sponges: and the Wiſards and Southſayers being ſought vnto, gaue warning to take heed of wounds from aboue. But in the yere that *L. Paulus*, and *C. Marcellus* were Conſuls, it rained wooll about the Caſtle Cariſſa, neare to which a yeare after, *T. Annius Milo* was ſlaine. At the time that the ſame *Milo* pleaded his owne cauſe at the bar, there fell a raine of tyles and bricks, as it is to be ſeen in the Records of that yeare. G

Chap. LVII. H

¶ *Of the ruſtling of Armour and ſound of Trumpets heard from Heauen.*

IN the time of the Cimbrian warres, we haue bin told, that Armour was heard to ruſtle, and the trumpet to ſound out of heauen. And this happened very often both before and after thoſe wars. But in the third Conſulſhip of *Marius*, the Amerines and Tudertes ſaw men in armes in the skie, ruſhing and running one againſt another from the Eaſt and Weſt; and might behold thoſe of the Weſt diſcomfited. That the very firmament it ſelfe ſhould be of a light fire, it is no maruel at all; for oftentimes it hath been ſeene, when clouds haue caught any greater deale of fire. I

Chap. LVIII.

¶ *Of Stones falling downe from the Skie.*

AMong the Greeks there is much talke of *Anaxagoras Clazomenius*, who by his learning and skill that he had in Aſtronomie, foretold in the ſecond yeare of the 78 Olympias, what time a ſtone ſhould fall from out of the Sun: and the ſame happened accordingly in the day time, in a part of Thracia neere the riuer Aegos; which ſtone is ſhewed at this day as big as a waine load, carrying a burnt and aduſt colour: at what time as a comet or blazing ſtarre alſo burned in thoſe nights. Which if any man beleeue that it was fore-ſignified, muſt needs alſo confeſſe, that this diuinitie or fore-telling of *Anaxagoras* was more miraculous and wonderfull than the thing it ſelfe: and then farewell the knowledge of Natures workes, and welcome confuſion of al; in caſe we ſhould beleeue that either the Sun were a ſtone, or that euer any ſtone were in it. But, that ſtones fall oftentimes downe, no man will make any doubt. In the publicke place of Exerciſe in Abydos, there is one at this day vpon the ſame cauſe preſerued and kept for to be ſeene, and held in great reuerence: it is but of a meane and ſmall quantity, yet it is that which the ſelfe-ſame *Anaxagoras* (by report) fore-ſignified that it ſhould fal in the mids of the earth. There is one alſo at Caſſandria, which was in old time vſually called Potidæa, a colony from thence deducted. I my ſelfe haue ſeene another in the territorie of the Vocantians, which was brought thither but a little before. K L

Chap. LIX. ¶ *Of the Rainebow.*

THoſe which we call Rain-bowes are ſeene often without any wonder at all, or betokening any great matter: for they portend not ſo much as rainy or faire daies, to truſt vpon. But manifeſt it is, that the Sun beames ſtriking vpon an hollow cloud, when their edge is repelled, are beaten backe againſt the Sun: and thus ariſeth varietie of colours by the mixture of clouds, aire, and firie light together. Certes, they neuer are knowne but oppoſite to the Sun; nor at any time otherwiſe than in forme of a Semicircle: ne yet in the night ſeaſon, although *Ariſtotle* ſaith there was a Rain-bow ſeen by night: howbeit he confeſſeth, that it could not poſſibly be but at the full of the Moone. Now they happen for the moſt part in winter, namely from the Autumne Equinoctiall, as the daies decreaſe and wax ſhorter. But as daies grow longer againe, that is to ſay, after the Spring Equinoctiall, they be not ſeene no more than about the Summer Sunſtead, when daies are at longeſt. But in Bruma, namely when they bee ſhorteſt M

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A teſt, they chance very often. The ſame appeare aloft, when the Sun is low; and below, when he is aloft. Alſo, they be of narrower compaſſe, when the Sun either riſeth or ſetteth, but their body ſpreadeth broad: and at noone narrower it is, and ſmal, yet greater and wider in circumference. In Sommer time they be not ſeene about noon-tide, but after the Autumne Equinoctial, at all houres; and neuer more at once than twaine. The reſt of the ſame nature I ſee few men doe make any doubt of.

Chap. LX.

¶ *Of Haile, Snow, Froſt, Miſt, and Dew.*

B HAile is ingendred of Raine congealed into an Ice: and Snow of the ſame humor growne together, but not ſo hard. As for froſt, it is made of dew frozen. In winter Snowes fall, and not haile. It haileth oftner in the day time than in the night, yet haile ſooner melteth by farre than ſnow. Miſts be not ſeene neither in Summer, nor in the cold weather. Dewes ſhew not either in froſt, or in hot ſeaſons; neither when winds be vp, but only after a calm and cleere night. Froſts dry vp wet and moiſture; for when the yce is thawed and melted, the like quantitie of water in proportion is not found.

Chap. LXI.

¶ *Of the ſhapes of Clouds.*

C SVndry colours and diuers ſhapes are ſeene in clouds, according as the fire intermingled therein is either more or leſſe.

Chap. LXII.

¶ *Of the properties of weather in diuers places.*

MOreouer, many properties there be of the weather, peculiar to certain places: the nights in Africke be dewie in Winter. In Italy, about Locri and the lake Velinus, there is not a day but a Rainbow is ſeene. At Rhodes and Syracuſæ, the aire is neuer ſo dimme and
D cloudy, but one houre or other the Sun ſhineth out. But ſuch things as theſe ſhall be related more fitly in due place. Thus much of the Aire.

Chap. LXIII.

¶ *Of Earth, and the nature thereof.*

THe Earth followeth next: vnto which alone of all parts of the world, for her ſingular benefits we haue giuen the reuerend and worſhipfull name of Mother. For like as the Heauen is the (mother) of God, euen ſo is ſhe of men. She it is that taketh vs when wee are comming into the world, nouriſheth vs when we are new borne: and once being come abroad,
E euer ſuſtaineth and beareth vs vp: and at the laſt when wee are reiected and forlorne of all the world beſides, ſhe embraceth vs: then moſt of all other times, like a kinde mother, ſhe couereth vs all ouer in her boſom; by no merit more ſacred than by it, wherwith ſhe maketh vs holy and ſacred; euen bearing our tombes, monuments, and titles, continuing our name, and extending our memorie, therby to make recompence and weigh againſt the ſhortnes of our age: whoſe laſt power we in our anger wiſh to be heauy vnto our enemy, and yet ſhe is heauy to none, as if wee were ignorant that ſhe alone is neuer angry with any man: waters aſcend vp, & turn into clouds, they congeale and harden into haile, ſwel they do into waues and billows, & down they haſten headlong into brooks and land-flouds. The aire is thickened with clouds, & rageth with winds
F and ſtormes. But ſhe is bountifull, mild, tender ouer vs, & indulgent, ready at all times to attend and wait vpon the good of mortall men. See what ſhe breeds being forced! nay, what ſhe yeeldeth of her owne accord! what odoriferous ſmells, and pleaſant ſauors! what wholeſome iuices and liquors, what ſoft things to content our feeling, what louely colors doth ſhe giue to pleaſe our eie, how faithfully and iuſtly doth ſhe repay with vſury that which was lent and credited out vnto her! Finally, what ſtore of all things doth ſhee feed and nouriſh for our ſake! Alas

poor wretch, peſtiferous and hurtfull creatures, when the vitall breath of the aire was too blame G
to giue them life, ſhe could not otherwiſe chuſe but receiue them, after they were ſown in her;
and being once ingendred and bred, keepe and maintain them. But in that they prooued afterwards bad and venomous; the fault was to be laid vpon the parents that ingendred them, and
not to be imputed vnto her. For, ſhee entertaineth no more a venomous ſerpent after it hath
ſtung a man: nay, more than that, ſhe requireth puniſhment, for them that are ſlow and negligent of themſelues to ſeeke it. She it is that bringeth forth medicinable herbes, and euermore
is in trauell to be deliuered of ſome thing or other, good for man. Ouer and beſides, it may be
thought and beleeued, that for very pittie of vs ſhe ordained and appointed ſome poiſons, that
when we were weary of our life, curſed famine (moſt aduerſe and croſſe of all other to the merits of the earth) ſhould not conſume and waſte vs with languiſhing and pining conſumption, H
and ſo procure our death; that high and ſteepe rockes ſhould not daſh and cruſh our bodies in
pieces; nor the ouerthwart and prepoſterous puniſhment by the halter, wreathe our necks, and
ſtop that vital breath which we ſeek to let out and be rid of: laſt of all, that we might not worke
our owne death in the deep ſea, and being drowned feed fiſhes, and be buried in their bellies; ne
yet the edge and point of the ſword cut and pierce our bodie, and ſo put vs to dolorous paine.
So that it is no doubt, but in a pittifull regard and compaſſion of vs, ſhee hath ingendred that
poyſon, by one gentle draught whereof, going moſt eaſily downe, we might forgoe our life, and
die without any hurt and skin broken of our body, yea, and diminiſh no one drop of bloud:
without grieuous paine, I ſay, and like onely to them who be athirſt: that being in that manner
dead, nether foule of the aire, nor wilde beaſt prey vpon or touch our bodies, but that he ſhould I
be reſerued for the earth, who periſhed by himſelfe and for himſelfe: and, to confeſſe and ſay the
troth, the earth hath bred the remedy of all miſeries, how ſoeuer we haue made it a venome and
poiſon to our life. For after the like ſort we imploy iron and ſteele, which we cánot poſſibly be
without. And yet we ſhould not do well and iuſtly to complain, in caſe ſhe had brought it forth
for to do hurt and miſchiefe. Now ſurely to this only part of Nature and the world, we are vnthankfull, as though ſhee ſerued not mans turne for all dainties; not for contumely and reproch
to be miſuſed. Caſt ſhe is into the ſea, or elſe to let in peeres and frithes, eaten away with water.
With yron tooles, with wood, fire, ſtone, burdens of corne tormented ſhe is euery houre: and all
this much more to content our pleaſures and wanton delights than to ſerue vs with naturall
food and neceſſary nouriſhment. And yet theſe miſuſages which ſhe abideth aboue, and in her
outward skin, may ſeeme in ſome ſort tolerable. But we, not ſatisfied therewith, pierce deeper K
and enter into her very bowels, we ſearch into the veines of gold and ſiluer, we mine and dig for
copper and lead mettals. And for to ſeek out gemmes and ſome little ſtones, we ſinke pits deep
within the ground. Thus we plucke the very heart-ſtrings out of her, and all to weare on our finger one gemme or precious ſtone, to fulfill our pleaſure and deſire. How many hands are worne
with digging and deluing, that one ioynt of our finger might ſhine again. Surely, if there were
any diuels or infernall ſpirits beneath, ere this time verily theſe mines (for to feed couetouſnes
and riot) would haue brought them vp aboue ground. Maruell we then, if ſhe hath brought
forth ſome things hurtfull and noiſome? But ſauage beaſts (I well thinke) ward and ſaue her,
they keepe ſacrilegious hands from doing her iniurie. Nay ywis it is nothing ſo. Dig we not
amongſt dragons and ſerpents? and togethet with veines of gold, handle we not the roots of L
poiſoned and venomous herbes? howbeit this goddeſſe we finde the better appaied, and leſſe
diſcontented for all this miſuſage, for that the end and iſſue of all this wealth tends to wickedneſſe, to murder and wars, and her whom we drench with our bloud, we couer alſo with vnburied bones. Which neuertheleſſe, as if ſhe did reprooue and reproch vs for this rage and furie of ours, ſhe her ſelfe couereth in the end, and hideth cloſe euen the wicked parts of mortall
men. Among other imputions of an vnthankfull minde, I may well count this alſo, That we
be ignorant of her nature.

Chap. LXIIII. ¶ *Of the forme of the earth.*

THe firſt and principall thing that offereth it ſelfe to be conſidered, is her figure, in which M
by a generall conſent we doe all agree. For ſurely we ſpeake and ſay nothing more commonly, than the round ball of the earth; and confeſſe that it is a globe encloſed within
2 poles. But yet the forme is not of a perfect and abſolute roundle, conſidering ſo great heigth

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A of hills and ſuch plaines of downs: howbeit, if the compaſſe therof might be taken by lines, the ends of thoſe lines would meet iuſt in circuit, and proue the figure of a iuſt circle. And this the very conſideration of naturall reaſon doth force and conuince, although there were not thoſe cauſes which we alledged about the heauen. For in it the hollow bending conuexitie boweth and beareth vpon it ſelfe, and euery way reſteth vpon the centre thereof, which is that of the earth. But this, being ſolid and cloſe compact, ariſeth ſtill like as if it ſwelled, ſtretching and growing forth. The heauen bendeth and inclineth toward the centre, but the earth goeth from the centre, whiles the world with continuall volubilitie and turning about it, driueth the huge and exceſſiue globe thereof into the forme of a round ball.

B

Chap. lxv.

¶ *Of the Antipodes, whether there be any ſuch. Alſo of the roundneſſe of water.*

MVch adoe there is here, and great debate betweene learned men; and contrariwiſe thoſe of the leaud and ignorant multitude: for they hold, that men are ouerſpread on all parts vpon the earth, and ſtand one againſt another, foot to foot: alſo that the Zenith or point of the heauen is euen and alike vnto all: and in what part ſoeuer men be, they go ſtill and tread after the ſame manner in the middeſt. But the common ſort aske the queſtion and demand, How it happeneth that they oppoſite iuſt againſt vs fall not into Heauen? as if there
C were not a reaſon alſo ready, That the Antipodes againe ſhall maruell why we fell not downe. Now there is reaſon that commeth betweene, carrying a probabilitie with it euen to the multitude, were it neuer ſo blockiſh and vnapt to learne; That in an vneuen and vnequall Globe of the Earth, with many aſcents and degrees, as if the figure thereof reſembled a Pine-apple; yet neuertheleſſe it may be well enough inhabited all ouer in euery place. But what good doth all this, when another wonder as great as it ariſeth? namely, That it ſelfe hangeth, and yet falleth not together with vs: as if the power of that Spirit eſpecially which is encloſed in the World were doubted: or that any thing could fall, eſpecially when nature is repugnant thereto, and affordeth no place whither to fall: for like as there is no ſeat of Fire, but in fire; of Water, but in water; of Aire and Spirit, but in aire; euen ſo, there is no roome for Earth but
D in earth, ſeeing all the Elements beſides, are ready to put it backe from them. Howbeit, wonderfull it remaineth ſtill, How it ſhould become a Globe, conſidering ſo great flatneſſe of Plaines and Seas! Of which doubtfull opinion, *Dicæarchus* (a right learned man as any other) is a fauourer; who, to ſatisfie the curious endeauours of Kings and Princes, had a charge and commiſſion to leuell and take meaſure of mountaines: of which he ſaid, that Pelion the higheſt, was a mile and a halfe high by the plumbe rule; and collected thereby, that it was nothing at all to ſpeake of, in compariſon of the vniuerſall rotunditie of the whole. But ſurely in my conceit, this was but an vncertaine gueſſe of his, ſince that I am not ignorant, that certaine tops of the Alpes, for a long tract together, ariſe not vnder fiftie miles in heigth.

But this is it that troubles the vulgar ſort moſt of all, if they ſhould be forced to beleeue, that
E the forme of water alſo gathers round in the top. And yet there is nothing in the whole world more euident to the ſight, for the drops euery where not onely as they hang, appeare like little round bals, but alſo if the light vpon duſt, or reſt vpon the hairy downe of leaues, we ſee they keep a perfect and exquiſite roundnes. Alſo in cups that are filled brim full, the middle part in the top ſwell moſt. Which thing conſidering the thinnes of the humour, and the ſoftnes thereof ſetling flat vpon it ſelfe, are ſooner found out by reaſon, than by the eie. Nay, this is a thing more wonderfull, that when cups are filled to the ful, put neuer ſo little more liquor thereto, the ouerplus will run ouer all about: but contrariwiſe it falleth out, if you put in any ſolid weights, yea, and it were to the weight of twenty deniers or French crowns in a cup. Forſooth the reaſon is this, for that theſe things receiued within lift vp the liquor aloft to the top, but poured vpon
F the tumour that beareth aloft aboue the edges, they muſt needs glide off and run by. The ſame is the reaſon why the land cannot be ſeen by them that ſtand vpon the hatches of the ſhip, but very plainly at the ſame time from the top of the maſts. Alſo as a ſhip goeth a far off from the land, if any thing that ſhineth and giueth light be faſtened to the top-gallant, it ſeemeth from the land ſide to goe downe and ſinke into the ſea by little and little, vntill at laſt it be hidden

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clean. Laſt of all the very Ocean, which we confeſſe to be the vtmoſt and fartheſt bound enuironing the whole globe, by what other figure elſe could it hold together, and not fall downe, ſince there is no other banke beyond it to keepe it in? And euen this alſo is as great a wonder, how it commeth to paſſe, although the ſea grow to be round, that the vtmoſt edge thereof falleth not downe? Againſt which, if the ſeas were euen, flat, and plaine, and of that forme as they ſeem to be, the Greeke Philoſophers to their own great ioy and glory do conclude, and proue by Geometricall ſubtill demonſtration, that it cannot poſſibly be that the waters ſhould fall. For ſeeing that waters run naturally from aloft to the lower parts, and that all men confeſſe, that this is their nature, and no man doubteth that the water of the ſea came euer in any ſhore ſo far as the deuexitie would haue ſuffered; doubtleſſe it appeares, that the lower a thing is, the neerer it is to the centre; and that all the lines which from thence are ſent out to the next waters, are ſhorter than thoſe which from the firſt waters reach to the vtmoſt extremitie of the ſea. Hereupon the whole water from euery part thereof bends to the centre, and therfore falls not away, becauſe it inclines naturally to the inner parts. And this we muſt beleeue that Nature the work-miſtreſſe framed and ordained ſo, to the end that the earth being dry, could not by it ſelfe alone, without ſome moiſture keepe any conſiſtence; and the water likewiſe could not abide and ſtay vnleſſe the earth vpheld it; in which regard they were mutually to embrace one another, and ſo be vnited, whiles the one opened all the creeks and nouks, and the other ran wholly into the other, by means of ſecret veins within, without, and aboue, like ligaments to claſpe it, yea, and ſo break out at the vtmoſt tops of hils; whether being partly caried by a ſpirit, and partly expreſſed forth by the ponderoſitie of the earth, it mounteth as it were in pipes: and ſo far is it from danger of falling away, that it leapeth vp to the higheſt and loftieſt things that be. By which reaſon it is euident alſo, why the ſeas ſwell not and grow, notwithſtanding ſo many riuers daily run into them.

Chap. lxxvj.

¶ *How the matter is vnited and knit to the earth.*

THe earth therefore in his whole globe is in the midſt thereof, hemmed in by the ſea running round about it. And this need not to be ſought out by reaſon and argument, for it is knowne already by good proofe and experience.

Chap. lxxvij.

¶ *Nauigation vpon the ſea and great Riuers.*

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Chap. lxviij.

C ¶ *What portion of the earth is habitable.*

NOw firſt and formoſt me thinks men make this reckoning of the earth, as if it were the iuſt halfe of the globe, and that no portion of it were cut off by the Ocean: which notwithſtanding, claſping round about all the midſt thereof, yeelding forth and receiuing againe all other waters beſides, and what exhalations ſoeuer that go out for clouds, and feeding withall the very ſtars, ſo many as they be, and of ſo great a bigneſſe, what a mighty ſpace thinke you will it be thought to take vp and inhabit, and how little can there be left for men to inhabit? ſurely the poſſeſſion of ſo vaſt and huge a deale muſt needs be exceeding great and infinite. What ſay you then to this, That of the earth which is left the heauen hath taken a-
D way the greater part? For whereas there be of the heauen fiue parts, which they call Zones, all that lieth vnder the two vtmoſt, to wit, on both ſides about the poles, namely this here, which is called *Septentrio*, that is to ſay, the North, and the other ouer againſt it, named the South, it is ouercharged with extreme and rigorous cold, yea, and with perpetuall froſts and ice. In both Zones it is alwaies dim and darke, and by reaſon that the aſpect of the more milde and pleaſant planets is diuerted cleane from thence, the light that is, ſheweth little or nothing, and appeareth white with the froſt onely. Now the middle of the earth, whereas the Sun hath his way, and keepeth his courſe, ſcorched and burnt with flames, is euen parched and fried againe with the hot gleames thereof, being ſo neere. Thoſe two only on either ſide about it, namely betweene this burnt Zone and the two frozen, are temperate; and euen thoſe haue not acceſſe
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F and withall take from the earth the high mountaines bearing vp their heads aloft into the sky, ſo as the eye can hardly reach their heights: the woods beſides, and ſteepe deſcents of the vallies, the Wildernеſſes, and waſte wildes left deſart vpon a thouſand cauſes. Theſe ſo many pieces of the earth, or rather, as moſt haue written, this little pricke of the world (for ſurely the earth is nothing elſe in compariſon of the whole) is the only matter of our glory. This, I ſay,

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clean. Laſt of all the very Ocean, which we confeſſe to be the vtmoſt and fartheſt bound enui- G
roning the whole globe, by what other figure elſe could it hold together, and not fall downe, ſince there is no other banke beyond it to keepe it in? And euen this alſo is as great a wonder, how it commeth to paſſe, although the ſea grow to be round, that the vtmoſt edge thereof falleth not downe? Againſt which, if the ſeas were euen, flat, and plaine, and of that forme as they ſeem to be, the Greeke Philoſophers to their own great ioy and glory do conclude, and proue by Geometricall ſubtill demonſtration, that it cannot poſſibly be that the waters ſhould fall. For ſeeing that waters run naturally from aloft to the lower parts, and that all men confeſſe, that this is their nature, and no man doubteth that the water of the ſea came euer in any ſhore ſo far as the deuexitie would haue ſuffered; doubtleſſe it appeares, that the lower a thing is, the neerer it is to the centre; and that all the lines which from thence are ſent out to the next wa- H
ters, are ſhorter than thoſe which from the firſt waters reach to the vtmoſt extremitie of the ſea. Hereupon the whole water from euery part thereof bends to the centre, and therfore falls not away, becauſe it inclines naturally to the inner parts. And this we muſt beleeue that Nature the work-miſtreſſe framed and ordained ſo, to the end that the earth being dry, could not by it ſelfe alone, without ſome moiſture keepe any conſiſtence; and the water likewiſe could not abide and ſtay vnleſſe the earth vpheld it; in which regard they were mutually to embrace one another, and ſo be vnited, whiles the one opened all the creeks and nouks, and the other ran wholly into the other, by means of ſecret veins within, without, and aboue, like ligaments to claſpe it, yea, and ſo break out at the vtmoſt tops of hils; whether being partly caried by a ſpi-
rit, and partly expreſſed forth by the ponderoſitie of the earth, it mounteth as it were in pipes: I
and ſo far is it from danger of falling away, that it leapeth vp to the higheſt and loftieſt things that be. By which reaſon it is euident alſo, why the ſeas ſwell not and grow, notwithſtanding ſo many riuers daily run into them.

Chap. lxxvj.

¶ *How the matter is vnited and knit to the earth.*

THe earth therefore in his whole globe is in the midſt thereof, hemmed in by the ſea running round about it. And this need not to be ſought out by reaſon and argument, for it is knowne already by good proofe and experience. K

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is the very ſeat thereof: here we ſeeke for honors and dignities; here we exerciſe our rule and G
authoritie: here we couet wealth and riches: here all mankinde is ſet vpon ſtirs and troubles;
here we raiſe ciuill wars ſtill one after another, and with mutuall maſſacres and murthers wee
make more roome in the earth. And to let paſſe the publique furious rages of nations abroad,
this is it, wherein we chaſe and driue out our neighbor borderers, and by ſtealth dig turfe from
their ſoile to put vnto our owne: and when a man hath extended his lands, and gotten whole
countries to himſelfe far and neere, what a goodly deale of earth enioyeth he: and ſay that he
ſet out his bounds to the full meaſure of his couetous deſires, what a great portion thereof ſhal
he hold when he is once dead, and his head laid low.

Chap. LXIX. H

¶ *That the earth is in the middeſt of the world.*

THat the earth is in the midſt of the whole world it appeareth by manifeſt and vndoubted reaſons: but moſt euidently by the equal houres of the Equinoctial; for vnleſſe it were in the midſt, the Aſtrolabe and inſtruments called *Diophæ* haue proued, that nights and daies could not poſſibly be found equall: and thoſe aboue-ſaid inſtruments aboue all other confirme the ſame: ſeeing that in the Equinoctial, by one and the ſame line both riſing and ſetting of the Sun are ſeen; but the Sommer Sun riſing, and the Winter ſetting, by their owne ſeuerall lines: which could by no means happen, but that the earth reſteth in the centre. I

Chap. LXX.

¶ *Of the vnequall riſing of the ſtars: of the Eclipſe, both where and how it commeth.*

NOw three circles there be infolded within the Zones afore named, which diſtinguiſh the inequalities of the dayes: namely the Sommer Solſtitiall Tropicke, from the higheſt part of the Zodiacke in regard of vs, toward the North Clyme. And againſt it another called the Winter Tropicke toward the other Southern Pole: and in like maner the Equinoctial, which goes in the mids of the Zodiacke circle. The cauſe of the reſt, which wee wonder K
at, is in the figure of the very earth, which together with the water is by the ſame arguments knowne to be like a globe: for ſo doubtleſſe it commeth to paſſe, that with vs the ſtars about the North pole neuer go downe; and thoſe contrariwiſe about the Meridian neuer riſe. And againe, theſe here be not ſeene of them, by reaſon that the globe of the earth ſwelleth vp in the mids between. Again, Trogloditine and Egypt confining next vpon it, neuer ſet eye vpon the North pole ſtars, neither hath Italy a ſight of Canopus, named alſo Berenices haire. Likewiſe another, which vnder the Empire of *Auguſtus* men ſirnamed *Cæſaris Thronon*: yet be they ſtars there of ſpeciall marke. And ſo euidently bendeth the top of the earth in the riſing, that Canopus at Alexandria ſeemeth to the beholders eleuate aboue the earth almoſt one fourth part L
of a ſigne: but if a man looke from Rhodes, the ſame appeareth after a ſort to touch the verie horizon: and in Pontus, where the eleuation of the North pole is higheſt, not ſeene at all: yea, and this ſame pole at Rhodes is hidden, but moſt in Alexandria. In Arabia all hid it is at the firſt watch of the night in Nouember, but at the ſecond it ſheweth. In Meroe, at Midſommer in the euening it appeareth for a while; but ſome few daies before the riſing of Arcturus ſeene it is with the very dawning of the day. Sailers by their voiages finde out and know theſe ſtars moſt of any other, by reaſon that ſome ſeas are oppoſite vnto ſome ſtars; but other lie flat and incline forward to other: for that alſo thoſe pole ſtars appeare ſuddenly, and riſing out of the ſea, which lay hidden before vnder the winding compaſſe as it were of a ball. For the heauen riſeth not aloft in this higher pole, as ſome men haue giuen out; elſe ſhould theſe ſtars be ſeen M
in euery place: both thoſe that vnto the next Sailers are ſuppoſed to be higher, the ſame ſeeme to them afarre off drowned in the ſea. And like as this North pole ſeemeth to be aloft vnto thoſe that are ſcituate directly vnder it; ſo to them that be gone ſo far as the other deuexitie or fall of the earth, thoſe aboueſaid ſtarres riſe vp aloft there, whiles they decline downeward which here were mounted on high. Which thing could not poſſibly fall out but in the figure

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A of a ball. And hereupon it is that the inhabitants of the Eaſt perceiue not the eclipſes of Sun or Moone in the euening, no more than thoſe that dwell Weſt in the morning: but thoſe that be at noone in the South they ſee very oft. At what time *Alexander* the great won that famous victorie at Arbela, the Moone by report was eclipſed at the ſecond houre of the night; but at the very ſame time in Sicily ſhe aroſe. The eclipſe of the Sun, which chanced before the Calends of May, when as *Vipſanus* and *Fonteius* were Conſuls (being not many yeares paſt) was ſeene in Campania, betweene the 7 and 8 houres of the day: but *Corbulo*, a General Commander then in Armenia, made report, that it was ſeene there betweene the tenth and 11 houres of the ſame day; by reaſon that the compaſſe of the globe diſcouereth and hides ſome things to ſome, and other to others. But if the earth were plaine and leuell, all things ſhould appeare at
B once to all men; for neither ſhould one night be longer than another, ne yet ſhould the day of 12 houres appeare euen and equall to any, but to thoſe that are ſeated in the mids of the earth, which now in all parts agree and accord together alike.

Chap. lxxj.

¶ *What is the reaſon of the day light vpon earth.*

AND hence it commeth, that it is neither night nor day at one time in all parts of the world, by reaſon that the oppoſition of the globe brings night, and the round compaſſe or circuit thereof diſcouereth the day. This is knowne by many experiments. In Africk
C and Spaine there were raiſed by *Hanibal* high watch-towers; and in Aſia for the ſame feare of rouers and pyrats, the like helpe of beacons was erected; wherein it was noted oft times, that the fires giuing warning afore-hand (which were kindled at the ſixt houre of the day) were deſcried by them that were fartheſt off in Aſia at the third houre of the night. *Philonides* the curror or Poſt of the ſame *Alexander* aboue named, diſpatched in 9 houres of the day 1200 ſtadia, euen as far as from Sicyone to Elis: and from thence againe (albeit he went downe hill all the way) he returned oftentimes, but not before the third houre of the night. The cauſe was, for that he had the Sun with him in his firſt ſetting out to Elis, and in his returne backe to Sicyone he went full againſt it, met with it, and ere he came home ouerpaſſed it, leauing it in the Weſt behind going from him. Which is the reaſon alſo, that they who by day light ſaile weſt-
D ward in the ſhorteſt day of the yeare, rid more way than thoſe who ſaile all night long at the ſame time, for that the other do accompany the Sun.

Chap. lxxij.

¶ *The Gnomonicke art of the ſame matter: as alſo of the firſt Diall.*

ALſo the inſtruments ſeruing for the houres, as Quadrants and Dials, will not ſerue for all places, but in euery 300 ſtadia, or 500 at the fartheſt, the ſhadowes that the Sun caſteth change; and therefore the ſhadow of the ſtyle in the Dial, called the Gnomon, in Egypt at noone tide in the Æquinoctial day is little more in length than halfe the Gnomon. But in
E the city of Rome the ſhadow wanteth the ninth part of the Gnomon. In the towne Ancona it is longer than it in a 35 part. But in Venice at the ſame time and houre the ſhadow and the Gnomon be all one.

Chap. lxxiij.

¶ *Where and when there be no ſhadowes at all.*

IN like manner they ſay, that in the towne Syene (which is aboue Alexandria 50 ſtadia) at noone tide in the midſt of Sommer there is no ſhadow at all: and for further experiment thereof, let a pit be ſunke in the ground and it will be light all ouer in euery corner. Wher-
F by it appeareth, that the Sun then is iuſt aud directly ouer that place, as the very Zenith thereof. Which alſo at the ſame time hapneth in India aboue the riuer Hypaſis, as *Oneſicratus* hath ſet downe in writing. Yea and it is for certaine knowne, that in Berenice a city of the Troglodites, and from thence 4820 ſtadia in the ſame countrey, at the towne of Ptolemais (which was built at the firſt vpon the very banke of the Red ſea, for the pleaſure of chaſing and hunting

of Elephants) the ſelfe ſame is to be ſeen 45 daies before the Summer Sunſted, and as long af- G
ter, and that for 90 daies ſpace all ſhadowes are caſt into the South. Again, in the Iſle Meroe, the capitall place of the Æthiopian nation, inhabited 5000 ſtadia from Syene vpon the Riuer Nilus, twice in the yeare the ſhadowes are gon, and none at all ſeen; to wit, when the Sun is in the 18 degree of Taurus, and the 14 of *Leo*. In the country of the Oretes within India there is a mountaine named Maleus, neere which the ſhadowes in Summer are caſt into the South, and in Winter into the North. There for 15 nights and no more is the ſtar Charles-wain neere the pole to be ſeen. In the ſame India at Patales (a moſt famous and frequented port) the Sun ariſeth on the right hand, and all ſhadowes fall to the South, Whiles *Alexander* made abode there, *Oneſicritus* a captaine of his wrot, that it was obſerued there, that the North ſtar was ſeen the firſt part only of the night: alſo in what places of India there were no ſhadowes, there the H
North ſtar appeared not: and that thoſe quarters were called *Aſcia*, (*i.* without ſhadow) neither keepe they any reckoning of houres there.

Chap. lxxiv.

¶ *Where twice in the yeare the ſhadowes go contrarie waies.*

BVt throughout all Trogliditine, *Cratoſthenes* hath written, that the ſhadowes two times in the yeare for 45 daies fall contrarie waies.

Chap. LXXV.

¶ *Where the day is longeſt, and where ſhorteſt.* I

IT comes thus to paſſe, that by the variable increment of the day light, the longeſt day in Meroe doth comprehend 12 Equinoctial houres, and 8 parts of one houre aboue; but in Alexandria 14, in Italy 15, in Britaine 17: where in Sommer time the nights being light and ſhort, by infallible experience ſhew that which reaſon forceth to beleeue; namely, that at Midſummer time, as the Sun maketh his approch neere vnto the pole of the world, the places of the earth lying vnderneath hath day continually for ſix moneths, and contrariwiſe night, when the Sun is remote as far as Bruma. The which *Pythias* of Maſſiles hath written of Thule, an Iſland diſtant Northward from Britaine ſix daies ſailing. Yea, and ſome affirme the ſame of Mona, an Iſland diſtant from Camalodunum, a towne of Britaine, about 200 miles. K

Chap. LXXVI. ¶ *Of Dials and Quadrants.*

THis cunning and skill of ſhadowes, named Gnonomice, *Anaximines* the Mileſian, the diſciple of *Anaximander* aboue named, inuented: and hee was the firſt alſo that ſhewed in Lacedemon the Horologe or Dial which they call Sciotericon.

Chap. LXXVII. ¶ *How the dayes are obſerued.*

THe very day it ſelfe men haue after diuers manners obſerued. The Babylonians count for day all the time betweene two Sun-riſings: the Athenians, betweene the ſettings. The L
Vmbrians from noone to noone. But all the common ſort euery where, from day light vntill it be darke. The Roman Prieſts, and thoſe that haue defined and ſet out a ciuil day, likewiſe the Egyptians and *Hipparchus*, from midnight to midnight. That the ſpaces or lights are greater or leſſe betwixt Sun riſings, neere the Sunſteds, than the equinoctials, it appeareth by this, that the poſition of the Zodiake about the middle parts therof is more oblique and crooked, but toward the Sunſted more ſtreight and direct.

Chap. lxxviij.

¶ *The reaſon of the varietie and difference of ſundry Countries and Nations.*

HEreunto we muſt ioyne ſuch things as are linked to celeſtiall cauſes. For doubtleſſe it M
is, that the Æthiopians by reaſon of the Sunnes vicinitie are ſcorched and tanned with the heate thereof, like to them that be aduſt and burnt, hauing their beards and buſh of haire curled. Alſo, that in the contrarie Clime of the world to it, in the frozen and icie re-

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A gions the people haue white skins, haire growing long downeward, and yellow; but are fierce and cruell by reaſon of the rigorous cold aire: howbeit the one as well as the other in this mutabilitie are dull and groſſe, and the very legs do argue the temperature: for in the Æthiopians the iuice or bloud is drawne vpward againe by the naturall heate. But among the nations Septentrionall the ſame is driuen to the inferior parts, by reaſon of moiſture apt to fall downward. Here breed noiſome and hurtfull wilde beaſts; but there be ingendred creatures of ſundry and diuers ſhapes, eſpecially birds. Tall they are of bodily ſtature, as well in one part as the other; in the hot regions by the occaſionall motion of fire: in the other by the moiſt nouriſhment. But in the midſt of the earth there is an wholeſome mixture from both ſides: the whole Tract is fertill and fruitfull for all things, the habit of mens bodies of a mean and indifferent conſti-
B tution, the colour alſo ſhewing a great temperature. The faſhions and manners of the people are ciuill and gentle, their ſences cleare and lightſome, their wits pregnant and capable of all things within the compaſſe of Nature: they alſo beare ſoueraigne rule, and ſway empires and monarchies, which thoſe vttermoſt nations neuer had. Yet true it is, that euen they who are out of the temperate Zones may not abide to be ſubiect, nor accommodate themſelues to theſe: for ſuch is their ſauage and brutiſh nature that it vrgeth them to liue ſolitarie by themſelues.

Chap. lxxix.

¶ *Of Earthquakes.*

C THe Babylonians were of this opinion, that earthquakes and gaping chinks, and all other accidents of that nature are occaſioned by the power and influence of the planets, but of thoſe three only to which they attribute lightnings: and by this means, namely as they keepe their courſe with the Sun, or meet with him; and eſpecially when this concurrence is about the quadratures of the heauen. And ſurely if it be true which is reported of *Anaximander*, the Mileſian naturall Philoſopher, his preſcience and foreknowledge of things was excellent, and worthy of immortalitie; who, as it is ſaid, forewarned the Lacedemonians to looke wel to their city and dwelling houſes, for that there was an earthquake toward: which hapned accordingly, when not only their whole city was ſhaken, and fell downe, but alſo a great part of the
D mountain Taygetus, which bare out like to the poupe of a ſhip, broken as it were from the reſt, came down too, wholly couering the foreſaid ruines. There is reported another ſhrewd gueſſe of *Pherecydes*, who was *Pythagoras* his maſter, and the ſame likewiſe diuine and prophetical: he by drawing water out of a pit both foreſaw and alſo foretold an earthquake there. Which if they be true, how far off I pray you may ſuch men ſeeme to be from God, euen while they liue here on earth. But as for theſe things verily, I leaue it free for euery man to weigh and deeme of them according to their owne iudgement; and for mine owne part I ſuppoſe, that without all doubt the windes are the cauſe thereof. For neuer beginneth the earth to quake but when the ſea is ſtill, and the weather ſo calme withall, that the birds in their flying cannot houer and hang in the aire, by reaſon that all the ſpirit and winde which ſhould beare them vp is withdrawne from them: ne yet at any time, but after the windes are laid, namely when the blaſt is
E pent and hidden within the veines and hollow caues of the earth. Neither is this ſhaking in the earth any other thing than is thunder in the cloud; nor the gaping chinke thereof ought elſe but like the clift whereout the lightning breaketh, when the ſpirit incloſed within ſtrugleth and ſtirreth to go forth at libertie.

Chap. LXXX.

¶ *Of the gaping chinks of the earth.*

F AFter many and ſundry ſorts the earth therefore is ſhaken, and thereupon enſue wondrous effects: in one place the walls of cities are laid along: in another they be ſwallowed vp in a deepe and wide chawne: here are caſt vp mighty heaps of earth; there are let out Riuers of water, yea and ſomtimes fire doth breathe forth, and hot ſprings iſſue abroad: in another place the courſe and chanell of riuers is turned clean away and forced backward. There goeth before and commeth with it a terrible noiſe: one while a rumbling more like the loowing

and bellowing of beaſts: otherwhiles it reſembles a mans voice, or elſe the clattering and ruſtling of armor and weapons, beating one vpon another according to the qualitie of the matter that catcheth and receiueth the noiſe, or the faſhion either of the hollow cranes within, or the cranny by which it paſſeth, whiles in a narrow way it taketh on with a more ſlender and whiſtling noiſe: and the ſame keepeth an hoarſe din in winding and crooked caues, rebounding againe in hard paſſages, roaring in moiſt places, wauing and floting in ſtanding waters, boiling and chafing againſt ſolid things. And therefore a noiſe is often heard without any earthquake, and neuer at any time ſhaketh it ſimply after one and the ſame manner, but trembles and waggeth to and fro. As for the gaping chink, ſometimes it remaineth wide open, and ſheweth what it hath ſwallowed vp; otherwhiles it cloſeth vp the mouth, and hideth all, and the earth is knit together ſo againe, as there remaine no marks and tokens to be ſeene: notwithſtanding many times it hath deuoured cities, and drawne into it a whole tract of ground and fields. Sea coaſts and maritime regions moſt of all other feele earthquakes. Neither are the hilly countries without this calamitie: for I my ſelfe haue known for certain, that the Alps and Apenine haue often trembled. In the Autumne alſo and Spring there happen more earthquakes than at other times, like as lightnings. And hereof it is that France and Egypt leaſt of all other are ſhaken: for that in Egypt the continuall Sommer, and in France the hard Winter, is againſt it. In like manner, earthquakes are more rife in the night than in the day time: but the greateſt vſe to be in the morning and euening. Toward day light there be many; and if by day, it is vſually about noon. They fortune alſo to be when the Sun and Moone are eclipſed, becauſe then all tempeſts are aſleepe and laid to reſt. But eſpecially, when after much raine there followes a great time of heate; or after heate ſtore of raine. G H I

Chap. lxxxj.

¶ *Signes of Earthquake comming.*

SAilers alſo haue a certaine foreknowledge thereof, and gueſſe not doubtfully at it, namely when the waues ſwel ſuddenly without any gale of wind, or when in the ſhip they are ſhocked with billowes ſhaking vnder them: then are the things ſeen to quake which ſtand in the ſhip, as well as thoſe in houſes, and with a ruſtling noiſe giue warning before-hand. The foules likewiſe of the aire ſit not quietly without feare. In the ſky alſo there is ſigne thereof; for there goeth before an earthquake, either in day time, or ſoon after the Sun is gon downe, a thin ſtreake or line as it were of a cloud, lying out in a great length. Moreouer, the water in wels and pits is more thicke and troubled than ordinary, caſting out a ſtinking ſent. K

Chap. lxxxij.

¶ *Remedies or helps againſt Earthquakes toward.*

BVt a remedie there is for the ſame, ſuch as vaults and holes in many places do yeeld: for they vent and breathe out the wind that was conceiued there before: a thing noted in certain townes, which by reaſon they ſtand hollow, and haue many ſinks and vaults digged to conuey away their filth, are leſſe ſhaken: yea, and in the ſame towns, thoſe parts which be pendant be the ſafer: as is well ſeen in Naples, where that quarter thereof which is ſollid and not hollow is ſubiect to ſuch caſualties. And in houſes the arches are moſt ſafe, the angles alſo of walls, yea, and thoſe poſts which in ſhaking will jog to and fro euery way. Moreouer, walls made of brick or earth take leſſe harme when they be ſhaken in an earthquake. And great difference there is in the very kinde and manner of earthquakes, for the motion is diuers: the ſafeſt is, when houſes as they rocke keep a trembling and warbling noiſe: alſo when the earth ſeemeth to ſwell vp in riſing, and again to ſettle down and ſink with an alternatiue motion. Harmleſſe it is alſo when houſes run on end together by a contrary ſtroke, and butt or jur one againſt another; for the one mouing withſtandeth the other. The bending downward in maner of wauing, and a certain rolling like to ſurging billowes is it that is ſo dangerous, and doth all the miſchiefe: or when the whole motion beareth and forceth it ſelfe to one ſide. Theſe quakings or tremblings of the earth giue ouer when the winde is once vented out: but if they continue ſtill, then they ceaſe not vntill forty daies end, yea and many times it is longer ere they ſtay, for ſome of them haue laſted the ſpace of a yeare or two. L M

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Chap. LXXXIII.

¶ *Monſtrous Earthquakes ſeene neuer but once.*

A THere hapned once (which I found in the bookes of the Tuſcanes learning) within the teritorie of Modena, whiles *L. Martius* and *S. Iulius* were Conſuls, a great ſtrange wonder of the earth; for two hils encountred together, charging as it were, and with violence aſſaulting one another, yea and retyring againe with a moſt mighty noiſe. It fell out in the day time, and between them there iſſued flaming fire and ſmoke mounting vp into the sky; while a great number of Roman Gentlemen (from the highway Æmylia) and a multitude of ſeruants B and paſſengers ſtood and beheld it. With this conflict and running of them together all the villages vpon them were daſhed and broken to pieces: very much cattell that was within died therewith. And this hapned the yeare before the war of our Aſſociates: which I doubt whether it were not more pernicious to the whole land of Italy, than the ciuil wars. It was no leſſe monſtrous a wonder that was knowne alſo in our age, in the very laſt yeare of *Nero* the Emperour (as we haue ſhewed in his acts) when medows and oliue rowes (notwithſtanding the great publique port way lay betweene) paſſed ouerthwart one into anothers place, in the Marrucine territorie, within the lands of *Vectius Marcellus* a gentleman of Rome, Procurator vnder *Nero* in his affaires.

Chap. LXXXIV.

¶ *Wonders of Earthquakes.*

C THere happen together with earthquakes deluges alſo and inundations of the ſea, being infuſed and entring into the earth with the ſame aire and wind, or elſe receiued into the hollow receptacle as it ſetleth down. The greateſt earthquake in mans memory was that which chanced during the empire of *Tiberius Cæſar*, when twelue cities of Aſia were laid leuell in one night. But the earthquakes came thickeſt in the Punick war, when in one yeare were reported to be in Rome 57. In which yeare verily, when the Carthaginians and Romans fought a battell at Thraſymenus lake, neither of both armies tooke notice of a great earthquake. Neither is this a ſimple euill thing, nor the danger conſiſteth only in the very earthquake, and no more: but that which it portendeth is as bad or worſe. Neuer abode the city of Rome any D earthquake, but it gaue warning thereof before hand of ſome ſtrange accident and vnhappie euent following.

Chap. LXXXV.

¶ *In what places the ſeas haue gone backe.*

THe ſame cauſe is to be rendred of ſome new hill or piece of ground not ſeen before; when as the ſaid winde within the earth, able to huffe vp the ground, was not powerful enough to breake forth and make iſſue. For, firme land groweth not only by that which Riuers bring in (as the Iſles Echinades, which were heaped and raiſed vp by the riuer Achelous; and by Nilus the greater part of Egypt, into which, if wee beleeue *Homer*, from the Iſland Pharus E there was a cut by ſea of a day and a nights ſailing) but alſo by the retiring and going backe of the ſea, as the ſame poet hath written of the Circeiæ. The like (by report) hapned both in the bay of Ambracia for ten miles ſpace, and alſo in that of the Athenians, for fiue miles, neere Pireæum: alſo at Epheſus, where ſomtime the ſea beate vpon the temple of *Diana*. And verily, if we giue eare to *Herodotus*, it was all a ſea from aboue Memphis to the Ethyopian hills: and likewiſe from the plaines of Arabia. It was ſea alſo about Ilium, and the flat of Teuthrania; and all that leuell whereas the riuer Mæander now runneth by goodly medowes.

Chap. LXXXVI.

¶ *The reaſon of Iſlands that newly appeare out of the ſea.*

F THere be lands alſo that put forth after another manner, and all at once ſhew on a ſudden in ſome ſea; as if Nature cried quittance with her ſelfe, and made euen, paying one for another, namely by giuing againe that in one place, which thoſe chawnes and gaping gulfes tooke away in another.

Chap. lxxxvij.

¶ *What Iſlands haue ſprung vp, and when.*

THoſe famous Iſlands long ſince, to wit, Delos and Rhodes, are recorded to haue growne out of the ſea: and afterwards others that were leſſe, namely Anaphe beyond Melos, and Nea, betweene Lemnus and Helleſpont. Alone alſo, betweene Lebedus and Teos. Thera likewiſe, and Therasia, among the Cyclades, which ſhewed in the fourth yere of the 135 Olympias. Moreouer, among the ſame Iſles 130 yeres after, Hiera, which is the ſame that Automate. And two furlongs from it, after 110 yeares, Thia, euen in our time, vpon the 8 day before the Ides of Iuly, when *M. Iunius Syllanus* and *L. Balbus* were Conſuls.

Chap. lxxxviij.

¶ *What lands the Seas haue broken in betweene.*

EVen within our kenning, neere to Italy, between the iſles Æoliæ. In like maner neer Creta there was one ſhewed it ſelfe with hot fountaines out of the ſea, for a mile and halfe; and another in the 3 yeare of the 143 Olympias, within the Tuſcan gulf, and this burned with a violent winde. Recorded it is alſo, that when a great multitude of fiſhes floted ebbe about it, thoſe perſons died preſently that did feed thereof. So they ſay that in the Campaine gulfe the Pithecuſæ Iſlands appeared. And ſoon after, the hill Epopos in them (at what time as ſuddenly there burſt forth a flaming fire out of it) was laid leuell with the plain champion. Within the ſame alſo there was a town ſwallowed vp by the ſea: and in one earthquake there appeared a ſtanding poole; but in another, by the fall and tumbling downe of certain hills, grew the Iſland Prochyta. For after this maner alſo Nature hath made Iſlands; thus ſhe diſ-ioyned Sicily from Italy, Cyprus from Syria, Eubœa from Bæotia, Atalante and Macris from Eubœa, Besbycus from Bithynia, Leucoſtia from the promontorie and cape of the Syrenes.

Chap. LXXXIX.

What Iſlands came to ioyne vnto the Maine.

AGaine, ſhee hath taken Iſlands from the ſea, and ioyned them to the firme land; namely, Antiſſa to Lesbos, Zephyria to Halicarnaſſus, Aethuſa to Myndus, Dromiſcos and Pern to Miletus, and Narthecuſa to the promontorie Parthenius. Hybanda, ſomtime an Iſle of Ionia, is now diſtant from the ſea 200 ſtadia. As for Syrie, Epheſus hath it now in the midland parts far from the ſea. So Magneſia neighbouring to it, hath Deraſitas and Sophonia. As for Epidaurus and Oricum, they are no more Iſlands at this day.

Chap. XC.

¶ *What lands haue been turned wholly into ſea.*

NAture hath altogether taken away certaine lands: in the firſt place, whereas now the ſea Atlanticum is, was ſometime the continent for a mighty ſpace of ground, as *Plato* ſaith. Likewiſe in our Mediterranean ſea, all men may ſee at this day how much hath beene drowned vp, to wit, Acarnania by the inward gulfe of Ambracia, Achaia within that of Corinth, Europ and Aſia within Propontis and Pontus. Ouer and beſides, the ſea hath broken through Leucas, Antirrhium, Helleſpont, and the two Boſphori.

Chap. XCI.

What lands haue ſwallowed vp themſelues.

AND now to paſſe ouer armes of the ſea and lakes; the very earth hath deuoured and buried her ſelfe: to wit, that moſt high hill Cybotus, with the towne Curites; Sipylus in Magneſia: and in the ſame place before time the moſt noble city called Tantalus; the territories of Galanis and Gamale in Phœnice, together with the very cities. Phogium alſo, a paſſing high hill in Ethiopia, as if the very ſtronds and continent were not to be truſted, but they alſo muſt worke hurt and miſchiefe.

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Chap. XCII.

¶ *What Cities haue been drowned with the ſea.*

THe ſea Pontus hath ouerwhelmed Pyrrha and Antyſſa about Mæotis, Elice and Bura in the gulfe of Corinth; whereof the marks and tokens are to be ſeene in the Deep. Out of the Iſland Cea more than 30 miles of ground was loſt ſuddenly at once, with many men. In Sicily alſo the ſea came in and bare away halfe the city Thindaris, and all that Italy nurſeth betweene it and Sicily. The like it did in Bæotia and Eleuſina.

Chap. XCIII.

B ¶ *Of the ſtrange wonders of the land.*

FOr let vs ſpeake no more of Earthquakes, and whatſoeuer elſe of that kind, as of graues and ſepulchres of cities buried, and extant to be ſeen; but diſcourſe we rather of the wonders, than the miſchiefes wrought by Nature in the earth. And ſurely the ſtory of cœleſtiall things was not more hard to be declared: the wealth is ſuch of mettals and mines, in ſuch varietie, ſo rich, ſo fruitfull, riſing ſtill one vnder another for ſo many ages, notwithſtanding daily there is ſo much waſted and conſumed throughout the world, with fires, ruines, ſhipwrecks, wars, and frauduient practiſes: yea and ſo much ſpent in ryot and ſuperfluous vanities, that it is infinite: yet ſee how many ſorts of jemmes there be ſtill, ſo painted and ſet out with colors? C in precious ſtones what varieties of ſundry colours, and how beſpotted are they: and amongſt them behold the brightneſſe and white hue of ſome, excluding all elſe but onely light! The vertue and power of medicinable fountaines: the wonderfull burning ſo many hundred yeres together of fire iſſuing forth in ſo many places: the deadly dampes and exhalations in ſome places, either ſent out of pits when they are ſunke, or elſe from the very natiue ſeat and poſition of the ground; preſent death in one place to the birds and foules of the aire only (as at Soracte, in a quarter neere the city:) in other, to all other liuing creatures ſaue only man: yea and ſometimes to men alſo, as in the territories of Sinueſſa and Puteoli. Which damp holes breathing out a deadly aire ſome call *Charoneæ Scrobes*, i. *Charons* ditches. Likewiſe in the Hirpines D land, that of Amſanctus, a caue neere vnto the temple of *Nephites*, wherinto as many as enter dy preſently. After the like manner at Hierapolis in Aſia there is another ſuch, hurting all that come to it, except the prieſt of *Cybele*, the great mother of the gods. In other places there be alſo caues and holes of a propheticall power; by the exhalation of which men are intoxicate and as it were drunken, and ſo foretell things to come, as at Delphi that moſt renowned Oracle. In all which things what other reaſon can any mortall man make, than the diuine power of Nature, diffuſed and ſpred through all, which breaketh forth at times in ſundry ſorts.

Chap. XCIV.

E ¶ *Of certaine Lands that alwaies quake.*

SOme parts of the earth there be that ſhake and tremble vnder mens feet as they go: namely in the territorie of the Gabians not far from Rome, there be almoſt two hundred acres of ground which tremble as horſemen ride ouer them. And the like is in the territory of Reate.

Chap. XCV.

¶ *Of Iſlands euer floting and ſwimming.*

F CErtaine Iſles are alwaies wauing and nuer ſtand ſtill, as in the countrey about Cæcubum, Reate aboue named, Mutina, and Statonia. Alſo in the lake Vadimonis, and neer the waters Cutyliæ, there is a ſhadowie darke groue which is neuer ſeen in one place a day and night together. Moreouer in Lydia, the Iſles Calanucæ are not only driuen to & fro by winds, but alſo many be ſhoued and thruſt with long poles which way a man will: a thing that ſaued

many a mans life in the war against *Mithridates*. There be other little ones also in the Riuer Nymphæus, called Saltuares or Dancers, because in any consort of Musitians singing they stir and moue at the stroke of the feet, keeping time and measure. In the great lake of Italy, Tarquiniensis, two Islands carry about with them groues and woods: one while they are in fashion three square, another while round, when they close one to the other by the drift of winds, but neuer foure square.

Chap. XCVI.

¶ *In what lands it neuer raineth. Also many strange wonders and miracles of the earth, and other Elements heaped together.*

Paphos hath in it a famous temple of Venice, vpon a certain floure and altar whereof it neuer raineth. Likewise in Nea a towne of Troas a man shall neuer see it raine about the Image of *Minerua*. In the same also the beasts killed in sacrifice, if they be left there neuer putrifie. Neere to Harpasa a towne in Asia stands a rocke of stone of a strange and wonderfull nature, lay one finger to it and it will stir, but thrust at it with your whole body, it moueth not at all. Within the demy Island of the Tauri, and city Parasinum, there is a kinde of earth that healeth all wounds: but about Assos in Troas there growes a stone, wherewith bodies are consumed, and therefore is called Sarcophagus. Two hills there be neere the riuer Indus: the nature of the one is to hold fast all manner of iron, and of the other not to abide it: wherefore if a mans shooe sole be clouted with hob nailes, in the one of them a man cannot plucke away his foot, and in the other he can take no footing at all. Noted it is, that in Locri and Crotone was neuer pestilence knowne, nor any danger by earthquake. And in Lycia euer after an earthquake it hath been faire for forty daies. In the territorie of Arda if corne be sowed it neuer comes vp. At the altars Murtiæ in the Veientian field, likewise in Tusculanum and the wood Cyminia, there be certaine places, wherein whatsoeuer is pitched into the ground, can neuer be plucked vp againe. In the Crustumine countrey all the hay there growing is hurtfull in the same place: but being once without, it is good and wholesome.

Chap. XCVII.

¶ *What is the reason of the reciprocall ebbe and flow of the seas; and where it is that they keepe no order, and are without reason.*

Of the nature of waters much hath bin said: but the sea tide that it should flow and ebbe againe is most maruellous of all other: the maner thereof verily is diuers, but the cause is in the Sun and Moon. Between two risings of the Moone they flow twice, and twice go backe, and alwaies in the space of 24 houres. And first as he riseth aloft together with the world the tides swell, and anon again, as it goeth from the height of the Meridian line, and enclineth Westward, they slake: again, as she moueth from the West vnder our horizon, and approcheth to the point contrarie to the Meridian, they flow, and then they are receiued backe into the sea vntill she rise again: and neuer keepeth the tyde the same houre that it did the day before; for it waiteth and attendeth vpon the planet, which greedily draweth with it the seas, and euer riseth to day in some other place than it did yesterday. Howbeit the tides keepe iust the same time between, and hold alwaies six houres apiece: I meane not of euery day and night, or place indifferently, but only the equinoctial. For in regard of houres the tides of the sea are vnequall, forasmuch as by day and night the tydes are more or lesse one time than another: in the equinoctial only they are euen and alike in all places. A very great argument this is, full of light, to conuince that grosse and blockish conceit of them who are of opinion, that the planets being vnder the earth lose their power, and that their vertue beginneth when they are aboue only: for they shew their effects as well vnder as aboue the earth, as wel as the earth, which worketh in all parts. And plaine it is, that the Moone performeth her operations as well vnder the earth, as when we see her visibly aloft: neither is her course any other beneath, than aboue our horizon. But yet the difference and alteration of the Moone is manifold, and first euery seuen daies: for whiles she is new the tides be but small vntill the first quarter:

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A for as ſhe groweth bigger, they flow more, but in the full they ſwell and boile moſt of all. From that time they begin again to be more milde; and in the firſt daies of the wain to the ſeuenth, the tides are equall: and againe when ſhe is diuided on the other ſide, and but halfe Moon, they increaſe greater. And in the Coniunction or the change, they are equall to the tides of the full. And euidently it appeareth, that when ſhe is Northerly, and retired higher & farther from the earth, the tides are more gentle, than when ſhe is gone Southerly; for then ſhe worketh neerer hand, and putteth forth her full power. Euery eight yere alſo, & after the hundreth reuolution of the Moone, the ſeas returne to the beginning of their motions, and to the like encreaſe and growth: by reaſon that ſhe augmenteth all things by the yerely courſe of the Sun: foraſmuch as in the two equinoctials they euer ſwel moſt, yet more in that of the Autumne, than the Spring:
B but nothing to ſpeak of in Mid-winter, & leſſe at Mid-ſummer. And yet theſe things fall not out iuſt in theſe very points and inſtants of the times which I haue named, but ſome few daies after: like as neither in the full nor in the change, but afterward: ne yet preſently ſo ſoon as the heauen either ſheweth vs the Moon in her riſing, or hideth her from vs at her ſetting, or as ſhee declineth from us in the middle climat, but later almoſt by two equinoctial hours. Foraſmuch as the effect of all influences and operations in the heauen reach not ſo ſoon vnto the earth, as the eieſight pierceth vp to the heauen: as it appeareth by lightnings, thunders, & thunderbolts. Moreouer, all tides in the main Ocean, ouerſpread, couer, and ouerflow much more within the land, than in other ſeas beſides: either becauſe the whole and vniuerſall element is more courageous than in a part: or for that the open greatneſſe and largeneſſe thereof, feeleth more effectu-
C ally the power of the Planet, working forcibly as it doth far and neere at liberty, than when the ſame is pent and reſtrained within thoſe ſtreights. Which is the cauſe that neither lakes nor little riuers ebbe and flow in like manner. *Pythias* of Maſſiles, writeth, That aboue Brittain the tide floweth in height 80 cubits. But the more inward and Mediterranean narrow ſeas are ſhut vp within the lands, as in an hauen. Howbeit in ſome places a more ſpacious liberty there is that yeeldeth to the power and command of the Moon; for we haue many examples and experiments of them that in a calm ſea without wind and ſaile, by a ſtrange water onely, haue tided from Italy to Vtica in three daies. But theſe tides and quick motions of the ſea are found to be about the ſhores, more than in the deep maine ſea. For euen ſo in our bodies the extreme and vtmoſt parts haue a greater feeling of the beating of arteries, that is to ſay, the vitall ſpirits.
D Yet notwithſtanding in many firths and armes of the ſea, by reaſon of the vnlike riſings of the planets in euery coaſt, the tides are diuers, and diſagreeing in time, but not in reaſon and cauſe, as namely in the Syrtes. And yet ſome there be that haue a peculiar nature by themſelues, as the Firth Taurominitanum, which ebbeth and floweth oftner than twice: and that either in Euboea, called likewiſe Euripus, which hath ſeuen tides to and fro in a day and a night. And the ſame tide three daies in a moneth ſtandeth ſtil, namely in the 7, 8, and 9 daies of the moons age. At Gades, the fountaine next vnto the chappell of *Hercules*, is incloſed about like a well; the which at ſometimes riſeth and falleth as the Ocean doth: at others againe it doth both, at contrary ſeaſons. In the ſame place there is another ſpring that keepeth order and time with the motions of the Ocean. On the banke of Betis there is a towne, the wells whereof as the tide
E floweth, do ebbe; and as it ebbeth, do flow: in the mid times betweene, they ſtirre not. Of the ſame qualitie there is one pit in the towne Hiſpalis; all the reſt be as others are. And the ſea Pontus euermore floweth and runneth out into Propontis, but the ſea neuer retireth backe againe within Pontus.

Chap. XCVIII.

¶ *Marueils of the Sea.*

F ALl ſeas are purged and ſcoured in the full Moone; and ſome beſides at certaine times. About Meſſala and Nylæ, there is voided vpon the ſhore certaine dregges and filthineſſe like to beaſts dung: whereupon aroſe the fable, That the Sunnes oxen were there kept in ſtall. Hereunto addeth *Ariſtotle* (for I would not omit willingly any thing that I know) that no liuing creature dieth but in the reflux and ebbe of the ſea. This is obſerued much in the Ocean of France, but found onely in man by experience, true.

CHAP.

Chap. XCIX. ¶ *What power the Moone hath ouer things on Earth and in the Sea.* G

BY which it is truly gueſſed and collected, that not in vaine the planet of the Moone is ſuppoſed to be a Spirit: for this is it that ſatisfieth the earth to her content: ſhee it is that in her approch and comming toward, filleth bodies ful; and in her retire and going away, emptieth them again. And hereupon it is, that with her growth all ſhell-fiſh wax & encreaſe: and thoſe creatures which haue no bloud, them moſt of all do feele her ſpirit. Alſo, the bloud in men doth increaſe or diminiſh with her light more or leſſe: yea the leaues of trees and the graſſe for fodder (as ſhall be ſaid in conuenient place) do feele the influence of her, which euermore the ſame pierceth, and entreth effectually into all things.

H

Chap. C.

¶ *Of the power of the Sun, and why the Sea is ſalt.*

THus by the feruent heate of the Sun all moiſture is dried vp: for wee haue been taught, that this Planet is Maſculine, frying and ſucking vp the humidity of all things. Thus the broad and ſpacious ſea hath the taſte of ſalt ſodden into it: or elſe it is, becauſe when the ſweet and thin ſubſtance thereof is ſucked out from it, which the firie power of the Sun moſt eaſily draweth vp, all the tarter and more groſſe parts thereof remaine behinde: and hereupon it is, that the deep water toward the bottom is ſweeter and leſſe brackiſh than that aboue in the top. And ſurely, this is a better and truer reaſon of that vnpleaſant ſmacke and taſte that it I hath, than that the ſea ſhould be a ſweat iſſuing out of the earth continually: or, becauſe ouermuch of the dry terrene element is mingled in it without any vapour: or elſe becauſe the nature of the earth infecteth the waters, as it were, with ſome ſtrong medicine. We finde among rare examples and experiments, that there happened a prodigious token to *Denis* tyrant of Sicily, when he was expelled and depoſed from that mightie ſtate of his, and this it was; the ſea water within one day in the hauen grew to be freſh and ſweet.

Chap. CI.

¶ *In like manner of the Moones Nature*

K

ON the contrary, they ſay that the Moone is a planet Fœminine, tender & nightly, diſſolueth humors, draweth the ſame, but carieth them not away. And this appeareth euidently by this proofe, that the carkaſſes of wilde beaſts ſlain, ſhe putrifieth by her influence, if ſhe ſhine vpon them. When men alſo are found aſleepe, the dull nummedneſſe thereby gathered, ſhe draweth vp into the head: ſhe thaweth yce, and with a moiſtening breath proceeding from her, enlargeth and openeth all things. Thus you ſee how Natures turn is ſerued and ſupplyed, and is alwaies ſufficient; whiles ſome ſtars thicken and knit the elements, others againe reſolue the ſame. But as the Sun is fed by the ſalt ſeas, ſo the Moone is nouriſhed by the freſh riuer waters.

L

Chap. CII.

¶ *Where the Sea is deepeſt.*

FAbianus ſaith, that the ſea where is deepeſt, exceedeth not fifteen furlongs. Others againe do report, that in Pontus the ſea is of an vnmeaſurable depth, ouer againſt the Nation of the Coraxians, the place they call *Bathei Ponti*, whereof the bottome could neuer bee ſounded.

Chap. CIII.

¶ *The wonders of Waters, Fountaines and Riuers.*

M

OF all wonders this paſſeth, that certain freſh waters hard by the ſea, iſſue & ſpring forth as out of pipes: for the nature of the waters alſo ceaſeth not from ſtrange and miraculous properties. Freſh waters run aloft the ſea, as being no doubt the lighter: and therefore

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A fore the ſea water (which naturally is heauier) vpholdeth and beareth vp whatſoeuer is brought in. Yea and amongſt freſh waters, ſome there be that flote and glide ouer others. As for example, in the lake Fucinus, the riuer that runneth into it: in Larius, Addua; in Verbanus, Ticinus; in Benacus, Mincius; in Seuinus, Ollius; in Lemanus lake, the riuer Rhodanus. As for this riuer beyond the Alpes, and the former in Italy, for many a mile as they paſſe, carry forth their owne waters from thence where they abode as ſtrangers, and none other; and the ſame no larger than they brought in with them. This is reported likewiſe of Orontes, a riuer in Syria, and of many others. Some riuers again there be, which vpon an hatred to the ſea, run euen vnder the bottom thereof; as Arethuſa, a fountaine in Syracuſa: wherein this is obſerued, that whatſoeuer is caſt
B into it, commeth vp againe at the riuer Alpheus, which running through Olimpia, falleth into the ſea ſhore of Peloponneſus. There go vnder the ground, and ſhew aboue the ground againe, Lycus in Aſia, Eraſinus in Argolica, Tygris in Meſopotamia. And at Athens what things ſoeuer are drowned in the fountain of Æſculapius, be caſt vp againe in Phalericus. Alſo in the Atinate plaines, the riuer that is buried vnder the earth, twentie miles off appeareth againe. So doth Timavus in the territory of Aquileia. In Aſphaltites (a lake in Iury which ingenders *Bittumen*) nothing will ſinke nor can be drowned, no more than in Arethuſa in the greater Armenia: and the ſame verily, notwithſtanding it be full of Nitre, breedeth and feedeth fiſh. In the Salentines countrey, neere the towne Manduria, there is a lake brim full: lade out of it as much water as you will, it decreaſeth not; ne yet augmenteth, poure in neuer ſo much to it. In a riuer of the Ciconians, and in the lake Velinus in the Picene territory, if wood be throwne in, it is
C couered ouer with a ſtony barke. Alſo in Surius, a riuer of Colchis, the like is to be ſeen: inſomuch, as ye ſhall haue very often the bark that ouergrowes it, as hard as any ſtone. Likewiſe in the riuer Silarus beyond Surrentum, not twigs onely that are dipped therein, but leaues alſo grow to be ſtones; and yet the vater thereof otherwiſe is good and wholeſome to be drunk. In the very paſſage and iſſue of Reatine meere, there growes a rocke of ſtone bigger and bigger by the daſhing of the water. Moreouer in the red ſea there be oliue trees and other ſhrubs, that grow vp green. There be alſo very many ſprings, which haue a wonderfull nature, for their boiling heat: yea, and that vpon the very mountains of the Alpes; and in the ſea between Italy and Ænaria: as in the Firth Baianus, and the riuer Liris, and many others. For in diuers and ſundry places ye may draw freſh water out of the ſea, namely about the iſlands Chelidoniæ and Ara-
D dus: yea and in the Ocean about Gades. In the hot waters of the Padouans there grow greene herbes: in thoſe of the Piſanes there breed frogs: and at Vetulonij in Hetruria, not far from the ſea, fiſhes alſo are bread. In the territory Caſinas there is a riuer called Scatebra, which is cold, and in Summer time more abounding and fuller of water than in winter: in it, as alſo in Stymphalis of Arcadia, there breed & come forth of it little water-mice, or ſmall Limpins. In Dodone, the fountain of *Iupiter* being exceeding chill and cold, ſo as it quencheth and putteth out light torches dipped therein, yet if you hold the ſame neere vnto it when they are extinct and put out, it ſetteth them on fire againe. The ſame ſpring at noon-tide euermore giueth ouer to boile, and wants water, for which cauſe they call it *Anapauomenos*: anon it begins to riſe vntill it be midnight, and then it hath great abundance: and from that time againe it faints by little
E and little. In Illyricum there is a cold ſpring, ouer which, if ye ſpread any clothes, they catch a fire and burne. The fountaine of *Iupiter Hammon* in the day time is cold, all night it is ſeething hot. In the Troglodites countrey there is a fountaine of the Sunne, called the ſweet Spring, about noon it is exceeding cold, anon by little and little it growes to be warm, but at midnight it paſſeth and is offenſiue for heate and bitternes. The head of the Po, at noon in Summer giueth ouer, as it were, and intermits to boile, and is then euer drie. In the Iſland Tenedus there is a ſpring, which after the Sommer Sunſteed euermore from the third houre of the night vnto the ſixt, doth ouerflow, And in the iſle Delos, the fountain Inopus, falleth and riſes after the ſame ſort that Nilus doth, and together with it. Ouer againſt the riuer Timavus, there is a little Iſland within the ſea, hauing hot wels, which ebbe and flow as the tide of the ſea doth, and iuſt
F therwith. In the territory of the Pitinates beyond Apenninus, the riuer Nouanus at euery midſummertime ſwelles and runnes ouer the bankes, but in mid-winter is cleane dry. In the Faliſcane countrie, the water of the riuer Clitumnus makes the oxen and kine white that drinke of it. And in Bæotia, the riuer Melas maketh ſheepe blacke: Cephyſſus running out of the ſame lake, cauſeth them to be white: and Penius again giues them a black colour: but Xanthus neere

vnto

vnto Ilium, coloureth them reddiſh; and hereupon the riuer tooke that name. In the land of Pontus there is a riuer that watereth the plaines of Aſtace, vpon which thoſe mares that feed, giue blacke milke for the food and ſuſtenance of that nation. In the Reatine territorie there is a fountaine called Neminia: which, according to the ſpringing and iſſuing forth out of this or that place, ſignifyeth the change in the price of corne and victuals. In the hauen of Brindis there is a Well, that yeeldeth vnto ſailers and ſea-fering-men, water, which will neuer corrupt. The water of Linceſtis, called Acidula [*i.* Soure] maketh men drunken no leſſe than wine. Semblably, in Paphlagonia, and in the territory of Cales. Alſo in the Iſle Andros there is a fountaine neere the temple of Father *Bacchus*, which vpon the Nones of Ianuarie, alwaies runneth with water that taſteth like wine, as *Mulianus* verily beleeueth, who was a man that had beene thrice Conſull: The name of the ſpring is Dios Tecnoſia. Neere vnto Nonacris in Arcadia, there is the riuer Styx, differing from the other Styx neither in ſmell nor colour: drinke of it once, and it is preſent death. Alſo in Beroſus (an hill of the Tauri) there be three fountaines, the water whereof whoſoeuer drinketh, is ſure to die of it, remedileſſe, and yet without paine. In the Countrey of Spaine called Carrinenſis, two Springs there bee that runne neere together, the one reiecteth, the other ſwalloweth vp all things. In the ſame countrey there is another water, which ſheweth all fiſhes within it of a golden colour, but if they be once out of that water, they be like to other fiſhes. In the Cannenſian territory, neere to the lake Larius, there is a large and broad Well, which euery houre continually, ſwelleth and falleth downe againe. In the Iſland Sydonia before Lesbos, an hot fountaine there is that runneth onely in the Spring. The lake Sinnaus in Aſia, is infected with the wormewood growing about it, and there of it taſteth. At Colophon in the vault or caue of *Apollo Clarius*, there is a gutter or trench ſtanding full of water: they that drinke of it, ſhall propheſie and foretell ſtrange things like Oracles, but they liue the ſhorter time for it. Riuers running backward, euen our age hath ſeen, in the later yeres of Prince *Nero*, as we haue related in the acts of his life. Now, that all Springs are colder in Summer than Winter, who knoweth not? as alſo theſe wonderous workes of Nature, That braſſe and lead in the maſſe or lumpe ſinke downe and are drowned, but if they be driuen out into thin plates, they flote and ſwim aloft: and let the weight be all one, yet ſome things ſettle to the bottome, others againe glide aboue. Moreouer, that heauie burdens and lodes be ſtirred and remoued with more eaſe in water. Likewiſe, that the ſtone Thyrreus, be it neuer ſo big, doth ſwim whole and intire: breake it once into pieces, and it ſinketh. As alſo, that bodies newly dead, fall downe to the bottome of the warer, but if they be ſwollen once, they riſe vp againe. Ouer and beſides, that empty veſſels are not ſo eaſily drawne forth of the water, as thoſe that be full: that raine water for ſalt pits is better and more profitable than all other: and that ſalt cannot be made, vnleſſe freſh water be mingled withall: that ſea-water is longer before it congeale, but ſooner made hot and ſet a ſeething. That in Winter the ſea is hoter, and in Autumne more brackiſh and ſalt. And that all ſeas are made calme and ſtill with oile: and therefore the Diuers vnder the water doe ſpirt and ſprinkle it abroad with their mouthes becauſe it dulceth and allaieth the vnpleaſant nature thereof, and carrieth a light with it. That no ſnowes fall where the ſea is deep. And, whereas all water runneth downeward by nature, yet Springs leape vp; euen at the very foot of Ætna, which burneth of a light fire ſo farre forth, as that for fiftie, yea, and an hundred miles, the waulming round bals and flakes of fire caſt out ſand and aſhes.

Chap. cliii.

¶ *The maruailes of fire and water iointly together, and of Maltha.*

NOw let vs relate ſome ſtrange wonders of fire alſo, which is the fourth element of Nature. But firſt, out of waters. In a citie of Comagene, named Samoſatis, there is a pond, yeelding forth a kinde of ſlimie mud (called Maltha) which will burne cleare. When it meeteth with any thing ſolide and hard, it ſticketh to it like glew: alſo, if it be touched, it followeth them that flee from it. By this meanes the townesmen defended their walls, when *Lucullus* gaue the aſſault, and his ſouldiers fried and burned in their owne armours. Caſt water vpon it, and yet it will burne. Experience hath taught, That earth onely will quench it.

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Chap. CV. ¶ *Of Naphtha.*

OF the like nature is Naphtha: for ſo is it called about Babylonia, and in the Auſtacenes countrey in Parthia, and it runneth in manner of liquid Bitumen. Great affinitie there is betweene the fire and it; for fire is ready to leap vnto it immediatly, if it be any thing neere it. Thus (they ſay) *Media* burnt her husbands concubine, by reaſon that her guirland annointed therewith, was caught by the fire, after ſhe approched neere to the altars, with purpoſe to ſacrifice.

B

Chap. CVI. ¶ *Of places continually burning.*

BVt amongſt the wonderfull mountaines, the hill Ætna burneth alwaies in the nights: and for ſo long continuance of time yeeldeth ſufficient matter to maintaine thoſe fires: in winter it is full of ſnow, and couereth the aſhes caſt vp, with froſts. Neither in it alone doth Nature tyranize and ſhew her cruelty, threatning as ſhe doth a general conſuming of the whole earth by fire. For in Phoſelis the hil Chimæra likewiſe burneth, and that with a continuall fire night and day. *Cteſias* of Gnidos writeth, that the fire therof is inflamed and ſet a burning with water, but quenched with earth. In the ſame Lycia the mountaines Hephæſtij, being once touched and kindled with a flaming torch, do ſo burne out, that the very ſtones of the riuers, yea,
C and the ſand in waters, are on fire withall; and the ſame fire is maintained with raine. They report alſo, that if a man make a furrow with a ſtaffe that is ſet on fire by them, there follow gutters as it were of fire. In the Bactrians countrey, the top of the hill Cophantus burneth euery night. Amongſt the Medians alſo, and the Cæſtian nation, the ſame mountaines burneth: but principally in the very confines of Perſis. At Suſis verily, in a place called the white tower, out of fifteene chimnies or tunnels the fire iſſueth, and the greateſt of them, euen in the day time carrieth fire. There is a plaine about Babylonia, in manner of a fiſh poole, which for the quantity of an acre of ground burneth likewiſe. In like ſort neere the mountaine Heſperius in Æthyopia, the fields in the night time do glitter and ſhine like ſtars. The like is to be ſeene in the territorie of the Megapolitanes, although the field there within-forth be pleaſant, and not
D burning the boughes and leaues of the thicke groue aboue it. And neere vnto a warme Spring, the hollow burning furnace called *Crater Nymphæi* alwaies portendeth ſome fearefull misfortunes to the Apolloniates, the neighbours thereby, as *Theoponpus* hath reported. It increaſeth with ſhowers of raine, and caſteth out Bitumen to be compared with that fountaine or water of Styx that is not to be taſted, otherwiſe weaker than all Bitumen beſides. But who would maruell at theſe things? in the mids of the ſea, Hiera one of the Ætolian Iſlands neere to Italy burned together with the ſea for certaine daies together, during the time of the allies war, vntill a ſolemne embaſſage of the Senat made expiation therefore. But that which burneth with the greateſt fire of all other, is a certaine hill of the Æthyopians Thœet Ochema, and ſendeth out moſt parching flames in the hotteſt Sun-ſhine daies. Lo in how many places with ſundry fires
E Nature burneth the earth.

Chap. CVII.

¶ *Wonders of fires by themſelues.*

MOreouer, ſince the Nature of this onely element of fire is to be ſo fruitfull, to breed it ſelfe, & to grow infinitely of the leaſt ſparks; what may be thought will be the end of ſo many funerall fires of the earth? what a nature is that which feedeth the moſt greedy voracitie in the whole world without loſſe of it ſelfe? Put thereto the infinit number of ſtars, the
F mighty great Sun; moreouer, the fires in mens bodies, & thoſe that are inbred in ſome ſtones; the attrition alſo of certain woods one againſt another; yea, and thoſe within clouds, the verie original of lightnings. Surely, it exceedeth all miracles, that any one day ſhould paſſe, & not al the world be ſet on a light burning fire, ſince that the hollow firy glaſſes alſo ſet oppoſit againſt the Sun beams, ſooner ſet things a burning than any other fire. What ſhould I ſpeake of innumerable

merable others,which be indeed little,but yet naturally issuing out in great abundance? In the Promontorie Nymphæum there commeth forth a flaming fire out of a rock,which is set a burning with rain. The like is to be seene also at the waters called Scantiæ. But this verily is but feeble when it passeth and remoueth,neither indureth it long in any other matter. An ash there is growing ouer his fiery fountain,and couering it,which notwithstanding is alwaies green. In the territorie of Mutina there riseth vp fire also,vpon certaine set holy-daies vnto *Vulcan*. It is found written, That if a cole of fire fall down vpon the arable fields vnder Aricia, the very soile presently is on fire. In the Sabines territorie,as also in the Sidicines, stones if they be anointed or greased,will be set on a light fire. In a towne of the Salantines called Egnatia, if fire be laid vpon a certaine hallowed stone there,it will immediatly flame out. Vpon the alter of *Iuno Lacinia* standing as it doth in the open aire,the ashes lie vnmoueable and stir not, blow what stormy winds that will on euery side. Ouer and besides, there be fires seene suddenly to arise, both in waters and also about the bodies of men. *Valerius Antias* reporteth, That the lake Thrasymenus once burned all ouer: also that *Serv. Tullius* in his childehood, as he lay asleepe, had a light fire shone out of his head: likewise,as *L. Martius* made an oration in open audience to the army,after the two *Scipios*,were slain in Spain,and exhorted his soldiers to reuenge their death, his head was on a flaming fire in the same sort. More of this argument, and in better order,will we write soone hereafter. For now we exhibit and shew the maruells of all things hudled and intermingled together. But in the mean while,my mind being passed beyond the interpretation of Nature,hasteneth to leade as it were by the hand the minds also of the readers, throughout the whole world.

Chap. CVIII.

¶ *The measure of the whole earth in length and breadth.*

THis our part of the earth whereof I speak, floting as it were within the Ocean (as hath bin said) lieth out in length most from the East to the West, that is to say from India to *Hercules* pillars consecrated at Gades: and as mine Author *Artemidorus* thinketh, it containeth 85 hundred,& 78 miles. But according to *Isidorus*,98 hundred, and 18. *M. Artemidorus* addeth moreouer,from Gades within the circuit of the sacred Promontorie, to the Cape Artabrum, where the front and head of Spain beareth out farthest in length 891 miles. This measure runneth two waies. From the riuer Ganges and the mouth thereof,whereas he discharged himself into the East Ocean,through India and Parthyene vnto Myriandrum a city of Syria, scituate vpon the gulfe or Firth of Isa,52 hundred & 15 miles. From thence taking the next voiage to the Island Cyprus,to Patara in Lycia,Rhodes and Astypatæa (Islands lying in the Carpathian sea) to Tænarus in Laconia,Lilybæum in Sicilie,Calaris in Sardinia,34 hundred & 50 miles. Then to Gades 14 hundred and 50 miles. Which measures being put al together,make in the whole from the said sea,85 hundred 78 miles. The other way,which is more certain,lieth most open and plain by land,to wit,from Ganges to the riuer Euphrates 50 hundred miles and 21. From thence to Mazaca in Cappadocia 244 miles, & so forward through Phrygia and Caria, to Ephesus,400 miles,98. From Ephesus through the Ægean sea to Delos 200 miles. Then to Isthmus 212 miles. From thence partly by land,and partly by the Laconian sea and the gulfe of Corinth,to Patræ in Peloponnesus 202 miles and an halfe: so to Leucas 86 miles & a halfe, and as much to Corcyra. Then to Acroceraunia 132 miles and a halfe: to Brundusium 86 miles and a halfe: so to Rome 3 hundred miles and 60. Then to the Alpes as far as the village Cincomagus 518 miles. Through France to the Pyrenæan hils, vnto Illiberis 556 miles, to the Ocean and the sea coast of Spaine 332 miles. Then the cut ouer to Gades seven miles and a halfe. Which measure by *Artemidorus* his account,maketh in all 86 hundred 85 miles. Now the bredth of the earth,from the Meridian or South-point,to the North,is collected to be lesse almost by the one halfe,namely,54 hundred and 62 miles. Whereby it appeareth plainly,how much of the one side heate of fire,and on the other side frozen water hath stolne away. For I am not of minde that the earth goeth no farther than so,for then it should not haue the forme of a globe; but that the places on either side be vnhabitable,and therefore not found out and discouered. This measure runneth from the shore of the Æthyopian Ocean,which now is habited, vnto Meroe, 550 miles. From thence to Alexandria 1200 and 40 miles. So, to Rhodes 583 miles;

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A miles; to Gnidus, 84 miles and a halfe; to Cos, 25 miles; to Samus, 100 miles; to Chius, 84 miles; to Mitylene, 65 miles; to Tenedos, 28 miles; to the cape Sigæum, 12 miles and a halfe; to the mouth of Pontus, 312 miles and a halfe; to Carambis the promontorie, 350 miles; to the mouth of Mæotis, 312 miles and a halfe; to the mouth of Tanais, 265 miles: which voiage may be cut ſhorter (with the vantage of ſailing directly) by 89 miles. From the mouth of Tanais, the moſt curious Authors haue ſet downe no meaſure. *Artemidorus* was of opinion, that all beyond was vnfound and not diſcouered; confeſſing, that about Tanais the Sarmatian Nations do inhabit, who lie to the North pole. *Iſidorus* hath added hereto twelue hundred miles, as far as to Thule: which is a iudgement of his grounded vpon bare gueſſe and coniecture. I take it,
B that the borders of the Sarmatians are knowne to haue no leſſe ſpace of ground than this laſt mentioned commeth vnto. And otherwiſe, how much muſt it be, that would containe ſuch an innumerable company of people ſhifting their ſeats euer and anon, as they doe. Whereby I gueſſe, that the ouer-meaſure of the clime inhabitable is much greater. For I know certainely, tha t Germany hath diſcouered mightie great Iſlands not long ſince. And thus much of the length and breadth of the earth, which I thought worth the writing. Now the vniuerſall compaſſe and circuit thereof, *Eratoſthenes* (a great Clerke verily for all kinde of literature, & in this knowledge aboue all others doubtleſſe moſt cunning, and whom I ſee of all men approued and allowed) hath ſet downe to be 252000 ſtadia. Which meaſure, by the Romanes account and reckoning, amounteth to 300 hundred and 15 hundred miles. A wonderous bold attempt of his! but yet ſo exquiſitly calculated and contriued by him, that a ſhame it were not to beleeue
C him. *Hipparchus*, a wonderful man both for conuincing him, and all his other diligence beſides, addeth moreouer little leſſe than 25000 ſtadia.

Chap. CIX.

¶ *The Harmonicall meaſure, and Circumference of the World.*

Dionyſidorus in another kind would be beleeued: (for I will not beguile you of the greateſt example of Grecian vanitie.) This man was a Melian, famous for his skill in Geometrie: he dyed very aged in his owne countrey: his neere kinſ-women (who by right were his
D heires in remainder) ſolemnized his funerals, & accompanied him to his graue. Theſe women (as they came ſome few daies after to his ſepulchre for to performe ſome ſolemne obſequies thereto belonging) by report, found in his monument an Epiſtle of this *Dionyſidorus*, written in his owne name, To them aboue, that is to ſay, To the liuing: and to this effect, namely, That he had made a ſtep from his ſepulchre to the bottome and centre of the earth, and that it was thither 42000 ſtadia. Neither wanted there Geometricians, who made this interpretation, that he ſignified that this Epiſtle was ſent from the middle centre of the earth, to which place downward from the vppermoſt aloft, the way was longeſt; and the ſame was iuſt halfe the diametre of the round globe: whereupon followed this computation, That they pronounced the circuit to be 255000 ſtadia. Now the Harmonicall proportion, which forceth this vniuerſali-
E tie and nature of the World to agree vnto it ſelfe, addeth vnto this meaſure 7000 ſtadia, and ſo maketh the earth to be the 96000 part of the whole world.

F

THE THIRD BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

The Proeme, or Preface.

HItherto haue we written of the position and wonders of the Earth, Waters, and Starres: also we haue treated in generall termes, of the proportion and measure of the whole world. Now it followeth, to discourse of the parts thereof: albeit this also be iudged an infinite piece of worke, nor lightly can be handled without some reprehension: and yet in no kinde of enterprise pardon is more due; since it is no maruell at all, if he who is borne a mortall man, knoweth not all things belonging to man. And therefore I will not follow one Author more than another, but euery one as I shall thinke him most true in the description of each part. For asmuch as this hath been a thing common in manner to them all, namely, to learn or describe the situations of those places most exactly, where themselues were either borne, or which they had discouered and seene: and therefore neither will I blame nor reproue any man. The bare names of places shall be simply set downe in this my Geographie, and that with as great breuitie as I can: the excellency, as also the causes and occasions thereof, shall be deferred to their seuerall and particular treatises: for now the question is as touching the whole earth in generalitie, which mine intent is to represent vnto your eies: and therefore I would haue things thus to be taken, as if the names of countries were put downe naked, and void of renowne and fame, and such onely as they were in the beginning, before any acts there done; and as if they had indeed an indument of names, but respective onely to the World and vniuersall Nature of all.

Now the whole globe of the earth is diuided into three parts, Europe, Asia, and Africa. The beginning we take from the West and the Firth of Gades, euen where as the Atlanticke Ocean breaking in, is spred into the Inland and Mediterranean seas. Make your entrance there, I meane at the Streights of Gibralter, and then Africa is on the right hand, Europe on the left, and Asia before you iust betweene. The bounds confining these, are the riuers Tanais and Nilus. The mouth of the Ocean at Gades (whereof I spake before) lyeth out in length 15 miles, and stretcheth forth in breadth but fiue, from a village in Spaine called Mellaria, to the promontorie of Africke, called the VVhite, *as* Turannius Graccula *born thereby, doth write.* T. Liuius, *and* Nepos Cornelius *haue reported, that the breadth thereof where it is narrowest, is seuen miles ouer, but ten miles where it is broadest. From so small a mouth (a wonder to consider) spreadeth the sea so huge and so vast as we see; and withall, so exceeding deepe, as the maruell is no lesse in that regard. For why? in the verie mouth thereof, are to be seen many barres and shallow shelues of white sands (so ebbe is the water) to the great terrour of shippes and sailers passing that way. And therefore many haue called those Streights of Gibralter, The entrie of the Mediterranean Sea. Of both sides of this gullet, neere vnto it, are two mountaines set as frontiers and rampiers to keepe all in: namely, Abila for Africke, Calpe for Europe, the vtmost end of* Hercules *Labours. For which cause, the inhabitants of those parts call them, the two pillars of that God; and doe verily beleeue, that by certaine draines and ditches digged within the Continent, the maine Ocean, before excluded, made way and was let in, to make the Mediteranean seas, where before was firme land: and so by that meanes the very face of the whole earth is cleane altered.*

CHAP.

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A

Chap. I.

¶ *Of Europe.*

AND firſt, as touching Europe, the nource of that people which is the conqueror of all nations; and beſides, of all lands by many degrees moſt beautifull: which may for right good cauſe, haue made not the third portion of the earth, but the one halfe (diuiding the whole globe of the earth into two parts:) to wit, from the riuer Tanais vnto the Streights of Gades. The Ocean then, at this ſpace aboue-ſaid, entreth into the Atlanticke ſea, and with a greedie current drowneth thoſe
B lands which dread his comming like a tyrant; but where he meeteth with any that are like to reſiſt, thoſe he paſſeth iuſt by, and with his winding turns and reaches he eateth and holloweth the ſhore continually to gaine ground, making many noukes and creekes euery where: but in Europe moſt of all, wherein foure eſpeciall great gulfes are to be ſeene.

Of which, the firſt, from Calpe the vtmoſt promontorie (as is aboue ſaid) of Spain, windeth and turneth with an exceeding great compaſſe, to Locri, and as far as the promontorie Brutium. Within it lieth the firſt land of all others, Spaine; that part I meane, which in regard of vs at Rome, is the farther off, and is named alſo Bœtica. And anon from the Firth Virgitanus, the hither part, otherwiſe called Tarraconenſis, as far as to the hils Pyrenæi. That farther part of larger Spaine is diuided into two prouinces in the length thereof: for on the North ſide of Bœ-
C tica, lyeth Luſitania afront, diuided from it by the riuer Ana.

This riuer beginneth in the territorie Laminitanus of the hither Spain, one-while ſpreading out it ſelfe into broad pooles or meeres, otherwhiles gathering into narrow brooks: or altogether hidden vnder the ground, and taking pleaſure to riſe vp oftentimes in many places, falleth into the Spaniſh Atlantick Ocean. But the part named Tarraconenſis, lying faſt vpon Pyrenæus, & ſhooting along all the ſide thereof, and withal, ſtretching out it ſelfe ouerthwart & croſſe from the Iberian ſea to the Gauls Ocean, is ſeparated from Bœtica & Luſitania, by the mountaine Salarius, and the cliffes of the Oretanes, Carpetanes, and Aſturians.

Bœtica, ſo called of the riuer Bœtis, that cutteth in the mids, out-goeth all other prouinces
D for rich furniture, and a certaine plentifull trimneſſe and peculiar beautie by it ſelfe. Therein are held foure ſolemne Iudiciall great aſſizes and Parliaments, according to foure Counties or ſhires; to wit, the Gaditane, Cordubian, Aſtigitane, and Hiſpalenſis. Townes in it are all in number 175; whereof there are colonies eight; free Boroughes, eight; townes indued with the antient franchiſes of Latium 29: with freedome ſix; Confederate, foure; Tributarie paying cuſtome, 120. Of which, thoſe that be worth the naming, and are more currant in the Latine tongue, be theſe vnder written: to wit, on the riuer Ana ſide and the Ocean coaſt, the citie Oſſonoba, ſurnamed alſo Luſturia. There run between, Luxia and Vrium, two riuers. The hils Ariani, the riuer Bœtis: the ſhore Corenſe with a winding creek. Ouer againſt which, lyeth Gades, to be ſpoken of among the Ilands. The cape or head of *Iuno*; the hauen Beſippo. Townes, Belon,
E and Mellaria. The Streights or Firth out of the Atlanticke ſea. Carteia, called Terteſſos by the Greekes; and the mountaine Calpe. Then, within the firm land, the towne Barbeſula, with the riuer. *Item.* the towne Salbula, Suel-Malacha vpon the riuer of our Confederates. Next to theſe, Menoba with a riuer: Sexi-firmum, ſurnamed Iulium: Selaubina, Abdera, and Murgis the frontier towne of Bœtica. All that whole coaſt, *M. Agrippa* thought to haue had their beginning and diſcent from the Carthaginians. From Ana, there lyeth againſt the Atlanticke Ocean, the region of the Baſtuli and the Turduli.

M. Varro ſaith, that there entered into all parts of Spain, the Herians, Perſians, Phœnicians, Celtes, and Carthaginians or Africans: for *Luſus*, the companion of Father *Liber* or *Liba* (which ſignifieth the frantick furie of thoſe that raged with him) gaue the name to Luſitania; and
F *Pan* was the gouernour of it all. But thoſe things which are reported of *Hercules* and *Pyrene*, or of *Saturne*, I thinke to be as vaine and fabulous tales as any other. As for Bœtis, in the Tarraonenſian prouince, riſing, not as ſome haue ſaid, at the towne Menteſa, but in the chaſe or forreſt Tugrenſis, which the riuer Tader watereth, as it doth the Carthaginian pale alſo at Ilorcum, ſhunneth the funerall fire and ſepulchre of *Scipio*: and turning into the Weſt, maketh toward

the Atlantick Ocean,adopting the prouince and giuing it his owne name , is at firſt but ſmall, G
howbeit receiueth many other riuers into it,from which it taketh away both their name and
their waters. And firſt being entred from Oſſigitania into Bœtica,running gently with a plea-
ſant channel,hath many townes both on the left hand & the right,ſeated vpon it. The moſt fa-
mous and populous between it & the ſea coaſt in the Mediterranean part thereof, are Segeda,
ſurnamed Augurina: Iulia,which is alſo called Findentia: Virgao,otherwiſe Alba, Ebura,other-
wiſe Cereolis: Illiberi,which is alſo Liberini: Ilipua,named likewiſe Laus. Artigi or Iulienſes:
Veſci the ſame that Faventia: Singilia, Hegua, Arialdunũ, Agla the leſſe, Bæbro, Caſtra Vina-
ria, Epiſibrum, Hipponoua, Illurco, Oſca, Eſcua, Succubo, Nuditanum, Tucci the old, all which
belong to Baſtitania, lying toward the ſea. But within the countie or iuriſdiction of Corduba,
about the very riuer ſtandeth the towne Oſſigi,which is ſurnamed Laconicum: Illiturgi called H
alſo Forum Iulium. Ipaſturgi the ſame that Triumphale, Sitia: & 14 miles within the country
Obulco,which is named Pontificenſe. And anon(you ſhall ſee) Ripepora,a town of the confe-
derats, Sacili, Martialum, Onoba. And on the right hand Corduba,ſurnamed Colonia Patritia:
and then beginneth Bœtis to be nauigable,& not before. As you go lower,you ſhal find towns
Carbulo, Decuma,the riuer Singulis, falling into the ſame ſide of Bœtis. The townes of the
county Hiſpalenſis be theſe, Celtica, Axatiara, Arruci, Menoba, Ilipa,ſurnamed Italica. And on
the left hand, Hiſpalis a colony,ſurnamed likewiſe Romulenſis. But right forward oppoſit to
it,the town Oſſet,which hath a name beſides, Iulia Conſtantia: Vergentum,which alſo is the
ſame that Iulij Genitor, Hippo Caurafiarum,the riuer Menoba, which alſo entreth into Bœ-
tis on the right ſide. But within the waſhes & downs of Bœtis there is the town Nebriſſa ſur- I
named Veneria & Colobona: alſo colonies, *viz*. Aſta,which is called Regia: & in the mid-land
part, Aſido,which is the ſame that Cæſariana. The riuer Singulus breaking into Bœtis in that
order as I haue ſaid,runneth hard by the Colony Aſtigitania,ſurnamed alſo Auguſta Firma,&
ſo forward it is nauigable. The reſt of the Colonies belonging to this Countie are free, & en-
ioy immunitie of tribute,namely, Tucci,which is ſurnamed Auguſta Gemella: Itucci,the ſame
that Virtus Iulia, At tubi all one with Claretas Iulia[*i*. exceIlencie of *Iulius*.] Vrſo, which is
Genua Vrbanorum: & among theſe, Munda,which together with *Pompeies* ſon,was taken. Free
towns, Aſtigi the old,& Oſtippo: tributarie, Callet, Calucula, Caſtra Gemina, Ilipula the leſſe
Merucra, Sacrana, Obulcula, Oningis. As a man commeth from the coaſt,neere to the riuer Me-
noba,which alſo will beare a ſhip,there dwel not far off the Alontigicili, & Aloſtigi. But all K
that region which without the forenamed,reacheth from Bœtis to the riuer Ana,is called Be-
turia : diuided into two parts,& as many ſorts of people: to wit,the Celtici,who meet with Lu-
ſitania, and are within the diuiſion or county Hiſpalenſis: and the Turduli,who inhabit faſt vp-
on Luſitania and Tarraconenſis: and they owe ſeruice to the County-court of Corduba: as for
the Celtici,manifeſt it is, That they came from the Celtiberians out of Luſitania,as appeareth
by their religion,tongue,& names of towns,which in Bætica are diſtinguiſhed by their additi-
ons or ſurnames,to wit, Seria,which is called Fama Iulia : Vcultuniacum, which now is Curi-
ga: Laconimurgi, Conſtantia Iulia, Terreſibus is now Fortunales,& Callenſibus, Emanici. Be-
ſides all theſe,in Celtica Acinippo, Arunda, Arunci, Turobrica, Laſtigi, Alpeſa, Sæpona, Se-
rippo. The other Beturia,which we ſaid contained the Turduli,& belonged to the countie of L
Corduba,hath towns of no baſe account, Arſa, Mellaria and Mirobrica: and regions or quarters
Ofrutigi,and Siſapone. Within the Countie of Gades there is of Romane citizens a town cal-
led Regina : of Latines there are Læpia, Vlia, Cariſa ſurnamed Aurelia, Vrgia, which is like-
wiſe named Caſtrum Iulium: alſo, Cæſaris Salutarienſis. But tributaries there be theſe, Beſaro,
Beſippo, Berbeſula, Lacippo, Beſippo, Callet, Cappagum, Oleaſtro, Itucci, Brana, Lacibi, Sa-
guntia, Andoriſippo. The whole length of it, *M. Agrippa* hath ſet down 463 miles,& the bredth
257. But for that the bounds reached forward as far as to Carthage, which cauſe breedeth of-
tentimes errors in the taking of the meaſures, whiles in one place the limits of the prouinces
were changed,and in another the paces in iournying were either more or leſſe; alſo, conſidering
the ſeas in ſo long continuance of time haue incroched here vpon the land,and the banks again M
gotten there of the ſea,and beare farther in ; alſo, for that the reaches of the riuers haue either
turned crooked or gone ſtreight & direct; ouer and beſides, for that ſome haue begun to take
their meaſure from this place,others from that,and gon diuers waies: it is by theſe means come
to paſſe,that no twain accord together in one ſong,as touching their meaſure & Geographie.

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Chap. II.

¶ *The length and breadth of Bætica.*

THe length of Bœtica at this day from the bound of the town Caſtulo vnto Gades, is 475 miles: and from Murgi the maritine coaſt or lands end, more by 22 miles. The bredth from the edge or border of Carteia, is 224 miles. And verily, who would beleeue, that *Agrippa*, a man ſo diligent, and in this worke principally, ſo curious, did erre, when he purpoſed to ſet out a map of the whole world openly to be ſeene of the whole city, and namely, when *Auguſtus Cæſar* of happie memorie, ioined with him? For he it was that finiſhed the Porch or gallerie begun by *Agrippa's* ſiſter, according to his will, appointment, and direction, which contained the
B ſaid pourtraict.

Chap. III.

¶ *The hither or higher Spaine.*

THe old forme of the hither Spaine is ſomwhat changed, like as of many other prouinces: conſidering that *Pompey* the great in his triumphant trophies which he erected in Pyrenæus, reſtifieth, That 846 townes between the Alps and the marches of the farther or lower Spain, were ſubdued by him and brought to obedience. Now, is the whole prouince diuided into 7 counties, the Carthaginian, the Tarraconian, Cæſar Auguſtani, Clunienſis, Aſturia, Lu-
C cenſis, & Bracarum. There are beſides Iſlands, ſetting aſide which, without once naming them, and excepting the cities that are annexed to others, the bare prouince containeth 294 townes. In which there be 12 colonies, townes of Roman citizens thirteen, of old Latines ſeuenteen, of allies within the league, one; tributarie, 136. The firſt in the very frontiers thereof, be the Baſtulians: behind them in ſuch order as ſhall be ſaid; namely, thoſe Inlanders that inhabit within-forth, the Menteſanes, Oretanes, and the Carpetanes vpon the riuer Tagus. Neere to them, the Vaccæans, Vectones, Celtiberians, and Arrebaci. The townes next to the marches, Vrci, and Barea laid to Bœtica: the countrey Mauritania, then Deitania: after that Conteſtania, and new Carthage, a colonie. From the promontorie whereof called *Saturnes* cape, the cut ouer the ſea
D to Cæſaria a citie in Mauritania, is of 187 miles: In the reſidue of that coaſt is the riuer Tader: the free colonie Illici, of which, a firth or arme of the ſea tooke the name Illicitanus. To it owe ſeruice and are annexed the Icoſitanes. Soon after, Lucentum a towne of the Latines. Dranium a tributarie, the riuer Sucro, which was ſometime the frontier towne of Conteſtania. The region Edetania, which retireth inward to the Celtiberians, hauing a goodly pleaſant poole bordering along the front of it. Valentia, a colonie lying three miles from the ſea. The riuer Turium: and iuſt as far from the ſea, Saguntum, a towne of Roman citizens, renowned for their fidelitie. The riuer Idubeda, and the region of the Ilergaones. The riuer Hebre, yeelding ſuch riches of traffieke and commerce, by reaſon that it is nauigable: which beginneth in the Cantabrians countrey, not far from the towne Inliobrica, and holdeth on his courſe 430 miles:
E and for 260 of them, euen from the towne Varia, carrieth veſſels of merchandiſe: in regard of which riuer, the Greekes named all Spaine Iberia: the region Coſſetania, the riuer Subi, the colonie Tarraco, built by the *Scipioes*, like as Carthage by the Africans. The countrey of the Illergetes, the towne Subur, the riuer Rubricatum, and from thence the Lacetanes and Indigetes. After them in this order following: within-forth at the foot of Pyrenæus, the Auſetanes, Itanes, & Lacetanes: and along Pyrenæus the Cerretanes, and then the Vaſcones. In the edge or marches thereof, the co'o'y Barcino, ſurnamed Fauentia. Towns of Roman citizens, Bætulo, Illuro, the riuer Larnum, Blandæ: the riuer Alba, Emporiæ: two there be of theſe, to wit, of the old inhabitants, and of the Greeks, who were the off-ſpring deſcended from the Phocæans. The riuer Tichus. From whence to Pyrenæa Venus, on the other ſide of the promontorie, are fortie
F miles. Now beſides the forenamed, ſhall be related the principall places of marke as they lie in euery count'e. At Tarracon there plead in court foure and fortie States. The moſt famous and of greateſt name among them, be of Roman citizens the Dertuſanes, and Biſgargitanes: of Latines, the Auſetanes and Cerretanes ſurnamed Iulianes: they alſo who are named Auguſtanes, the Sedetanes, Gerundenſes, Geſſarians, Tearians, the ſame that Iulienſes. Of Tributaries,

taries,the Aquicaldenſes,Onenſes,and Bætulonenſes. Cæſar Auguſta,a free colony, on which G
the riuer Iberus floweth: where the towne before was called Salduba: theſe are of the region
Sedetania,and receiueth 52 States:and among theſe, of Roman citizens the Bellitanes and
Celſenſes:and out of the Colonie,the Calaguritanes ſurnamed alſo Naſcici. The Ilerdians of
the Surdaons Nation,neere vnto whom runneth the riuer Sicoris. The Oſcians of the region
Veſcetania,and the Turiaſonenſes. Of old Latins,the Caſcantenſes,Erganicenſes,Gracchuri-
tans,Leonicenſes,Oſſigerdenſes. Of confederats within the league, the Tarragenſes. Tributa-
ries beſides,the Arcobricenſes,Andologenſes,Arocelitans,Burſaonenſes,Calaguritans ſurna-
med Fibularenſes,Complutenſes,Carenſes,Cincenſes,Gortonenſes,Dammanitanes, Larren-
ſes,Iturienſes,Iſpalenſes,Ilumberitanes,Lacetanes,Vibienſes,Pompelonenſes and Segienſes.
There reſort to Carthage for law 62 ſeuerall States,beſides the Iſlanders. Out of the colonie H
Accitana,the Gemellenſes,alſo Libiſoſona ſurnamed Foroauguſtana : which two are indued
with the franchiſes of Italy:out of the colonie Salarienſis,the Oppidans of old Latium,Caſtu-
lonenſes,whom *Cæſar* calleth *Vænales*. The Setabitanes,who are alſo Auguſtanes, and the Va-
lerrienſes. But of the Tributaries,of greateſt name be the Babanenſes,the Baſcianes,the Con-
ſaburenſes,Dianenſes,Egeleſtanes,Ilorcitani,Laminitani, Menteſami, the ſame that Oritani;
and Mentelani who otherwiſe are Baſtuli:Oretanes who alſo are called Germani,the chiefe of
the Celtiberians,the Segobrigenſes,and the Toletanes of Carpetania,dwelling vpon the riuer
Tagus. Next to them the Viacienſes and Virgilienſes. To the aſſiſes or law-court Clunienſis,
The Varduli bring 14 nations;of which I liſt to name none but the Albanenſes: but the Tur-
modigi foure,among whom are the Segiſamonenſes,Sagiſameiulienſes. To the ſame aſſiſes, I
the Carietes & the Vennenſes do go out of fiue cities,of which the Velienſes are. Thither re-
paire the Pelendones,with 4 ſtates of the Celtiberians,of whom the Numantins were famous:
like as in the 18 cities of the Vaccæans,the Intercatienſes,Pallantini,Lacobricenſes, & Cau-
cenſes:for in the foure ſtates ofthe Cantabrici,only Iuliobrica is named:in the 10 ſtates of the
Autrigones,Tritium,& Vironeſca. To the Areuaci the riuer Areua gaue name. Of them there
be 7 townes;to wit,Saguntia and Vxama,which names be often vſed in other places: beſides
Segouia,and Noua-auguſta,Termes,and Clunia it ſelfe the very vtmoſt bound of Celteberia.
all the reſt lie toward the Ocean,& of the abouenamed the Verduli together with the Canta-
bri. To theſe there are ioined 12 nations of the Aſtures, diuided into the Auguſtans & Tranſ-
montans,hauing a ſtately city Aſturica:among theſe are reckned,Giguri,Peſici,Lanſienſes,& K
Zoclæ. The number of the whole multitude ariſeth to 240000 pols of free men,beſides ſlaues.
The county or iuriſdiction Lucenſis compriſeth 16 towns(beſides the Celticks and Lebuni-
ans)of baſe condition,and hauing barbarous names;howbeit,of free-men to the number wel-
neere of 166000:in like maner 24 cities,which affoord 275000 pols, owe ſeruice to the court
of Bracarum:of whom beſides the Bracarians themſelues,the Vibili,Celerini,Gallæci,Æqui-
ſiliti & Quinquerni,may be named without diſdain and contempt. The length of the hither
Spain,from Pyrenæus to the bound of Caſtulo is 607 miles,& the coaſt therof ſomwhat more
The bredth from Tarracon to the ſhore of Alarſon,307 miles: & from the foot of Pyrenæus,
where,between two ſeas it is pointed with the ſtreights,& ſo opening it ſelfe by little & little
from thence,till it come to touch the farther Spain,it is as much, and addeth ſomewhat more. L
to the bredth:all Spain throughout in manner is full of metall mines,as lead, yron, braſſe, ſil-
uer,and gold:the hither part thereof aboundeth beſides with ſtone glaſſes, or glaſſe ſtones:and
Bœtica particularly with vermilion. There be alſo there quarries of Marble. Vnto all Spaine
throughout,*Veſpaſianus Auguſtus* the Emperour, toſſed with the tempeſts and troubles of the
commonweale,granted the franchiſes of Latium. The mountaines Pyrenæi do confine Spaine
and France one from the other,lying out with their promontories into two contrary ſeas.

Chap. IIII.

¶ *The Prouince Narbonenſis.*

M

That part of Gallia which is waſhed and beaten vpon with the Mediteranean ſea, is called
the prouince Narbonenſis,named afore-time Braccata, diuided from Italy by the riuer
Varus and the Alpes,moſt friendly mountaines to the Romane Empire: and from the
other parts of Gaule, on the North ſide,by the hills Gebenna & Iura. For tillage of the ground

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A for reputation of men, regard of ciuilitie and manners, and for wealth, worthy to be ſet behinde no other prouinces whatſoeuer: and in one word, to be counted Italy, more truely than a prouince: in the edge or marches thereof lyeth the countrey of the Sardaons; & within, the region of the Conſuarones. The riuers be Tecum and Vernodubrum: the townes, Illiberis (a poore relique and ſimple ſhew of a citie to that it was in old time) & Ruſcio, inhabited by the Latines. The riuer Atax ſpringing out of Pyrenæus, runneth through the lake Rubrenſis, & floteth ouer it. *Narbo Martius* a colonie inhabited by the Legionaries of the tenth legion, twelue miles diſtant from the ſea. Rivers, Araris and Liria. Townes in the other parts, ſcattering here and there by reaſon of pooles and meeres lying before them: namely, Agatha, in times paſt belonging to
B the Maſſilians, and the region of Volſcæ Tectoſages. Alſo, where Rhoda of the Rhodians was, whereof Rhodanus tooke name, the moſt fruitfull riuer by far of all Gallia, running ſwiftly out of the Alps through the lake Lemanus, & carrying with it the dead and ſlow riuer Araris; and Iſara running as faſt as it ſelfe, together with Druentia. The two ſmal mouths or paſſages therof are called Lybica: of which, the one is Hiſpanienſum, the other Metapinum: a third there is beſides, and the ſame moſt wide and large, named Maſſalioticum. There be that write, how the towne Heraclea likewiſe ſtood vpon the mouth of Rhodanus. Beyond the ditch out of Rhodanus, which was the work of *C. Marius*, & bearing his name, there was a notable poole or meere. Moreouer the town Aſtromela, and the maritime tract of the Auætici: and aboue it, the ſtonie plains, carrying the memoriall of *Hercules* his battels. The region of the Anatilians, and within-forth, of the Deſuviates and Cauians. Againe, from the ſea; Tricorum, and inward, the region of
C the Tricollivocantians, Segouellaunes, and anon of the Allobroges: but in the marches, Maſſilia of Greeke Phocæans: within the league. The promontorie Citharista, Zaopartus, and the region of the Camatullici. After them, the Suelteri; and aboue them, Verucines: But in the coaſt along ſtill, Athenopolis vnder the Maſſilians, Forum Iulij a Colonie of the ninth legion ſouldiers, which alſo is called Parenſis and Claſſica: in it is the riuer Argenteus: the region of the Oxubij and Ligaunians; aboue whom, are the Suetri, Quarietes, and Adunicates: but in the borders, a Latine towne Antipolis. The region of the Deciates, the riuer Varus guſhing out of an hil of the Alpes, called Acema. In the middle part therof the Colonies, Arelate of the ſixth legion ſouldiers, Bliteræ of the ſeuenth, and Arauſia of thoſe belonging to the ſecond. In the territorie of the Cauians, Valentia and Vienna of the Allobroges. Latine towns, Aquæ Sextiæ
D of the Salyans, and Auenio of the Cavians, Apta Iulia of the Vulgientians, Alebecerriorum of the Apollinares, Alba of the Heluans, Anguſta of the Tricoſtines; Anatilia, Aeria, Bormanni, Comacina, Cabellio, Carcaſum, of the Volſcane Tectoſages: Ceſſero, Carpentoracte, of the Menines: the Cenicenſes, Cambolecti, who are named beſides Atlantici, Forom Voconij, Glanum, Livij, Lutevani, who are the ſame that Foro-neronienſes. Nemauſum of the Arecomici, Piſcenæ, Ruteni, Sanugenſes, and Toloſani, of the Tectoſages: The neighbor borderers vpon Aquitane, Taſco-dumetari, Canonienſes, Vmbranici. Two capitall towns of the confederat ſtate of the Vocontians, Vaſco and Lucus Auguſti. But baſe towns of no importance nineteene, as 24 more annexed to the Nemauſiens, and vnder their Seignorie. To this charter or inſtrument inrolled, *Galba* the Emperor added of the Alpine inhabitants, the Auantici and Eproduntij;
E whoſe town is named Dima. *Agrippa* ſaith, that the length of this prouince Narbonenſis is 270 miles, and the breadth 248.

Chap. V.

¶ *Italy, Tiberis, Rome, Campania.*

NExt to them is Italy, and the firſt of all, the Ligurians: then Hetruria, Vmbria, Latium, where be the mouthes of Tiberis and Rome the head citie of the whole earth, 16 miles diſtant from the ſea: after it is the maritime countrey of the Volſcians, and Campania: then Picentium, Lucanum, and Brutium, the furtheſt point in the South, vnto which from the
F crooked mountaines of the Alpes, like in manner vnto the Moone croiſſant, with ſome parts higher, other lower, Italie ſhooteth out in length to the ſeas: from it, is the ſea coaſt of Græcia, and ſoone after, the Salentines, Pediculi, Apuli, Peligni, Ferentani, Marrucini, Veſtines, Sabines, Picentes, Gaules, Vmbrians, Thuſcanes, Venetians, Carnians, Iapides, Iſtrians, and Liburnians.

Neither

Neither am I ignorant, that it might be thought and that iuſtly, a point of an vnthankefull mind and idle withall, if briefely in this ſort, and as it were by the way, that land ſhould be ſpoken of which is the nource of all lands. She alſo is the mother, choſen by the powerfull grace of the gods, to make euen heauen it ſelfe more glorious; to gather into one the ſcattered empires, to ſoften and make ciuill the rude faſhions of other countries; and whereas the languages of ſo many nations were repugnant, wilde, & ſauage, to draw them together by commerce of ſpeech, conference, and parley; to indue man with humanitie; and briefely, that of all nations in the world, there ſhould be one onely countrey. But here, what ſhould I do? ſo noble are all the places that a man ſhal come vnto, ſo excellent is euery thing, and each ſtate ſo famous and renowned, that I am fully poſſeſſed with them all, and to ſeeke what to ſay. Rome citie, the only faire face therein, worthy to ſtand vpon ſo ſtately a necke and pair of ſhoulders, what worke would it aske thinke you, to bee ſet out as it ought? the very tract of Campaine by it ſelfe, ſo pleaſant and goodly, ſo rich and happie, in what ſort ſhould it be deſcribed? So as it is plaine and manifeſt, that in this one place there is the workmanſhip of Nature wherein ſhe ioieth and taketh delight. Now beſides all this, the whole temperature of the aire is euermore ſo vitall, healthy, and wholeſome, the fields ſo fertile, the hills ſo open to the Sun, the forreſts ſo harmleſſe, the groues ſo coole and ſhadie, the woods of all ſorts ſo bounteous and fruitfull, the mountaines yeelding ſo many breathing blaſts of winde; the corne, the vines, the oliues ſo plentifull; the ſheep ſo inriched with fleeces of the beſt wooll, the bulls and oxen ſo fat and well fed in the necke; ſo many lakes and pooles, ſuch ſtore of riuers and ſprings watering it throughout; ſo many ſeas and hauens, that it is the very boſom lying open and ready to receiue the commerce of all lands from all parts; and yet it ſelfe full willingly deſireth to lie far into the ſea to helpe all mankinde. Neither do I ſpeake now of the natures, wits, and faſhions of the men; ne yet of the nations abroad ſubdued with their eloquent tongue, and ſtrong hand. Euen the Greekes (a nation of all other moſt giuen to praiſe themſelues beyond meaſure) haue giuen their iudgement of her, in that they called ſome ſmall part thereof, Great Greece. But in good faith, that which we did in the mention of the heauen, namely, to touch ſome knowne planets and a few ſtars, the ſame muſt we likewiſe do in this one part: only I would pray the Readers to remember and carry this away, That I haſten to rehearſe euery particular thing through the whole round globe of the earth.

Well then, to begin, Italy is faſhioned like for all the world to an Oke leafe, and much larger in length than breadth: to the left ſide bending with the top, and ending in the figure and faſhion of an Amazonian ſhield; and where that tract of Calabria lyeth which is called Cocinthos, it putteth forth into thoſe two promontories or capes like the moones two hornes; the one, Leucopetra on the right hand; the other Lacinium on the left. In length it reacheth from the foot of the Alps, through Oſtia or Prætoria Auguſta, directly to the citie of Rome, and ſo forward to Capua, with a direct courſe leading to Rhegium a towne ſcituate vpon the ſhoulder thereof: from which beginneth the bending as it were of the necke; and beareth 1000 and 20 miles. And this meaſure would grow to be far more, if it went as farre as Lacinium, but that ſuch an obliquitie and winding might ſeem to decline and beare out too much vnto one ſide. The breadth thereof is diuerſly taken, namely, 410 miles between the two ſeas, the higher and the lower, and the riuers Varus and Arſia. The mids of which breadth (and that is much about the citie of Rome) from the mouth of the riuer Aternus running into the Adriaticke ſea, vnto the mouthes of Tiberis, 136 miles, and ſomewhat leſſe: from Novum Caſtrum by the Adriaticke ſea, to Alſium, and ſo to the Tuſcane ſea: and in no place exceedeth it in breadth 300 miles. But the full compaſſe of the whole from Varus to Arſia, is 20049 miles. Diſtant it is by ſea from the lands round about, to wit, from Iſtria and Liburnia in ſome places 100 miles; from Epirus and Illyricum 50 miles; from Africk leſſe than 200, as *Varro* affirmeth; from Sardinia, an hundred and 20 miles; from Sicilie, a mile and a halfe: from Corcyra leſſe than 70; from Iſſa 50. It goeth along the ſeas, to the Meridionall line verily of the heauen; but if a man examine it exactly indeed, it lyeth betweene the Sun riſing in mid-winter, and the point of the Noone-ſtead.

Now will we deſcribe the compaſſe and circuit thereof, and reckon the cities; wherin I muſt needs proteſt by way of Preface, that I will follow for mine Authour *Auguſtus* the Emperour of famous memorie, and the deſcription by him made of all Italy, which be diuided into 11 Regions

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A Regionsor Cantons. As for the maritime townes, I will ſet them downe in that order, as they ſtand, according to their vicinity one to another. But foraſmuch as in ſo running a ſpeech and haſtie pen, the reſt cannot poſſibly be ſo orderly deſcribed: therfore in the inland part thereof, I will follow him as he hath digeſted them by the letters of the Alphabet: but mentioning withall, the colonies or chiefe cities by name, which he hath deliuered in that number. Neither is it an eaſie matter to know throughly their poſitions and foundations, conſidering the Ingaune Ligurians (to ſay nothing of all the reſt) were indowed with lands thirtie times, and changed their ſeats. To begin with the riuer Varus therfore, there offereth to our eie, firſt the towne Nicæa, built by the Maſſilians: the riuer Po; the Alpes; the people within the Alpes of many
B names, but of moſt marke Capillati, with long haire: the towne Vediantiorum, the Citie Cemelion, or, a towne belonging to the State of the Vediantians, called Cemelion: the port of *Hercules* and *Monœchus*, and ſo the Ligurian coaſt. Of the Ligurians, the moſt renowned beyond the Alpes, are the Sallij, Deceates, and Oxubij: on this ſide, the Veneni, and deſcended from the Caturiges, the Vagienni, Statyelli, Vibelli, Magelli, Euburiates, Caſmonates, Veliates, and thoſe, whoſe townes we will declare in the next coaſt. The riuer Rutuba, the towne Albium Intemelium, the riuer Merula, the towne Albium Ingaunum, the port or hauen towne Vadum Sabatium, the riuer Porcifera, the towne Genua, the riuer Feritor, the Port Delphini, Tigulia: within, Segeſta Tiguliorum: the riuer Macra which limiteth Liguria. Now on the back ſide behind all theſe townes aboue named, is Apenine, the higheſt mountain of all Italy, reaching from the Alpes with a continuall ridge of hils, to the ſtreights of Cicilie.
C From the other ſide thereof to Padus, the richeſt riuer in all Italy, all the countrey ſhining with goodly faire townes, to wit, Liberna, Dertona a Colonie, Iria, Barderates, Induſtria, Pollentia, Carrea, which alſo is named Polentia, Foro Fuluij the ſame that Valentinum, Auguſta, of the Vagienni: Alba, Pompei Aſta, and Aquæ Statyellorum. And this is the ninth Canton after the Geographie of *Auguſtus*. This coaſt or tract of Liguria containeth betweene the riuers Varus and Macra 211 miles. To it is adioined the 7 wherin is Hetruria from the riuer Macra: and it oftentimes changed the name. In old time the Pelaſgians chaſed the Vmbrians from thence: and by them the Lydians did the like, of whoſe king, named they were Tyrrheni: but ſoon after, of their ceremonies in ſacrificing, in the Greeks language *Thuſci*. The firſt towne of Hetruria is Luna, famous for the hauen; then the Colonie Luca, lying from the ſea: and neerer vnto it
D is Piſæ, between the riuer Auſer and Arnus, which took the beginning from *Pelops* and the Piſians, or Atintanians a Greeke nation. Vada Volateranea, the riuer Cecinna. Populonium of the Tuſcanes in times paſt, ſcituate only vpon this coaſt. After theſe the riuer Prille, and anon after Vmbro, nauigable, and of it tooke name: ſo forward the tract of Vmbria, and the port towne Telamon: Coſſa Volſcientium, a Colonie planted there by the people of Rome, Grauiſcæ, Caſtrum Novum, Pyrgi, the riuer Cæretanus, and Cære it ſelf, ſtanding foure miles within, called Agylla by the Pelaſgians who built it: Alſium and Frugenæ. The riuer Tiberis, diſtant from Macra 284 miles. Within-forth are theſe Colonies, Faliſca deſcended from Argi, as *Cato* ſaith, and for diſtinction is called Hetruſcorum. Lucus Feroniæ, Ruſſellana, Seneníis and Sutriua. As for the reſt, theſe they be, Aretini the old, Aretini Fidentes, Aretini Iuſlienſes, Amitinenſes, A-
E quenſes ſurnamed Taurini: Vlerani, Cortonenſes, Capenates, Cluſines the old, Cluſines the new, Fluentini, faſt vpon the riuer Arnus that runs before them, Feſulæ, Ferentinum, Feſcennia, Hortanum, Herbanum, Nepet, Nouempagi [*i.* the nine villages] the Shire-wiek called Prefecture Claudia, or Foro Clodij: Piſtorucin, Peruſia, Suanenſes, Saturnini, who beforetime were called Aurinini, Sudertani, Statones, Tarquinienſes, Tuſcanienſes, Vetulonienſes, Veientani, Veſentini, Volaterrani ſurnamed Hetruſci and Volſinienſes. In the ſame part lie the territories Cruſtuminus and Cæletranus, bearing the names of the old townes. Tiberis, beforenamed Tybris, and before that Albula, from the middeſt well neere of Apennine, as it lies in length, runs along the marches of the Aretines: ſmall and ſhallow at the firſt, and not able to beare a veſſell without being gathered together, as it were, by fiſh-pooles into a head, and ſo let goe at ſluces:
F as Tinia and Glanis which run into him, the which are at the ſame paſſe, and require 9 daies for collection of waters, and ſo are kept in for running out: in caſe they haue no helpe of rain at al. But Tiberis by reaſon of the rough, ſtony, and rugged channell, for all that deuiſe, hold, on no long courſe together, but only for troughes, to ſpeake more truly, than boats: & thus it doth for a hundred and fifty miles, not far from Tifernum, Peruſia and Otriculum: diuiding as it paſſeth

Hetruria

Hetruria from the Vmbrians and Sabines:and ſo forth vntill anon,within thirteen miles of the citie[Rome]it parts the Veientian countrey from the Cruſtumine: and ſoone after the Fidenate and Latine territories from the Labicane. But beſides Tinia and Glanis, he is augmented with two and forty riuers,and eſpecially with Nar and Anio:which riuer being alſo it ſelfe nauigable,encloſes Latium behind:and neuertheleſſe ſo many waters and fountaines are brought thereby into the citie,whereby it is able to receiue any ſhips, be they neuer ſo great,from the Italian ſea; and is the kindeſt marchant to conueigh all commodities growing and ariſing in any place of the whole world: it is the onely riuer of all others,to ſpeake of, and more villages ſtand vpon it and ſee it,than al other riuers in what land ſoeuer. No riuer hath leſſe liberty than it,as hauing the ſides therof encloſed on both hands,& yet he is no quarreller,nor much harm doth he,albeit he hath many and thoſe ſuddain ſwellings, and in no place more than in the very citie of Rome do his waters ouerflow:yet is he taken to be a prophet rather, and a Counſellor to giue warning,yea,and in ſmelling,more religious and breeding ſcruple,to ſpeake a truth, than otherwiſe cruell and doing any great harme. Old Latium from Tiberis to Circeios, was obſerued to be in length 50 miles. So ſmall roots at the firſt took this Empire. The inhabitants thereof changed often,and held it,ſome one time,ſome another; to wit,the Aborigenes,Pelaſgi,Arcadians,Sicilians,Auruncanes,and Rutilians. And beyond Circeios,the Volſcians,Oſſians,Auſonians, from whence the name of Latium did reach ſoone after, as farre as to the riuer Liris. In the beginning of it ſtands Oſtia, a Colonie,brought thither and planted by a Roman king:the towne Laurentum,the groue of *Iupiter Indiges*, The riuer Numicius, and Ardea, built by *Danaë* the mother of *Perſeus*. Then the Colonie Antium, ſometimes Aphrodiſium: Aſtura, the riuer and the Iſland. The riuer Nymphæus,Claſtra Romana Circeij,in times paſt an Iſland, yea and that verily enuironed with a mighty ſea(if we beleeue *Homer*)but now with a plain. A wonder it is what we are able to deliuer concerning this thing to the knowledge of men. *Theophraſtus*,who of ſtrangers was the firſt that writ(any thing diligently) ſomewhat of the Romans (for *Theopompus*,before whom no man made mention at all, ſaid only,That the citie was woon by the Gaules: and *Clitarchus* next after him, ſpake of nothing elſe but an embaſſage ſent vnto *Alexander*) this *Theophraſtus*, I ſay,vpon a better ground and more certaintie now than bare heareſay, hath ſet downe the meaſure of the Iſland Circeij to be eightie Stadia; in that booke which he wrot to *Nicodorus* the chiefe Magiſtrate of the Athenians,who liued in the 460 yeere after the foundation of Rome citie. Whatſoeuer land therefore aboue tenne miles compaſſe lies neere about it,hath beene annexed to the Iſland. But after that,a yeere,another ſtrange and wonderfull thing fell out in Italy: for not far from Circeij, there is a meere called Pomptina, which *Mutianus*, a man who had beene thrice Conſull, reporteth to haue been a place wherein ſtood 23 cities. Then there is the riuer Vfens,vpon which ſtandeth the towne Tarracina, called in the Volſcian tongue Anxur,& where ſometime was the citie Amycle,deſtroied by ſerpents. After it is there the place of a caue or peak, the lake Fundanus,& the hauen Cajeta. The town Formiæ named alſo Hormiæ,the ancient ſeat(as men thought) of the Læſtrigones. Beyond it was the towne Pyræ,the Colonie Minturne, diuided aſunder by the riuer Liris,called Clanius. The vtmoſt frontier towne in this part of Latium laid to the other,is Sinueſſa, which as ſome haue ſaid,was wont to be called Sinope. Thence comes to ſhew it ſelfe that pleaſant and plentifull countrey Campania. From this vale begin the hills full of vineyards,and famous for drunkenneſſe,proceeding of ſtrong wine and the liquor of the grape, commended ſo highly in all countries:and(as they were wont to ſay in old time)there was the exceeding ſtrife between father *Liber* and dame *Ceres*. From hence the Setine and Cecubine countries ſpread forth: and to them ioine the Falerne and Caline. Then ariſe the mountaines,Maſſici, Gaurani and Surrentine. There the Laborium Champaine fields lie along vnder their feet,and the good wheat harueſt to make fine frumentie for dainties at the table. The ſea-coaſts here are watered with hot fountaines,and among other commodities throughout all the ſea, they beare the name for the rich purple ſhell fiſh, and other excellent fiſhes. In no place is there better or more kind oyle preſſed out of the Oliue. And in this delightſome pleaſure of mankind, the Oſcians,Grecians, Vmbrians, Tuſcanes, and Campanes haue ſtriued who could yeeld beſt. In the skirt and edge thereof is the riuer Sauo,Vulturnum the town and riuer both,Liturnum,and Cumo inhabited by Chalcidians,Miſenum,the hauen Bajæ, Baule,the pooles Lucrinus and Auernus,neer vnto which was ſomtime the town Cimmerium. Then Puteoli,called alſo the Colonie Dicæarchia:

G H I K L M

After

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A After that,the plaines Phlegræi, and the meere or fenne Acheruſia neere to Cumes. And vpon the very ſtrond by the ſea ſide Naples,a citie alſo of the Chalcidians,the ſame that Parthenope ſo called of the tombe of a Sirene or Meeremaid: Herculanium, Pompeij: and where not farre off the mountaine Veſuvius ouerlooketh, and the riuer Sernus runneth vnder the territory of Nuceria,and within nine miles of the ſea,Nuceria it ſelfe. Surrentum with the promontory of *Minerua*. the ſeat ſometime of the Meermaids. From the cape Circeij lies the ſea open for ſaile 78 miles. This is counted the firſt region of Italy,next Tibris,according to the deſcription of *Auguſtus*. Within it are theſe Colonies, Capua,ſo called of the Champane country, Aquinum, Sueſſa, Venafrum, Sora, Teanum,named withall Sidicinum and Nola: the Townes be, Abellinum, Aricia, Alba Longa, Acerrani, Allifani, Atinates, Aletrinates, Anagnini, Atellani, Aſulani, Arpinates, Auximates, Auellani, Alfaterni; and they who of the Latine, Hernick, and Albicane territories,are ſurnamed accordingly: Bouillæ, Calatiæ, Caſinum, Calenum, Capitulum, Cernetum, Cernetani, who be called alſo Mariani. Corani deſcended from Dardanus the Trojane. Cubulterini, Caſtrimonienſes, Cingulani. Fabienſes, and in the mount Albane, Foro populienſes. Out of the Falarne territory, Fruſinates, Ferentinates, Freginates, Faraterni the old, Fabraterni the new, Ficolenſes, Fricolenſes, Foro-Appi, Forentani; Gabini, Interramnates, Succaſani, called alſo Lirinates, Ilionenſes, Lauinij, Norbani, Nementani, Preneſtini, whoſe citie was in times paſt named Stephanus, Priuernates, Setini, Signini, Sueſſulani, Telini, Trebutini ſurnamed Balinienſes, Tribani, Tuſculani, Verulani, Veliterni, Vlubrenſes, Vluernates: and aboue alſo Rome her ſelf: the * other name whereof to vtter, is counted in the ſecret miſteries of ceremonies an impious and vnlawfull thing: which after that it was aboliſhed, and ſo faithfully obſerued to right good purpoſe and for the ſafetie thereof, *Valerius Soranus* blurted out, and ſoone after abid the ſmart for it. I think it not amiſſe nor impertinent, to inſert there in this very place an example of the ancient religion inſtituted eſpecially for this Silence: for the goddeſſe *Angerona*, whoſe holiday is ſolemnly kept with ſacrifices the 12 day before the Kalends of Ianuary, is repreſented by an Image hauing her mouth faſt ſealed and tied vp. This citie of Rome had 3 gates when *Romulus* left it, or rather foure (if we beleeue the moſt men that write thereof) The wals thereof, when the two *Veſpacians*, Emperors and Cenſors both, to wit, the Father and *Titus* his ſon, took the meaſure, which was in the yere after the foundation of it 828, were in circuit * 13 miles and almoſt a quarter. It containeth within it, ſeuen Mountaines, and is diuided in 14 regions, and 265 croſſe ſtreets or carfours, called Compita Larium. The meaſure of the ſame equall ſpace of ground, running from the gilden piller Milliarium, erected at the head or top of the Rom. Forum, to euery gate which are at this day 37 in number, ſo ye reckon once the 12 gates alwaies open, and ouerpaſſe 7 of the old, which are no more extant, maketh 30 miles 3 quarters and better, by a ſtraight line: but if the meaſure be taken from the ſame Milliarium before-ſaid, through the ſuburbs to the vtmoſt ends of the houſes, and take withall the Caſtra Prætoria, and the pourpriſe of all the ſtreets, it comes to ſomewhat aboue 70 miles: whereunto if a man put the height of the houſes, hee may conceiue verily by it, a worthy eſtimate of the excellency thereof, and confeſſe that the ſtatelineſſe of no citie in the world could be comparable to it. Encloſed it is and fenced on the Eaſt-ide with the bank or rampier of *Tarquinius* the Proud; a wonderfull piece of worke as any other, and as excellent as the beſt: for he raiſed it full as high as the wals, in that ſide where the aduenue to it was moſt open and plaine. In other parts, defended it was and fortified with exceeding high wals, or elſe ſteepe and craggy hils, but only whereas there are buildings lye out abroad, and make as it were many petty cities. In that firſt region of Italy there were beſides, firſt for Latium theſe faire townes of marke, Satricum, Pometia, Scaptia, Pitulum, Politorium, Tellene, Tifata, Cæmina, Ficana, Cruſtumerium, Ameriola, Medullia, Corniculum, Saturnia, where now Rome ſtandeth. Antipolis, which now is Ianiculum, in one part of Rome: Antemnæ, Camerium, Collatiæ: Amiternum, Norbe, Sulmo: and with theſe, the States that were wont to receiue a dole of fleſh in mount Albane, to wit, Albenſes, Albani, Aeſolani, Acienſes, Abolani, Bubetani, Bolani, Caſuetani, Coriolani, Fidenates, Foretij, Hortenſes, Latinenſes, Longulani, Manates, Marales, Mutucumenſes, Munienſes, Numinienſes Olliculani, Octulani, Pedani, Polluſtini, Querquetulani, Sicani, Siſolenſes, Tolerienſes, Tutienſes, Vimitellarij, Velienſes, Venetulani, Vicellenſes. Thus yee ſee, how of the old Latium, there be 53 States periſhed and cleane gone, without any token left behinde. Moreouer, in the Campaine countrey, the towne Stabiæ continued vnto the time that *Cn. Pompeius* and *L. Carbo* were

* Valentia.

* Some reade 30.

were Conſuls, euen vntill the laſt day of Aprill; vpon which day, *L. Silla* a lieutenant in the Allies war, deſtroyed it vtterly: which now at this day is turned into graunges and ferme-houſes. There is decaied alſo there and come to finall ruine, Taurania. There be alſo ſome little relikes left of Caſilinum, lying at the point of the laſt gaſpe. Moreouer *Antias* writes, that Apiolæa towne of the Latines, was woon by *L. Tarquinius* the King, with the Pillage whereof he began to found the Capitoll. From Surrentum, to the riuer Silarus, the Picentine countrey lay for the ſpace of 30 miles, reowmed for the Tuſcanes goodly temple built by *Iaſon* in the honor of *Iuno Argiva*. Within it ſtood the townes Salernum, and Picentia. At Silarus, the third region of Italy, beginnes together with the Lucane and Brutian countries: and there alſo the inhabitants changed not a few times. For held and poſſeſſed it was by the Pelaſgi, Oenotri, Italy, Morgetes, Sicilians, people all for the moſt part of great Greece: and laſt of all by the Lucanes deſcended from the Samnites, who had to their leader and gouernour, *Lucius*. In which ſtandeth the town Pæſtum, called by the Greeks Poſidonia: the Firth or creeke Pæſtanus, the town Helia, now Velia. The promontory Palinurum, from which creeke retired within-forth, there is a dire & cut by water to the columne regia, 100 miles ouer. Next vnto this, the riuer Melphes runneth: alſo there ſtandeth the towne Buxentum, in Greeke, Pyxus, and hard by is the riuer Laus: a towne there was likewiſe of the ſame name. And from thence beginneth the ſea coaſt of Brutium, where is to be ſeen the towne Blanda, the riuer Batum, the hauen Parthenius belonging to the Phocæans: the Firth Vibonenſis, the groue Clampetia, The towne Temſa, called of the Greeks Temeſe: and Terina held by the Crotonians, and the mighty arme of the ſea, called the gulfe Terinæus: the towne Conſentia. Within-forth in a demy Iſland, the riuer Acheron, whereof the townesmen are called Acherontium. Hippo, which now we call Viboualentia; the Port of *Hercules*, the riuer Metaurus, the towne Taurentum, the hauen of Oreſtes, and Medua: the towne Scylleum, the riuer Cratais, mother (as they ſay) to Scylla. Then after it, the columne Rhegia: the Sicilian ſtreights or narrow ſeas, and two capes one ouer-againſt the other; namely, Cænis from Italy ſide, and Pelorum from Sicily, hauing a mile and a halfe betweene them: from whence to Rhegium is 12 miles and a halfe: and ſo forward to a wood in the Apennine, called Sila; and the promontorie or cliffe called Leucopetra, 12 miles off. From which, Locri (carrying the name alſo of the promontorie Zephyrium) is from Silarus diſtant 303 miles. Here is determined the firſt gulfe of Europe, wherin be named theſe ſeas. Firſt, Atlanticum (from which the Ocean ſea breaketh in) called of ſome Magnum: the paſſage whereas it entreth, is of the Greeks called Porthmos; of vs, Fretum Gaditanum, *i.* [The ſtreights of Gebralter] when it is once entred the Spaniſh ſea, ſo farre as it beateth vpon the coaſts of Spaine: Of others, Ibericum, or Balearicum: and anon it taketh the name of Gallicum, or the French ſea, right before the prouince Narbonenſis: and after that, Ligufticum: from whence all the way to the Iſland Sicilie, it is called Tuſcum; which ſome of the Grecians terme Notium, others Tyrrhenum, put moſt of our countrimen Inferum, *i.* [The nether ſea.] Beyond Sicily as farre as to the Salentines. *Polybius* calleth it Auſonium: but *Eratoſthenes* nameth all the ſea Sardonum, that is between the mouth of the Ocean and Sardinia: and from thence to Sicilie, Tyrrhenum; and from it as far as to Creta, Siculum: from which it is hight Creticum. The Iſlands diſcouered along theſe ſeas, were theſe: The firſt of all, thoſe which the Greeks named Pityuſæ, of the Pine ſhrub or plant; but now, Ebuſus: they are both a State confederate, and a narrow arme of the ſea runneth between them; they are 42 miles ouer. From Dianeum, they lie 70 ſtadia: and ſo many are there betweene Dianeum and Carthage, by the maine land: and as much diſtance from Pityuſæ into the maine Ocean, lie the two Baleare Iſlands; and toward Sucro, Colubraria. Theſe Baleares in their warre-ſeruice vſe much the ſling; and the Greeks name them Gymneſiæ. The bigger of them is an hundred miles in length, and in circuit 380. Townes it hath of Romane citizens, Palma and Pollentia: of Latines, Cinium and Cunici: as for Bochri, it was a towne confederate. From it, the leſſer is thirtie miles off, taking in length 60 miles, and in compaſſe 150. Cities in it, be Iamno, Saniſera, and Mago. From the bigger 12 miles into the ſea, lieth the Iſle Capraria, which lies in wait for all ſhipwrack: & ouer-againſt the city Palma, Menariæ, and Tiquadra, and little Annibalis. The ſoile of Ebuſus chaſeth ſerpents away, but that of Colubraria breeds them: and therefore dangerous it is for all that come into it, vnleſſe they bring with them ſome of the Ebuſian earth. The Greeks call this Iſland, Ophiuſa. Neither doth Ebuſus breed any Conies; which are ſo common in the Baleares, that they eate vp their corne.

There

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A There be as it were 20 more little ones among the ſhelues of the ſea. Now in the maritime coaſt of Gallia in the very mouth of Rhodanus, there is Metina; and ſoone after, that which is called Blaſcon; and the three Stœchades, called ſo of their neighbors the Maſſilians, for the order and ranke wherein they ſtand; and they giue them euery one a ſeuerall name, to wit, Prote, Meſe (which alſo is called Pomponiana) and the third, Hypea. After them, are Sturium, Phœnice, Phila, Lero, and Lerina oueragainſt Antipolis; wherein alſo is a token or memoriall of the towne Vergaonum.

Chap. VI.

B

¶ *Of Corſica.*

IN the Ligurian ſea is Corſica the Iſland, which the Greekes called Cyrnos, but nearer it is to the Tuſcan ſea; it lyeth out from the North into the South, and containeth in length an hundred and fiftie miles: in breadth for the moſt part it beareth fiftie: in circuit 322: diſtant it is from the Waſhes or Downes of Volaterræ 62 miles. Cities it hath 35: and theſe colonies, to wit, Mariana, planted there by *C. Marius*: Aleria, by Dictatour *Sylla*. On this ſide of it is Oglaſa; but within 60 miles of Corſica, there is Planaria, ſo called of the forme thereof, ſo flat it is and leuell with the ſea; and therefore deceiueth many a ſhip that runneth agrouud vpon it. Bigger than it are Vrgo and Capraria, which the Greekes called Ægilos. In like manner Ægilium & Dianium, the ſame that Artemiſia, both lying ouer-againſt the coaſt Coſanum. Other
C ſmall ones alſo, as Mænaria, Columbrarie, Venaria, Ilua, with the yron mines, in circuit a hundred miles (ten miles from Populonia) called of the Greeks, Æthalia: from it is Planaſia 39 miles off. After them, beyond the mouthes of Tybre in the Antian creeke, is Aſtura, and anon Palmaria, Sinonia, and iuſt againſt Formiæ, Pontiæ. But in the Puteolan gulfe, Pantadaria and Prochyta, ſo called, not of *Æneas* his nource, but becauſe it was broken off by the guſhing betweene of the ſea from Ænaria. Ænaria it ſelfe tooke that name of *Æneas* his ſhips that lay in rode there, called by *Homer* Inarime, of the Greeks Pithecuſa, not for the number of Alps there, as ſome haue thought, but of the worke houſes and furnaces of potters that made earthen veſſels, as tunnes and ſuch like, to furniſh Italy with. Betweene Pauſilypus and Naples, Megaris;
D and ſoon after, eight miles from Surrentum, Capræe, renowned for the caſtle there of Prince *Tyberius*; and it beareth in compaſſe foure hundred miles. Anon you ſhall ſee Leucothea: but without your kenning lyeth Sardinia faſt vpon the Africke ſea, but leſſe than nine miles from the coaſt of Corſica: and ſtill thoſe ſtreights are made more narrow by reaſon of ſmall Iſlands, named Cuniculariæ. Likewiſe Phintonis and Foſſæ, whereof the very ſea it ſelfe is named Taphros.

Chap. VII.

¶ *Of Sardinia.*

E SArdinia on the Eaſt ſide beareth 188 miles, on the Weſt, 170, Southward, 74, and Northward 122: ſo that in all, it taketh vp the compaſſe of 560 miles. It is from the Cape of Caraleis to Africke 200 miles: from Gades it is diſtant 1400 miles. It hath two Iſlands on that ſide where the Promontorie Gorditanum ſtandeth, which be called *Hercules* Iſlands: of Sulſenſes cape ſide, Enoſis; of Caralitanum, Ficaria: ſome ſet not far from it the Iſlands Belerides, and Collodes: and another which they call Heras Lutra, *i. Iunoes* lauer, or Hieraca. The States of greateſt name therein, be the Ilienſes, Balari, and Corſi: and of the foure townes, the chiefe are inhabited by the Sulcitanes, Valentines, Neapolitans, Boſenſes, and Caralitani who are Roman infranchiſed citizens, and Norenſes. One colonie there is in it and no more, which is called, Ad Turrim Libyſonis. This iſland Sardinia, *Timæus* called (of the faſhion of a ſhooe or ſlipper) Sandaliotis: but *Myrſylus*, for the reſemblance of a foots-ſtep, Ichnuſa. Ouer-againſt
F the creek Pæſtanum, there is Leucaſia, called ſo of a Mere-maid or Sirene there buried: againſt Veſtia, there lie Pontia and Iſſia, both iointly called by one name Oenotides; a good preſumption and argument that Italie was poſſeſſed by the Oenotrians. And againſt Vibo, other little ones, called Ithaceſiæ, the watch townes of *Vlyſſes*.

Chap. VIII.

¶ *of Sicilie.*

BVt Sicilie excelleth all other of theſe Iſlands, named by *Thucydides* Sicania; by many, Trinacria, or Triquetra of the triangle forme. It is in circuit (as *Agrippa* ſaith) 198 miles. In time paſt it grew to the Brutians countrey, but ſoone after by the guſhing of the ſea between, it was plucked from it, and left a Firth of 12 miles in length, and one & a half in bredth, neere vnto the columne Rhegium. Vpon this occaſion of opening and cleauing in twaine, the Greekes gaue name to the town Rhegium, ſcituat in the edge of Italy. In this narrow ſea there is a rocke called Scylla, and likewiſe another named Carybdis: the ſea is full of whirle-pits, and both thoſe rocks are notorious for their rage and miſchiefe. The vtmoſt Cape or fore-land of this Iſland Triquetra (as we haue ſaid) is called Pilorus, bending againſt Scylla toward Italy. As for Pachynum, it lieth toward Græcia, and from it is Peloponneſus diſtant 144 miles. Lilibæum butteth vpon Africke, and between it and the cape of *Mercury* there be 180 miles; and from the ſaid Lilybæum to the cape of Caraleis in Sardinia 120. Now theſe points & promontories lye aſunder one from the other in this diſtance. By land from Pelorus to Pachynum, 166 miles: from thence to Lilibæum 200 miles: ſo forward to Pelorum 170 In it, of colonies, towns, and cities, there be 72. From Pelorum ſide, which looketh toward the Ionian ſea, yee haue the towne Meſſana, inhabited by enfranchiſed Roman citizens, and they be called Mamertini. Alſo thecape Drepanum, the colony Taurominium, called before-time Naxos: the riuer Aſines, the mountaine Ætna, miraculous for the fires there in the night ſeaſon; the hole or open chinke in the top of it is in compaſſe two miles and a halfe; the imbers and ſparkling aſhes thereof, fly hot as far as to Taurominium and Catana: but the cracking noiſe therof may be heard as far as to Maron, and the hils Gemellis. In this iſland there be alſo the three rocks of the Cyclops, the port of *Vlyſſes*, the colonie Catanæ, the riuers Symethum and Terias: within the Iſle by the plains and champian fields, Læſtrigonij. The towns are theſe, Leontini, and Megaris: and in it is the riuer Pantagies: alſo the colonie Syracuſæ, together with the fountain Arethuſa. Albeit there be other ſprings alſo in the territory of Syracuſa, that yeeld water for drinke, to wit, Temenitis, Archidemia, Magæa, Cyane, and Milichre. Moreouer, the hauen Nauſtathmos, the riuer Elorum, the promontorie Pachynum: and on this front of Sicily, the riuer Hirminium, the towne Camarina, the riuer Helas, and town Acragas, which our countreymen haue named Agrigentum. The colony Thermæ: riuers, Atys and Hypſa, the town Selinus: and next to it the cape Lilybæum, Drepana, the hill Eryx. Townes there be, Panhormum, Solus, Hymetta with the riuer, Cephalœdis, Aluntium, Agathirium, Tyndaris a colony, the town Myſæ, and whence we began Pelorus: within-forth, of Latin condition and Burgeoſie, the Centuripines, Netines, and Segeſtines. Tributaries, Aſſarines, Ætnenſes, Agyrines, Aceſtæi, and Acrenſes: Bidini, Citarij, Caciritani, Drepanitani, Ergetini, Eceſtienſes, Erycini, Eutellini, Etini, Euguini, Gelani, Galatani, Haleſines, Ennenſes, Hyblenſes, Herbitenſes, Herbeſſenſes, Herbulonſes, Halicyenſes, Hadranitani, Imacarenſes, Ichanenſes, Ietenſes, Mutuſtratini, Magelini, Murgentini, Mutyenſes, Menanini, Naxij, Nocœni, Pelini, Paropini, Phinthienſes, Semellitani, Stherrini, Selinuntij, Symetij, Talarenſes, Tiſſinenſes, Triocalini, Tiracienſes, Zanchei belonging to the Meſſenians in the ſtreights of Sicilie. Iſlands there be bending to Africk, Gaulos, Melita, from Camerina 84 miles, and from Lilybeum 113: Coſyra, Hieroneſus, Cæne, Galata, Lopaduſa, Æthuſa which others haue written Æguſa, Bucina, and 75 miles from Solus, Oſteodes: and againſt the Paropini, Vſtica. But on this ſide Sicilie ouer-againſt the riuer Metaurus, 12 miles wel-neare from Italy, 7 others called Æolæ. Theſe very ſame iſlands belonged ſometimes to the Liparæans, and of the Greeks were called Hephæſtiades, and of our men Vulcaniæ, likewiſe Æoliæ, becauſe *Æolus* reigned there in the time that Illium flouriſhed, and about the Troian war.

Chap. IX.

¶ *Of Lipara.*

LIpara with a towne of Romane citizens, called ſo of king *Liparus*, who ſucceeded *Æolus*, but before time Melogonis or Meligunis, is 12 miles from Italy, and is it ſelfe ſomewhat leſſe in circuit. Between this and Sicily there is another, ſometime named Theraſia, now Hiera,

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A Hiera,becauſe it is conſecrated to *Vulcan*, wherein there is a little hill that belcheth and caſts vp flames of fire in the night. A third there is alſo, named Strongile,a mile from Lipara, lying toward the Sunne riſing(wherein *Aeolus* reigned) and differeth from Lipara onely in this,that it ſendeth forth more cleere flames of fire: by the ſmoke thereof,the people of that countrey will tell(by report)three daies before hand what windes will blow:whereupon it is commonly thought that the windes were obedient to *Aeolus*. A fourth there is beſides,named Didyme, leſſe than Lipara:and a fift, Ericuſa: a ſixt, Phænicuſa, left to feed the reſt that are next to it: the laſt and leaſt is Euonymus. And thus much concerning the firſt gulfe that diuides Europe

Chap. X.

B ¶ *Of Locri, the frontier towne of Italy.*

AT Locres beginneth the front or forepart of Italy, called Magna Græcia, retiring it ſelfe into three creekes of the Auſonian ſea, becauſe the Auſones firſt inhabited thereby. It extendes 82 miles,as *Varro* teſtifieth. But the greater number of writers haue made but 72. In that coaſt there be riuers without number. But thoſe things which are worth the writing of neere vnto Locres,be theſe,Sagra the riuer, and the reliques of the towne Caulon: Myſtia the caſtle Conſilium,Cerinthus,which ſome think to be the vtmoſt promontory of Italy,bearing fartheſt into the ſea. Then follow the creeke or gulfe Scylacenſu,and that which was called by the Athenians when they built it,Scylletium. Which place another creeke Tirenæus,meeting
C with,makes a demie Iſland: in which there is a port towne called Caſtra Anibilis: and in no place is Italy narrower,being but twenty miles broad. And therfore *Dioniſius* the elder would haue there cut it off quite from the reſt, and laid it to Sicilie. Riuers nauigable there be theſe, Cæcinos,Crotalus, Semirus,Arocha,Targines. Within forth is the towne Petilia,the mountaine Alibanus,and promontory Lacinium: before the coaſt whereof there is an Iſland tenne miles from the land, called Dioſcoron,and another Calypſus, which *Homer* is ſuppoſed to haue called Ogygia. Moreouer,Tyris,Eranuſa,Meloeſſa. And this is ſeuentie miles from Caulon,as *Agrippa* hath recorded.

Chap. XI.

D ¶ *The ſecond Sea of Europe.*

FRom the promontory Lacinium beginneth the ſecond ſea of Europe: it takes a great winding and compaſſe with it, and endeth at Acroceraunium, a promontory of Epirus, from which it is ſeuentie miles diſtant. In which there ſheweth it ſelfe the towne Croto,and the riuer Næthus. The towne Thurium betweene the two riuers,Arathis and Sybaris,where there was a towne of the ſame name. Likewiſe between Siris and Aciris there ſtands Heraclea ſomtime called Siris. Riuers,Acalandrum,Maſuentum: the town Metapontum,in which the third region of Italy taketh an end. The Inlanders be of the Brutians,the Apruſtans only: but of Lucanes,Thoatinates,Bantines,Eburines,Grumentines,Potentines,Sontines,Sirines,Sergilanes
E Vrſentines,Volcentanes,vnto whom the Numeſtranes are ioined. Beſides all theſe, *Cato* writes, That Thebes of the Lucanes,is cleane deſtroyed and gone. And *Theopompus* ſaith,That Pandoſia was a citie of the Lucanes,wherein *Alexander* king of the Epirotes was ſlaine. Knit hereunto is the ſecond region or tract of Italy, containing within it the Hirpines, Calabria, Apulia, & the Salentines within an arme of the ſea,in compaſſe 250 miles,which is called Tarentinus of a town of the Laconians,ſcituate in the inmoſt nouke,or creek hereof: and to it was annexed and lay the maritine Colonie which there was. And diſtant it is from the promontory Lacinium 1 :6 miles,putting forth Calabria like a demy Iſland againſt it. The Greeks called it Meſſapia of their captaines name,and before-time,Peucetia of *Peucetius*, the brother of *Oenotrus*. In the Salentine country between the two promontories,there is a 100 miles diſtance. The bredth
F of this demie Iſland,to wit, from Tarentum to Brindis (if you goe by land) is two and thirtie miles,but far ſhorter if you ſaile from the Hauen or Bay Saſina. The townes in the Continent from Tarentum,be Varia,ſurnamed Apula,Ceſſapia and Aletium. But in the coaſt of the Senones, Gallipolis,now Auxa, 62 miles from Tarentum. Two and thirtie miles off is the promontorie which they call Acra Iapygia, and here Italy runneth fartheſt into the ſea. Then

is there the town Basta, and Hydruntum in the space of nineteen miles, to make a partition betweene the Ionian and Adriaticke seas, through which is the shorteſt cut into Greece ouer against the towne Apollonia, where the narrow sea running between, is not aboue fiftie miles ouer. This space between, *Pyrrhus* king of Epirus, was the first, that intending to haue a passage ouer on foot, thought to make bridges there: after him *M. Varro*, at what time as in the Pyrates warre he was Admirall of *Pompeies* fleet. But both of them were let and stopped with one care or other besides. Next to Hydrus there is Soletum, a citie not inhabited: then, Fratuertium: the hauen Tarentinus, the garrison towne Lupia, Balesium. Cælium, Brundusium fifteene miles from Hydrus, as much renowmed as any towne of Italy for the hauen, for the surer sailing, although it be the longer, and the citie of Illyricum Dyrragium is ready to receiue the ships: the passage ouer is 220 miles. Vpon Brundutium bordereth the territory of the Pædiculi. Nine young men there were of them, and as many maids, descended from the Illyrians, who begat betweene them thirteen nations. The townes of these Pædiculi, be Rhudia, Egnatia, Barion, beforetime Iapyx of *Dedalus* his sonne, who also gaue the name to Iapygia. Riuers, Pactius, and Ausidus issuing out of the Hirpine mountaines, and running by Canusium. Then followes Apulia of the Daunians, surnamed so of their leader, father in law to *Diomedes*. In which is the towne Salapia, famous for the loue of an harlot that *Annibal* cast a fancie vnto; then, Sipontum and Vria: also the riuer Cerbalus, where the Daunians take their end: the port Agasus, the cape of the mountaine Garganus, from Salentine or Iapygium 234 miles, fetching a compasse about Garganus: the hauen Garnæ, the lake Pantanus. The riuer Frento, full of Baies and Hauens, and Teanum of the Apulians. In like manner also, Larinum, Aliturnia, and the riuer Tifernus. Then commeth in the region Frentana. So there be three kindes of nations, Teani, of their leader, from the Greekes: the Lucanes subdued by *Calchas*, which quarters now the Atinates hold and occupie. Colonies of the Daunians besides the abouenamed, Luceria, and Venusia: townes, Canusium, Arpi, sometime Argos Hippium, builded by *Diomides*, but soon after called Argyrippa. There *Diomedes* vanquished and destroied the whole generation of the Monadians and Dardians, together with two cities, which grew to a merry iest by way of a by-word, Apina and Trica. The rest be more inward in the second region, to wit, one Colonie of the Hirpines called Beneuentum, changed into a more luckie name, wheras in times past it was cleaped Maleuentum: the Æculanes, Aquilonians, and Abellinates, surnamed Protropi: the Campsanes, Caudines, and Ligurians, surnamed Cornelians: as also Bebianes, Vescellanes, Deculanes, and Aletrines: Abellinates surnamed Marsi, the Atranes, Ænanes, Afellanes, Attinates, & Arpanes: the Borcanes, the Collatines, Corinenses; and famous for the ouerthrow of the Romanes there, the Cannians: the Dirines, the Metintanes, the Genusines, the Hardonians and Hyrines: the Latinates surnamed Frentanes, the matrnates, and out of Garganus the Mateolanes, the Neritines, and Natines, the Rubustines, the Syluines and Strapellines, the Turmentines, the Vibinates, Venusines, and Vlurtines. Now the Inlanders of the Calabrians, the Ægirines, Apanestines and Argentines. The Butuntines and Brumbestines, the Decians, the Norbanes, the Palions, Sturnines, and Tutines. Also of Salentine midlanders, the Aletines, Basterbines, Neretines, Valentines, and Veretines.

Chap. xii.

¶ *The fourth Canton or region of Italy.*

NOw followeth the fourth region, euen of the most hardie and valiant nations of all Italy. In the coast of the Frentanes, next to Tifernus, is the riuer Tirinium, full of good hauens and harbours. The towns there, be Histonium, Buca, and Ortona, with the riuer Aternus. More within the countrey, are the Anxanes surnamed Frentanes: the Carentines, both higher and lower, the Lanuenses: of Marrucines, the Teatines: of Pelignians, the Corsinienses, Super-Æquani and Sulmonenses: of Marcians, the Anxantines and Atinates, the Fucentes, Lucentes, and Maruvij: of Albenses, Alba vpon the lake Fucinus: of Æquiculanes, the Cliternines and Carseolanes: of Vestines, the Augulanes, Pinnenses, Peleuinates, vnto whom are ioined the Aufinates on this side the mountaines: of Samnites, whom the Greekes called Sabellians and Saunites, The Colonie Bouianum, the old; and another surnamed Vndecumanorum, namely, inhabited by those of the eleuenth legion: the Ausidenates, Esernines, Fagisulani, Ficolenses, Sepinates,

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A nates, Treuentinates: of the Sabines, the Amiternines, Curenſes, Forum Decij, Forum Nouum, the Fidenates, Interamnates, Nurſines, Nomentanes, Reatines, Trebulanes, ſyrnamed Mutuſcæi, as alſo Suffenates, the Tiburtes, and Tarinates. In this quarter of the Æquiculæ there be periſhed and gone the Comines, Tadianes, Acedikes, and Alfaterni. *Gellianus* writeth, that Acippe, a towne of the Marſians, built by *Marſyas* a captaine of the Lydians, was drowned and ſwallowed vp by the lake Fucinus. Alſo *Valerian* reporteth, that a towne of the Vidicines in Picenum was vtterly ruined by the Romans. The Sabines as ſome haue thought were for their religion and deuout worſhipping of the gods called Sevini: they dwell hard by the Veline lakes vpon moiſt and dewie hils. The riuer Nar draineth them dry with his hot waters of brimſtone: which riuer running from thence toward Tyberis filleth it, and gliding from the hill Fiſcellus, neere the groues of Vacuna and Reate, is hidden in the ſame. But from another ſide,
B the riuer Anio, beginning in the mountain of the Trebanes, bringeth with it into Tiberis three lakes of great name for their delectable pleaſantnes, which gaue the name to Sublaquenſu. In the Reatine territorie is the lake Cutiliæ, wherein floteth an Iſland; and this lake, as *M. Varro* ſaith, is in the very midſt and centre of Italy. Beneath the Sabines lieth Latium; on the ſide Picenum; behinde, Vmbria; and the hills of the Apennine on either hand, do incloſe as with a rampier, the Sabines.

Chap. xiii.

¶ *The fifth Region.*

C THe fift region is Picene, a Nation in times paſt moſt populous, 360000 of the Picentes were reduced vnder the protection of the people of Rome. They are deſcended from the Sabines, vpon a vow that they made to hold and ſolemniſe a ſacred ſpring. They dwelt by the riuer Aternus, where now is the rerritorie Adrianus, and the Colonie Adria, ſeuen miles from the ſea. There runneth the riuer Vomanum, and there lieth the Prætutiane and Palmenſis territorie: alſo Caſtrum novum, the riuer Batinum, Truentum with the riuer, the onely relique of the Liburnians remaining in Italy. More riuers there be, to wit, Alpulates, Suinum, and Heluinum, at which the Prætutian country endeth, and the Picentian beginneth. The towne Cupra, a caſtle of the Firmanes, and aboue it the colony Aſcuum, of all Picenum the moſt renow-
D ned. Within ſtandeth Nouana. In the edge or marches without are Cluana, Potentia, and Numana, built by the Sicilians. Next to thoſe is the colony Ancona, with the promontory Cumerum lying hard vnto it, in the very elbow of the edge thereof as it bendeth, being from Garganus 183 miles. Within-forth do inhabit the Auximates, Beregranes, Cingulanes, Cuprenſes ſyrnamed the Mountainers, Falariens, Pauſulanes, Pleninenſes, Ricinenſes, Septempedani, Tollentinates, Triacenſes, the city Saluia, and the Tollentines.

Chap. xiiii.

¶ *The ſixth Region.*

E TO theſe adioyneth the ſixt region, comprehending Vmbria and the French pale about Ariminum. At Ancona begin the French marches, by the name of Togata Gallia. The Sicilians and Liburnians poſſeſſed moſt part of that tract, and principally the territories, Palmenſis, Prætutianus, and Adrianus. Them the Vmbrians expelled: theſe againe Hetruria draue out: and laſtly the Gaules diſſeiſed it. The people of Vmbria are ſuppoſed of all Italy to be of greateſt antiquity, as whom men thinke to be of the Greeks named Ombri, for that in the generall deluge of the countrey by raine they only remained aliue. The Tuſcanes are knowne to haue by war forced and woon 300 townes of theirs. At this day in the frontier of it there are the riuer Æſus, and Senogallia; the riuer Metaurus, and the colonie Fanum Fortunæ. Piſaurum alſo with the riuer. In the parts within, Hiſpellum and Tuder. In the reſt, the Amerines, Attidi-
F ates, Aſirinates, Arnates, and Æſinates, Camertes, Caſventillanes, and Carſulanes, Dolates, ſirnamed Salentines, Fulginates, Foro-flaminienſes, Foro-Iulienſes, named alſo Concubienſes, Foro-Bremitiani, Foro-Sempronienſes, Iguini, Interamnates, ſyrnamed Nartes, Meuanates, Meuainienſes, and Matilicates, Narnienſes, whoſe towne before-time was called Nequinum. Nucerines, ſyrnamed Fauonienſes, and Camelani. The Otriculanes, and Oſtranes.

The Pitualnes, with the addition of Piſuerts, as alſo others ſirnamed Mergentines, and the Peleſtines, Sentinates, Sarſinates, Spoletines, Suarranes, Seſtinates, and Suillates, Sadinates, Trebiates, Tuficanes, Tifernates, named withal Tribertines, as alſo other of them diſtinguiſhed by the name of Metaurenſes. The Veſionicates, the Vrbinates, as well they that be ſirnamed Metaurenſes, as others Hortenſes, the Vettionenſes, Vindenates, and Viuentanes. In this tract are extinct the Felignates, and they who poſſeſſed Cluſiolum aboue Interamna: alſo the Sarranates, with the towns Acerræ, called beſides Vafriæ, and Turceolum, the ſame that Vetriolum. Semblably the Solinates, Suriates, Fallienates, Apiennates. There are gon alſo and cleane loſt the Arienates with Crinouolum, alſo the Vſidicanes and Plangenſes, the Piſinates, and Cæleſtines. As for Amera aboue written, *Cato* hath left in record, that it was built 964 yeres before the war againſt *Perſeus*. G H

Chap. XV.

¶ *The eighth Region.*

THe eight region is bounded with Ariminum, Padus, and Apennine. In the borders therof is the riuer Cruſtuminum, the colony Ariminum, with the riuers Ariminum and Apruſa. Then the riuer Rubico, the vtmoſt limit ſomtime of Italy After it Sapis the riuer, Vitis, and Anemo, Rauenna a towne of the Sabines, with the riuer Bedeſes, 102 miles from Ancona. And not far from the Vmbrians ſea, Butrium. Within-forth are theſe colonies, Bononie, vſually called Felſina when it was the head city of Hetruria, Brixillum, Mutina, Parma, Placentia. I Towns, Cæſena, Claterni, Forum Clodij, Liuij, and Popilij, pertaining to the Truentines: alſo [Forum] the Cornelij, Laccini, Fauentini, Fidentini, Oteſini, Padinates, Regienſes a Lepido, Solonates: alſo the forreſts Galliani, ſirnamed Aquinates, Tanetani, Veliates ſirnamed Vecteri, Regiates and Vmbranates. In this tract the Boij are conſumed, who had 112 tribes or Kindreds, as *Cato* ſaith. Likewiſe the Senones, they that tooke Rome.

Chap. XVI.

¶ *Of the riuer Padus.*

PAdus, iſſuing out of the boſome of the mountaine Veſulus, bearing vp his head aloft into a mighty height, runs from a maruellous ſpring worth the ſeeing, in the marches of the Ligurian Vagienni, and hiding it ſelfe within a narrow trench as it were vnder the ground and riſing vp again in the territorie of the Forovibians, is inferiour to no other riuers for excellencie. Of the Greeks it was called Eridanus, and is much ſpoken of and well knowne, for the puniſhment of *Phaeton*. It ſwelleth about the riſing of the Dog ſtar, by reaſon the ſnow is then thawed: more vnruly and rough vnto the fields thereby, than to the veſſels vpon it, howbeit it ſtealeth and carieth away nothing as his owne; but when he hath left the fields, his bountie is more ſeen by their plenty and fruitfulneſſe: from his head he holdeth on his courſe 90 miles wanting twain aboue 300. In which his paſſage he taketh in vnto him not only the nauigable riuers of the Apennine and the Alps, but huge main lakes alſo that diſcharge themſelues into him: ſo as in all he carieth with him into the Adriaticke ſea to the number of 30 riuers. The chiefe and moſt notorious of them all are theſe, ſent out of the ſide of Apennine; Tanarus, Trebia, Placentine, Tarus, Nicea, Gabellus, Scultenna, Rhenus. But running out of the Alpes, Stura, Morgus, Duriæ twaine, Seſſites, Ticinus, Lambrus, Addua, Olius, and Mincius. And there is not a riuer againe that in ſo little a way groweth to a greater ſtreame: for ouercharged it is and troubled with the quantitie of water, and therefore worketh it ſelfe a deepe channell heauie and hurtfull to the earth vnder it, although it be deriued and drawne into other riuers and goles, betweene Rauenna and Atium, for an hundred and twenty miles; yet becauſe hee belcheth and caſteth them out from him in ſo great aboundance, he is ſaid to make 7 ſeas. Drawn he is to Rauenna by a narrow channel, where he is called Baduſa, and in times paſt Meſſanicus. M But the next mouth that he maketh carieth the bigneſſe of an hauen, which is named Vatreni: at the which *Claudius Cæſar* as hee came triumphant out of Britaine entred into Adria with that huge Veſſell more like a mighty great houſe than a Ship. This mouth of it was beforetime called Eridanum: of others, Spineticum, of the city Spinæ neere by, built by *Diomedes*,

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A (as ſome thinke) with the treaſures of Delphie. There the riuer Vatrenus from out of the territory of Forum Cornelij, encreaſeth Padus. The next moneth that it hath, is Capraſiæ, then Sagis, and ſo forth Volane, which before-time was called Olane. All thoſe riuers and trenches aforeſaid, the Tuſcanes began to make firſt out of Sagis, carrying the forceable ſtreame of the riuer acroſſe into the Atrian meeres, which are called the ſeuen ſeas, and made the famous hauen of Atria a towne of the Tuſcanes; of which the Adriaticke ſea tooke the name afore-time, which now is called Adriaticum. From thence are the full mouthes there of Carponaria and the Foſſes Phyliſtinæ which others call Tartarus, but all ſpring out of the ouerflowing of the Foſſe Phyliſtina, holpen with Atheſis comming out of the Tridentine Alpes, and Togiſonus out of the territory of the Padouans: Part of them made alſo the next port Brundulum: like as the two Medoaci and the Foſſe Clodia. make Edron. With theſe Padus mingleth it ſelfe,
B and by theſe he runneth ouer, and as it is ſaid by moſt writers, like as in Ægypt Nilus maketh that which they call Delta, ſo it ſhapeth a triangle figure between the Alpes and the ſea coaſt, two miles in compaſſe. A ſhame it is to runne to the Greekes for to borrow of them the Etymologie and reaſon of any thing in Italy: howbeit *Metrodorus Scepſius* ſaith, That forasmuch as about the ſpring and head of this riuer there grow many pitch trees, called in French Padus, therefore it tooke the name Padus. Alſo, that in the Ligurian language, the riuer it ſelfe is called Bodincus, which is as much to ſay, as bottomleſſe. And to approue this reaſon and argument, there is a towne thereby called Induſtria, but by an old name Bodincomacum, where in very deed, beginneth the greateſt deapth thereof.

C

Chap. XVII.

¶ *Italy beyond Padus, the eleuenth Region.*

NExt to it, is the region called Tranſpadana, and the eleuenth in number: all whole in the mid-land part of Italy, into which the ſeas bring in all things with fruitfull channel. The townes therein, be Vibi-Forum, and Seguſta. The colonies at the foot of the Alpes, Auguſta of the Taurines, an ancient deſcent from the Ligurians: from whence Padus is nauigable. Then, Auguſta Prætoria, of the Salaſſi, neer vnto the two-fold gullets or paſſages of the Alpes, to wit, Graija and Peninæ: for men ſay, that the Carthagineans came through the one, and *Hercules* in at the other, named Graijæ. There ſtandeth the towne Eporedia, built by the people of
D Rome, by direction and commandement out of the bookes of *Sibylla*. Now the Gauls in their tongue call good horſe-breakers Eporedicæ. Alſo, Vercella of the Lybici, deſcended from the Sallij: Nouaria, from the Vertacomacores: which euen at this very day is a village of the Vocontij, and not as *Cato* thinketh, of the Ligurians: of whom, the Leui and Marici built Ticinum, not far from Padus: like as the Boij comming ouer the Alpes, founded Laus Pompeia; and the Inſubrians, Millaine. That Comus and Bergomus, yea and Licini-Forum, with other nations thereabout, were of the Orobian race, *Cato* hath reported: but the firſt beginning and originall of that nation of Orobians, he confeſſeth that he knoweth not. Which notwithſtanding *Cornelius Alexander* ſheweth to haue deſcended from the Greekes; and this he gueſſeth by the interpretation of their name, which ſignifieth, Men liuing in mountaines. In this tract, Barra a
E towne of the Orobians is cleane deſtroyed; from whence, *Cato* ſaith, the Bergomates took their beginning; bewraying euen by their name, that they were ſeated more highly than happily. There are cleane gone and conſumed alſo the Caturiges, baniſhed perſons of the Inſubrians: likewiſe Spina, before-named. In like ſort, Melpum, a towne of ſpeciall importance for wealth; which (as *Nepos Cornelius* hath written) was by the Inſubrians, Doians, and Senones, raſed on that very day, on which *Camillus* forced Veij.

Chap. XVIII.

¶ *Venice, the tenth Region.*

F

NOw followeth the tenth region of Italy, Venice, lying faſt vpon the Adriaticke ſea: the riuer whereof Silis, commeth forth of the mountaines Tauriſani: wherein alſo is the Towne Altinum, the riuer Liquentia iſſuing from the mountaines Opitergeni; a hauen of the ſame name: the colonie Concordia. Riuers and hauens, to wit, Romatinum, Tilauentum,

the

the greater and the leſſe: Anaſſum, whereunto Varranus runneth downe: Alſa, Natiſo, with Turrus, running faſt by Aquileia, a colony ſcituate 12 miles from the ſea. This is the region of the Carni, ioyning vnto that of the Iapides: the riuer Timavus, and the caſtle Pucinum, ſo famous for good wine. The vale and Firth Tergeſtinus, taking name of the Colonie Tergeſte, 23 miles from Aquileia: beyond which ſix miles, is the riuer Formio, 189 miles from Rauenna the ancient bound or limit of Italy enlarged: but at this day of Iſtria, which was ſo named of the riuer Iſter, flowing out of the riuer Danubius into Adria: and ouer againſt the ſame Iſter, the gullet or mouth of Padus alſo entreth thither: by the contrary ruſhing ſtreames of which two riuers, the ſea between both beginneth to be more milde, as many Authors haue reported, but vntruly: and *Cornelius Nepos* alſo, although he dwelt iuſt by Padus; for there is no riuer that runneth out of Danubius into the Adriaticke ſea. Deceiued (I ſuppoſe) they were becauſe the ſhip Argos went downe a riuer into the Adriaticke ſea, not far from Tergeſte; but what riuer it was, is yet vnknowne. They that will ſeeme to be more curious than their fellowes, ſay, That it was carried vpon mens ſhoulders ouer the Alpes: and that it was ſet into Iſter, and ſo into Saus, and then Nauportus (which vpon that occaſion tooke his name) which ariſeth betweene Æmona and the Alpes. G H

CHAP. XIX.

¶ *Iſtria.*

ISTria runneth out like a demie Iſland. Some haue deliuered in writing, that it is 40 miles broad, and 122 miles about. The like they ſay of Liburnia adioyning vnto it, and of the hollow gulfe Flanaticus. But others ſay, that the compaſſe of Liburnia is 180 miles. And ſome there be againe, who haue ſet out Iapidia, as far as to the ſaid creeke Flanaticus, behind Iſtria 130 miles: and ſo haue made Liburnia in circuit 150 miles. *Tuditanus*, who ſubdued the Iſtrians, vpon his owne ſtatue there ſet this inſcription; That from Aquileia to the riuer Titius, were 200 ſtadia. The townes in Iſtria of Romane citizens, be Ægida and Parentium. A Colony there is beſides, Pola, now called Pietas Iulia; built in old time by the Colchians. It is from Tergeſte 100 miles. Soone after, ye ſee the towne Neſactium, and the riuer Arſia, the vtmoſt bound now of Italy. From Ancona to Pola there is a cut ouer the ſea of 120 miles. In the midland part of this tenth region, are theſe Colonies; Cremona, and Brixia, in the Cenomanes countrie: but in the Venetians countrie, Ateſte. Alſo the townes, Acelum, Patauium, Opitergium, Belunum, Vicetia: Mantua of the Tuſcanes is only left beyond Padus. That the Venetians were the off-ſpring of the Trojanes, *Cato* hath ſet downe in writing: alſo, that the Cenomanes neere vnto Maſſiles, dwell in the Volcians countrie. Fertines, Tridentines, and Barnenſes, are townes of Rhetia. As for Verona, it is of Rhetians, and Euganeans; but Iulienſes be of the Carnians. Then follow theſe, whom we need to vſe no curioſitie in naming; Alutruenſes, Aſſeriates, Flamonienſes, Vannienſes, & others ſurnamed Gulici: Foro Iulienſes ſurnamed Tranſpadani: Forelani, Venidates, Querqueni, Tauriſani, Togienſes, Varuani. In this tract there be periſhed in the borders, Itaminum, Pellaon, Palſicium. Of the Venetians, Atina, and Cælina: of the Carnians, Segeſte and Ocra: and of the Tauriſſi, Noreia. Alſo from Aquileia 12 miles, there was a towne quite deſtroyed by *M. Claudius Marcellus*, euen maugre the Senate, as *L. Piſo* hath recorded. In this region there be alſo ten notable lakes and riuers, either iſſuing forth of them as their children, or elſe fed and maintained by them, if ſo be they ſend them out againe, when they haue once receiued them: as Larius doth Æna, Verbanus Ticinus, Benacus Mincius, Sebinus Oſſius, Eupilius Lamber, al inhabiting and ſeated in Padus. The Alpes reach in length ten miles from the vpper ſea to the lower, as *Cælius* ſaith: *Timogenes*, two and twenty: but *Cornelius Nepos* draweth them out in breadth an hundred miles: *T. Liuius* ſaith, three thouſand ſtadia: both of them take meaſure in diuers places: for ſometime they exceed a hundred miles, where they diſioyne Germany from Italy, and in other parts they are ſo thin, that they make not full out threeſcore and ten miles; and that by the prouidence as it were of Nature. The breadth of Italy from Varus vnder the foot of them, through the ſhallowes or plaſhes of Sabatia, the Taurines, Comus, Brixia, Verona, Vicetia, Opitergium, Aquileia, Tergeſte, Pola, and Ariſtia, maketh ſeuen hundred and two miles. I K L M

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Chap. xx.

¶ *Of the Alpes, and Alpine Nations.*

MAny nations inhabit the Alps, but thoſe of ſpeciall name from Pola to the tract of Tergeſtis, are theſe, the Secuſſes, Subocrines, Catili, Menocaleni: and neere to the Carnians thoſe who in times paſt were called Tauriſci, but now Norici. Vpon theſe there do confine the Rhetians and Vindelici, all diuided into many States. Men thinke that the Rheti are the Tuſcans progenie, driuen out by the Gaules, with their leader *Rhætus*. But leauing theſe Rhœtians, turning our breaſt and viſage to Italy, wee meet with the Euganean nations of the
B Alpes, who inioyed the liberty and franchiſes of the Latines, and whoſe townes *Cato* reckoneth to the number of 34. Of them, the Triumpilines, both people and lands were ſold. After them the Camuni and many ſuch were annexed to the next townſhips, and did ſeruice as homagers to them. The Lepontians and the Salaſſians, the ſame *Cato* thinketh to be of the Taurick race. But all others in manner ſuppoſe verily that the Lepontians were a reſidue left behinde of *Hercules* his traine and company; grounding vpon the interpretation of the Greek name, as hauing their bodies ſeaged with the Alpine ſnowes as they paſſed through: that the Graij likewiſe were of the ſame retinue, planted in the very paſſage, and inhabiting the Alps Graiæ: alſo that the Euganei were nobleſt of birth, whereupon they took their name. The head city of them is Stonos. Of thoſe Rhœtians the Vennonetes and Sarunetes, inhabit neere the heads of the river Rhenus. And of the Lepontians, thoſe who are called Viberi, dwel by the Spring of Rhoda-
C nus, in the ſame quarter of the Alpes. There be alſo inhabitants within the Alps, endowed with the liberty of Latium, namely, the Octodurenſes, and their neighbor borderers the Centrones, as alſo the Cottian States. The Caturiges, and thoſe from them deſcended, to wit, the Vagienni, Ligures, and ſuch as be called the Mountainers: and many kindes of the Capillati, confining vpon the Ligurian ſea. It ſeemeth not amiſſe in this place to ſet down an inſcription out of a triumphant Trophie erected in the Alps, which runneth in this forme: *Vnto the Emperour* Cæſar, *ſon of* Auguſtus *of famous memorie, Arch-Biſhop, Generall fourc times, and inueſted in the ſacred authoritie of the Tribunes: the Senate and people of Rome. For that by his conduct and happie fortune, all the Alpine nations which reached from the vpper ſea to the nether, were reduced and brought vn-*
D *der the Empire of the people of Rome. The Alpine nations ſubdued, are theſe, Triumpilini, Camuni, Vennonetes, Iſarci, Breuni, Naunes & Focunales. Of the Vindelici foure nations, to wit, the Conſuanetes, Virucinates, Licates, and Catenates. The Abiſontes, Suanetes, Calucones, Brixentes, and Lepontij. Viberi, Nantuates, Seduni, Veragri, Salaci, Acitauones, Medulli, Vceni, Caturiges, Brigiani, Sogiontij, Ebroduntij, Nemaloni, Edenates, Eſubiani, Veamini, Gallitæ, Triulatti, Ectini, Vergunium, Eguituri, Nementuri, Oratelli, Neruſi-velauni, Suetri. Now there were not reckoned among theſe the twelue Cottian States which were not vp in any hoſtility, ne yet thoſe which were aſſigned to the freetownes to enioy the burgeoiſie of Rome, by vertue of the law Pompeia.* Behold this is that Italy conſecrated to the gods, theſe are her nations, and theſe be the townes of her ſeuerall States. And more than all this, that Italy, which when *L. Æmylius Paulus* and *Caius Attilius Regulus* were Conſuls, vpon newes brought of a ſudden riſing
E and tumult of the Gauls, alone by it ſelfe, without any forrein aids, and euen them, without any nations beyond Padus, armed 80000 horſemen and 700000 foot. In plenty of all mettal mines it giueth place to no land whatſoeuer. But forbidden it is to dig any by an old act of the Senat, giuing expreſſe order to make ſpare of Italy.

Chap. xxi.

¶ *Illyricum.*

THe Nation of the Liburnians ioineth vnto Arſia, euen as farre as the riuer Titius. A part
F thereof were the Mentores, Hymani, Encheleæ, Dudini, and thoſe whom *Callimachus* nameth Pucetiæ. Now, the whole in generall is called by one name, Illyricum. The names of the nations are few of them either worthy or eaſie to be ſpoken. As for the iudiciall court of Aſſiſes at Scordona, the Iapides and foureteene States beſides of the Liburians reſort vnto. Of which it grieueth me not to name the Lacinians, Stulpinians, Burniſtes and Albonenſes. And in that Court theſe Nations following haue the libertie of Italians, to wit, the Alutæ and

Flanates,

Flanates, of whom the ſea or gulfe beareth the name: Lopſi, Varubarini, and the Aſſeſiates that are exempt from all tributes; alſo of Iſlands, the Fulſinates and Curiolæ. Moreouer, along the borders and maritime coaſts, beyond Neſactum, theſe townes; Aluona, Flauona, Tarſatica, Senia, Lopſica, Ortopula, Vegium, Argyruntum, Corinium, the city Ænona, the riuer Pauſinus, & Tedanium, at which Iapida doth end. The iſlands lying in that gulfe, together with the townes, beſides thoſe towns aboue noted, Abſirtium, Arba, Tragurium, Iſſa, Pharos beforetime Paros, Crexa, Giſſa, Portunata, Again, within the continent, the colony Iaderon, which is from Pola 160 miles. From thence 30 miles off, the iſland Colentum; and 18, the mouth of the riuer Titius. G

Chap. xxii

¶ *Liburnia.* H

THe end of Liburnia and beginning of Dalmatia is Scordona, which frontier towne is 12 miles from the ſea, ſcituate vpon the ſaid riuer Titius. Then followeth the antient countrie of the Tariotes, and the caſtle Tariota, the Promontory Diomedis, or, as ſome would haue it the demy iſland Hyllis, taking in circuit a hundred miles: alſo Tragurium, inhabited by Roman citizens, well knowne for the marble there: Sicum, into which place, *Claudius* late *Cæſar*, ſent the old ſouldiers: the Colony Salona, 222 miles from Iadera. There repaire to it for law thoſe that are deſcribed into Decuries or tithings 382: to wit, Dalmatians 22, Decunum 239, Ditions, 69, and Mezæi 52, Sardiates: in this tract are Burnum, Mandetrium, and Tribulium, caſtles of name for the battels of the Romanes. There came alſo forth of the iſlands the Iſſæans, Collentines, Separians, and Epetines. Beſides them, certaine caſtles, Piguntiæ and Rataneum, and Narona a colonie pertaining to the third Countie-court, 72 miles from Salona, lying hard to a riuer of the ſame name, and 20 miles from the ſea. *M. Varro* writeth, that 89 States vſed to repaire thither for juſtice. Now, theſe only in a manner be knowne, to wit, Cerauni in 33 Tithings. Daorizi in 17, Deſtitiates in 103, Docleates in 34, Deretines in 14, Deremiſtes in 30, Dindari in 33, Glinditiones in 44, Melcomani in 24, Nareſij in 102, Scirtari in 72, Siculote in 24: and the Vardæi, who ſometime waſted and forraied Italy, in 20 decuries and no more. Beſides theſe, there held and poſſeſſed this tract Oenei, Partheni, Hemaſini, Arthitæ & Armiſtæ. From the riuer Naron a hundred miles, is the colony Epidaurum. Townes of Roman citizens be theſe, Rhizinium, Aſcrinium, Butua, Olchinium, which beforetime was called Colchinium, built by the Colchi. The riuer Drilo, and the towne vpon it, Scodra, inhabited by Roman citizens, eighteen miles from the ſea. Ouer and beſides, many other towns of Greece, yea & ſtrong cities, out of all remembrance. For in that tract were the Labeates, Enderudines, Saſſæi, Grabæi, and thoſe who properly were called Illyrij, the Taulantij and Pyræi. The Promontorie Nymphæum in the coaſt thereof, keepeth ſtill the name: alſo Lyſſum a towne of Romane citizens, a hundred miles from Epidaurum. I K

C xxiii.

¶ *Macedonie.* L

FRom Liſſum is the prouince of Macedonie: the nations there, be the Partheni, and on their backe ſide the Daſſaretes. Two mountaines of Candauia 79 miles from Dyrrhachium: but in the borders thereof, Denda, a towne of Roman citizens: alſo the Colonie Epidamnum, which for that vnluckie names ſake was by the Romans called Dyrrhachium. The riuer Aous, named of ſome Æas. Apollonia, ſometime a Colonie of the Corinthians, ſcituate within the countrey, ſeuen miles from the ſea, in the marches wherof is the famous Nymphæum. The borderers inhabiting thereby, are the Amantes and Buliones. But in the very edge therof, the town Oricum built by the Colchi. Then beginneth Epirus, the mountaines Acroceraunia, at which we haue bounded this ſea of Europe: as for Oricum, it is from Salentinum (a promontorie of Italy) 85 miles. M

Chap. xxiiii ¶ *Noricum.*

BEhind the Carni and Iapides, whereas the great riuer Iſter runneth, the Norici ioine to the Rhæti. Their towns be Virunum, Celeia, Teurnia, Aguntum, Viana, Æmona, Claudia, Flavium,

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A vium, Tolvenſe. Vpon the Norici there lie faſt the Lake Peiſo, the deſerts of the Boij. Howbeit, now by the colonie of the late Emperor *Claudius* of famous memorie, Salaria and the towne Scarabantia Iulia, they be inhabited and peopled.

Chap. XXV.

¶ *Pannonia.*

THence beginneth Pannonia ſo fruitfull in Maſt: wheras the hils of the Alps, waxing more
B mild and ciuil, turning through the midſt of Illyricum from the North to the South, ſettle lower by an eaſie deſcent both on the right hand and the left. That part which regardeth the Adriatick ſea, is called Dalmatia, and Illyricum aboue-named. Pannonia bendeth toward the North, and is bounded by the riuer Danubius. In it are theſe Colonies, Æmonia, Siſcia. And theſe riuers of ſpeciall name, and nauigable, run into Danubius, Draus with more violence out of the Noricke Alps; and Saus out of the Carnicke Alpes more gently, 115 miles between. As for Draus, it paſſeth through the Serretes, Serrapilles, Iaſians, & Sandrozetes: but Saus through the Colapians and Bruci. And theſe be the chiefe States of that country. Moreouer, the Ariuates, Azali, Amantes, Belgites, Catari, Corneates, Araviſci, Hercuniates, Latouici, Oſeriates, and Varciani. The mount Claudius, in the front whereof are the Scordiſci, and vpon the back, the Tauriſci. The iſland in Saus, Metubarris, the biggeſt of all the riuer iſlands. Beſids, notable good riuers, Calapis running into Saus neere Siſcia, where with a double chan-
C nell it maketh the iſland called Segeſtica: another riuer Bacuntius, running likewiſe into Saus, at the towne Sirmium: where is the State of the Sirmians and Amantines. Fiue & forty miles from thence Taurunum, where Saus is intermingled with Danubius. Higher aboue there run into it Valdanus and Vrpanus, and they ywis be no baſe and obſcure riuers.

Chap. XXVI.

¶ *Mœſia.*

VNto Pannonia ioineth the Prouince called Mœſia, which extendeth along Danubius vnto Pontus. It beginneth at the confluent aboue-named: in it are the Dardanians, Celegeri,
D Triballi, Trimachi, Mœſi, Thranes, and the Scythians bordering vpon Pontus. Faire riuers, out of the Dardanians countrey, Margis, Pingus, and Timachis. Out of Rhodope, Oeſſus: out of Hæmus, Vtus, Eſſamus, and Ieterus. Illyricum where it is broadeſt, taketh vp 325 miles: it lieth out in length from the riuer Arſia to the riuer Drinius, 800 miles. From Drinium to the cape Acroceraunium, 182 miles. *M. Agrippa* hath ſet downe all the whole ſea comprehending Italy and Illyricum, in the compaſſe of 1300 miles. In it are two ſmaller ſeas or gulfs bounded as I haue ſaid: namely, The lower, otherwiſe called the Ionian, in the fore-part: the inner, called Adriaticum, which alſo they name the vpper: in the Auſonian ſea there be no iſlands worth the ſpeaking, but thoſe aboue-named: in the Ionian ſea there are but few, to wit, vpon the Calabrian coaſt before Brunduſium, by the obiect ſite whereof, the hauen is made: and againſt the Apu-
E lian coaſt Diomede, famous for the tombe and monument of *Diomedes*: another alſo of that name, called by ſome Teutria. As for the coaſt of Illyricum, it is peſtered with more than a thouſand, ſuch is the nature of the ſea, full of ſhelues and waſhes, with narrow chanels running between. But before the mouthes of Timavus, there be Iſlands famous for hot waters, which ebbe and flow with the ſea: and neere vnto the territorie of the Iſtrians, Ciſſa, Pullariæ, and thoſe which the Greekes name Abſyrtides, of *Medeas* brother *Abſyrtes* there ſlaine. Neere vnto them, they called the Iſlands Electrides, wherin is ingendred Ambre, which they cal Electrum, a moſt aſſured argument to proue the vanity of the Greeks; for that which of them they meant, was neuer known: againſt Iader, there is Liſſa; and certain other ouer-againſt the Liburnians, called Creteæ: and as many of the Liburnians, Celaduſæ: againſt Surium, there is Brattia,
F commended for neat and goats. Iſſa, inhabited by Roman citizens, and Pharia with the towne. Next to theſe, Corcyra, ſurnamed Melæna, with the towne of the Gnidians, diſtant 22 miles aſunder: between which and Illyricum, is Melita; wherof (as *Callimachus* teſtifieth) the little dogs Melitæi tooke their name: and 12 miles from thence, the three Elaphites. In the Ionian ſea from Oricum 1000 miles, is Saſonis, well knowne for the Pirats harbor there.

THE

THE FOVRTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

From whence first arose all the fabulous lyes, and the excellent Learning of the Greekes.

THe third Sea of Europe beginneth at the mountaines Acroceraunia, and endeth in Hellespont: it containeth besides nineteene smaller gulfes or creekes, 25 thousand miles. Within it, are Epirus, Acarnania, Ætolia, Phocis, Locris, Achaia, Messania, Laconia, Argolis, Megaris, Attica, Bœotia. And againe from another sea the same Phocis and Locris, Doris, Phthiotis, Thessalia, Magnesia, Macedonia, Thracia. All the fabulous veine, and learning of Greece, proceeded out of this quarter. And therefore we will therein stay somewhat the longer. The countrey Epirus, generally so called, beginneth at the mountaines Acroceraunia. In it, are first the Chaones, of whom Chaonia taketh the name: then the Thesprotians, and Antigonenses: the place Aornus, and the aire arising out of it so noisom and pestiferous for birds. The Cestines, and Perrhœbians with their mountaine Pindus; the Cassiopæi, the Dryopes, Selli, Hellopes, and Molossi, among whom is the temple of Iupiter Dodonæus, *so famous for the Oracle there: the mountaine Tomarus, renowned by* Theopompus *for the hundred fountaines about the foot thereof.*

CHAP. I.

¶ *Epirus.*

EPirus it selfe reaching to Magnesia and Macedonia, hath behinde it the Dassaretians aboue named, a free nation, but anon the sauage people of the Dardanians. On the left side of the Dardanians, the Trebellians and nations of Mœsia lye ranged: afront there ioine vnto them, the Medi and Denthelates: vpon whom the Thracians border, who reach as farre as to Pontus. Thus enuironed it is and defenced round, partly with the high hill Rhodope, and anon also with L
Hæmus. In the vtmost coast of Epirus among the Acroceraunia, is the castle Chimæra, vnder which is the spring of the kings water. The townes are, Mæandria and Cestria: the riuer of Thesprotia, Thyamis: the colonie Buthrotium: and the gulfe of Ambracia, aboue all others most famous, receiuing at his mouth the wide sea; 39 miles in length, and 15 in breadth. Into it runneth the riuer Acheron, flowing out of Acherusia, a lake of Thesprotia 36 miles from thence: and for the bridge ouer it 1000 foot long, admirable to those that admire and wonder at all things of their owne. In the very gulfe is the towne Ambracia. The riuers of the Molossians, Aphas and Arachtus. The citie Anactoria, and the lake Pandosia. The townes of Acarnania, called before time Curetus, be Heraclea and Echinus: and in the very entrance and mouth thereof, Artium a Colonie of *Augustus*, with the goodly temple of *Apollo*, and the free citie Ni- M
copolis. When ye are gone out of the Ambrecian gulfe into the Ionian sea, yee meet with the Leucadian sea coast, and the promontorie of Leucate. Then the creeke, and Leucadia it selfe, a demie Island, sometime called Neritis, but by the labour of the inhabitants thereby, cut quite from the Continent, but annexed to it again by meanes of the winds blowing together heapes

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A of ſand, which place is called Dioryctus, and is in length almoſt halfe a mile. A town in it there is called Leucas, ſometime Neritum. Then the cities of the Acarnanians, Halyzea, Stratos, Argos ſurnamed Amphilochicum. The riuer Achelous running out of Pindus, & diuiding Acarnania from Ætolia, and by continuall bringing in of earth, annexing the iſland Artemita to the firme and maine land.

Chap. II

¶ *Ætolia.*

B THe Ætolian nations, be the Athamanes, Tymphei, Ephiri, Ænienſes, Perrhœbi, Dolopes, Maraces and Atraces, from whom the riuer Atrax falleth into the Ionian ſea. The Towne Calydon in Ætolia is ſeuen miles and an halfe from the ſea, neere to the riuer Euenus: then followeth Macynia and Molychria, behinde which Chalcis ſtandeth, and the mountaine Taphiaſſus. But in the very edge and borders thereof, the Promontorie Antirrhium, where is the mouth of the Corinthian gulfe, not a mile broad where it runneth in, & diuideth the Ætolians from Peloponneſus. The promontorie that ſhooteth out againſt it, is named Rhion: but vpon that Corinthian gulfe are the townes of Ætolia, Naupactum and Pylene: but in the mid-land parts, Pleucon, Halyſarna. The mountaines of name: in Dodone, Tomarus: in Ambracia, Grania: in Acarnania, Aracynthus: in Ætolia, Acanthon, Panætolium and Macinium.

Chap. III.

C

¶ *Locri.*

NExt to the Ætolians are the Locri, ſurnamed Ozolæ, free States and exempt: the towne Oeanthe: the hauen of *Apollo Phæſtius*: the creeke Criſſæus. Within-forth are theſe towns Argyna, Eupalia, Phæſtum, and Calamiſſus. Beyond them are Citrhæi, the plaines of Phocis, the towne Cirrha, the hauen Chalæon: from which, ſeuen miles within the land, is the free citie Delphi, vnder the hill Pernaſſus, the moſt famous place vpon earth for the Oracle of *Apollo*. The fountaine Caſtalius, the riuer Cephiſſus running before Delphos, which ariſeth in a citie, ſometime called Liloæa. Moreouer, the towne Criſſa, and together with the Bulenſes,
D Anticyra, Naulochum, Pyrrha, Amphiſſa an exempt State, Trichone, Tritea, Ambryſus, the region Drymæa, named Daulis. Then in the inmoſt nouke of the creeke, the very canton and angle of Bœotia is waſhed by the ſea, with theſe townes Siphæ and Thebæ, which are ſurnamed Corſicæ neere to Helicon. The third towne of Bœotia from this ſea is Page, from whence proceedeth and beareth forth the necke or cape of Peloponneſus.

Chap. IV.

¶ *Peloponneſus.*

E PEloponneſus, called beforetime Apia and Pelaſgia, is a demy Iſland, worthie to come behinde no other land for excellency and name; lying betweene two ſeas, Ægeum and Ionium: like vnto the leafe of a plane tree, in regard of the indented creekes and cornered nouks thereof: it beareth a circuit of 563 miles, according to *Iſodorus*. The ſame, if you compriſe the creekes and gulfes, addeth almoſt as much more. The ſtreight where it beginneth to paſſe on and go forward, is called Iſthmos. In which place the ſeas a bouenamed guſhing and breaking from diuers waies, to wit, from the North and the Eaſt, do deuoure all the breadth of it there: vntill by the contrary running in of ſo great ſeas, the ſides on both hands being eaten away, and leauing a ſpace of land betweene, fiue miles ouer, Hellas with a narrow necke doth meet with Peloponneſus. The one ſide thereof is called the Corinthian gulfe, the other, the Saronian. Lecheum of the one hand, and Cenchræa of the other, do bound out and limit the ſaid ſtreights
F where the ſhips are to fetch a great compaſſe about with ſome danger, ſuch veſſels I meane as for their bigneſſe cannot be conueighed ouer vpon wains. For which cauſe, *Demetrius* the king, *Cæſar* the Dictator, prince *Caius*, and *Domitius Nero*, aſſaied to cut through the narrow foreland, and make a channell nauigable with eaſe: but the attempt and enterpriſe was vnhappie, as appeared by the iſſue and end of them all. In the middeſt of this narrow ſtreight which we

haue called Iſthmos, the colonie Corinthus, beforetime called Ephyra, ſcituate hard to a little G
hill, is inhabited, ſome 60 ſtadia from both ſea ſides: which from the top of the high hill and caſtle there, which is named Acrocorinthus, wherein is the fountaine Pirene, hath a proſpect into both thoſe contrarie ſeas. At this Corinthian gulfe there is a paſſage or cut by ſea from Leucas to Patræ of 87 miles. Patræ a Colonie, built vpon the promontorie of Peloponneſus, that ſhooteth fartheſt into the ſea, ouer-againſt Ætolia and the riuer Euenus, of leſſe diſtance, as hath bin ſaid, than fiue miles in the very gullet and enterance, do ſend out the Corinthian gulfe 85 miles in length, euen as far as Iſthmos.

Chap. v.

¶ *Achaia.* H

AChaia, the name of a prouince, beginneth at Iſthmus, aforetime called it was Ægialos, becauſe of the cities, ſcituate ſo orderly vpon the ſtrand. The principal and firſt there is Lecheæ abouenamed, a port towne of the Corinthians. Next to it Oluros, a caſtle of the Pelleneans. The townes Helice, Bura, and (into which the inhabitants retired themſelues, when theſe beforenamed were drowned in the ſea) Sicyon, Ægira, Ægion, and Erineos. Within the country was Cleone and Hyſie. Alſo the hauen Panhormus, & Rhium deſcribed before: from which promontorie fiue miles off ſtandeth Patræ aboue mentioned, & the place called Pheræ. of 9 hils in Achaia, Scioeſſa is moſt knowne, alſo the Spring Cymothoe. Beyond Patræ is the towne Olenum, the colonie Dymæ. Certain faire places called Buprasium and Hirmene: & the I
promontorie Araxum. The creeke of Cyllene, the cape Chelonates: from whence to Cyllene is two miles. The caſtle Phlius. The tract alſo by *Homer* named Arethyrea, and afterwards Aſophis. Then the country of the Elians, who before were called Epei. As for Elis the city it ſelfe, it is vp higher in the mid-land parts, 12 miles from Pylos. Within it ſtandeth the Chappell of *Iupiter Olympius*, which for the fame of the games there, containeth the Greekes and Chaldeans account of yeares. Moreouer, the town ſometime of the Piſeans, before which the riuer Alpheus runneth. But in the borders and coaſt therof the promontorie Ichthys. Vpon the riuer Alpheus, there is paſſage by water in barges to the townes Aulos and Leprion. The promontory Platanestus; all theſe lie Weſtward. But toward the South, the arme of the ſea called Cypariſſius, and the city Cypariſſa, 72 miles in circuit. The townes vpon it, Pylos, Methone, a place and K
forreſt called Delos: the promontorie Acritas: the creeke Aſineus of the towne Aſinum, & Coroneus of Corone; and theſe are limited with Tenarus the promontorie. There alſo is the region Meſſenia with 22 mountains. The riuer Paomiſus. But within, Meſſene it ſelfe, Ithome, Oechalia, Arene, Pteleon, Thryon, Dorion, Zanclum, famous townes all for many occurrents at ſundry times. The compaſſe of this arme of the ſea is 80 miles, the cut ouer-croſſe 30 miles. Then from Tenarus, the Laconian land pertaining to a free people, and an arme of the ſea there in circuit about 206 miles, but 39 miles ouer. The townes Tenarum, Amiclæ. Pheræ, Leuctra, and within-forth Sparta, Theranicum: and where ſtood Cardamyle, Pitane, and Anthane. The place Thyrea, and Gerania. The hill Taygetus: the riuer Eurotas, the creeke Ægylodes, and the towne Pſammathus. The gulfe Gytheates, of a towne thereby (Gytheum) from whence to the L
Iſland Creet, there is a moſt direct and ſure cut: all theſe are incloſed within the promontorie Maleum. The arme of the ſea next following is called Argolicus, and is 50 miles ouer, and 172 miles about. The towns about it Boea, Epidaurus, Limera, named alſo Zarax. Cyphanta, the hauen. Riuers, Inachus, Eraſinus: betweene which ſtandeth Argos ſurnamed Hippium vpon the Lake Lerne, from the ſea two miles, and nine miles farther Mycenæ: alſo where they ſay Tirynthа ſtood, and the place Mantinea. Hills, Artemius, Apeſantus, Aſterion, Parparus, and eleuen others beſides. Fountaines, Niobe, Amymone, Pſammothe. From Scylleum to Iſthmus 177 miles. Towns, Hermione, Trœzen, Coryphaſium and Argos, called of ſome Inachium; of others, Dipſium. The hauen Cenites, the creeke Saronicus, beſet round about in old time with woods of Oake; whereupon it had the name, for ſo old Greece called an Oake. Within it ſtood the M
towne Epidaurum, much reſorted vnto for the temple of *Æſculapius*, the promontorie Spiræum, the hauens Anthedon, and Bucephalus: and likewiſe Cenchreæ which we ſpake of before, being the other limit of Iſthmus, together with the chappell of *Neptune*, famous for the games there repreſented euery fiue yeres. Thus many creekes doth ſcotch and cut Peloponneſus: thus

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A many ſeas I ſay do rore and daſh againſt it. For on the North ſide the Ionian ſea breaketh in: on the Weſt it is beaten vpon with the Sicilian. From the South the Cretian ſea driueth againſt it: Ægeum from the Southeaſt, and Myrtoum on the Northeaſt, which beginning at the Megarian gulfe, waſheth all Attica.

Chap. VI.

¶ *Of Arcadia.*

THe midland parts thereof, Arcadia moſt of all taketh vp, being euery way far remote from the ſea: at the beginning it was named Drymodis, but ſoone after Pelaſgis. The townes in it be Pſophis, Mantinea, Stymphalum, Tegea, Antegonea, Orchomenum, Pheneum, Pala-
B tium, from whence the mount Palatium at Rome tooke the name. Megalepolis, Catina, Bocalium, Carmon, Parrhaſiæ, Thelphuſa, Melanæa, Heræa, Pile, Pellana, Agræ, Epium, Cynætha, Lepreon of Arcadia, Parthenium, Alea, Methydrium, Eneſpe, Maciſtum, Lampe, Clitorium, Cleone: betweene which townes is the tract Nemea, vſually called Berubinadia. Mountains in Arcadia, Pholoe with a towne ſo named. Item, Hyllene, Lyceus, wherein was the chappell of *Iupiter Lycenus*, Mænalus, Artemiſius, Parthenians, Lampeus, and Nonacris: & eight beſides of baſe account. Riuers, Ladon, iſſuing out of the meeres and fens of Pheneus, Erymanthus out of a mountaine of the ſame name, running both downe into Alpheus. The reſt of the cities to be named in Achæa, Aliphiræi, Abeatæ, Pyrgenſes, Pareatæ, Paragenitiæ, Tortuni, Typanæi,
C Thryaſij, Trittenſes. All Achaæa generally throughout, *Domitius Nero* endowed with freedom. Peloponneſus from the promontorie of Malea to the towne Lechæum vpon the Corinthian gulfe, lyeth in bredth 160 miles: but ouer croſſe from Elis to Epidaurum 125 miles: from Olympia to Argos through Arcadia 63 miles. From the ſame place to Phlius is the ſaid meaſure. And all throughout, as if Nature made recompence for the irruptions of the ſeas, it riſeth vp in 76 hills.

Chap. VII.

¶ *Greece and Attica.*

D AT the ſtreights of Iſthmus beginneth Hellas, of our countrymen called Græcia: the firſt tract thereof is Attica, in old time named Acte. It reacheth vnto Iſthmus on that part thereof which is called Megaris of the colony Megara, or againſt Pagæ. Theſe 2 townes as Peloponneſus lieth out in length, are ſeated on either hand, as it were vpon the ſhoulders of Hellas. The Pageans, and more than ſo, the Ægoſthenienſes lie annexed to the Magarenſians, and owe ſeruice to them. In the coaſt thereof is the hauen Schœnus. Townes, Sidus, Cremyon, Scironia rocks for three miles long, Geranea, Megara, and Eleuſin. There were beſides, Oenoa and Probalinthus, which now are not to be ſeen, 52 myles from Iſthmus. Pyræus and Phalera, two hauens ioined to Athens by a wall, within the land fiue miles. A free citie this is, and needeth no more any mans praiſe: ſo noble and famous it is otherwiſe, beyond all meaſure. In At-
E tica be theſe fountains, Cephiſſia, Larine, Callirrhoe, and Enneacreunos. Mountains, Brileſſus, Megialcus, Icarius, Hymettus, & Lyrabetus: alſo the riuer Iliſſos. From Pyræum 42 miles off, is the promontorie Sunium, likewiſe the promontorie Doriſcum. Alſo Potamos and Brauron, townes in times paſt. The village Rhamnus, and the place Marathon, the plain Thriaſtius, the town Melita and Oropus, in the confines or marches of Bœotia. Vnto which belong Anthedon, Oncheſtos, Theſpre a free town Lebadea: and Thebes ſurnamed Bœotia, not inferior in fame and renown to Athens, as being the natiue country, & as men would haue it, of two gods, *Liber* and *Hercules*. Alſo they attribute the birth of the Muſes in the wood Helicon. To this Thebes, is aſſigned the foreſt Cithæron, and the riuer Iſmenus. Moreouer fountains in Bœotia, Oedipodium, Pſammate, Dirce, Epigranea, Arethuſa, Hippocrene, Aganippe, and Gargaphiæ. Moun-
F tains ouer and beſides the forenamed, Mycaleſſus, Adyliſus, Acontius. The reſt of the townes betweene Megara & Thebes, Eleutheræ, Haliartus. Plateæ, Pheræ, Aſpledon, Hyle, Thisbe, Erythræ, Gliſſas, and Copæ. Neere to the riuer Cephiſſus, Lamia, and Anichia: Medeon, Phligone, Grephis, Coronæa, Chæronia. But in the outward borders, beneath Thebes, Ocale, Elæon, Scolos, Scœnos, Peteon, Hyrie, Mycaleſſus, Hyreſeon, Pteleon, Olyros, Tanagia, a free State; and in

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the very mouth of Euripus,which the Iſland Eubœa maketh by the oppoſite ſite thereof, Aulis,ſo renowned for the large hauen that it hath. The Bœotians in old time were named Hyantes. The Locrians alſo are named withall Epicnemidij, in times paſt Letegetes,through whom the riuer Cephiſſus runneth into the ſea. Townes,Opus(whereof commeth the gulfe Opuntinus)and Cynus. Vpon the ſea coaſt of Phocis,one & no more,to wit Daphnus. Within-forth among the Locrians, Elatea,and vpon the bank of Cephiſſus(as we haue ſaid) Lilea:& toward Delphos,Cnenius and Hiampolis:again, the marches of Locri, wherein ſtand Larymna and Thronium,neere vnto which the riuer Boagrius falleth into the ſea. Townes, Narycion, Alope, Scarphia:after this,the vale called of the people there dwelling, Maliacus Sinus, wherein bee theſe townes, Halcyone,Econia,and Phalara. Then Doris,wherin are Sperchios, Erineon,Boion,Pindus, Cytinum. On the back-ſide of Doris is the mountain Oeta. Then followeth Æmonia that ſo often hath changed name. For one and the ſame hath bin called Pelaſgicum,Argos, and Hellas,Theſſalia alſo,and Dryopis,and euermore tooke name of the kings. In it was borne a king called *Græcus*, of whom Greece bare the name:there alſo was *Hellen* borne, from whence came the Hellenes. Theſe being but one people,*Homer* hath giuen three names vnto,that is to ſay,Myrmidones,Hellenes,and Achæi. Of theſe,they be called Phthiotæ who inhabit Doris. Their towns be Echinus,in the very gullet & entrance of the riuer Sperchius : and the ſtreights of Thermopylæ,ſo named by reaſon of the waters:and foure miles from thence Heraclea, was called Trachin. There is the hill Callidromus:and the famous townes, Hellas, Halos, Lamia, Phthia,and Arne.

Chap. VIII.

¶ *Theſſalie.*

MOreouer in Theſſalie,Orchomenus,called before-time Minyeus; and the towne Almon, or after ſome Elmon; Atrax,Pelinna,and the fountaine Hyperia. Townes,Pheræ,behind which Pierius ſtretcheth forth to Macedonie:Lariſſa,Gomphi,Thebes of Theſſalie,the wood Pteleon,and the creeke Pagaſicus. The towne Pagaſa,the ſame named afterwards Demetrias; Tricca,the Pharſalian plains with a free city; Cranon and Iletia. Mountains of Phthiotis, Nymphæus,moſt faire and ſightly for the naturall arbors and garden workes there:Buzigæus, Donaceſa,Bermius,Daphiſſa,Chimerion,Athamas,Stephane. In Theſſaly there be 34,whereof the moſt famous are,Cerceti,Olympus,Pierus,Oſſa: iuſt againſt which,is Pyndus and Othrys,the ſeat and habitation of the Lapithæ;and thoſe lie toward the Weſt: but Eaſtward, Pelios,all of them bending in manner of a theatre: and before them ſtand raunged wedge-wiſe, 72 cities,Riuers of Theſſalie,Apidanus,Phœnix,Enipeus,Onochomus,Pamiſus : the fountain Meſſeis,the people Bœbeis:and aboue all the reſt the moſt famous riuer Peneus,which ariſing neere Gomphi,runneth for 500 ſtadia in a wooddie dale between Oſſa and Olympus, and halfe that way is nauigable. In this courſe of his,are the places called Tempe, 5 miles in length, and almoſt an acre and a halfe broad,where on both hands the hils ariſe by a gentle aſcent aboue the reach of mans ſight. Within-forth glideth Peneus by,in a freſh green groue, cleare as chryſtall glaſſe ouer the grauelly ſtones;pleaſant to behold for the graſſe vpon the banks,and reſounding again with the melodious conſent of the birds. It taketh in the riuer Eurotus, but entertaineth him not,but as he floweth ouer the top of him like oile(as *Homer* ſaith :) within a while after that he hath carried him a ſmall way,letteth him goe againe and reiecteth him, as refuſing to mingle with his owne ſiluer ſtreams,thoſe pœnall and curſed waters engendred for the infernall Furies of hell.

Chap. IX.

¶ *Magneſia.*

TO Theſſaly,Magneſia is annexed : the fountaine there is Libethra. The townes, Iolchos, Hirmenium,Pyrrha,Methone,Olizon. The promontorie Sepias. Townes moreouer, Caſtana,Sphalatra,and the promontory Ænantium. Towns beſides,Meliboea,Rhiſus,Erymne. The mouth of Peneus. Towns,Homolium,Orthe,Theſpiæ,Phalanna, Thaumacie, Gyrton, Cranon,Acarne,Dotion,Melitæa,Phylace,Potinæ. The length of Epirus,Achaia,Attica and Theſſalie,lying ſtraight out, is by report 480 miles ; the bredth 287.

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Chap. X.

¶ *Macedonie.*

MAcedonie, ſo called afterwards (for before-time it was named Emathia) is a kingdome conſiſting of 150 ſeuerall States, renowmed for two kings aboue the reſt, and ennobled ſometime for the Monarchie and Empire of the world. This countrie lying farre in behind Magneſia and Theſſaly toward the nations of Epirus Weſtward, is much troubled and infeſted with the Dardanians. The North parts therof are defended by Pæonia and Pelagonia, B againſt the Triballi. The townes be theſe, Aege, wherein the maner was to interre their kings: Berœa, and Æginium, in that quarter which of the Wood is called Pieria. In the outward borders Heraclea, and the riuer Apilas: more townes, Phina, and Oloros: the riuer Haliacmon. Within-forth are the Haloritæ, the Vallei, Phylacei, Cyrreſtæ, Tyriſſæi: Pella the Colonie: the town Stobi of Romane citizens. Anon, Antigonia, Europus vpon the riuer Axius, and another of the ſame name through which Rhædias runneth: Heordeæ, Scydra, Mieza, Gordiniæ. Soone after in the borders, Ichnæ, and the riuer Axius. To this bound the Dardani: Treres, and Pieres border vpon Macedony. From this riuer, are the nations of Pæonia, Parorei, Heordenſes, Almopij, Pelagones, and Mygdones. The mountaines Rhodope, Scopius, and Orbelus. The reſt is a plaine countrie, wherein Nature ſeemes to ſet out her riches; in the lap whereof are the Arethuſij, Antiochienſes, Idomenenſes, Doberienſes, Trienſes, Allantenſes, Andariſtenſes, C Moryllij, Gareſci, Lynceſtæ, Othrionei, and the free ſtates of the Amantines and Oreſtæ. Colonies, Bulledenſis & Dienſis. Xilopolitæ, Scotuſſæi free; Heraclea, Sintica, Timphei, and Coronæi. In the coaſt of the Macedonian ſea, the towne Calaſtra, and within-forth, Phileros, and Lete: and in the middle bending of the coaſt, Theſſalonica, of free eſtate and condition. To it from Dyrrachium, it is 114 miles, Thermæ. Vpon the gulfe Thermaicus, be theſe townes, Dicæa, Pydna, Derrha, Scione: the promontory Canaſtæum. Townes, Pallene, Pherga. In which region theſe mountaines, Hypſizorus, Epitus, Alchione, Leuomne. Townes, Niſſos, Brygion, Eleon, Mendæ, and in the Iſthmos of Pallene, the Colinie ſometime called Potidæa, and now Caſſandria, Anthemus, Holophyxus the creeke, and Mecyberna. Townes, Phiſcella, Ampelos, Torone, and Singos: the Frith (where *Xerxes* king of the Perſians cut the hill Athos from the D Continent) in length a mile and a halfe. The mountaine it ſelfe ſhooteth out from the plaine into the ſea, 75 miles. The compaſſe of the foot thereof takes 150 miles. A towne there was in the pitch of it, Acroton. Now there be Vranopolis, Palæotrium, Thyſſus, Cleone, Apollonia, the inhabitants whereof be named Macrobij. The towne Caſſera, and a ſecond gullet or creeke of the Iſthmus, Acanthus, Stagira, Sitone, Heraclea, and the region lying vnder Mygdonia, wherein are ſeated farre out from the ſea, Apollonia and Arethuſa, Againe in the coaſt, Poſidium, and a creeke with the towne Cermorus: Amphipolis a free ſtate, and the people Biſaltæ. Then the riuer Strimon, which is the bound of Macedonia, which ſpringeth in Hæmus: of which, this is worthy to be remembred, that it runneth into ſeuen lakes before it keepeth a direct courſe. This is that Macedonie, which ſometime conquered the dominion ouer all the E earth: this ouer-ran Aſia, Armenia, Iberia, Albania, Cappadocia, Syria and Ægypt; yea and paſſed ouer Taurus and Caucaſus: this ruled ouer the Bactrians, Medians, and Perſians, and poſſeſſed all the Eaſt: this hauing the conqueſt of India, raunged after the tracts of Father *Liber* and *Hercules*. This is the very ſame Macedonie, of which in one day *Paulus Æmilius* our Generall, ſacked and ſold 72 cities. See the difference of fortune in two men.

Chap. xi.

¶ *Thracia.*

F NOw followeth Thracia, among the moſt valiant nations of Europe, diuided into 52 regiments of ſouldiers. Of thoſe States in it, the Denſeletes and Medi, whom it grieues me not to name, doe inhabit neere to the riuer Strymon on the right ſide, as farre as to the Biſaltæ aboue-named: on the left, the Digeri, and many townes of the Beſſi, euen to the riuer Neſtus, which inuironeth the bottome of the hill Pangæus, between the Eleti, Diobeſi, and Carbileſi, and ſo forward to the Bryſæ and Capæi. Odomanta a towne of the Odryſians, ſendeth

deth out the riuer Hebrus to the neighbour-borderers, the Carbiletes, Pyrogeris, Drugeri, Cæ- G
nicks, Hypſalts, Beni, Corpilli. Botiæi, and Edons. In the ſame tract the Selletæ, Priautæ, Di-
loncæ, Thyni, Celetæ, the greater vnder Hæmus, the leſſe vnder Rhodope: between whom, run-
neth the riuer Hebrus. The towne ſcituate beneath Rhodope, was before-time named Ponero-
polis; ſoone after by the founder, Philippopolis: but now of the ſite thereof Trimontium. The
aſcent of Hæmus vp to the top, taketh ſix miles: the backe-ſide and hanging thereof downe to
Iſter, the Mœſians, Getes, Aoti, Gaudæ, and Clariæ, and vnder them the Arræi, Sarmata whom
they call Areatæ, and Scythians: and about the ſea coaſt of Pontus, the Moriſenes and Sitho-
nians, from whom the Poet *Orpheus* deſcended, doe inhadite. Thus Iſter boundeth it on the
North: in the Eaſt, Pontus and Propontus: Southward, the ſea Ægæum, in the coaſt whereof
from Strimon, ſtand Apollonia, Oeſtima, Neapolis, and Polis. Within-forth, the Colonie of H
Philip, and 325 miles from Dyrrhachium, Scotuſa, Topiris, and the mouth of the riuer Neſtus.
The hill Pangæus, Heraclea, Olynthos Abdera a free citie, the meere and nation of the Biſons.
There ſtood the town Tinda, terrible for the horſes of *Diomedes* that ſtabled there. Now at this
day, Diceæ, Iſmaron, the place Parthenion, Phaleſina, Maronea called Ortagurea before-time.
* Or 100090. The mountaine Serrium and Zonæ: then, the plaine Doriſcus able to receiue * 10000 men: for
ſo *Xerxes* took a iuſt account of his armie and numbred it. The mouth of Hebrus: the hauen of
Stentor: the free towne Ænea, together with the tombe of *Polydorus*, the region ſometime of
the Cicones. From Doriſcus, the coaſt bendeth crookedly to Macron-Tichos, for 122 miles.
About which place the riuer Melas, whereof the creeke be areth name. Townes, Cypſella, Bi-
ſanthe, and that which is called Macron-Tichos, what way as ſtretching forth the walls along I
from Propontis to the Creeke Melanes betweene two ſeas, it excludes Cherſoneſus as it run-
neth out. For, Thracia of one ſide beginning at the ſea coaſt of Pontus, where the riuer Iſter is
diſcharged & ſwallowed vp, hath in that quarter paſſing faire and beautifull cities, to wit, Iſtro-
polis of the Mileſians, Tomi, and Calatis which before was called Acernetis. It had ſometime
Heraclea and Bizon, which ſunke and was loſt in a gaping chinke of the earth; but now in ſtead
thereof Dionyſopolis, called before Crunos. The riuer Ziras runneth hard by it. All that tract,
the Scythians named beſides Aroteres, poſſeſſed. There townes were, Aphrodiſius, Libiſtos,
Zigere, Borcobe, Eumenia, Parthenopolis, Gerania, where it is reported that the nation of the
Pygmeans kept, whom the barbarous people call Catizi, and they are of beliefe that they were
chaſed away and put to flight by cranes. In the edge thereof next to Dionyſopolis, there is O- K
deſſus of the Mileſians, the riuer Pomiſcus, the towne Tetranaulocos: the mountaine Hæmus
bearing forth with a huge top into Pontus had in the pitch therof the towne Ariſtæum. Now
in the coaſt is Meſembria and Anchialum, where Meſſa was. The region Aſtice. There was the
towne Anthium, now there is Apollonia. The riuers Paniſſa, Rira, Tearus, Oroſines Townes,
Thynnias, Almedeſſos, Deuelton with the poole which now is called Deultum, belonging to
the old ſouldiers. Phinopolis, neere vnto which is Boſphorus. From the mouth of Iſter to the
entrance of Pontus, ſome haue made it 555 miles. *Agrippa* hath ſet to 40 miles more. And from
thence to the wall aboue-named 150: and ſo from it to Cherſoneſus 126. But neere to Boſpho-
rus is the arme of the ſea Gaſthenes. The hauen ſurnamed of old men, and another likewiſe of
women. The promontory Chryſoceras, whereupon ſtandeth the town Bizantium of free eſtate, L
called before-time Lygos. From Dyrrachium it is 711 miles. Thus much lies out the main in
length between the Adriatick ſea and Propontis. Riuers, Bathynias, Pydaras, or Atyras. Towns,
Selymbria, Perinthus, annexed to the Continent 200 paſes broad. Within-forth, Byzia, the
caſtle of Thracian kings, hated of Swallowes, vpon the horrible and curſed fact of *Tereus*. The
region Camica: the colonie Flauiopolus, where before-time the town was called Zela. And 50
miles from Byria the Colony Apros, which is from Philippi 188 miles. But in the borders, the
riuer Erginus, where was the town Gonos. And there you leaue the citie Lyſimachia, alſo now
in Cherſoneſus. For another land paſſage or Iſthmus there is of like ſtreightnes, al one in name,
and of equall breadth with that of Corinth. Likewiſe on both ſides two cities do beautifie and
ſet out the ſtronds, which they take vp not vnlike to the other, to wit, Pactiæ from Propontis M
and Cardia from the gulfe Melane: as for this, it taketh the name of the forme and proportion
of the place made like a heart: and both, afterwards, where incloſed within Lyſimachia 3 miles
* Macron-Tichos. from the * long walls aboueſaid. Cherſoneſus from Propontis ſide, had Tiriſtaſis & Crithotes,
alſo Ciſſa faſt vpon the riuer Ægos: now it hath from the colony Apros 32 miles Reſiſtos, ouer-

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A againſt the colony Pariana. And Helleſpontus, diuiding Europe from Aſia, ſeuen ſtadia aſunder (as we haue ſaid) hath foure cities there oppoſite one againſt another, to wit, in Europe, Calippolis and Seſtos; in Aſia, Lampſicum and Abydos. Then, is the promontory of Cherſoneſus Maſtiſia, iuſt contrary to Sigeum, in the crooked front whereof is Cynoſſema: for ſo is *Hecubaes* tombe named, the very rode of the Athenians nauie. The towne and chappell of *Protéſilaus*: and in the very vtmoſt forefront of Cherroneſus, which is called Æolium, the towne Elæus. After it, as a man goeth to the gulfe Melane, the hauens Cælos, Panhormus, and the aboue-named Cardia. The third ſea of Europe, is in this manner bounded and limited. Mountaines of Thraſia ouer and aboue thoſe afore rehearſed, Edonus, Gigemorus, Meritus, and Melamphyllon. Riuers falling into Hebrus, be Bargus, and Suemus. The length of Macedonie,
B Thracia and Helleſpontus, is ſet downe before. Some make it ſeuen hundred and twenty miles. The breadth is three hundred and eighty miles. The ſea Ægium tooke that name of a rocke, betweene Tenedos and Chios, more truly than of an Iſland named Aex, reſembling a goat, and therefore ſo called of the Greekes; which all at once appeareth to riſe out of the mids of the ſea. The ſea-men that faile from out of Achaia to Andros, diſcouer it on the right hand, and to them it preſageth ſome dreadfull and miſchieuous accident. Part of the Ægæan ſea is laid to the Myrtoum, and ſo called it is of a little Iſland, which ſheweth it ſelfe to them that ſet faile from Gereſtus to Macedonie, not farre from Chariſtos in Eubœa. The Romanes comprehend all theſe ſeas in two names: namely, Macedonicum, all that which toucheth Macedonia and Thracia: and Græcienſum where it beateth vpon Greece. As for the Greekes, they diuide euen
C the Ionian ſea into Siculum and Creticum, of the Iſlands. Alſo Icarius they call that between Samos and Mycione. All the other names are giuen by gulfes and creekes, whereof we haue ſpoken. And thus much verily as touching the ſeas and nations contained in this manner within the third ſection or gulfe of Europe.

Chap. XII.

¶ *The Iſlands betweene thoſe lands, among which, Creta, Eubœa, Cyclades, and Sporades: alſo of Helleſpont, Pontus, Mœotis, Dacia, Sarmatia and Scythia.*

D Iſlands ouer againſt Threſpotia, Corcyra: 12 miles from Buthrotus, and the ſame from the cliffes Acroceraunia 50 miles, with a citie of the ſame name, Corcyra of free condition, alſo the towne Caſſiope, and the temple of *Iupiter Caſſiopeus*: it lieth out in length 97 miles. *Homer* called it Scheria and Phæacia: *Callimachus* alſo, Drepane. About it are ſome others: but bending toward Italy, Thoronos: and toward Leucadia the two Paxæ, fiue miles diuided from Corcyra. And not farre from them before Corcyra, Ericuſa, Marate, Elaphuſa, Malthace, Trachiæ, Pytionia, Ptychia, Tarachie. And from Pholachrum a promontory of Corcyra, the rocke into which their goeth a tale, that the ſhip of *Vliſſes* was turned, for the reſemblance it hath of ſuch a thing. Before Leucadia, Sybota. But between it & Achaia there be very many: of which Teleboides the ſame that Taphiæ: but of the inhabitants before Leucadia, they be called Ta-
E phias, Oxie, and Prinoeſſa: and before Ætolia, the Echinades, Ægialia, Cotonis, Thyatira, Geoaris, Dionyſia, Cyrnus, Chalcis, Pinara & Myſtus. Before them in the deep ſea, Cephalenia and Zacynthus, both free ſtates: Ithaca, Dulichium, Same, Crocylea, and Paxos. Cephalenia ſometime called Melæna, is 11 miles off, and 44 miles about. As for Same, it was deſtroied by the Romanes: howbeit, ſtill it hath three townes: between it and Achaia is Zacynthus with a town, a ſtately Iſland, & paſſing fertile. In times paſt it was called Hyrie, and is 22 miles diſtant from the South coaſt of Cephalenia. The famous hill Elatus is there. The Iſle it ſelf is in circuit 25 miles. Twelue miles from it is Ithaca, wherin ſtands the mountain Neritus. And in the whole it takes vp the compaſſe of 25 miles. From it 12 miles off is Araxum a cape of Peloponneſus.
F Before this Iſland in the main ſea there appeare Aſteris and Prote. Before Zacynthus 35 miles full Eaſt, are the two Strophades, called by others Plotæ: and before Cephalenia, Letoia. Before Pylos three Sphagiæ, and as many before Meſſene, called, Oenuſſæ. In the gulfe Aſinæus three Thyrides: in the Laconian gulfe, Teganuſa, Cothon, Cythera with the towne, named beforetime Porphyris. This lies fiue miles from the promontorie Malea, dangerous for ſhips to come about it, by reaſon of the ſtreights there. in the Argolick ſea are Pityuſa, Irine & Ephyre

and

and against the territory Hermonium, Typarenus, Epiropia, Colonis, Aristera: ouer against G
Trœzenium Calauria, halfe a mile from Plateæ: also, Belbina, Lacia and Baucidias. Against Epidaurus, Cecryphalos, and Pytioneſos, ſix miles from the Continent. Next to it is Ægina a free ſtate, 17 miles off, and for 20 miles they ſaile by it. The ſame is diſtant from Pyræum the port of the Athenians, 12 miles, and beforetime was vſually called Oenone. Againſt the promontory Spiræum, there lie onpoſite Eleuſa, Dendros, two Craugiæ, two Cæciæ, Selachuſa, Cenchreis and Aſpis. Alſo in the Megarian gulfe, there be foure Methurides. As for Ægilia, it is 15 miles from Cythera, and the ſame is from Phalaſerna a towne in Creet 25 miles. And Creet it ſelfe, lying of one ſide to the South, and the other to the North, ſtretcheth forth in length Eaſt and Weſt; a famous and noble Iſland for a hundred cities in it. *Doſiades* ſaith it tooke that name of the nymph *Creta* daughter of *Heſperis*: but according to *Anaximander*, of a king of the Curetes. *Philiſtides*, *Mallotes*, *Crates*, haue thought it was called firſt Æria, and afterH
wards Curetis: and ſome haue thought it was named Macaros for the bleſſed temperature of the aire. In bredth it exceedeth in no place 50 miles, and in the middle part broadeſt it is: but in length it is full 270 miles: in circuit 589 miles: and winding it ſelfe into the Creticke ſea, ſo called of it, where it ſtretcheth out fartheſt Eaſtward, it puts forth of it the promontory Sammonium iuſt againſt Rhodos, and Weſtward Criu-Metopon, toward Cyrenæ. The principall townes of marke, be Phalaſerne, Elæa, Cyſamum, Pergamum, Cydon, Minoum, Apteron, Pantomatrium, Amphymalla, Rhythimna, Panhormum, Cyteum, Apollonia, Matium, Heraclea, Miletos, Ampelos, Hyera-pytna, Lebena, Hierapolis. And in the midland parts, Cortyna, Phæſtum, Gnoſſus, Potyrrhenium, Myrina, Lycaſtus, Rhamnus, Lyctus, Dium, Aſum, Pyloros, Rhytion, Clatos, Pharæ. Holopyxos, Laſos, Eleuthernæ, Therapne, Marathuſa, Mytinos. And other I
townes about the number of 60, ſtand yet vpon record. The hils be Cadiſcus, Idæus, Dictæus, and Morycus. The Iſle it ſelfe, from the promontory in it called Criu-Metopon, as *Agrippa* reports, is diſtant from Phycus, a promontory of the Cyrene 225 miles. Likewiſe from Capeſcum point, it is from Malea in Peloponnenſus 80 miles. From the Iſland Carpathus, which lies Weſtward from the cape Sammonia, 60 miles. This Iſland aforeſaid lyeth between it and Rhodos. The reſt about it be theſe: before Peloponneſus two Coricæ, and as many Mylæ: and on the North ſide, when a man hath Creet on the right hand, there appeares Leuce iuſt againſt Cydonia, together with the two Budoræ, againſt Matium, Cia: againſt the promontory Itanum Oniſa and Leuce: againſt Hierapytna, Chryſa, and Caudos. In the ſame coaſt are Ophiuſſa, Butoa, and Rhamnus: and when men haue fetched about and doubled the point Criu-Metopon, K
appeare the Iſles called Muſagores. Before the promontory Sammonium, Phocæ, Platiæ, Sirnides, Naulochos, Armedon and Zephire. But in Hellas, yet ſtill in Ægium, Lichades, Scarphia, Mareſa, Phocaria, and very many more ouer againſt Attica, but towneleſſe, and therefore obſcure and of no reckoning: but againſt Eleuſin, the noble Salamis, and before it Pſytalia: and from Sunium, Helene fiue miles off: and Ceos from thence as many, which our countrimen haue named Cæa: but the Greekes Hydruſſa, cut off and diſmembred from Eubœa. In times paſt it was 500 ſtadia long: but ſoone after, foure parts almoſt, namely thoſe that butted vpon Bœotia, eaten vp by the ſame ſea: ſo as now the towns remaining that it hath, be Iulis and Cartheæa. For Coreſſus and Pæceſſa are periſhed & gone. From hence as *Varro* ſaith, came the fine linnen cloath that women vſe: yea, and Eubœa it ſelfe hath been plucked from Bœotia, and di- L
uided with ſo little an arme running betweene, that a dridge ioineth the one to the other: euident it is to the eie, and well ſeen, by reaſon of two promontories in the South ſide, to wit, Geneſtum, bending toward Attica, and Capharens to Helleſpontus: and one vpon the North-ſide, to wit, Cæneus. In no part thereof doth it extend broader than 40 miles: and no where doth it gather in narrower than 20. But in length from Attica as far as Theſſalie, it lies along Bœotia 150 miles: and containeth in circuit 365. From Helleſpont, on Caphareus ſide, it is 225 miles. In times paſt renowned it was for theſe cities, Pyrrha, Porthmos, Neſos, Cerinthus, Oreum, Dium, Ædepſum, Ocha, Oechalia, now Chalcis, ouer againſt which ſtands Aulis in the main: but now, for Gereſtum, Eretria, Caryſtus, Oritanum, Artemiſium, the fountain Arethuſa, the riuer Lelantum, the hot waters called Hellopiæ, it is of great name: but yet in more requeſt for the M
marble of Caryſtus. In former time it was called commonly Chalchodontis or Macris, as *Dionyſius* and *Ephorus* doe ſay: but Macra, according to *Ariſtides*: and as *Callidemus* would haue it, Chalcis, for the braſſe there firſt found: and as *Menæcmus* ſaith, Abantias: and laſt of all Aſo-

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A pis,as the Poets commonly name it. Without in the Myrtoum ſea be many Iſles, but of greateſt marke be Glauconnenſis and Ægilia:and neere to the promontory Gereſtum about Delos certain lying round together,whereupon they tooke their name Cyclades.The firſt and chiefe of them,Andrus with a towne,is from Gereſtum 10 miles,and from Ceum 39. *Myrſilus* ſaith it was called Cauros,and afterwards Antandros. *Callimachus* nameth it Laſia: others Nonagria, Hydruſſa and Epagris: it takes in compaſſe 93 miles. A mile from the ſame Andros, and 15 from Delos,lieth Tenos,with a town fifteen miles in length: which for the plenty of water *Ariſtotle* ſaith was called Hydruſſa, but others name it Ophiuſſa. The reſt be theſe, Myconos with the hill Dimaſtos,15 miles from Delos. Scyros Syphnus, before-time named Heropia and Acis,in circuit 28 miles about: Seriphus 12 miles,Præpeſinthus, Cythnus, and Delos it ſelfe,of all others moſt excellent by far,as being the midſt of all the Cyclades,much frequen-
B ted for the temple of *Apollo*, and for merchandiſe and trafique. Which hauing a long time floted vp and downe,as it is reported,was the only Iſland that neuer felt earthquake vnto the time of *M.Varro*. *Mutianus* hath recorded that it was twice ſhaken. *Ariſtotle* giueth a reaſon of the name in this ſort,becauſe it was diſcouered and appeared on a ſudden. *Ægloſthenes* termeth it Cynthia: others Ortygia,Aſteria,Lagia,Chlamydia,Cynethus,and Pyrpile,for that in it fire was firſt found out.It is but 5 miles about,and riſeth vp by the aſcent of the hil Cinthus.Next it is Rhene,which *Anticlides* called Celaduſſa,and *Helladius* Artemite.Moreouer,Syros,which antient writers haue ſaid to be in circuit 26 miles, and Mutians 160. Oliaros,Paros, with a towne,38 miles from Delos,of great name for the white marble there,which at firſt men called
C Pactia,but afterwards Minois. From it ſeuen miles and a halfe is Naxus (18 miles from Delos) with a towne which they called Strongyle, afterwards Dia, within a while Dionyſias, of the plentifull vines,and others,Sicily the leſſe,and Callipolis. It reacheth in circuit 75 miles, and is halfe as long again as Paros. And thus far verily they obſerue & note for the Cyclades; the reſt that follow for the Sporades. And theſe they be, Helenum, Phocuſſa,Phæcaſia,Schinuſſa,Phalegandros,and 17 miles from Naxos,Icaros:which gaue name to the ſea,lying out as far in length with two towns,for the third is loſt: before-time it was called Dolichum,Macris, and Ichtyoeſſa. It is ſcituate Northeaſt from Delos 50 miles: and from Samos it is diſtant 35 miles. Between Eubœa and Andros there is a frith 12 miles ouer. From it to Gereſtum is 112 miles and a halfe: and then no order forward can be kept: the reſt therefore ſhall be ſet
D downe huddle by heapes. Ios from Naxus 24 miles,venerable for the ſepulchre of *Homer*: it is in length 25 miles,and in former time called Phænice.Odia,Letandros,Gyaros with a town, 12 miles about.It is from Aneros 62 miles. From thence to Syrnus 80 miles.Cynethuſſa,Telos,famous for coſtly ointment.*Callimachus* calls it Agathuſſa. Donyſa,Pathmos, in circuit 30 miles. Coraſiæ,Lebinthus,Leros,Cynara,Sycinus,which before-time was Oenœ, Heratia the ſame that Onus,Caſus otherwiſe Aſtrabe,Cimolus,*alias* Echinuſſa,Delos with a towne,which *Ariſtides* nameth Byblis,*Ariſtotle* Zephyria,*Callimachus* Himallis,*Heraclides* Syphnus and Acytos,and this of all the Iſlands is the roundeſt.After it Machia,Hypere ſometime Patage,or after ſome Platage,now Amorgos,Potyægos. Phyle,Thera; when it firſt appeared it was called Calliſte.From it afterwards was Theraſia plucked: and between thoſe twain ſoone after aroſe
E Automate,the ſame that Hiera: and Thia, which in our daies appeared new out of the water neere Hiera. Ios is from Thera 25 miles. Then follow Lea,Aſcania, Anaphe, Hippuris, Hippuriſſuſa.Aſtipalæa,of free eſtate,in compaſſe 88 miles: it is from Cadiſcus a promontory of Creta,125 miles.From it is Platea,diſtant 60 miles.And from thence Camina,38 miles:then Azibnitha,Laniſe, Tragia, Pharmacuſa, Techidia, Chalcia, Calydna, in which are the townes Coos and Olymna. From which to Carpathus,which gaue the name to the Carpathian ſea is 25 miles, and ſo to Rhodes with a Southerne winde. From Carpathus to Caſos 7 miles: from Caſos to Samonium a promontorie of Crete, 30 miles. Moreouer, in the Euboike Euripe, at the firſt entrance wel-neere of it are the foure Iſlands Petaliæ,and at the end thereof, Atalante, Cyclades,and Sporades: confined and encloſed on the Eaſt with the Icarian ſea coaſts of A-
F ſia: on the Weſt with the Myrtoan coaſts of Attica. Northward with the Ægæan ſea: and South with the Creticke and Carthaginian ſeas; and take vp in length two hundred myles. The gulfe Pegaſicus hath before it, Eutychia, Cicynethus, and Scyrus aboue ſaid: but the vtmoſt of all the Cyclades and Sporades, Gerontia, Scadira, Thermeuſis, Irrheſia, Solinnia, Eudemia, Nea, which is conſecrate vnto *Minerua*. Athos before it hath foure, Peparethus

thus with a town ſomtime called Euonos, 9 miles off, Scyathus 5 miles, and Iulios with a town G
88 miles off. The ſame is from Maſtuſia in Corinthos 75 miles, & is it ſelf in circuit 72 miles. Watered it is with the riuer Iliſſus, from thence to Lemnos 22, and is from Athos 87. in compaſſe it containeth 22 miles and a halfe. Townes it hath, Hephæſtia and Marina, into the Market place wherof the mountain Athos caſteth a ſhadow in the hotteſt ſeaſon of ſommer. Thaſſos a free State is from it fiue miles: in times paſt it was called Æria or Æthria. From thence Abdera in the continent is 20 miles: Athos 62: the Iſle Samo-Thrace as much, being a free priuiledged ſtate, and lying before Hebrus. From Imbrus 32 miles: from Lemnus 22 miles and a halfe: from the coaſt of Thracia 28 miles: in circuit it is 32 miles, and hath the riſing of the hill Saoces for the ſpace of ten miles, and of all the reſt is fulleſt of hauens and harbors. *Callimachus* calleth it by the old name Dardania. Betwixt Cherrhoneſus and Samo-Thrace is H
Halomeſus, about 15 miles from either of them: beyond lieth Gethrone, Lamponia, Alopeconeſus not farre from Cœlos, an hauen of Cherrhoneſus: and ſome other of no name or regard. In this ſea let vs rehearſe alſo the deſart and vnpeopled Iſles, ſuch as we can finde names for, to wit, Deſticos, Larnos, Cyſſicos, Carbruſa, Celathuſa, Scylla, Draconon, Arconeſus, Diethuſa, Scapos, Capheris, Meſate, Æantion, Phateruneſos, Pateria, Calete, Neriphus and Polendus.

The fourth of thoſe great ſeas in Europe, beginning at Helleſpont, endeth in the mouth of Mœotis. But briefly we are to deſcribe the forme of the whole ſea, to the end the parts may be ſooner and more eaſily known. The vaſt and wide Ocean lying before Aſia, and driuen out from Europe in that long coaſt of Cherſoneſus, breaketh into the maine with a ſmall and narrow iſſue, and by a Firth of 7 ſtadia, as hath been ſaid, diuideth Europe from Aſia. The firſt ſtreights I
they call Helleſpontus: this way *Xerxes* the King made a bridge vpon ſhips, and ſo led his armie ouer. From thence there is extended a ſmall Euripus or arme of the ſea for 86 miles ſpace to Priapus a city of Aſia, wheras *Alexander* the great paſſed ouer. From that place the ſea grows wide and broad, and again gathereth into a ſtreight: the largeneſſe thereof is called Propontis, the ſtreights Boſphorus, halfe a mile ouer; and that way *Darius* the father of *Xerxes* made a bridge ouer and tranſported his forces. The whole length of this from Helleſpont is 239 miles. From thence the huge main ſea called Pontus Euxinus, and in times paſt Axenus, takes vp the ſpace between lands far diſſite and remote aſunder, and with a great winding and turning of the ſhores bendeth back into certain horns, and lieth out-ſtretched from them on both K
ſides, reſembling euidently a Scythian bow. In the very mids of this bending it ioineth cloſe to the mouth of the lake Mœotis, and that mouth is called Cimmerius Boſphorus, 2 miles and a halfe broad. But between the two Boſphori, Thracius and Cimmerius, there is a direct ſtrait courſe between, as *Polybius* ſaith, of 500 miles. Now the whole circuit of all this ſea, as *Varro* and all the old writers for the moſt part do witneſſe, is 2150 miles. *Nepos Cornelius* addes thereto 350 miles more. *Artemidorus* maketh it 2919 miles. *Agrippa*, 2360 miles. *Mutianus*, 2865 miles. In like ſort ſome haue determined and defined the meaſure on Europe ſide to be 4078 miles and a halfe: others, 1172 miles. *M. Varro* taketh his meaſure in this manner: from the mouth of Pontus to Apollonia 188 miles and a halfe: to Calatis as much. Then to the mouth of Iſter 125: to Boriſthenes 250: to Cherrhoneſus a towne of the Heracleates, 375 miles. To L
Panticapæus, which ſome call Boſphorus, the vtmoſt coaſt of Europe, 222 miles and a halfe, which in all makes 1336 miles and a halfe. *Agrippa* meaſureth thus: From Byzantium to the riuer Iſter 560 miles: then to Panticapæum 630: from thence the very lake Mœotis taking into it the riuer Tanais, running out of the Rhiphæan hills, is ſuppoſed to beare the compaſſe of 1306 miles, being the fartheſt bound betweene Europe and Aſia. Others again make 11025 miles. But ſurely from his mouth to the mouth of Tanais, and take a ſtreight courſe, it is 375 miles without queſtion. The inhabitants of that coaſt haue beene named in the deſcription and mention of Thrace, as farre as to Iſtropolis: now from thence the mouthes of Iſter. This riuer ariſing among the hills of Abnoba a mountaine of Germanie, ouer againſt Rauricum a towne in Gaule, paſſing many a mile beyond the Alpes, and through innumerable Nations M
vnder the name of Danubius, with a mightie encreaſe of waters, and where hee firſt beginneth to waſh Illyricum, taking the name of Iſter after he hath receiued three ſcore riuers, and the one halfe of them well neere nauigable, rolleth into Pontus with ſix huge ſtreames. The firſt mouth of it is Peuces, ſoone after the Iſland it ſelfe Peuce, of which the next Channell

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A tooke name, and is ſwallowed vp of a great miere of 19 miles. Out of the ſame channell and aboue Aſtropolis, a poole is bred of 63 miles compaſſe, which they cal Halmyris. The ſecond mouth is called Naracuſtoma: the third Caloſtoma, neere the Iſland Sarmatica: the fourth Pſeudoſtoma, and the Iſland Conopon Diabaſis. After that, Boreoſtoma, and Spireoſtoma. Each of theſe are ſo great, that by report the ſea for 40 miles length within it is ouer-matched with the ſame, and the freſh water may ſo far be euidently taſted. From it, into the inland parts of the country, the people verily be all Scythians: but diuers other nations there be that inhabit the coaſts next to the ſea: in ſome places the Gete, called of the Romanes Daci: in others Sarmatæ, of the Greekes Sauromatæ; and among them, the Hamaxobij or Aorſi. Elſe-where, the baſtard and degenerate Scythians, who are come from baſe ſlaues, or elſe the Troglodites, and anon the Alani and Rhoxalani. But the higher parts betweene Danubius and the forreſt
B Hercynius, as farre as to the Pannonian wintering harbours of Carnuntum, and the confines there of the Germans, the fielden countrie alſo & plains of Iazege, the Sarmatians poſſeſſe. But the hills and forreſts, the Dakes who were expelled by them, do inhabite as farre as to the riuer Pythyſlus from Marus; or peraduenture it is Duria, diuiding them from the Sueuians & kingdome of Vannians. The parts againſt theſe, the Baſtarnæ doe keepe; and from thence, other Germans. *Agrippa* hath ſet downe that whole tract from Iſter to the Ocean, to mount vnto 2000 miles, and 400 leſſe in bredth, to wit, from the deſarts of Sarmatia to the riuer Viſtula. The name of Scythians euery where continually runs into Sarmatians and Germans. Neither hath that old denomination remained in any others but thoſe, who (as I haue ſaid) liue fartheſt off, and in the edge of theſe nations, vnknowne in manner to all men beſides. But the townes next to
C Iſter are Cremniſcos, and Æpolium: the mountaines Macrocrenij: the noble riuer Tyra, giuing name to the towne, whereas before-time it was called Ophiuſa. Within the ſame there is a ſpatious Iland, inhabited by the Tyragetæ. And it is from Pſeudoſtomum, a mouth of Iſter, 130 miles. Soone after be the Axiacæ, bearing the name after the riuer: beyond whom are the Crobyzi: the riuer Rhode: the creeke Sagaricus, and the hauen Ordeſus. And 120 miles from Tyra, is the great riuer Boryſthenes; alſo a lake and people of that name: yea and a towne 15 miles within from the ſea, called by ancient names Olbropolis, and Miletopolis. Againe, in the ſea ſide, the hauen or harbour of the Achæans: the Iſland of *Achilles*, famous for the tombe of that worthy wight. And from it 135 miles, there is a demy Iſland lying out acroſſe in faſhi-
D on of a ſword, called Dromos Achilleos, vpon occaſion of his exerciſe there of running: the length whereof *Agrippa* hath declared to be 80 miles. All that tract throughout, the Tauriſci, Scythians, and Sarmatians do inhabite. Then the wilde woodland countrie gaue the name vnto the ſea Hylæum, which beates hard vpon it: the inhabitants are called Enæcadloæ. Beyond, is the riuer Panticapes, which diuideth the Nomades and Georgians aſunder: and ſoone after Aceſinus. Some writers doe ſhew, that Panticape together with Boryſthenes, runne together in one confluent beneath Olbia, but they that write more exactly, doe name Hypanis. See how much they erred, who haue deſcribed it in a part of Aſia. It entreth into the ſea with a mighty great ebbe and returne of the water, vntill it be within fiue miles of Mœotis, compaſſing as it goeth a mighty deale of ground, and many nations. Then there is a gulfe or arme of the ſea cal-
E led Corcinites, and a riuer Pacyris. Towns, Naubarum and Carcine. Behind, is the lake Buges, let out into the ſea by a great ditch. And Buges is ſelf from Coretus (an arme or branch of the lake Mœotis) is diſioyned, with a backe part full of crags and rocks. Riuers it receiueth, Buges, Gerrhus, Hypanis, comming all from diuers querters: for Gerrhus parteth the Baſilides and Nomades. Hypanis, through the Nomades and the Hyleans, falleth into Buges by a channell made by mans hand, but in his owne naturall channell into Coretus. The region of Scythia is named Sendica. But in Carcinites, Taurica beginneth: which alſo in times paſt was enuironed all about with the ſea, whereſoeuer now there lie plains and flat fields. But afterwards it mounteth vp with huge hills. Thirtie nations there be in it: and of them 24 be Inlanders. Six townes, Orgocyni, Caraſeni, Aſſyrani, Tractari, Archilachitæ, and Caliordi. The very pitch and creſt
F of the hill, the Scytotauri do hold. Bounded they are Weſtward, with Cherroneſus; Eaſt-ward with the Scythian Satarchi. In the coaſt next to Carcinites are theſe towns, Taphræ, in the very ſtreights of the demy Iſland: then, Heraclea, Cherroneſus, endowed with franchiſes by the Romans. Aforetime it was called Megarice, and is the moſt ciuel & faireſt of all the reſt of that tract, as retaining ſtill the names and faſhions of the Greekes, and is beſides compaſſed with a

wall

wall of fiue miles about. Then, the promontory Parthenium. A citie of the Tauri, Placia. The G
hauen Symbolon: the promontory Criu-metopon, ouer against Charambes a promontorie of
Asia, running through the middle of Euxinus, for the space of 170 miles: which is the cause es-
pecially that maketh the forme abouesaid of a Scythian bow. Neere to it, are many hauens and
lakes of the Tauri. The towne Theodosia, distant from Criu-Metopon 122 miles, and from
Chersonesus 165 miles. Beyond, there haue been towns, Cyte, Cephyrium, Acre, Nympheum,
and Dia. And the strongest of them all by many degrees, standeth yet still in the very entry of
Bosphorus, namely, Pantecapium of the Milesians, from Theodosia 1035 miles: but from
Cimmerum a town scituate beyond the Firth, a mile and a halfe as we haue said. And this is al
the bredth there that diuideth Asia from Europe: which somtime is passeable ouer most-what
on foot, namely, when the Firth is frozen and all on yce. The breadth of Bosphorus Cimmerius
is 12 miles and a halfe. It hath vpon it these townes, Hermisium, Myrmecium; and within it, an H
Island Alopece. But along Mœotis, from the fartheſt narrow land passage, which place is cal-
led Taphræ, vnto the mouth of Bosp horus, it containes 260 miles. On Taphræ side, the Conti-
nent within-forth is inhabited by the Anchetæ, among whom Hypanis springeth: and Neuri,
where Borysthenes hath his head. Moreouer, the Geloni, Thussagetæ, Budini, Basilidæ, and
the Agathyrsi, with blew haire on their heads. Aboue them, the Momades, and the Anthropo-
phagi. On Buges side aboue Mœotis, the Sauromates and Essedones dwell, but along the bor-
ders euen as far as Tanais, the Mœotæ, of whom the lake was so called, and the vtmost on their
backes the Arimaspi. Within a little appeare the Rhiphæan hils, and a countrey called Pre-
rophoros, for the resemblance of certain wings or feathers, occasioned by the continuall fall of
snow. A part of the world thus is condemned by dame Nature, and drowned in deepe and thick I
darkenes, dwelling within no other houses but the workes of frozen cold, and the ycie harbors
of the chilling Northerne wind. Behind those hills and beyond the North pole, there is a bles-
sed and happy people (if we may beleeue it) whom they call Hyperborei, who liue exceeding
long, and many fabulous and strange wonders are reported of them. In this tract are supposed
to be the two points or poles about which the world turns about, and the very ends of the hea-
uens reuolution. For 6 moneths together they haue one entire day; and night as long, when the
Sunne is cleane turned from them: but their day beginneth not at the spring Æquinoctiall (as
the leaud and ignorant common people do imagine) and so continueth to the Autumne: for
once in the yeere, and namely at our mid-sommer when the Sun entreth into Cancer, the Sun
riseth with them: and once likewise it setteth, euen in the mid-winter with vs, when the Sun en- K
treth Capricorne. The countrie is open vpon the Sunne, of a blissefull and pleasant tempera-
ture, void of all noisome wind & hurtfull aire. Their habitations be in woods and groues, where
they worship the gods both by themselues, and in companies and congregations: no discord
know they; no sicknes are they acquainted with. They neuer die, but when they haue liued long
enough: for when the aged men haue made good cheere, and annointed their bodies with sweet
ointments, they leape from off a certain rocke into the sea. This kind of sepulture, of all others
is most happy. Some Writers haue seated them in the first part of the sea coasts in Asia, and
not in Europe, for that indeed some be there resembling the like manners and customes, and
euen so scituate, named Atocori. Some haue set them iust in the mids between both Sunnes to
wit, the setting of it with the Antipodes, and the rising of it with vs: which cannot possibly be, L
considering so vast and huge a sea comming betweene. As for those that haue placed them no
where but in the six moneths day-light, haue written thus much of them, That they sow in the
morning, reape at noone, at sun-setting gather the fruits from the trees, and in the nights lie
close shut vp within caues. Neither may we make doubt of that nation, since that so many Au-
thors doe testifie, That they were wont to send the first fruits of their corne, as far as Delos to
Apollo, whom aboue all others they honour. And virgins they were that had the carriage of this
present; who for certaine yeeres were venerable, and courteously entertained of all nations, vn-
till such time as vpon breach of faithfull hospitalitie, they took vp an order to bestow those sa-
cred oblations in the next marches of their neighbour borderers: and they againe to conueigh
the same to their neighbours that confined vpon them, and so forward as far as to Delos. But M
soone after, this custome was for-let and cleane giuen ouer. The length of Sarmatia, Scythia,
and Taurica, and of all that tract from the riuer Borysthenes, is 980 miles, the breadth 717, as
M. Agrippa hath cast it. But I for my part suppose, that the measure of this part of the earth is
vncertaine,

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A vncertaine: but after the order which we haue begun, let vs go forward with the reſt behind of all this diuiſion: as for the pety ſeas thereof we haue truly ſhewed them already.

Chap. XIII.

¶ *The Iſlands Pontus.*

HElleſpont hath no Iſlands to be ſpoken of, in Europe. In Pontus are two, a mile and halfe from Europ, and 14 miles from the mouth of the riuer, to wit, Cyaneæ, of others called Symplegades; and by report of fables they ran one into another: the reaſon was, becauſe they being ſeuered by a ſmall ſpace betweene, to them that enter the ſea full vpon them, they ſeemed twaine: but if they turned their eye a little aſide from them, they made a ſhew as
B if they met together. On this ſide Iſter there is one, pertaining to the Apolloniates, 80 miles from Boſphorus Thracius, out of which *M. Lucullus* brought *Apollo Capitolinus*. What are within the mouths of Iſter we haue declared already. Before Boryſthenes is the aboue named Achillea, called Leuce and Macaron. This, our moderne Coſmographers in theſe daies doe ſet 140 miles from Boryſthenes, from Tyra 120: from the Iſland Peuce 50. It is in compaſſe about ten miles. The reſt be in the gulfe Carcinites, namely Cephalonneſos, Rhoſphoduſa, and Macra. I cannot paſſe by the opinion of many writers, before we depart from Pontus, who ſuppoſe all the inland ſeas or Mediterranian ariſe from that head, and not from the ſtreights of Gades: and they lay for their ground an argument not without ſome good probabilitie, becauſe out of Pontus the ſea alwaies floweth, and neuer ebbeth againe.
C But now we are to depart from thence, that other parts of Europ may be ſpoken of: & when we are gone ouer the Riphœan hils, we muſt paſſe along cloſe by the North Ocean, and keepe the left hand vntill we come to Gades. In which tract there are reported to be very many Iſles without name: of which, as *Tymæus* reporteth, there is one before Scythia called Bannomanna, diſtant from Scythia one daies ſailing: into which, in the temperate ſeaſon of the ſpring, Amber is caſt vp to the ſhore by the waues of the ſea. All the other coaſts are no otherwiſe marked and known but by vncertain heare-ſay. The North Ocean from the riuer Paropamiſus, whereas it daſheth vpon Scythia, *Hecatæus* nameth Amarchium, which word in the language of that nation ſignifieth, Frozen. *Philemon* writeth, that the Cymbrians call it Morimaruſa, *i. mortuum*
D *Mare*, the dead ſea, euen as far as to the promontorie of Rubeæ: but all beyond forward, Cronium. *Xenophon Lampſacenus* ſaith, That three daies ſailing from the Scythian coaſt there is the Iſland Baltia, of exceeding greatneſſe. The ſame doth *Pythias* name Baſylia. There be alſo named the Iſles Oonæ, wherein the Inhabitants liue of birds egges and otes. Others alſo, wherin men are born with horſe feet, called thereupon Hippopades. Others againe of the Panoti, who being otherwiſe naked, haue mighty great eares that couer their whole bodies. And now forward we begin at the nation of the Ingevoni, the firſt of all the Germanes in thoſe parts, to diſcouer all vpon more ſure and euident report. There is the exceeding great mountain Sevo, not inferior to the high hills Riphæi, which maketh a mighty huge gulfe, euen as far as the Cimbrians promontory, called Codanus: it is full of Iſlands, of which the goodlieſt of all is Scan-
E dinavia, the bigneſſe whereof is not yet diſcouered. A part only thereof, as much as is knowne, the nation of Heleviones doth inhabit in 500 villages, who call it a ſecond world. And as it is thought, Enigia is no whit leſſe. Some ſay that theſe parts, as far as to the riuer Viſtula, is inhabited by the Sarmatians, Venetians, Scyrians, and Hirrians: alſo that the gulfe of the ſea is called Clylipenus: and that in the mouth or entrance of it is the Iſland Latris. Alſo that not far from it there is another arme of the ſea bounding vpon the Cimbrians. The promontory of the Cimbrians ſhooting far into the ſeas, maketh a demy Iſland, which is called Cartris: from which coaſt 23 Iſlands haue been diſcouered and known by the Roman armies; the nobleſt of them are Burchana, called of our countrey men Fabaria, of the plenty of a pulſe called Beans, growne there of it ſelfe vnſowne. Likewiſe Gleſſaria, ſo called by the ſoldiers, of Amber: but
F of the barbarous people Auſtrania; and beſides them Actania. Along this ſea coaſt, vntil you come to the riuer Scaldis, the German nations do inhabit, but the meaſure of that tract canot eaſily be declared, ſuch vnmeaſurable diſcord and difference there is amongſt Writers. The Greeks and ſome of our owne country haue deliuered the coaſt of Germanie to be 2500 miles about. *Agrippa* again ioyning with it Rhetia and Noricum, ſaith that it is in length 886 miles,

and in bredth 268. And verily of Rhœtia alone, the bredth well-neere is greater, at leaſtwiſe at the time that it was ſubdued, and the people departed out of Germanie: for Germany many yeares after was diſcouered, and yet not all of it known throughly. But if it be lawful to geſſe, there wil not be much wanting in the coaſts & compaſſe, according the opinion of the Greeks; nor in the length ſet down by *Agrippa*.

Chap. XIV.

¶ *Germanie.*

OF Germanes there be fiue kindes: the Vindili, part of whom be the Burgundians, Varini, Carini, and Gurtones. A ſecond ſort, the Ingævones, part of whom be the Cimbri, Teutoni, and people of the Cauchi. The next to them be the Iſtævones, and part of them be the Cimbri. Then the midlanders, the Hermiones, among whom are the Suevi, Hermunduri, Chatti, and Cheruſci. The fift are the Peucini, the Baſternæ, bordering vpon the aboue-named Dacæ. Faire riuers that run into the Ocean, to wit, Guttalus, Viſtillus, or Viſtula, Albis, Viſurgis, Amiſius, Rhenus, Moſa. And within-forth the Hircynium hill, inferiour to none in eſtimation, ſtandeth to gard and incloſe them.

Chap. XV.

¶ *Iſlands in the Gaules Ocean.*

VPon the very Rhene it ſelfe, for 100 miles almoſt in length, lieth the moſt noble Iſland of the Batavi and Cannenufates: as alſo others of the Friſians, Cauchians, Friſiabones, Sturij, and Marſalij, ſpred within Helius and Flevus, for ſo be the mouthes into which Rhenus guſhing, diuideth it ſelfe; and is diſcharged from the North into certain lakes: from the Weſt into the riuer Moſa. But in the middle mouth between, hee beareth a ſmall current and channell, and keepeth his owne name.

Chap. XVI.

¶ *England and Ireland.*

OVer againſt this tract lieth Britannia, betweene the North and Weſt, being an Iſland renowned both in Greeke and Roman records: oppoſite it is vnto Germanie, Gaule, and Spaine, the greateſt parts by far of all Europe, and no ſmall ſea betweene. It was ſometime named Albion, when all the Iſles were called Britanniæ, of which anon we wil ſpeak. This Iſland is from Geſſoriacum, a coaſt towne of Morini, fifty miles, taking the next and ſhorteſt cut. In circuit, as *M. Pitheas* and *Iſidor* report, it containeth 3825 miles. And now for theſe thirtie yeares well-neere, the Romane Captaines grow into farther knowledge thereof, and yet not beyond the forreſt of Caledonia, as neere as it is. *Agrippa* ſuppoſeth that it is in length 800 miles, and in bredth 300. Alſo that Ireland is as broad, but not ſo long by 200 miles. This Iſle is ſeated aboue it, and but a very ſhort cut or paſſage diſtant from it, to wit, 30 miles from the people Silures. Of other Iſlands in this Ocean there is none by report in circuit more than 125 miles. Now there be Orcades 40, diuided aſunder by ſmall ſpaces betweene: Acmodæ 7, and 30 Hæbudes. Alſo betweene Britaine and Hibernia, Mona, Monapia, Ricnea, Vectis, Silimnus, and Andros: but beneath them, Siambis and Axantos: and on the contrary ſide towards the Germane Sea there lie ſcattering the Gleſſariæ, which the later Greeke Writers haue named Electrides, for that Amber was there ingendred or bred. The fartheſt of all knowne or ſpoken of, is Thule, in which there be no nights at all, as we haue declared, about Midſummer, namely when the Sun paſſeth through Cancer: and contrariwiſe no daies in mid-winter: and each of theſe times they ſuppoſe do laſt ſix moneths, all day or all night. *Timæus* the Hiſtoriographer ſaith, that farther within-forth, and ſix daies ſailing from Britain, there lieth the Iſland Mictis, in which white lead grows; and that the Britans do ſaile thither in winter veſſels, couered with leather round about, and wel ſowed. There be that make mention of others beſide, to wit, Scandia, Dumna, Bergos, and Nerigos the biggeſt of all the reſt, from the which men ſaile to Thule. Within one daies ſailing from Thule is the frozen ſea, named of ſome Cronium.

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A

Chap. XVII.

¶ *Gallia.*

ALl Gallia, by one name called Comata, is diuided into three kindes of people, and thoſe ſeuered one from the other by riuers eſpecially: to wit, Belgica, from Scaldis to Sequana: Celtica, from it to Garumna; and this part of Gallia is named Lugdunenſis. From thence to the lying out of the mountaine Pyrenæus, Aquitania, formerly called Aremorica. *Agrippa* hath made this reckoning and computation of all Gaul generally, to wit, lying between Rhene, Pyrenæus, the Ocean, and the hills Gebenna and Iura; whereby hee excludeth Narbonenſis Gallia, that is in length 420 miles, and in bredth 313. Next to Scaldis there inhabited the vtmoſt borderers, the Toxandri, vnder many names: then the Menapij, Morini, and Oromanſici, ioyning vpon the tract or territorie called Geſſoriacus: the Brinnani, Ambiani, Bellonici, and Haſſi. But farther within-forth, the Caſtologi, Atrebatis, and Neruij, free ſtates: the Veromandui, Sueroni, and Sueſſiones, likewiſe free: the Treviri free before-time: the Lingones confederates, the Remi confederats alſo: the Mediomotricæ, the Sequani, the Raurici, & Helvetij. Colonies two, Equeſtris and Rauriaca. Moreouer, of Germane nations in the ſame Prouince that dwell neere Rhene, the Nemetes, Trivochi, and Vangiones: then the Vbij, Colonia, Agrippenſis, Gugerni, Batavi, and thoſe whom we ſpake of in the Iſlands of Rhene.

B

Chap. XVIII.

C

¶ *Lugdunenſis Gallia.*

LVgdunenſis Gallia containeth the Luxovij, Velocaſſes, Galleti, Veneti, Abricatui, Oſiſmij, and the noble riuer Ligeris: but a more faire and goodly demy-Iſland, running forth into the Ocean, from the very marches of the Oſiſmij, hauing in circuit 625 miles, with the necke thereof 125 miles broad. Beyond it dwell the Nannites. Within-forth, the Hœdni confederats, the Carnuti likewiſe confederats, the Boij, the Senones, the Aulerici, ſyrnamed Eburovices, and the Cenomannes and Meldi, free States. Parrhiſij, Trecaſſes, Andegani, Viducaſſes, Vadicaſſes, Vnelli, Carioſvelites, Drabhudi, Rhedones, Turones, Iteſui, and Secuſiani, free States, in whoſe countrey ſtandeth the Colonie Lugdunum.

D

Chap. XIX.

¶ *Aquitania.*

TO that prouince of Gaule which is called Aquitania, belong the Ambilatri, Anagnutes, Pictones, the Santones, Bituriges, named alſo Vibiſci Aquitani, whereof the Prouince tooke name, and the Sediboniates. Then ſuch as were enrolled into townes hips from diuers parts, to wit, Begerri, Tarbeli, who came vnder foure enſignes, Cocoſſati vnder 6 enſignes, Venami, Onobriſates, Belendi, and the foreſt Pyrenæus. Beneath them, Moneſi, Oſquidiales, Mountainers, Sibillates, Camponi, Bercorates, Bipedimui, Saſſumini, Vellates, Vornates, Conſoranni, Auſci, Eluſates, Sottiates, Oſquidates in the champion and plaine country, Succaſſes, Latuſates, Baſabocates, Vaſſei, Sennates, Cambolectri, Ageſinales, ioyning to the Pictones. Then the Bituriges free, called alſo Cubi. Next to them, Lemovires, Arverni free, and Gabales. Again, thoſe that confine and border vpon the prouince Narbonenſis, the Ruthenes, Caduni, Autobroges, & the Petrogoti, diuided from the Toloſanes by the riuer Tarme. Seas about the coaſts, vpon Rhene the North Ocean: between it and Sequana the Britan ocean: between it and Pyrenæus, the Gaule Ocean. Iſlands many, to wit of the Veneti, called alſo Veneticæ: and in the gulfe of Aquitane, Vliarus.

E

Chap. XX.

F

¶ *The hither Prouince of Spaine.*

AT the Promontorie of Pyrenæus beginneth Spain, narrower not only than Gaule, but alſo than it ſelfe (naturally) ſo huge a quantitie is wrought into it, while the Ocean of one coaſt, the Iberian ſea on the other, do cling and preſſe the ſides together. The very hills

of Pyrenæus, which from the Eaſt ſpred all the way to the Southweſt, make Spaine ſhorter on the North ſide than the South. The next marches of this higher prouince is the ſame that the tract of Tarracon, namely from Pyrenæus along the Ocean, the forreſt and mountains of Vaſcones. And firſt in this part you finde theſe townes: namely in the country of the Varduli, Olarſo, Moroſgi, Menoſca, Veſperies, the port towne Amanum, where now is Flaviobriga, and a colony of nine cities. The region of the Cantabri, the tiuer Sada, the port town of Victoria, inhabited by the Iuliobrigenſes. From that place the fountaines of Iberus, 40 miles. The hauen Biendium, the Origeni entermingled with the Cantabri. Their hauens Veſei and Veca: the countrey of the Aſtures, the towne Nœga, in the demy Iſland Peſicus. And then the countie Lucenſis, and ſo from the riuer Navilubio, the Cibarci, Egovarri ſyrnamed Namarini, Iadoni, Arrotiebæ, the promontorie Celticum. Riuers, Florius and Nelo. Celtici ſyrnamed Neriæ: and aboue them the Tamarici, in whoſe demy Iſland are 3 Altars called Seſtianæ, dedicated to *Auguſtus*, Cœpori, and the towne Nœla. The Celtici, ſyrnamed Præſamarci, and Cileni. Of Iſles worth the naming, Corticata and Aunios. From the Cileni, the county town of the Bracæ, Heleni, Gravij, the caſtle Tyde, all diſcended from the Greekes: the Iſlands Cicæ, the faire town Abobrica, the riuer Minius, with a broad mouth 4 miles ouer, the Leuni, Seurbi, Auguſta a town of the Bracæ: and aboue them alſo, Gallæcia, the riuer Limia. Alſo the riuer Durius, one of the greateſt in Spaine, ſpringing in the Pelendones country, & running hard by Numantia, and ſo on, through the Arevaci and Vaccæi, diuiding the Vetones from Aſturia, and the Gallæcians from Luſitania: and there alſo it keepeth off the Turduli from the Bracari. All this region aboue-ſaid from Pyrenæus, is full of mettall mines, to wit, gold, ſiluer, iron, lead, as well blacke as white, *i.* tinne.

Chap. XXI.

¶ *Luſitania.*

AT the riuer Durius begins Luſitania, wherin are Turduli the old, Peſuri, the riuer Vacca, the towne Talabrica, the towne and riuer Minium. Townes, Conimbrica, Oliſippo, Eburo, Britium: from whence there runs out into the ſea with a mighty cape, the promontorie which ſome haue called Artabrum; others, the Great; and many, Oliſſoponenſe, of the towne, making a diuiſion of land, ſea, and aire aboue. In it is the ſide of Spaine determined and bounded, and from the compaſſe of it beginneth the forefront thereof.

Chap. XXII.

¶ *Iſlands in the Ocean.*

ON the one hand is the North and the Gauls Ocean: on the other, the Weſt and the Atlanticke Ocean. The ſhooting forth of the promontorie aforeſaid ſome haue reported to be 60 miles, others 90. From thence to Pyrenæus there be writers not a few, who ſay it is 1250 miles, and that there is a nation of the Atabri, which neuer was, with a manifeſt error. For they haue ſet in this place by exchanging ſome letters, the Artotrebæ, whome wee named before the promontorie Celticum. They haue erred alſo and miſſed in certain famous riuers. From Minius aboue named, as *Varro* ſaith, Æminius is 200 miles diſtant (which ſome men take to be elſewhere, and call it Limæa) named of men in old time Oblivionis, and wherof goeth many a tale. From Durius to Tagus is 200 miles, and comes between. This Tagus is a riuer much renowned for the ſand that yeelds gold. 160 miles from it the promontory Sacrum runs out from the middle front in maner of Spain: and 14 miles *Varro* ſaith it is from it to the mids of Pyrenæus. But from Ana, by which we haue ſeparated Luſitania from Bætica, 226 miles, adding therto from Gades 102 miles. Nations, Celtici, Varduli, and about Tagus, the Vettones. From Ana to Sacrum the Luſitanes. Memorable townes, from Tagus in the coaſt ſide, Oliſippo, of good note for the Mares that conceiue there by the Weſt wind. Salatia, with addition of Vrbs Imperatoria, and Merobrica: the promontory Sacrum, & another called Cæneus: towns, Oſſonoba, Balſa, and Myrtius. The whole prouince is diuided into three counties or iudiciall courts of Aſſiſes, Emeritenſis, Pacenſis, and Scalabitanus. It containeth in all fiue and forty States, wherein be fiue Colonies, one Borough Towne of Romane Citiſens, three enfranchiſed

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A chiſed with the liberties of old Latium. Stipendiaries or Tributaries 36. Moreouer, the Colonies be thus named; Auguſta Emerita: and vpon the riuer Ana, Metallinenſis, Pacenſis, Norbenſis, named alſo Cæſariana. To it are layed and inrolled Caſtra Iulia and Caſtra Cæcilia. The fift is Scalabis, called Præſidium Iulium. The free borough of Roman citiſes, Olyſſippo, named alſo Felicitas Iulia. Townes of the old Latium liberty, Ebora, which likewiſe was called Liberalitas Iulia: Myrtilis alſo and Salatia, which we haue ſpoken. Of Tributaries, ſuch as I am not loth to name, beſide the aboue ſaid in the additions of Bætica, Auguſtobrigenſes, Ammienſes, Aranditani, Axabricenſes, Balſenſes, Cæſarobricenſes, Caperenſes, Caurenſes, Colarni, Cibilitani, Concordienſes, the ſame that Bonori, Interauſenſes, Lancienſes. Mirobrigenſes, ſyrnamed Celtici, Medubricenſes, the ſame that Plumbarij, Ocelenſes, who alſo are Lancienſes, Turtuli, named Barduli and Tapori. *M. Agrippa* hath written, that Luſitania, toge-
B ther with Aſturia and Gallæcia, is in length 540 miles, and in bredth 526. But all Spain from the two promontories of Pyrenæus, along the ſeas, takes vp in circuit of the whole coaſt, 2900 miles, and by others 2700. Ouer againſt Celtiberia be very many Iſles, called of the Greekes Caſſiterides, for the plenty of lead which they yeeld: and iuſt againſt the promontorie of the Arrotrebæ, ſix named Deorum [*i.* of the gods] which ſome haue called Fortunatæ. But in the very point or cape of Bætica, from the mouth of the firth 75 miles, lieth the Iſland Gades, 12 miles long, as *Polybius* write th, and three miles broad. It is from the maine, where it is neereſt, leſſe than * 700 paces, in other places aboue ſeuen miles. The whole Iſle it ſelfe containes the ſpace of 15 miles in circuit. It hath within it a towne of Roman citiſens named Auguſta, Vrbs
C Iulia Gaditania. On that ſide that regards Spain, within 100 paces lieth another Iſland three miles long and one broad, wherein formerly was the towne Gades. The name of this Iſland, after *Ephorus* and *Thiliſtides*, is Erythia: but according to *Tymæus* and *Silenus*, Aprodiſias: the naturall home-bred inhabitants call it Iunonis The bigger of theſe two Gades, as ſaith *Tymæus*, was by them called Cotinuſa, our countrymen name it Tarteſſos, the Carthaginians * Gadir, which in the Punicke language ſignifieth the * number of ſeuen. Erithia the other was called, becauſe the Tirians, who were the firſt inhabitants, were reported to haue had their firſt beginning out of the red ſea Erythræum. Some thinke that *Geryon* here dwelt, he whoſe droues of cattell *Hercules* had away. Some againe thinke it is another, ouer againſt Luſitania, and there ſometime ſo called.

* I eſſe than 3 quarters of a miles.

* Or Gadiz.

* *Septem*, or as ſome read, *Septum*, *i.* a parke or cloſure.

D

Chap. XXIII.

¶ *The meaſure of all Europe.*

HAuing finiſhed our circuit about Europ, we muſt now yeeld the totall ſumme and complete meaſure of it in the whole, that ſuch as are deſirous of knowledge be not to ſeek in any one thing. *Artemidorus* and *Iſidore* haue ſet downe the length thereof from Tanais to Gades, 84014 miles, *Polybius* hath put down the bredth thereof, from Italy to the Ocean 1150 miles, for as then the largeneſſe thereof was not knowne. Now the very bredth of Italy alone by it ſelfe (as we haue ſhewed) is 1220 miles to the Alps: from whence by Lyons to the Bri-
E taine part of the Morini (which way *Polybius* ſeemeth to take his meaſure) is 1168 miles. But the more certaine meaſure and the longer is directed from the ſaid Alps to the Weſt, and the mouth of the Rhine, through the place called Caſtra Legionum Germaniæ, 1243 miles. Now from henceforward we will deſcribe Africke and Aſia.

THE FIFTH BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

The description of Africke.

AFricke the Greekes haue called Lybia, euen all that tract from whence the Lybian sea before it beginneth, and endeth in the Ægyptian. No part of the earth receiueth fewer gulfes and armes of the sea, in that long compasse of crooked coasts from the West. The names as well of the Nations as towns there be of all others most hard to be pronounced, vnlesse it be in their owne tongues, and againe they be castles and forts for the most part that they dwell in.

CHAP. I.

¶ *Mauritania.*

AT the beginning, the lands of Mauritania vntill the time of *C. Cæsar*, [i. *Caligula*] sonne of *Germanicus*, were called kingdomes: but by his cruelty diuided it was into two prouinces. The vtmost promontorie of the Ocean is named of the Greeks Ampelusia: the townes therein were Lissa and Cotes, beyond *Hercules* pillars. Now in it is Tingi, sometime built by *Antæus*: and afterward by *Claudius Cæsar* when he made a Colonie of it, it was called Traducta Iulia. It is from Belone a towne in Bætica by the next and neereſt passage ouer sea thirty miles. Fiue and twenty miles from it in the Ocean coast standeth a Colonie erected by *Augustus*, now Iulia Constantia, exempt from the dominion and iurisdiction of the Kings of Zilis, and commanded to go for law and iustice as far as Bætica. And two and thirty miles from it, Lixos, made a Colony by *Claudius Cæsar*; whereof in old time there went many fabulous and loud lying tales. For there stood, they say, the royall pallace of *Antæus*: there was the combat betweene him and *Hercules*: there also were the gardens and hort-yards of the Hesperides. Now there floweth thereinto out of the sea a certain creek or arme thereof, and that by a winding channell, wherein men now take it that there were Dragons seruing in good stead to keep and gard the same. It incloseth an Island within it selfe, which, notwithstanding the Tract thereby be somewhat higher, is onely not ouerflowed by the sea tides. In it there standeth erected an altar of *Hercules*: and setting aside certaine wilde Oliues, nothing else is to be seen of that goodly groue, reported to beare golden Apples. And in good faith lesse may they wonder at the strange lies of Greece, giuen out of these and the riuer Lixus, who would but thinke how of late our countreymen haue deliuered some fables of the same things as monstrous well-neere: to wit, That this a most strong and mighty city, and bigger than great Carthage: moreouer, that it is scituate right against it, aad an infinite way well-neere from Tingi: and other such like, which *Cornelius Nepos* hath been most eager to beleeue. From Lixus forty miles in the midland part of the main stands Babba, another Colony of *Augustus*, called by him Iulia in the field or champian: also a third 75 miles off, called Banasa, but now it hath the addition of Valentia. 35 miles from it is the towne Volubile, iust in the mid way between both seas. But in the coast and borders thereof, fifty miles from Lixus, runneth Subur a goodly plenteous riuer, and nauigable neere to the Colony Banasa. As many miles from it is the towne Sala, standing vpon a riuer

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A a riuer of the ſame name, neere now vnto the wilderneſſe, much infeſted and annoied with whole heards of Elephants, but much more with the nation of the Autololes, through which lies the way to Atlas the moſt fabulous mountaine of all Africk. For writers haue giuen out, that this hill ariſing out of the very midſt of the ſea ſands, mounteth vp to the skie, all rough, ill fauored, and ouergrowne on that ſide that lieth to the ſhore of the Ocean, vnto which it gaue the name; and yet the ſame is ſhadowie, full of woods, and watered with veines of ſpouting Springs that way which looketh to Africke, with fruitfull trees of all ſorts, ſpringing of the own accord, and bearing one vnder another, in ſuch ſort, that at no time a man can want his pleaſure and delight to his full contentment. Moreouer, that none of the inhabitants there are ſeene all day long: all
B is ſtill and ſilent, like the fearfull horror in deſert wilderneſſe: and as men come neerer and neerer vnto it, a ſecret deuotion ariſeth in their hearts, and beſides this feare and horrour, they are lifted vp aboue the clouds, and euen cloſe to the circle of the Moone. Ouer and beſides, that the ſame hill ſhineth oftentimes with many flaſhes of fires, and is hanted with the wanton laſciuious Ægipanes and Satyres, whereof it is full, that it reſoundeth with noiſe of Haut-boies, pipes, and fifes, and ringeth againe with the ſound of tabers, timbrels, and cymbals. Theſe be the reports of great & famous writers, to ſay nothing of the labors and works both of *Hercules* and *Perſes* there; and to conclude, that the way vnto it is exceeding great, and not certainely knowne. Bookes there were beſides of *Hanno*, a great captain and commander among the Carthaginians, who in the time of the moſt flouriſhing ſtate of Carthage, had a charge and com-
C miſſion to diſcouer and ſuruey the whole compaſſe of Africk. Him, moſt of the Greeks as well as our countreymen following, among ſome other fabulous ſtories, haue written that hee alſo built many cities there; but neither memoriall vpon record, nor any token of them at all is left extant. Whiles *Scipio Æmylianus* warred in Africk, *Polybius* the writer of the Annales, receiued of him a fleet: who hauing ſaled about of purpoſe to ſearch into that part of the world, hath put thus much downe in writing, that from the ſaid mountaine Weſt, toward the forreſt ful of wild beaſts which Africk breedeth, vnto the riuer Anatis, are 485 miles. And from thence to Lixus 205. *Agrippa* ſaith, that Lixus is diſtant from the ſtreights of Gades 112 miles. Then, that there is an arme of the ſea called Saguti. Alſo a towne vpon the promontory, Mutelacha. Riuers, Subur and Sala. Moreouer, that the hauen Rutubis is from Lixus 313 miles. And ſo forward to the Promontorie of the Sun. The port or hauen Riſardir; the Gætulians, Autololes, the riuer
D Coſenus, the nation of the Scelatites and Maſſalians. The riuers Maſatal and Darat, wherein Crocodiles are ingendred. Then forward, that there is a gulfe of 516 miles, incloſed within the promontory or cape of the mountain Barce, running along into the Weſt, which is called Surrentium: after it, the riuer Palſus, beyond which are the Æthiopians Perorſi, & at their back are the Pharuſi. Vpon whom ioine the midlanders, to wit, the Gætulianders. But vpon the coaſt are the Æthyopian Daratites, the riuer Bambotus ful of Crocodiles & Hippopotames [*i.* Waterhorſes.] From which, he ſaith, That there is nothing but mountains all the way as far as to that which we call Theon-Ochema (The gods chariot.) Then, in ſailing nine daies and nights to the promontorie Heſperium, he hath placed the mountain Atlas in mid-way thereof, which by all other writers is ſet downe to be in the vtmoſt marches of Mauritania. The firſt time that the
E Romans warred in Mauritania, was in the time of prince *Claudius* Emperor: at what time as *Ædemon* the freed ſeruant of king *Ptolomæus*, by *C. Cæſar* ſlaine, went about to reuenge his death; for as the barbarous people retired and fled back, certaine it is that the Romans came as far as to the hill Atlas. And not only ſuch Generals as had bin Conſuls, and were of the Senatours degree and calling, who at that time managed and conducted the wars, but knights alſo and gentlemen of Rome, who from that time had gouernment and command there, tooke it for an honor and glory, that they had pierced and entred into Atlas. [* Fiue Romane Colonies, as wee haue ſaid, be in that prouince] and by that common fame and report, there may ſeeme to lie a thorow faire thither. But that is found for the moſt part by daily experience, moſt deceiueable of all things elſe; becauſe perſons of high place and great worth, when they are loath to ſearch
F out narrowly into the truth of matters, ſticke not for ſhame of ignorance, to giue out vntruths; and neuer are men more credulous and apt to beleeue and be deceiued, than when ſome graue perſonage fathereth a lie. And verily I leſſe maruell, that they of gentlemens degree, yea, and thoſe now of Senators calling, haue not come to the certaine knowledge of ſome things there: ſeeing they ſet their whole affection and mind vpon nothing but exceſſe and riot; which how

* It ſeemeth that this clauſe is to be ſet in the beginning of the next chapter.

powerfull

powerfull it is and forcible, is ſeen by this moſt of all, when foreſts are ſought out far and neere G
for Iuory and Citron trees; when all the rocks in Getulia are ſearched for Murices and Purpuræ [ſhell fiſhes that yeeld the purple crimſon colour.] Howbeit, the natural inhabitants of that country do write, That in the ſea coaſt 150 miles from Sala, there is the riuer Aſana, that receiueth ſalt water into it, but hath in it a goodly faire hauen; and not far from it another freſh riuer, which they call Fut: from which to Dyris (for that is the name in their language of Atlas, by a generall conſent) are 200 miles, with a riuer comming betweene, named Vior. And there, the ſpeech ſo goeth, are to be ſeene the certain tokens of a ground ſomtimes inhabited; to wit, the reliques of vine-yards and date tree groues. *Suetonius Paulinus* (a Conſull in our time) who was the firſt Roman leader, that for certaine miles ſpace went ouer Atlas, alſo hath reported verily as touching the height thereof, that with the reſt: and moreouer, that the foot thereof to- H
ward the bottom, ſtand thick and ful of tall woods, with trees therein of an vnknown kinde, but the heigth of them is delectable to ſee to, ſmooth and euen without knots, the leaues & branches like Cypreſſe, and beſides the ſtrong ſmell they yeeld, are couered all ouer with a thinne downe, of which (with ſome help of Art) fine cloath may be made, ſuch as the ſilk-worm doth yeeld. That the top and creſt thereof is couered ouer with deepe ſnow euen in Sommer time. Moreouer, that he reached vp to the pitch of it at the tenth daies end, & went beyond it, as far as a riuer called Niger, through wilderneſſes ful of blacke duſt; where otherwhiles there ſtood out certaine cliffes, and craggie rocks, as they were ſcortched and burnt; and that thoſe places by reaſon of partching heat were not habitable, albeit a man made triall thereof in the winter ſeaſon: furthermore, that the peſants who dwelt in the next foreſts, were peſtred with Elephants, I
wilde beaſts, and ſerpents of all ſorts; and thoſe people were called Canarij; for that they and dogs feed together one with another, and part among them the bowels of wild beaſts. For certaine it is knowne, that a nation of the Æthyopians whom they cal Peroeſi, ioineth vpon them. *Iuba* the father of *Ptolomæus*, who before-time ruled ouer both Mauritanes, a man more memorable and renowned for his ſtudy and loue of good letters, than for his kingdome and royall port, hath written the like concerning Atlas: and he ſaith moreouer, that there is an herb growing there called Euphorbia, of his Phyſitions name that firſt found it: the milkie iuice whereof he praiſeth wondrous much, for to cleare the eies, and to be a preſeruatiue againſt all ſerpents and poiſons whatſoeuer; and thereof hath he written a treatiſe, and made a book by it ſelfe: thus much may ſuffice, if it be not too much, as touching Atlas. K

Chap. II.

¶ *The prouince Tingitania.*

THe length of the Prouince Tingitania taketh 170 miles. The nations therin be theſe: the Mauri, which in times paſt was the principall, and of whom the prouince took name: and thoſe moſt writers haue called Maruſij. Being by war weakened and diminiſhed, they came in the end to a few families only. Next to them were the Maſſæſuli, but in like manner were they conſumed. Now is the prouince inhabited by the Getulians, Bannurri, and the Autololes, the moſt valiant and puiſſant of all the reſt. A member of theſe were ſomtime the Veſuni, but being diuided from them, they became a nation by themſelues, and bounded vpon the L.
Æthiopians. The prouince naturally full of mountains Eaſtward, breedeth Elephants. In the hill alſo Abila, and in thoſe which for their euen and equal height they cal, The 7 brethren: and theſe butt vpon Abila, which looketh ouer into the ſea. From theſe beginneth the coaſt of the Inward ſea. The riuer Timuda nauigable, and a town ſomtime (of that name.) The riuer Laud, which alſo receiueth veſſels. The town Ruſardie, and the hauen. The riuer Malvana nauigable. The towne Siga iuſt againſt Malacha ſcituate in Spaine: the Royall ſeat of *Syphax*, and now the other Mauritania. For a long time they kept the names of KK. ſo as the vtmoſt was called Bogadiana: and likewiſe Bocchi, which now is Cæſarienſes. Next vnto it is the hauen, for the largeneſſe thereof called Magnus, with a towne of Roman citizens. The Riuer Muluca, which is the limit of Bocchi and the Maſſæſuli. Quiza Xenitana, a towne of ſtrangers: Ar- M
ſennaria, a towne of Latines three miles from the Sea: Carcenna, a Colonie of *Auguſtus*, erected for the ſecond Legion: likewiſe another Colonie of his planted with the Pretorian band, Gunugi, and the promontorie of *Apollo*. And a moſt famous towne there Cæſarea, vſually before-time called Iol, the Royall Seat of King *Iuba*: endowed by *Claudius* the Empe-

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A rour of happie memorie,with the franchiſes and right of a Colonie, at whoſe appointment the old ſouldiers were there beſtowed. A new towne,Tipaſa,with the grant of the liberties of Latium. Likewiſe Icoſium,endowed by *Veſpaſian* the Emperour,with the ſame donations. The colonie of *Auguſtus* Ruſconiæ,and Ruſcurium,by *Claudius* honoured with the free burgeoiſie of the citie. Ruſoezus,a colonie of *Auguſtus*. Salde,a Colonie of the ſame man. Igelgili alſo, and Turca,a towne ſeated vpon the ſea and the riuer Amſaga. Within the land,the Colonie Auguſta,the ſame that Succubar; and likewiſe Tubriſuptus. Cities,Timici,Tigauæ. Riuers, Sardabala and Nabar. The people Macurebi; the riuer Vſar,and the nation of the Nabades. The riuer
B Ampſaga is from Cæſarea 233 miles. The length of Mauritania both the one and the other together,is 839 miles; the breadth 467.

Chap. III.

¶ *Numidia.*

NExt to Ampſaga is Numidia,renowned for the name of *Maſaniſſa*; called of the Greekes the land Metagonitis. The Numidian Nomades,ſo named of changing their paſture,who carry their cottages or ſheds(and thoſe are all their dwelling houſes) about with them vpon waines. Their townes be Cullu and Ruſicade, from which 48 miles off within the Midland parts,is the colonie Cirta,ſurnamed of the Cirtanes: another alſo within and a free bo-
C rough town,named Bulla Regia. But in the vtmoſt coaſt,Tacatua,Hippo Regius, and the riuer Armua. The towne Trabacha,of Roman citizens: the riuer Tuſca, which boundeth Numidia. and beſides the Numidian marble,and great breed of wilde beaſts, nothing is there elſe worth the noting.

Chap. IV.

¶ *Africa.*

FRom Tuſca forward,you haue the region Zeugitana, and the countrey properly called Africa. Three promontories; firſt the White; then anon that of *Apollo* ouer-againſt Sardinia: and a third of *Mercurie* oppoſite to Sicilie, which running into the ſea make two creekes:
D the one Hipponenſis,next to the towne which they call Hippo raſed; the Greeks name it Diarrhyton,for the little brooks and rils that water the grounds: vpon this,there bordereth Theudalis,an exempt towne from tribute,but ſomewhat farther from the ſea ſide; then the promontory of *Apollo*. And in the other creek,Vtica,a towne of Roman citizens,ennobled for the death of *Cato*; and the riuer Bagrada. A place called Caſtra Cornelia: and the colony Carthago, among the reliques and ruines of great Carthage,and the colony Maxulla: towns, Carpi, Miſna,and the free borough Clupea vpon the promontorie of *Mercurie*. *Item*,free townes,Curubis, and Neapolis. Soone after ye ſhall meet with another diſtinction of Africke indeed. Libyphœnices are they called,who inhabit Byzacium; for ſo is that region named; containing in circuit 250 miles,exceeding fertile and plenteous, where the ground ſowne yeeldeth again to
E the husband-man 100 fold increaſe. In it are free townes,Leptis, Adrumetum, Ruſpina and Thapſus: then Thenæ,Macomades,Tacape,Sabrata,reaching to the leſſe Syrtis: to which,the length of Numidia and Africa from Amphaga,is 580 miles: the breadth,c. ...ch thereof as is knowne,200. Now this part which wee haue called Africke, is diuided into prouinces twaine,the old and the new; ſeparated one from the other by a foſſe or ditch brought as farre as to Thenæ, within the Africane gulfe, which towne is 217 miles from Carthage: and that trench *Scipio Africanus* the ſecond,cauſed to be made,& bare halfe the charges together with the KK. The third gulfe is parted into twaine,curſed and horrible places both,for the ebbing and flowing of the ſea,and the ſhelues betweene the two Syrtes. From Carthage to the nearer of them,which is the leſſe,is 300 miles by the account of *Polybius*: who ſaith alſo,that the ſaid
F Syrte is for 100 miles forward dangerous, and 300 about. By land alſo thither, the way is paſſeable by obſeruation of the Stars,at one time of the yeare onely. and that lyeth through deſert ſands and places full of ſerpents. And then you meet with Forreſts repleniſhed with numbers of wilde beaſts. And within-forth Wildernesſes of Elephants: and ſoone after,waſte deſerts euen beyond the Garamantes,who from the Augilæ are diſtant twelue daies iourney.

Aboue

Aboue them was the nation of the Psylli: and aboue them the lake of *Diomedes* enuironed with G
desarts. Those Augylæ themselues are seated well neere in the middle way from Æthyopia, which bendeth Westward, and the countrie lying between the two Syrtes, with equall distance between of both sides: but the shore betweene the two Syrtes of 250 miles. There standeth the citie Ocensus, the riuer Cinyps and the countrie. Townes, Neapolis, Taphra, Abrotonum, the other Leptis, called also the great. Then the greater Syrtis, in compasse 625 miles, and in direct passage 313. Next to it, there inhabit the people Cisipades. In the inmost gulfe was the coast of the Lotophagi, whom some haue called Alachroas, as far as to the alters of Phylæna, and of sand are they. Next to them. not farre from the Continent, the vast and wide Meere admitteth into it the riuer Triton, and taketh the name of him: but *Callimachus* calleth it Pallantias, and saith it is on this side the lesser Syrtes; but many place it between both Cyrtes. The H
promontory that encloses the bigger, is named Boryon. Beyond it is the prouince Cyrenaica. From the riuer Ampsaga to this bound, Africk contains 26 States, who are subiect to the Romane Empire: among which are six colonies besides the aboue-named, Vthina and Tuburbis. Townes endowed with Franchises of Roman citizens 15. Of which those in the midland parts, worthy to be named, are Azuritanum, Abutucence, Aborienſe, Canopicum, Chilmanense, Simittuense, Thunusidense, Tuburnicense, Tynidrumense, Tribigense, Vcitana twain, the greater and the lesse, and Vagiense. One towne enioying the liberties of Latium, Vsalitanum. One tributary or pensionary towne neere Castra Cornelia, paieth custome and duties to Rome. Free townes 30, of which there are to be named within-forth, Arolitanum, Acharitanum, Auinense, Abziritanum, Canopitanum, Melzitanum, Madaurense, Salaphitanum, Tusdritanum, Tiricen- I
se, Tiphicense, Tunicense, Theudense, Tagestense, Tigense, Vlusibritanum, another Vagense, Vigense and Zamense. The rest may well be called not only cities, but also for the most part, Nations, namely the Natadontes, Capsitani, Misulani, Sabarbares, Massili, Misiues, Vamacures, Ethini, Massini, Marcubij, and Gætulia all and whole, euen to the riuer Nigris, which parteth Affricke and Æthiopia.

Chap. V.

¶ *Cyrene.*

THe region Cyrenaica, called also Pentapolitana, is famous and renowned for the Oracle of *Hammon*, which is from Cyrenæ 400 miles, for the fountaine of the Sunne, and princi- K
pally for 5 cities, Berenice, Arsinoe, Ptolemais, Apollonia, and Cyrene it selfe. Berenice standeth vpon the vtmost winding and nouke of Syrtis, called sometim the city of the aboue-named Hesperides, according to the wandering tales of Greece. And before the towne, not far off, is the riuer Lethon, the sacred groue where the hort-yards of these Hesperides are reported to be. From Leptis it is 385 miles. From it stands Arsinoe, vsually named Teuchira, 43 miles: and from thence 22 miles, Ptolemais, called in old time Barce. And then 250 miles off the promontory Phycus runs out along the Creticke sea, distant from Tænarus a cape of Laconia, 350 miles: but from Creet it selfe 125 miles. And after it Cyrene, 11 miles from the sea. From Phycus to Apollonia is 24 miles: to Cherronesus 88: and so forth to Catabathnus 216 miles. The inhabitants there bordering, be the Marmaridæ, stretching out in length almost from Pa- L
rætonium to the greater Syrtis. After them the Araraucele: and so in the very coast and side of Syrtis, The Nasamones, whom before-time the Greekes called Mesammones by reason of the place, for that they were seated in the middest betweene the two quicke sands. The Cyrenaick countrie, for the space of 15 miles from the sea side, is fruitfull for trees: and for the same compasse within the land, but for corne onely: but then for 30 miles in bredth, and 250 in length, for the gum Laser and nothing else. After the Masamones, the Hasbitæ and Masæ do liue. Beyond them the Hammanientes, eleuen daies iournie from the greater Syrtes to the West, and euen they also euery way are compassed about with sands: howbeit they find without much ado pits almost in cubits deepe, for that the waters there of Mauritania doe ouerflow. Houses they
make themselues of salt, hewed out of their owne hils in maner of stone. From these to the Tro- M
glodites, in the Southwest coast is foure daies iournie, with whom they chaffer and traffick only for a certaine precious stone or gem, which we call a Carbuncle, brought out of Æthyopia. There comes betweene, the countrie Phazania, lying toward the wilderneſſe aboueſaid of Affrick, aboue the lesse Syrtis: where we subdued the nation of the Phazanij, together with the ci-

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A ties Alele and Cillaba. In like manner Dydamum ouer-againſt Sabrata. Next to whom there is a mountain, reaching a great way from the Eaſt into the Weſt, called by our men Ater, naturally as it were burnt, & like as if it were ſcorched, and ſet on fire with the reflection of the Sun. Beyond that mountain are the deſarts: alſo Matelgæ a town of the Garamants, & likewiſe Debris, which caſteth forth a ſpring of waters ſeething vp from noon to midnight exceeding hot: and for as many houres again into midday moſt chilling cold; alſo the moſt goodly towne Garama, the chiefe head of the Garamantes. All which places the Romanes haue conquered by force of armes, and ouer them *Cornelius Balbus* triumphed, the onely man of forreiners that was honoured with the triumphant chariot, and endowed beſides with the freedome of Romane
B citizens. For why, being borne at Gades, he and his vncle both, *Balbus* the elder, were made free denizons of Rome. And this is maruell that our writers haue recorded, that beſides the towns abouenamed by him conquered, himſelfe in his triumph caried the titles and pourtraictes not of Cydamus and Garama only, but alſo of all other nations and cities, which were ranged in a Roll, and went in this order, The towne Tabidium, the nation Niteris, the towne Negligemela, the Nation Bubeium, the town Vel, the nation Enipi, the town Thuben, the hill named Niger. The towns Nitibrum and Rapſa, the nation Diſcera, the town Debris, the riuer Nathabur, the towne Tapſagum, the nation Nannagi, the towne Boin, the towne Pege, the riuer Daſibari. And again forward, theſe townes lying one to another together, Baracum, Buluba, Alaſi, Balſa, Galla, Maxala, and Zizama. The hill Gyri, wherein *Titus* hath reported that precious ſtones were engendred. Hitherto the way to the Garamants, was intricat and vnpaſſable, by rea-
C ſon of the robbers and theeues of that countrey, who vſed to dig certain pits in the way (which to them that know the quarters of the counttey, is no hard matter to doe) and then couer them lightly ouer with ſand. But in the laſt war which the Romans maintained againſt the Oenſes, vnder the conduct and fortunate auſpices of *Veſpaſian* the Emperor, there was found a ſhort and neere way of foure daies iourney; & this way is called *Præter caput Saxi* (beſides the rocks head) The frontier towne of Cyrenaica is called Catabathmos, which is a towne and a vaile all on a ſudden falling with a ſteepe deſcent. To this bound, from the leſſe Syrtis, Cyrenaica Africa lieth in length 1060 miles, and in bredth, for ſo much as is knowne, 800.

Chap. VI.

D ¶ *Lybya Mareotis.*

THe countrey following is named Mareotis Libya, and boundeth vpon Ægypt, inhabited by the Marmaridæ, Adyrmachidæ, and ſo forward with the Mareotæ. The meaſure of it from Catabathmos to Paretonium, is 86 miles. In that tract there lyeth in the way betweene the village Apis, a place renowned for the religious rites of Ægypt. From it to Parætonium are 12 miles. From thence to Alexandria 200 miles: the bredth thereof is 169 miles. *Eratoſthenes* hath deliuered in writing, that from Cyrenæ to Alexandria by land is 525 miles. *Agrippa* ſaith, that the length of all Africk from the Atlanticke ſea, together with the inferiour part of Ægypt containeth 3040 miles. *Polybius* and *Eratoſthenes*, reputed to haue bin moſt exact and curious in this kinde, ſet downe, from the Ocean to great Carthage 1600 miles. From thence
E to Canopicum the neereſt mouth of Nilus, they make 1630 miles. *Iſidore* reckoneth from Tingi to Canopus 3599 miles. And *Artemidorus* forty leſſe than *Iſiodorus*.

Chap. VII.

¶ *Iſlands about Africke, and ouer againſt Africke.*

THeſe ſeas haue not very many Iſlands within them. The faireſt of them all is Meninx, 35 miles long, and 25 broad, called by *Eratoſthenes* Lotophagitis. Two towns it hath, Meninx on Africke ſide, and Thoar on the other: it ſelfe is ſcituate from the right hand promonto-
F rie of the leſſe Syrtis *200 paces. A hundred miles from it againſt the left hand is Cercina, with a free towne of the ſame name, in length it is 25 miles, and halfe as much in bredth where it is moſt; but toward the end not aboue fiue miles ouer. To it there lieth a pretty little one toward Carthage called Cercinitis, & ioineth by a bridge vnto it: from theſe almoſt 50 miles, lies Lopaduſa ſix miles long. Then, Gaulos and Galata: the earth whereof killeth the Scorpion, a fell

*Or 1500 paces, i. a mile and a half.

crea-

creature,and noiſome to Africke. Men ſay alſo that they wil die in Clupea,ouer againſt which G
lieth Corſyra,with a towne. But againſt the gulfe of Carthage be the two Æginori,rocks more like than Iſlands,lying moſt between Sicily and Sardinia. There be that write how theſe ſomtime were inhabited,but afterwards ſunke downe and were couered.

Chap. VIII.

¶ *The Æthyopians.*

BVt within the inner compaſſe and hollow of Africke toward the South, & aboue the Gætulians,where the deſarts come between,the firſt people that inhabit thoſe parts,be the Libij Ægyptij,and then the Leucæthiopes. Aboue them are the Æthyopian nations, to wit, the Nigritæ,of whom the riuer tooke name: the Gymetes,Pharuſi, and thoſe which now reach H
to the Ocean,whom we ſpake of in the marches of Mauritania, namely, the Perorſi. From all theſe,it is nothing but a wilderneſſe Eaſtward,till you come to the Garamantes,Augylæ, and Troglodites,according to the moſt true opinion of them,who place 2 Æthyopiaes aboue the deſarts of Africk; and eſpecially of *Homer*,who ſaith,that the Æthyopians are diuided 2 waies, namely,Eaſt and Weſt. The riuer Nyger is of the ſame nature that Nilus. It bringeth forth Reed and Papyr,breedeth the ſame liuing creatures,and riſeth or ſwelleth at the ſame ſeaſons. It ſpringeth betweene the Tareleia Æthyopians,and the Oecalicæ. The towne Mavin belonging to this people,ſome haue ſet vpon the wilderneſſe; as alſo,neere vnto them, the Atlantes, the Ægipanes,halfe wilde beaſts,the Blemmyi,the Gamphaſants,Satyres, & Himantopodes. Thoſe Atlantes if we will beleeue it,degenerate from the rites and manners of all other men. I
For neither call they one another by any name,and they look wiſtly vpon the Sun,riſing,& ſetting,with moſt dreadful curſes,as being pernicious to them & their fields; neither dream they in their ſleep as other men. The Troglodites dig hollow caues, and theſe ſerue them for dwelling houſes: they feed vpon the fleſh of ſerpents. They make a gnaſhing noiſe,rather than vtter any voice,ſo little vſe haue they of ſpeech one to another. The Garamants liue out of wedlock and conuerſe with their women in common. The Augylæ do no worſhip to any but to the diuels beneath. The Gamphaſantes bee all naked,and know no Wars, and ſort themſelues with no forrainer. The Blemmyi,by report haue no heads,but mouth and eies both in their breſt: the Satyres beſides their ſhape only,haue no properties nor faſhions of men. The Ægipanes are ſhaped,as you ſee them commonly painted. The Himantopodes be ſome of them limber legged K
and tender,who naturally go creeping on the ground. The Pharuſi,ſometime Perſæ,are ſaid to haue bin the companions of *Hercules*,as he went to the Heſperides. More of Africke worth the noting,I haue not to ſay.

Chap. IX.

¶ *Of Aſia.*

VNto it ioineth Aſia,which from the mouth of Canopus vnto the mouth of Pontus, after *Timoſthenes* 2639 miles. From the coaſt of Pontus to that of Mæotis, *Eratoſthenes* ſaith,is L
1545 miles. The whole,together with Egypt vnto Tanais,by *Artemidorus* and *Iſidorus*,taketh 8800 miles. Many ſeas there be in it,taking their names of the borderers; and therefore they ſhall be declared together with them. The next country to Africk inhabited,is Ægypt,lying far within-forth to the South,ſo far as the Æthyopians,who border vpon their backs. The nether part thereof the riuer Nilus,diuided on the right hand and the left, by his claſping doth bound and limit,with the mouth of Canopus from Africke,with the Peluſiake from Aſia, and carrieth a ſpace between of 170 miles. Whereupon,conſidering that Nilus doth ſo part it ſelf, ſome haue reckoned Ægypt among the Iſlands,ſo as it maketh a triangular figure of the land. And here it is that many haue called Ægypt by the name of the Greeke letter Delta, Δ. The meaſure of it from the channell where it is but one,and from whence it beginneth firſt to part M
into skirts and ſides,vnto the mouth of Canopus,is 146 miles; and to the Peluſiak 256: the vpmoſt part therof bounding on Æthyopia,is called Thebais. Diuided it is into townes hips with ſeueral iuriſdictions,which they cal Nomos; to wit,Ombites, Phatuites, Apollopolites, Hermonhites, Thinites,Phanturites,Captites,Tentyrites,Dioſpalites,Antæopolites,Aphroditopolites,

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A lites,and Lycopolites. The country about Peluſium,theſe town-ſhips with their ſeueral iuriſdictions,Pharbœtites,Bubaſtites,Sethroites,& Tanites.The reſt haue theſe following,the Arabicke, the Hammoniacke which extendeth to the Oracle of *Iupiter Hammon*, Oxyrinchites, Leontopolites,Atarrabites,Cynopolytes,Hermopolites:Xoites, Mendeſins, Sebennites, Capaſtites,Latapolites,Heliopolites,Proſopites,Panopolites, Buſirites,Onuphites,Sorites,Ptenethu,Pthemphu,Naucratites,Nitrites,Gynæcopolites,Menelaites,in the country of Alexandria. In like manner of Libya Mareotis. Heracleopolites is in the Iſland of Nilus,fiftie miles long,wherein alſo is that which they call *Hercules* his town. Two Arſinoites there be they,and Memphites reach as farre as two the head of Delta.Vpon it there do bound out of Affrica the two Ouafitæ.There be that change ſome names of theſe,and ſet down for them other iuriſdictions,to wit,Heroopolites,and Crocodilopolites. Between Arſinoites and Memphites there
B was a lake 250 miles about,or as *Mutianus* ſaith,450, fifty paces deep,[*i.* 150 foot,]& the ſame made by mans hand,called the Lake Mæridis, of a king who made it.72 miles from thence is Memphis,the caſtle in old time of the Ægyptian kings. From which to the Oracle of *Hammon* is twelue daies iournie, & ſo to the diuiſion of Nilus,which is called Delta,fifteen miles.The riuer Nilus riſing from vnknowne ſprings,paſſeth thorow deſarts and hot burning countries: and going thus a mighty way in length,is known by fame onely,without armes,without wars, which haue diſcouered and found out all other lands.It hath his beginning,ſo far forth as *Iuba* was able to ſearch and find out,in a hil of the lower Mauritania,not far from the Ocean,where a lake preſently is ſeen to ſtand with water,which they call Nilides.In it are found theſe fiſhes
C called Alabetæ,Coracini,Siluri,and the Crocodile.Vpon this argument & preſumption Nilus is thought to ſpring from hence,for that the pourtract of this ſource is conſecrated by the ſaid prince at Cæſaria,in Iſeum,and is there at this day ſeene.Moreouer,obſerued it is,that as the Snow or rain do ſatisfie the countrie in Mauritania,ſo Nilus doth encreaſe.When it is run out of this lake,it ſcorneth to run through the ſandy and ouergrown places, and hides himſelf for certaine daies iourny. And then ſoone after out of a greater lake, it breaketh forth in the country of the Maſſæſyli,with Mauritania Cæſarienſes,and lookes about viewing mens company,carrying the ſame arguments ſtill of liuing creatures bred within it.Then once again being receiued within the ſands,it is hidden a ſecond time for twenty daies iourny,in the deſarts as farre as to the next Æthiopes:and ſo ſoone as hee hath once againe eſpied a man, forth hee
D ſtartes(as it ſhould ſeem)out of that ſpring,which they called Nigris.And then diuiding Affrick from Æthiopia, being acquainted, if not preſently with people,yet with the frequent company of wild and ſauage beaſts,and making ſhade of woods as he goes he cuts through the middeſt of the Æthiopians:there ſurnamed Aſtapus,which in the language of thoſe nations ſignifieth a water flowing out of darkeneſſe. Thus daſheth he vpon ſuch an infinite number of Iſlands,and ſome of them ſo mighty great,that albeit he bare a ſwift ſtreame,yet is he not able to paſſe beyond them in leſſe ſpace than 5 daies.About the goodlieſt and faireſt of them Meroe,the chanell going on the left hand is called Aſtabores, that is, the branch of a water comming forth of darkeneſſe:but that on the right hand Aſtuſapes,which is as much as, lying hid, to the former ſignification.And neuer taketh the name of Nilus, before his waters meet again
E & accord all whole together.And euen ſo was he aforetime named Siris,for many miles ſpace: and of *Homer* altogether Ægyptis:and of others, Triton: here and there,and euer and anon hitting vpon Iſlands,and ſtirred as it were with ſo many prouocations:and at the laſt encloſed and ſhut within mountaines, and in no place he caries a rougher and ſwifter ſtream,whiles the water that he beareth,haſtens to a place of the Æthiopians called Catadupi,where in the laſt fall among the rockes that ſtand in his way, he is ſuppoſed not to runne, but to ruſh downe with a mighty noiſe. But afterwards he becomes more milde and gentle, as the courſe of his ſtreame is broken,and his violence tamed and abated,yea,and partly wearied with his long way: and ſo though with many mouths of his,he diſchargeth himſelfe into the Ægyptian ſea.Howbeit at certaine ſet daies he ſwelleth to a great height:and when he hath trauelled all ouer Ægypt,hee
F ouerfloweth the land,to the great fertility and plenty thereof. Many and diuers cauſes of this riſing and increaſe of his, men haue giuen:but thoſe which carry the moſt probabilitie, are either the rebounding of the water,driuen back by the winds Eteſiæ,at that time blowing againſt it,and driuing the ſea withall vpon the mouths of Nilus:or elſe the Summer rain in Æthiopia by reaſon that the ſame Eteſiæ bring clouds thither from other parts of the world.*Timæus* the

Mathematician,alledged an hidden reaſon therof,to wit,that the head and ſource of Nilus is named Phyala,and the riuer it ſelfe is hidden,as it were drowned within certain ſecret trenches within the ground, breathing forth vapors out of reeking rockes,where it thus lieth in ſecret. But ſo ſoone as the ſunne during thoſe daies,commeth neere, drawne vp it is by force of heate, and ſo all the while he hangeth aloft,ouerfloweth:and then againe for feare he ſhould be wholly deuoured and conſumed,putteth in his head againe and lieth hid. And this happeneth from the riſing of the dog ſtarre Sicinus,in the Sunnes entrance into Leo,while the planet ſtandeth plumbe ouer the fountaine aforeſaid:for as much as in that climate there are no ſhadows to be ſeene. Many againe were of a different opinion,that a riuer floweth more abundantly,when the Sunne is departed toward the North pole,which happeneth in Cancer and Leo: and therefore at that time is not ſo eaſily dried:but when he is returned once againe back toward Capricorn and the South pole,it is drunke vp,and therefore floweth more ſparely. But if according to *Timæus* a man would thinke it poſſible that the water ſhould be drawne vp,the want of ſhadowes during thoſe daies,and in thoſe quarters,continueth ſtill without end. For the riuer begins to riſe and ſwell at the next change of the Moone after the Sun-ſteed,by little and little gently,ſo long as he paſſes through the ſigne Cancer,but moſt abundantly when he is in Leo. And when he is entred Virgo,he falleth and ſettleth low again,in the ſame meaſure as he roſe before. And is cleane brought within his bankes in Libia,which is, as *Herodotus* thinketh, by the hundreth day. All the whiles it riſeth, it hath been thought vnlawfull for kings or gouernours to ſaile or paſſe in any veſſell vpon it,and they make conſcrence ſo to do. How high it riſeth,is known by markes and meaſures taken of certaine pits. The ordinary height of it is ſixteen cubits. Vnder that gage the waters ouerflow not all. Aboue that ſtint there are a let and hinderance, by reaſon that the later it is ere they be fallen,and downe again. By theſe,the ſeed time is much of it ſpent,for that the earth is too wet. By the other there is none at all,by reaſon that the ground is dry and thirſty. The prouince taketh good keep and reckoning of both,the one as well as the other;For when it is no higher than 12 cubits,it findeth extream famine:yea, and at 13 it feeleth hunger ſtill,14 cubits comforts their hearts, 15 bids them take no care, but 16 affoordeth them plenty and delicious dainties. The greateſt floud that euer was knowne vntill thiſe daies was 18 cubits,in the time of Prince *Claudius* Emperor:and the leaſt,in the Pharſalian warre, againſt the death of *Pompey*: as if the very riuer by that prodigious token lothed to ſee the ſame. When at any time the waters ſeeme to ſtand and couer the ground ſtill,they are let out at certaine ſluces,or floud-gates drawne vp and ſet open. And ſo ſoon as any part of the land is freed from the water,ſtraight waies it is ſowed. This is the only riuer of all others that breatheth out no wind from it. The Seignory & dominion of Ægypt beginneth at Syene, the frontier rowne of Æthiopia. For that is the name of a demy Iſland 100 miles in compaſſe, wherein are the Ceraſtæ vpon the ſide of Arabia:and ouer againſt it the 4 Iſlands Philæ, 600 miles from the partition of Nilus,where it began to be called Delta,as wee haue ſaid. This ſpace of ground hath *Artemidorus* deliuered,and withall, that within it were 250 townes. *Iuba* ſeteth down 400 miles. *Ariſtocreon* ſaith,that from Elephantis to the ſea is 750 miles. This Elephantis being an Iſland,is inhabited beneath the loweſt cataract or fal of water 3 miles,and aboue Syene 16:and it is the vtmoſt point that the Ægyptians ſaile vnto,& is from Alexandria 586 miles. See how far the Authors aboue written, haue erred and gone out of the way: there meet the Æthiopian ſhips,for they are made to fold vp together, and carry them vpon their ſhoulders, ſo often as they come to thoſe cataracts or downefals afore-ſaid. Ægypt ouer and aboue all other their boaſt and glory of antiquitie,brags that in the raigne of king *Amaſis*, there were inhabited in it and peopled twenty thouſand cities. And euen at this day full it is of them,ſuch as they be,and of baſe account. Howbeit, that of *Apollo* is much renowmed, as alſo neere vnto it another of Leucathea,and* Dioſpolis the great,the very ſame that Thebes,famous for the 100 gates in it. Alſo, Captos, a great mart towne next to Nilus, much frequented for merchandiſe and commodities out of India and Arabia. Moreouer the towne of *Venus*,and another of *Iupiter*,& Tentyris,beneath which ſtandeth Abydus, the royall ſeate of *Memnon*,and Oſiris renowmed for the temple there, ſeuen miles and an halfe diſtant from the riuer,toward Lybia. Then Ptolemais,Panopolis,and another yet of *Venus*. Alſo in the Lybian coaſt, Lycon,where the hils doe bound Thebais. Soone after,theſe townes of *Mercurie*, Alabaſton, Canum, and that of *Hercules* ſpoken of before. After theſe, Arſinoe, and the aboue-ſaid Memphis, betweene which

* The citie of Iupiter.

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A and the dioceſſe Arſinoetis, in the Lybian coaſt, the towers called Pyramides, the Labyrinth built vp in the lake of Mœris without any iot of timber to it, and the town Crialon. One more beſides, ſtanding within-forth and bounding vpon Arabia, called the towne of the Sunne, of great account and importance.

Chap. X.

¶ *Alexandria.*

BVt right worthy of praiſe is Alexandria, ſtanding vpon the coaſt of the Egyptian ſea, built by *Alexander* the Great on Africke ſide, 12 miles from the mouth of Canopus, neere to the lake Mareotis; which was before-time called * Arapotes. *Danochares* the Architect (a * Rachoberis
B man renowned for his ſingular wit many waies!) aid the modell and platforme therof by a ſubtil and witty deuiſe; for hauing taken vp a circuit of 15 miles for the city, he made it round like to a Macedonian cloke, ful in the skirts, bearing out into angles and corners, as wel on the right hand as the left, ſo as it ſeemed to lie in folds and plaits; and yet euen then he ſet out one fifth part of all this plot for the kings palace. The lake Marcotis from the South ſide, meeteth with an arme of the riuer Nilus, brought from out of the mouth of the ſaid riuer called Canopicus: for the more commodious trafficke and commerce out of the firme ground and inland Continent. This lake containeth within it ſundry Iſlands, and (according to *Claudius Cæſar*) it is thirty miles ouer. Others ſay, that it lieth in length 40 Schœni, and ſo, whereas euery Schœne is 30 ſtadia, it commeth by that account to be 150 miles long, and as many broad. Ouer and beſides,
C there be many goodly faire towns of great importance, ſtanding vpon the riuer Nilus where he runneth, and thoſe eſpecially which haue giuen name to the mouthes of the riuer, and yet not to all thoſe neither (for there be 11 of them in all, ouer and beſides foure more, which they themſelues call baſtard mouthes) but to 7 of the principall: to wit, vpon that of Canopus, next vnto Alexandria; then Bolbitinum, and ſo foorth to Sebenniticum, Phatuiticum, Mendeſicum, Taniticum, and laſt of all Peluſiacum. Other cities there be beſides, to wit, Buros, Pharbœtos, Leontopolis, Achribris, Iſis towne, Buſiris, Cynophis, Aphrodites, Sais, Naucratis, of which ſome thinke the mouth Naucraticum tooke the name, which they be that cal Heracleoticum, preferring it before Canopicum, next vnto which it ſtandeth.

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Chap. XI.

¶ *Arabia [the Deſart or Petræa.]*

BEing once paſt that arme of the riuer Nilus, which entereth into the ſea at Peluſium, you come into Arabia, confining vpon the red ſea; and that other Arabia, ſo rich & odoriferous, and therefore renowned with the ſyrname of Happie. As for this deſart Arabia, poſſeſſed it is by the Catabanes, Esbonites, and Screnite Arabians: all barren and fruitleſſe, ſaue whereas it meeteth with the confines of Syria, and ſetting aſide the mountaine Caſius, nothing memorable. This region confronteth the Arabians Canchlei on the Eaſt-ſide, and the Cedræi Southward, and they both confine together afterwards vpon the Nabathæes. Moreouer, 2 Baies there
E bee, the one called the gulfe of Heroopolis, and the other of Elani; both in the red ſea on the coaſt of Egypt, 150 miles diſtant, betweene two townes, Elana, and Gaza, which is in our (Mediteranean) ſea. *Agrippa* counteth from Peluſium to Arſinoe, a towne ſcituate vpon the red ſea, an hundred and fiue and twenty miles. See how ſmall a way lyeth betweene two Climates ſo different in Nature.

Chap. XII.

¶ *Syria, Paleſtine, Phœnice.*

F VPon the coaſt of the ſaid Arabia, confineth Syria; a Region in times paſt, the chiefe and moſt renowned vpon earth; and the ſame diſtinguiſhed by ſundry names. For where it confineth vpon the Arabians, called it was Paleſtina, Iurie, Cœle-Syria, and afterward, Phœnice. But go farther within the firme land, Damaſcene. Turne more ſtill Southwards, it is named Babylonia. And the ſame, between the riuers Euphrates and Tygris, carrieth the name

of Meſopotamia. Beyond the mountaine Taurus, it is Sophene; but on this ſide the hill, they call Comagene. The countrey beyond Armenia, is Adiabenæ, named before-time Aſſyria: but the marches of Syria, which confront Cilicia, is knowne by the name of Antiochia. The whole length of Syria, from the frontiers of Cilicia to Arabia, containeth 470 miles: the bredth between Seleucia Pieria, to Zeugina, a towne ſeated vpon Euphrates, taketh 175 miles. They that make a more ſubtill and particular diuiſion, would haue Phœnice to be enuironed with Syria. And firſt, as you come from Arabia, is the ſea-coaſt of Syria, which compriſeth in it Idumæa & Iudæa; then you enter into Phœnicia, and ſo into Syria again, when you are paſt Phœnicia. And within-forth farther into the country, Phœnice is incloſed with Syria Damaſcena. All that ſea yet, which beateth vpon that coaſt, beareth the name of the Phœnician ſea. As for the nation it ſelfe of the Phœnicians, haue been highly reputed for their Science and learning, and namely, for the firſt inuention of letters, for their knowledge in Aſtrologie, nauigation, and martial skill. Being paſt Peluſium, you come to a city called Chabriæ Caſtra to the mountain Caſius, and the temple of *Iupiter Caſius*: alſo the tombe of *Pompeius Magnus*; and laſt of all to the city Oſtracium. To conclude, from Peluſium to the frontiers of Arabia the Deſart [alongſt the coaſt of Syria] are 65 miles.

Chap. XIII.

¶ *Idumæa, Syria, Paleſtina, Samaria.*

SOon after beginneth Idumæa & Paleſtina, euen from the riſing vp of the lake Sirbon, which ſome haue reported to carry a circuit of 150 miles. *Herodotus* ſaith, it is hard vnder the foot of the hill Caſius: but at this day it is but a ſmall lake. As for the towns there, they be Rhinocolura, and more within the land, Rhaphæa: alſo Gaza a port towne, and farther within, Anthedon, and the mountain Angoris. From thence you deſcend to the coaſt of Samaria, the free citie Aſcalon, and Azotus; the two Iamnes, whereof the one is well within the land; and ſo forward to Ioppe, a towne in Phœnicia, which by report, is more antient than the deluge. Scituate it is vpon an hill, with a rocke before it, wherein are to be ſeen the tokens and reliques of Lady *Andromedaes* priſon where ſhe was bound. Within a chappell there, the Siren *Decreto*, whereof the Poets tell ſuch tales, is worſhipped. Being paſt Ioppe, you meet with Apollonia: the towne of Strato, called alſo Cæſarea, founded by K. *Herod:* it beareth now the name of Prima Flauia, a colony there planted and endowed with priuiledges by *Veſpaſian* the Emperor. The bounds of Paleſtina be 180 miles from the confines of Arabia: and there entreth Phœnice. Within-forth in the countrey, are the townes of Samaria, and Neapolis, which before-time was named Mamortha (or Maxbota.) Alſo Sabaſte vpon the mountain, and Gamala, which yet ſtandeth higher than it.

Chap. XIIII.

¶ *Iurie and Galilæa.*

ABoue Idumæa and Samaria, Iudæa ſpreadeth out far in length and breadth. That part of it which ioineth to Syria, is called Galilæ: but that which is next to Syria and Egypt, is named Peræa, [*i*. beyond Iordan.] Full of rough mountaines diſperſed here and there: and ſeuered it is from other parts of Iury, by the riuer Iordan. As for the reſt of Iudæa, it is diuided into ten gouernments or territories, called Toparchies, in this order following: to wit, that of Hiericho, a vaile richly planted with Date trees: Emmaus, well watered with fountaines: Lydda, Ioppica, Accrabatena, Gophnitica, Thamnitica, Betholene, Tephenæ, and Orine, wherein ſtood Ieruſalem, the goodlieſt citie of all the Eaſt parts, and not of Iury onely. In it alſo is the principalitie Herodium, with a famous towne of that name.

Chap. XV.

¶ *Iordane the Riuer.*

THe riuer Iordan ſpringeth from the fountaine Paneades, which gaue the Syrname to the citie Cæſarea, whereof we will ſpeake more. A pleaſant riuer it is, and as the ſite of the countrey will permit and giue leaue, winding and turning in and out, ſeeking as it were for loue

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A loue and fauour, and applying it ſelfe to pleaſe the neighbor inhabitants. Full againſt his will, as it were, he paſſeth to the lake of Sodom, Aſphaltites, that ill-fauored and curſed lake: and in the end falleth into it, and is ſwallowed vp of it, where amongſt thoſe peſtilent and deadly waters, he loſeth his owne that are ſo good and wholeſome. And therefore to keep himſelfe out of it as long as he poſſibly could, vpon the firſt opportunity of any vallies, hee maketh a lake, which many call Geneſara, which is 16 miles long, and 6 broad. The ſame lake is enuironed with diuers faire and beautifull townes; to wit, on the Eaſt ſide, with Iulias and Hippo; on the South, with Tarichea, of which name, the lake by ſome is called Tarichion; and on the Weſt, with Tiberias, an healthfull place for the baines there of hot waters.

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Chap. XVI.

¶ *Aſphaltites.*

ASphaltites, or the lake of Sodom, breedeth and bringeth forth nothing but Bitumen; and thereupon it tooke the name. No liuing body of any creature doth it receiue into it: buls and camels ſwim and flote aloft vpon it. And hereupon ariſeth that opinion which goeth of it, That nothing there wil go downe and ſink to the bottome. This lake in length exceedeth 100 miles, 25 miles ouer it is at the broadeſt place, and ſix at the narroweſt. On the Eaſt, the Arabian Nomades confront it; and on the South ſide, Machærus regardeth it: in time paſt, the ſecond fortreſſe of Iudæa, and principall next to Ieruſalem. On the ſame coaſt, there is a fountain of hot waters, wholeſome and medicinable, named Callirhoe, and good againſt many diſeaſes.
C The very name that it carrieth, importeth no leſſe praiſe and commendation.

Chap. XVII.

¶ *The people Eſſeni.*

ALong the Weſt coaſt inhabit the Eſſeni. A nation this is, liuing alone and ſolitarie, and of all others throughout the world moſt admirable and wonderfull. Women they ſee none: carnal luſt they know not; they handle no mony, they lead their life by themſelues, and keepe company onely with Date trees. Yet neuertheleſſe, the countrey is euermore well peopled, for that daily numbers of ſtrangers reſort thither in great frequencie from other
D parts: and namely, ſuch as be weary of this miſerable life, are by the ſurging waues of frowning fortune driuen hither, to ſort with them in their manner of liuing. Thus for many thouſand yeares [a thing incredible, and yet moſt true] a people hath continued without any ſupply of new breed and generation. So mightily increaſe they euermore, by the weariſome eſtate & repentance of other men. Beneath them ſtood ſometime Engadda, for fertilitie of ſoile and plenty of Date-tree groues, accounted the next city in all Iudæa, to Ieruſalem. Now, they ſay, it ſerueth for a place only to inter their dead: beyond it, there is a caſtle or fortreſſe ſcituat on a rock, and the ſame not far from the lake of Sodom Aſphaltites. And thus much as touching Iudæa.

E

Chap. XVIII.

¶ *Decapolis.* [i. *Cœle-Syria.*]

THere ioyneth to it on Syria ſide, the region Decapolis, ſo called of the number of townes and cities in it. Wherein, all men obſerue not the ſame, nor make like account: howbeit moſt men ſpeake of Damaſcus and Opotos, watered with the riuer Chryſorrhoa. Alſo, Philadelphia, renowned for the fruitfull territory about it. Moreouer, of Scythopolis, taking name of the Scythians there planted: and before-time Myſa, ſo named of Prince or Father *Bacchus*, by reaſon that his nource there was buried. Alſo Gadara, ſcituate on the riuer Hieromiax, running euen before it. Beſides, the aboue-named Hippos Dios. Likewiſe Pella, enriched with the good fountains: and laſt of all, Galaza and Canatha. There lie betweene and about theſe
F cities, certaine Royalties called Triarchies, containing euery one of them as much as an whole countrey: and reduced they be as it were into ſeuerall countries; namely, Trachonitis Panias, wherein ſtandeth Cæſarea, with the fountain aboue-ſaid, Abila, Arca, Ampeloeſſa, and Gabe-

Chap. XIX.

¶ *Tyre and Sidon.*

REturne now we muſt to the ſea-coaſt of Phœnice. A riuer runneth there called Crocodilon, whereupon ſtood a towne in times paſt bearing the name. Alſo there remain in thoſe parts the bare reliques ſtill of cities, to wit, Dorum, Sycaminum, the cape or promontory Carmelum; and a towne vpon the hill ſo named; but in old time called Ecbatana. Neere ther to Getta and Iebba; the riuer Pagida or Pelus, carrying chryſtall glaſſe with his ſands vpon the ſhore. This riuer commeth out of the meere Ceudeuia, from the foot of mount Carmel. Neere vnto it is the city Ptolemais, erected in forme of a colony, by *Claudius Cæſar*; in ancient time called Are. The towne Ecdippa, and the cape Album. Then followes the noble citie Tyrus, in old time an Iſland, lying almoſt 3 quarters of a mile within the deepe ſea: but now, by the great trauell and deuiſes wrought by *Alexander* the Great at the ſiege thereof, ioyned to the firme ground: renowmed, for that out of it haue beene three other cities of ancient name, to wit, Leptis, Vtica, and that great Carthage, which ſo long ſtroue with the Empire of Rome for the monarchy and dominion of al the whole world: yea, and Gades, diuided as it were from the reſt of the earth, were peopled from hence. But now at this day all the reputation and glory thereof, ſtands vpon the die of purple & crimſon colors. The compaſſe of it is 19 miles, ſo ye compriſe Palætyrus within it. The very towne it ſelfe alone, taketh vp 22 ſtadia. Neere vnto it are theſe townes, Luhydra, Sarepta, and Ornython: alſo Sydon, where the faire and cleer glaſſes be made, and which is the mother of the great citie Thebes in Bœotia.

Chap. XX.

¶ *The mount Libanon.*

BEhind it, beginneth the mount Libanus, and for 1500 ſtadia reacheth as farre as to Smyrna, whereas Cœle-Syria takes the name. Another promontory there is as big ouer-againſt it, called Antilibanus, with a vallie lying betweene, which in old time ioyned to the other Libanus with a wall. Being paſt this hill, the region Decapolis ſheweth it ſelfe to you within-forth, called Decapolis; and the aboue-named Tetrachies or Realmes with it, and the whole largeneſſe that Paleſtine hath. But in that coaſt and tract ſtill along the foot of the mount Libanus, there is the riuer Magoras: alſo the colonie Berytus, called Fœlix Iulia. The towne Leontos; the riuer Lycos: alſo Palæbyblos, [*i.* Byblos the old.] Then ye come vpon the riuer Adonis, and ſo to theſe townes, Byblos [the new,] Botrys, Gigarta, Trieris, Calamos, and Tripolis, vnder the Tyrians, Sydonians, and Aradians. Then meet you with Orthoſia, and the riuer Eleutheros. Alſo theſe townes, Simyra, Marathos; and ouer-againſt, Aradus, a towne of ſeuen ſtadia: and an Iſland leſſe than a quarter of a mile from the Continent. When you are once paſt the countrie, where the ſaid mountaines doe end, and the plaines lying betweene, then beginneth the mount Bargylis: and there, as Phœnice endeth, ſo begins Syria againe. In which countrie are Carne, Balanea, Paltos, and Gabale: alſo the Promontorie, whereupon ſtandeth the free city Laodicea, together with Dioſpolis, Heraclea, Charadrus, and Poſidium.

Chap. XXI.

¶ *Syria, Antiochena.*

GO forward in this tract, and you ſhall come to the cape of Syria Atiochena: within-forth is ſeated the noble and free citie it ſelfe Antiochena, ſurnamed Epidaphne: through the mids whereof runneth the riuer Orontes. But vpon the very cape, is the free citie Seleucia, named alſo Pieria.

Chap. XXII.

¶ *The mount Caſius.*

ABoue the citie Seleucia, there is another mountaine named Caſius, as well as that other, which confronterh Arabia. This hill is of that heigth, that if a man be vpon the top of it in the darke night ſeaſon, at the reliefe of the fourth watch, he may behold the Sunne ariſing

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A ſing. So that with a little turning of his face and body, hee may at one time ſee both day and night. To get vp by the ordinary high-way to the very pitch of it, a man might fetch a compas of 19 miles; but climbe directly vpright it is but 4 miles. In the borders of this country runs the riuer Orontes, which ariſeth between Libanus and Antilibanus, neere to Heliopolis. Then the towne Rhoſos appeares: and behind it, the ſtreight paſſages and gullets betwixt the mountaines Rhotij and Taurus, which are called Portæ Syriæ. In this tract or coaſt ſtands the town Myriandros, the hill Avanus (where is the towne Bomilæ, which ſeparateth Cilicia from the Syrians.

Chap. XXIII.

B ¶ *Cœle-Syria, [or high Syria.]*

IT remaineth now to ſpeake of the townes and cities in the midland parts within the firme land: and to begin with Cœle Syria, it hath in it Apamia, ſeparated from the Nazerines tetrarchy by the riuer Marſia: likewiſe Bambyce, otherwiſe called Hierapolis; but of the Syrians, Magog. There is honored the monſtrous idoll of the Meermaid, Atargatis, called of the Greeks Decreto. Alſo Chalcis, with this addition, Vpon Belus: from which the region Chalcidene, moſt fertile of all Syria, taketh name. Then haue you the quarter Cyrrhiſtica, with Cirrhus, Gazatæ, Gindarenes, and Gabenes. Moreouer, two Tetrarchies, called Granucomatæ. Moreouer, the Hemiſenes, Hylates, the Ituræans country (and principally thoſe of them who are named Betarrani) and the Mariammitanes. The Tetrarchie or Principalitie named Mam-
C miſea, the city Paradiſus, Pagræ, Pinarites, and two Seleuciæ, beſides the aboue named, one called, Vpon Euphrates; and the other, Vpon Belus: and laſt of all, the Carditenſes. The reſt of Syria hath theſe States (beſides thoſe which ſhall be ſpoken of with the riuer Euphrates) the Arethuſians, Beræenſes, and Epiphanenſes: and Eaſtward, the Laodicenes, namely thoſe who are entituled, Vpon Libanus: the Leucadians and Lariſſæans: beſides 17 Tetrarchies reduced into the forme of realmes, but their names are barbarous.

Chap. XXIV.

¶ *Euphrates.*

D AND here me-thinks is the fitteſt and meeteſt place to ſpeake of Euphrates. The ſource of it, by report of them that ſaw it laſt and neereſt, is in Caranitis, a ſtate vnder the gouernment of Armenia the greater: and thoſe are *Domitius* and *Corbulo*, who ſay, that it ſpringeth in the mountaine Aba. But *Licinius Mutianus* affirmeth, that it iſſueth from vnder the foot of the mountaine which they call Capotes, 12 miles higher into the countrey than is Simyra: and that in the beginning it was called Pyxirates. It runs firſt directly to Derxene, and ſo forth to Ana alſo, excluding the regions Armeniæ, the greater as wel as the leſſe, from Cappadocia. The Daſtuſæ from Simyra are 75 miles: from thence it is nauigable to Pæſtona, 50 miles: from it to Melitene in Cappadocia, 74 miles. So forward to Elegia in Armenia, ten miles; where
E he receiueth theſe riuers, Lycus, Arſania, and Arſanus. Neere to Elegia he meeteth afront with the hil Taurus: yet ſtayeth he not there, but preuaileth a pierceth thorow it, although it beare a bredth there of 12 miles. At this entry where he breaketh thorow the hill they cal him Omiras, and ſo ſoon as he hath made way and cut thorow it he is named Euphrates. Being paſt this mountaine, he is full of rocks and very violent: howbeit he paſſeth through the country of the Mœri, where he carieth a ſtream of 3 Schœnes bredth, where he parts Arabia on the left hand, from Comagene on the right. And neuertheleſſe, euen there wheras he conquereth and getteth the vpper hand of Taurus, he can abide a bridge to be made ouer him. At Claudiopolis in Cappadocia he courſeth Weſtward: and now the mountain Taurus, though reſiſted and ouercome at firſt, impeacheth and hindereth him of his way, and notwithſtanding (I ſay) he was ouermatched and diſmembred one piece from another, he gets the better of him another way, breaking
F his courſe now, and driuing him perforce into the South. Thus Nature ſeems to match the forces of theſe two champions equally in this maner, That as Euphrates goes on ſtil without ſtay as far as he will, ſo Taurus will not ſuffer him yet to run what way he wil. Now when theſe Cataracts and downfalls of the riuer are once paſt, it is nauigable againe, and forty miles from that

place

place ſtandeth Samoſata the head city of Comagena. Now hath Arabia beſide the townes a- G
foreſaid, Edeſſa, ſomtime called Antiochea, Callirrhoe, taking name of the fountain: and Carræ, ſo famous and renowned for the defeature there of *Craſſus* and his army. Hereunto ioineth the gouernment and territorie of Meſopotamia, which alſo taketh the firſt beginning from the Aſſyrians, in which ſtand the townes Anthemuſa and Nicephorium. Hauing paſſed this country, ye ſtraitway enter vpon the Arabians called Rhetavi, whoſe capitall city is Singara. Now to returne to Samoſatæ, from it in the coaſt of Syria, the riuer Marſyas runneth into Euphrates. As Gingla limiteth Comagene, ſo the land of the Meri beginneth there. The towns Epiphania and Antiochia haue the riuer running cloſe to them, and hereupon they haue this addition in their names, Standing vpon Euphrates. Zenyma likewiſe, 72 miles from the Samoſatæ, is innobled for the paſſage ouer Euphrates: for ioined it is to Apamia, right againſt, by a H
bridge, which *Seleucus* the founder of both cauſed to be made. The people that ioine hard to Meſopotamia be called Rhoali. As for the townes of Syria which be vpon this riuer, are Europum, Thapſicum in times paſt, at this preſent Amphipolis; and laſt of all the Arabian Scænitæ. Thus paſſeth Euphrates, as far as to the land Vra, where turning his courſe to the Eaſt, hee leaueth behinde him the Deſarts of Palmyra in Syria, which reach to the city Petra, and to the country of Arabia Fœlix.

Chap. XXV.

¶ *Palmyra.*

THe noble city Palmyra is paſſing well ſeated, as well for the riches of the ſoile, as for a- I
boundance of waters, which imbeliſh and ſet out the country on euery ſide. As rich and long as it is, the territory all about is inuironed and incloſed with bars of ſand. And as if Nature had a deſire to exempt it from all other lands to liue apart in peace, ſhee hath ſet it iuſt in the middeſt and confines, between two puiſſant and mighty empires, to wit, the Romans and Parthians: for there is not ſo ſoone any war proclaimed between thoſe two States and Monarchies, but at firſt they haue on both ſides a regard of it as a neutre. It is from Seleucia of the Parthians, namely that vpon Tigris, 537 miles: and from the next port or coaſt of Syria, 252: and from Damaſco 27 neerer.

Chap. XXVI. K

¶ *Hierapolis.*

BEneath the deſarts and wilderneſſe of Palmyra lieth the countrey Stelendena, wherein are the cities named at this day Hierapolis, Berœa, and Chalcis. Beyond Palmyra alſo, Hemeſa taketh vp ſome part of thoſe ſaid deſarts: and likewiſe Elutium, neerer to Petra by one halfe than is Damaſcus. And next to Afura ſtandeth Philiſcum, a towne of the Parthians vpon Euphrates: from which by water it is a iourney of ten daies to Seleucia, and from thence as many likewiſe to Babylon: for Euphrates, 83 miles from Zeugma, about the village Maſſice, diuideth it ſelfe into two armes. On the left ſide he paſſeth into Meſopotamia, euen thorow Seleucia, and about it entreth into the riuer Tygris, which runneth hard by: but on the right L
hand he carieth a current in his chanell toward Babylon, the chiefe city ſomtime of Chaldæa, and paſſing through the midſt thereof, as alſo of another called Otris, he parts aſunder into ſundry lakes and meeres. And there an end of Euphrates. He riſeth and falleth at certain times after the order of Nilus: yet ſome little difference there is betweene them in the manner, for he ouerfloweth Meſopotamia when the Sun is in the 20 degree of Cancer, and begins againe to diminiſh and ſlake when the Sun is paſt Leo, and newly entred into Virgo: ſo as in the 29 degree of Virgo he is downe again, and come to his ordinary courſe.

Chap. XXVII. M

¶ *Cilicia, and the nations adioyning, to wit, Iſauricæ, Homonades, Piſidia, Lycaonia, Pamphylia, the mountaine Taurus, and Lycia.*

BVt time it is to returne now to the coaſts of Syria, and to Cilicia that confronts it. Where in the firſt place we meet with the riuer Diaphanes, the mountain Crocodilus, the ſtreights and

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A and paſſages of the mount Amanus: more riuers alſo, to wit, Andricon, Pinarus, and Lycus, as alſo the gulfe Iſſicus. The towne Iſſa ſtandeth vpon it, then come we to Alexandria to the Riuer Chlorus, the free towne Ægę, the riuer Pyramus, and the ſtreights in the entrance to Cilicia. Beyond them we encounter the townes Mallos & Magarſos: as for Tarſos it is more within the countrey. From this towne we enter vpon the plaines of Aleij, and ſo forward to theſe townes, Caſſipolis, and Mopſum, which is free, and ſtandeth vpon the riuer Pyramus; Thynos, Zephyrium, and Anchialæ. On forward you ſhal haue the riuers Saros and Sydnus, which runs through: Tarſus a free city far from the ſea: then are ye in the country Celeuderitis, together with the capitall towne thereof. And anon ye ſhall ſet foot in a place called Nymphæum, and
B Solœ Cilicij now Pompeiopolis, Adana, Cibira, Pinara, Pedalie, Halix, Arſinoe, Tabæ, & Doron: and neere the ſea ſide you ſhall finde a towne, an harbour, and a caue, named all Corycos. Soon after, the riuer Calycadnus. The cape Sarpedon, the townes Olme and Mylæ, the Cape and towne both of *Venus*, the very next harbor from whence men paſſe into the Iſle Cypres. But in the maine land you ſhall finde theſe townes, Myanda, Anemurium, Coraceſium: and the riuer Melas, the antient bound that limiteth Cilicia. Farther within-forth are to be ſpoken of, the Anazarbenes, at this day Cæſar Auguſtani; Caſtabla, Epiphania, before-time Eniandos, Eleuſa, and Iconium: Seleucia vpon the riuer Calicadmus, ſirnamed alſo Trachiotis, a city remoued backward from the ſea, where it was called Hormia. Furthermore, within the country, the riuers Liparis, Bombos, and Paradiſus. Laſt of all, the mountaine Iubarus. All Coſmographers haue ioyned Pamphylia to Cilicia, and neuer regarded the Nation of Iſaurica, being a
C country by it ſelfe, hauing within it theſe towns, Iſaura, Clibanus, Lalaſſis. And it ſhoots down to the ſea ſide, full vpon the frontiers of the country Anemurium aboue-ſaid. In like ſort, as many as haue ſet forth maps and deſcriptions of the world, had no knowledge at all of the Nation Homonades confining vpon it, notwithſtanding they haue a good towne within it, called Homona. Indeed the other fortreſſes, *viz.* 44, lie hidden cloſe among the hollow vallies & hils of that country. There inhabit the mountainers ouer their heads, the Piſidians, ſomtime called Sobymi, whoſe chiefe colony is Cæſaria, the ſame that Antiochia. Their townes be Oroanda and Sagaleſſos. This nation is incloſed as it were within Lycaonia, lying within the iuriſdiction of the leſſe Aſia, and euen ſo together with it, the Philomelians, Timbrians, Leucolithi, Pelteni, and Hyrienſes reſort thither for law and iuſtice. There is a gouernment or Tetrarchy alſo,
D out of the quarter of Lycaonia, on that ſide that bordereth vpon Galatia; vnto which belong 14 States or cities, the chiefe whereof is called Iconium. As for the nations of Lyconia, thoſe of any note be, Tembaſa vpon Taurus, Sinda in the confines of Galatia, and Cappadocia. But on the ſide thereof aboue Pamphilia, ye meet with Myliæ, diſcended in old time from Thrace, who haue for their head city Aricanda. As for Pamphilia, it was in antient time called Mopſopia. The Pamphylian ſea ioineth to the Cilician. The townes ſcituate vpon that coaſt, be Side, Aſpendus on the hill, Plantaniſtus, and Perga. Alſo the cape Leucolla, the mount Sardemiſus, the riuer Eurymedon, running hard by Aſpendum. Moreouer, Cataractes the riuer, neere vnto which ſtand Lyrneſſus and Olbia; and the vtmoſt towne of all that coaſt Phaſelis. Faſt vpon it lieth the Lycian ſea, and the nation of the Lycians, where the ſea makes a huge great gulfe.
E The mountaine Taurus likewiſe, confining vpon the Levant ſea, doth limit Lycia and Cilicia, with the promontorie Chelidonium. This Taurus is a mighty mountain, and determineth as a iudge an infinite number of nations. So ſoone as he is riſen from the coaſt of the Eaſt Indian ſea hee parteth in twaine, and taking the right hand paſſeth Northward, and on the left hand Southward, ſomwhat bending into the Weſt: yea, and diuiding Aſia through the middeſt, and (but that he meeteth with the ſeas) ready to ſtop and dam vp the whole earth beſides. He retireth back therefore, as being curbed, toward the North, fetching a great circuit, and ſo making his way, as if Nature of purpoſe oppoſed the ſeas eftſoones againſt him to bar him of his paſſage; of one ſide the Phœnician ſea, of another the great ſea of Pontus; the Caſpian & Hyrcanian ſeas likewiſe; and full againſt him the lake Mœotis. And notwithſtanding all theſe bars,
F within which he is pent, twined, and wreſted, yet maketh he means to haue the maſtery, and get from them all: and ſo winding byas he paſſeth on, vntill he encounter the Riphæan hils, which are of his owne kinde: and euer as he goeth is entituled with a number of new names. For he is called Imaus where he firſt beginneth: a little forward, Emodus, Paropamiſus, Circius, Canibades, Parphariades, Choatras, Oreges, Oroandes, Niphates, and then Taurus. Neuertheleſſe

where

where he is higheſt, and as it were ouer-reacheth himſelfe, there they name him Caucaſus : G
where he ſtretcheth forth his armes like as if he would now and then be doing with the ſeas, he changeth is name to Sarpedon, Coraceſius, and Cragus : and then once again he takes his former name Taurus, euen where he opens and makes paſſage as it were to let in the world. And yet for all theſe waies and ouertures he claimeth his owne ſtil, and theſe paſſages are called by the names of gates, in one place Armeniæ, in another Caſpiæ, and ſometimes Ciliciæ. Ouer and beſides, when he is broken into parcels, and eſcaped far from the ſea, he taketh many names from diuers and ſundry nations on euery ſide: for on the right hand he is termed Hyrcanus, and Caſpius: on the left, Pariedrus, Moſchicus, Amazonicus, Coraxicus, and Scythicus: and generally throughout all Greece, Ceraunius.

To returne then to Lycia, being paſt the foreſaid cape there, Chelidonium, ye come to the H
towne Simena, the hill Chimæra, which caſteth flames of fire euery night, the city Hephæſtium, where the mountains about it likewiſe oftentimes are known to burne. Somtimes the city Olympus ſtood there, but now nothing to be ſeene but mountaines, and amongſt them theſe townes, Gage, Corydalla, and Rhodiopolis. On the ſea coaſt, the city Lymira vpon a riuer, to which Aricandus runneth : alſo the mountaine Maſſyrites, the cities Andriara and Myra. Alſo theſe townes, Apyre, and Antiphellos, which ſomtime was called Habeſſus ; and more within-forth in a corner, Phellus. Then come ye to Pyrrha, and ſo to Xanthus, 15 miles from the ſea, and to a riuer likewiſe of that name. Soon after ye meet with Patara, before-time named Sataros, and Sydinia ſeated vpon an hill, and ſo to the promontorie Ciagus. Beyond which ye ſhall enter vpon a gulfe as big as the former, vpon which ſtandeth Pinara and Telmeſſus, the vtmoſt I
bound in the marches of Lycia. In antient time Lycia had in it 60 townes, but now not aboue 36. Of which the principall and of greateſt note, beſides the aboue named, be Canæ, Candiba, where is the famous wood Oenium, Podalia, Choma, vpon the riuer Adeſa, Cyane, Aſcandalis, Amelas, Noſcopium, Tlos, and Telanorus. As for the midland parts of the maine, you ſhall finde Chabalia, with three townes thereto belonging, Oenonda, Balbura, and Bubon.

When you are beyond Telmeſſus you meet with the Aſiaticke ſea, otherwiſe called Carpathium, and this coaſt is properly called Aſia. *Agrippa* hath diuided it in two parts, whereof the one by his deſcription confronteth vpon Phrygia and Lycaonia Eaſtward : but on the Weſt ſide it is limited with the Ægean ſea. Southward it bounds vpon Egypt, and in the North vpon Paphlagonia : the length thereof by his computation is 470 miles, the bredth 300. As for the other he ſaith, That Eaſtward it confineth vpon Armenia the leſſe : Weſtward vpon Phrygia, Lycaonia, and Pamphylia : on the North it butteth vpon the prouince or realm of Pontus, and on the South ſide is incloſed with the Pamphylian ſea. He addeth moreouer, that it containeth 575 miles in length, and 325 in bredth. The next coaſt bordering thereupon is Caria : and when you are paſt it, Ionia, and beyond that, Æolis. As for Caria it incloſeth Doris in the mids, enuironing it round on euery ſide, as far as to the ſea. In it is the Cape Pedalium, alſo the riuer Glaucus, charged with the riuer of Telmeſſus. The townes of any reſpect be Dædala and Crya, peopled only with baniſhed perſons. Therein you finde the riuer Axoum, and the towne Calydua. K

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Chap. XXVIII.

¶ *The riuer Indus.*

THe riuer Indus, ariſing from the mountaines of the Cybirates, receiueth into it 60 other running riuers, maintained with ſprings, of other ſmall riuers and brookes fed with land flouds, aboue 100. Vpon it ſtandeth the free towne Caunos, and a little off, Pyrnos. Soon after ye meet with the port Creſſa, ouer againſt which is diſcouered the Iſland Rhodus, within the kenning of twenty miles. Being paſt that hauen, you ſhall enter vpon the plaine Loryma, vpon which are ſeated the townes Tyſanuſa, Tarydion, Larymna. Then meet you with the M
gulfe Thymnias, and the cape Aphrodiſias : and on the other ſide of it the towne Hyda, and another gulf Schœnus. Then followes the country Bubaſſus, wherein ſtood in antient time, the towne Acanthus, otherwiſe called Dulopolis. Alſo vpon the cape there, the free city Gnidos, Triopia, then Peguſa, called likewiſe Stadia. Beyond which you enter into the Countrey of

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A Doris. But before we paſſe farther, meet it were to ſpeake of thoſe cities and States which are in the midland countrie; and which lie behind, and namely of one, named Cibiratica. The towne it ſelfe is in Phrygia, and to it reſort for law and iuſtice 25 cities.

Chap. XXIX.

¶ *Laodicia, Apamia, Ionia, Epheſus.*

THe principall citie in thoſe quarters (of the Cibirites) is Laodicia. Seated it is vpon the riuer Lycus: and yet there run hard to the ſides thereof two other riuers, Aſopus, and Ca-
B per. This citie in times paſt was called Dioſpolis, & afterwards Rhoas. The other nations belonging to that iuriſdiction of the Cibirates, worth the naming, by the Hydrelites, Themiſones, and Hierapolites. Another countie court or towne of reſort there is, which taketh the name of Synnada: and to it repaire for iuſtice, the Licaonians, Appians, Encarpenes, Dorylæi, Midæi, Iulienſes, and other ſtates of no great reckoning, fifteene. A third Seignorie or Shire there is that goes to Apamia, which in old time was called Celænæ, and afterwards Ciboron: ſcituate it is at the foot of the hill Signia, enuironed with three riuers, Marſias, Obrima, and Orga, falling all into the great riuer Mæander. As for the riuer Marſias (which a little from his ſpring was hid vnder the ground, whereas *Marſyas* the muſitian ſtroue with *Apollo* in playing vpon the flute) ſheweth himſelfe again in Aulocrenæ, for ſo is the vallie called, ten miles from
C Apamia, as men trauell the high way to Phrygia. Vnder this iuriſdiction, we ſhould do well to name the Metropolites, Dionyſopolites, Euphorbenes, Acmoneſes, Peltenes, and Silbians. There are beſides to the number of 60 ſmall towns of no account. But within the gulfe of Doris there ſtand Leucopolis, Amaxites, Eleus, and Euthenæ. Moreouer, other townes of Caria, Pitaium, Eutaniæ, and Halicarnaſſus. And to this citie were annexed, as ſubiect and homages by *Alexander* the great, ſix other townes, namely, Theangela, Sibde, Medmoſſa, Euranium, Pedaſium, and Telneſſum: which townes are inhabited betweene the two gulfes, Ceramicus, and Iaſius. From thence yee come to Myndus, and where ſometime ſtood Palæmindus, Neapolis, Nariandus, Carianda, the free citie Termera, Bergyla, and the town Iaſus which gaue the name to the gulfe Iaſius. But Caria is moſt renowned & glorious for the places of name within it in
D the firme land: for therein are theſe cities, to wit, Mylaſa free, and Antiochia, now ſtanding where ſometime were the townes, Seminethos, and Cranaos: and enuironed now it is about with the riuers Mæander, and Moſſinus. In the ſame tract ſtood ſometime Mæandropolis alſo. There is beſides, the citie Eumenia, vpon the riuer Cludrus: the riuer Glaucus: the towne Lyſias and Orthaſia. The tract or marches of Berecinthus, Nyſa, Trallais, which alſo is named Euanthia, Seleucia, and Antiochia; which is ſcituate vpon the riuer Eudone that runneth hard by it, and Thebanis which paſſes quite through it. Some there be who report, that the dwarfes called Pigmæi, ſometime there dwelt. In which region beſides, were theſe townes, Thydonos, Pyrrha, Eurome, Heraclea, Amyzon, and the free citie Alabanda, whereof that ſhierewicke or iuriſdiction tooke name. Alſo the free towne Stratonicea, Hynidos, Ceramus, Trœzene, and
E Phorontis. Yea there be nations farther remote, that reſort thither to pleade and haue iuſtice in that court: namely, the Othroniens, Halydiens, or Hyppines, Xyſtianes, Hydiſſenſes, Apolloniates, Ttapezopolites, and of free condition the Aphrodſians. Ouer and beſides theſe, there are Coſſinus, & Harpaſa, ſcituate vpon the riuer Harpaſus, which alſo ran vnder Trallicon, when ſuch a towne there was. As for the country of Lydia, watered it is in many places with the recourſe of Mæanders ſtreame, winding and turning in and out, as his manner is: and it reacheth aboue Ionia: confining vpon Phrygia in the Eaſt, vpon Miſia in the North, and in the South ſide encloſing all the countrie of Caria. This Lydia was ſometimes named Mœnia. The capitall citie of this region, is Sardis, ſeated vpon the ſide of the mountaine Tmolus, called beforetime Timolus, a hill well planted with vineyards. Moreouer, renowmed is this country for the
F riuer Pactolus iſſuing forth of this mountaine; which riuer is called likewiſe Chryſorrhoa: as alſo for the fountain Tarnes The city aboueſaid, was commonly by the Mœonias called Hyde, famous for the meer or lake of Gyges. Al that iuriſdiction is at this day called Sardinia. Thither reſort beſides the abouenamed, the Caduenes, deſcended from the Macedonians; the Lorenes, Philadelphenes, yea and the very Mœnians, ſuch as inhabite vpon the riuer Cogamus at the foot of Tmolus; and the Tripolitanes who together with the Antoniopolites, dwel vpon

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the riuer Mæander. Furthermore, the Apollonos-Hieritæ, Myſotmolites, and others of ſmall reputation. G

Ionia beginneth at the gulfe Iaſius, and all the coaſt thereof is very full of creekes and reaches. The firſt gulfe or creeke therein is Baſilicus; and ouer it the cape Poſideum, and the town called ſomtime, the Oracle of Branchidæ, but at this day, of Apollo Didymæus, 20 ſtadia from the ſea ſide. Beyond which 180 ſtadia, ſtandeth Milletus, the head citie of Ionia, named in time paſt Lelegeis, Pityuſa, and Anactoria. From which, as from a mother citie, are deſcended more than eighty others, all built along the ſea coaſt by the Milleſians. Neither is this city to be defrauded of her due honour, for bringing forth that noble citizen *Cadmus*, who deuiſed and taught firſt to write in Proſe. Concerning the riuer Mæander, it iſſueth out of a lake at the foot of the mountain Aulocrene: and paſſing vnder many townes, and filled ſtill with as many riuers running into it, it fetcheth ſuch windings to and fro, that oftentimes it is taken for to run back againe from whence it came. The firſt countrie that it paſſeth through, is Apamia: and from thence it proceedeth to Eumenitica, and ſo forward through the plaines Bergylletici. Laſt of all, hee commeth gently into Caria, and when hee hath watered and ouerflowed all that land with a moſt fat and fruitful mud that he leaueth behind him, about ten ſtadia from Miletus, he diſchargeth himſelfe into the ſea. Neer to that riuer, is the hill Latmus: the citie Heraclea, ſurnamed Caryca, of a hill of that name: alſo Myus, which as the report goeth, was the firſt citie founded by the Ionians after their arriuall from Athens, Naulochum, and Pyrene. Alſo vpon the ſea coaſt, the towne called Trogilia, and the riuer Geſſus. Moreouer, this quarter all the Ionians reſort vnto in their deuotion, and therefore named it is Panionia. Neere vnto it was built a priueledged place for all fugitiues, as appeareth by the name Phygela: as alſo the town Marathe ſium ſtood there ſometime: and aboue it, the renowmed citie Magneſia, ſurnamed, Vpon Mæander; of the foundation of that other Magneſia in Theſſalie. From Epheſus it is 15 miles; and from Trallais thither, it is three miles farther. Beforetime, called it was Theſſaloce, & Androlitia: and being otherwiſe ſituate vpon the ſtrond, it tooke away with it other Iſlands called Deraſides, and ioine them to the firme land from out of the ſea. More within the maine ſtandeth Thyatira (in old time called Pelopia and Euhippa) vpon the riuer Lycus. But vpon the ſea coaſt, yee haue Manteium, and Epheſus, founded in times paſt by the Amazones. But many names it had gone through before; for in time of the Troiane war, Alopes it was called: ſoone after, Ortygia, and Morges: yea, and it took name Smyrne, with addition of Trachæa, [*i.* rough] Samornium, and Ptelea. Mounted it is vpon the hill Pione, and hath the riuer Cayſtrus vnder it, which commeth out of the Cilbian hills, and bringeth downe with it many other riuers, and principally is maintained and enriched with the lake Pegaſeum, which diſchargeth it ſelfe by reaſon of the riuer Phyrites that runneth into it. With theſe riuers he bringeth downe a good quantitie of mud, whereby he increaſeth the land: for now already a good way within the land, is the Iſland Syrie, ioined to the continent. A fountain there is within the citie, called Callipia; and two riuers (height both Selinus) comming from diuers parts, enuiron the temple of *Diana*. After you haue been at Epheſus, you come to another Manteium, inhabited by the Colophonians: and within, the country Colophon it ſelfe, with the riuer Haleſus vnder it. Then meet you with the noble temple of *Apollo Clarius*, and Lebedos. And in this quarter ſomtime was to be ſeen the towne Notium. The promontory alſo Coryceon is in this coaſt: and the mountaine Mimas, which reaches out 250 miles, and endeth at length in the plaines within the continent that ioyne vnto it. This is the place, wherein *Alexander* the Great commanded a trench ſeuen miles long and an halfe to be cut through the plain, for to ioyne two gulfes in one, and to bring Erythree and Mimas together for to be enuironed round therewith. Neere this city Erythree were ſometimes the townes, Pteleon, Helos, and Dorion: now, there is the riuer Aleon, and the cape Corineum: vpon the mount Mimas, Clazomene, Partheniæ, and Hippi called Chytophoria, hauing beene ſometime Iſlands: the ſame, *Alexander* cauſed to be vnited to the firme land for the ſpace of two ſtadia. There haue periſhed within-forth and beene drowned, Daphnus, Hermeſia, and Sipylum, called before-time Tantalis, notwithſtanding it had beene the chiefe citie of Mœonia, ſituate in that place, where now is the meere or lake Sale. And for that cauſe Archæopolis ſucceeded in that preeminence, and after it Colpe, and in ſtead thereof Lebade. As you returne from thence toward the ſea ſide, about twelue miles off, you come vpon the citie Smyrna, built by an Amazonite, but repaired and fortified by *Alexander* the Great. Ituate H I K L M

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A tuat it is pleaſantly vpon the riuer Melis,which hath his head and ſource not far off. The moſt renowned hils in Aſia for the moſt part, ſpred themſelues at large in this tract, to wit, Maſtuſia, on the back ſide of Smyrna; and Termetis,that meets cloſe to the foot of Olympus. This hil Olympus endeth at the mountain Tmolus; Tmolus at Cadmus; and Cadmus at Taurus. When you are paſt Smyrna,you come into certain plains,occaſioned by the riuer Hermus,and therefore adopted in his name. This riuer hath his beginning neer to Doryleus a city of Phrygia,and takes into it many other cities,& principally Phryge, which giues name to the whole nation,and diuides Phrygia and Caria aſunder. Moreouer Lyllus & Crios,which alſo are big and great by reaſon of other riuers of Phrygia,Myſia,and Lydia, which enter into them. In the very mouth of this riuer ſtood ſomtime the towne Temnos; but now in the very vtmoſt nouke
B of the gulfe certain ſtony rocks called Myrmeces. Alſo the towne Leuce vpon the cape ſo called: ſomtime an Iſland it was: and laſt of all Phocæa, which limiteth and boundeth Ionia. But to returne to Smyrna; the moſt part of Æolia,whereof we will ſpeake anon,repaires commonly thither to their Parliament and Aſſiſes. Likewiſe the Macedonians,ſyrnamed Hircani, as alſo the Magnetes from Sipylum. But vnto Epheſus,which is another principal and famous city of Aſia,reſort thoſe that dwell farther off,to wit,the Cæſarians,Metropolites,Cylbianes, the Myſo-Macedonians,as well the higher as the lower,the Maſtaurians,Brullites,Hyppepœnians,and Dios-Hieriteæ.

Chap. XXX.

C ¶ *Æolis, Troas, and Pergamus.*

AEolis,in old time Myſia,confronts vpon Ionia: ſo doth Troas,which bounds on the coaſt of Helleſpontus. Being then paſt Phocæa,you meet with the port Aſcanius, & the place where ſometime Lariſſa ſtood: and now Cyme, and Myrina which loueth to be called Sebaſtopolis. Within the firme land,Ægæ,Attalia,Poſidea, Neon-tichos, and Temnos. But vpon the coaſt, the riuer Titanus, and a city taking name thereof. The time was when a man might haue ſeen there the city Grynia: but now there is but an hauen and the bare ground, by reaſon that the Iſland is taken into it, and ioyned thereto. The towne Elæa is not farre from thence,and the riuer Caicus comming out of Myſia. Moreouer,the towne Pytane,and the Ri-
D uer Canaius. Other townes there were in old time,but they are loſt and periſhed, namely, Canæ,Lyſimachia,Atarnæa, Carenæ, Ciſthene, Cilla, Cocillum, Thebæ, Aſtyre, Chryſa, Palæſtepſis, Gergithos,and Neandros. Yet at this day are to be ſeen the city Perperene,& beyond it the tract and territory Heracleotes,the towne Coryphas,the riuer Gryliooſolius, the quarter called Aphrodiſias,before-time Politice. Orgas the country,and Scepſis the new. The riuer Evenus,vpon the banke whereof ſtood once Lyrmeſſos,and Miletos,but now they are gon. In this tract is the mountain Ida. Moreouer,in the ſea coaſt, Adramytteos, ſomtime called Pedaſus,where the Parliament and Terme is holden, and whereof the gulfe is named Adramitteos. Other riuers be there beſides,to wit, Aſtron, Cormalos, Eryannos, Alabaſtros, and Hieros out of Ida. Within-forth be Gargara,a towne and hill both. And then again toward the ſea ſide,
E Antandros, before-time called Edonis: then, Cymeris, and Aſſos, which alſo is Apollonia. Long ſince alſo there was a towne called Palamedium. After all theſe,you come vpon the cape Leolon,the middle frontier between Æolus and Troas. And there had bin in antient time the city Polymedia,and Cryſſa,with another Laryſſa alſo. As for the Temple Smintheum it remaineth ſtill. But farther within,the towne Colone that was, is now decayed and gon,and the traffique and negotiation in all affaires turned from thence to Adramytteum. Now as touching the territorie of the Apolloniates,after you be paſt the riuer Rhyndicus, you finde theſe States; the Ereſians,Miletopolites,Pœmanenes, Macedonians, Aſchilacæ, Polychnæi, Pionites,Cilices,and Mandagandenes. In Myſia, the Abrettines, and thoſe called Helleſpontij;
F beſides thoſe of baſe account and eſtimation. The firſt city you encounter in Troas,is Amaxitus: then Cebrenia and Troas it ſelfe, named alſo Antigonia, now Alexandria, and is entituled a Roman Colony. Beyond Troas ſtandeth the towne Nee: there runneth alſo Scamander, a riuer nauigable; and Sigæum, a Towne ſometime, vpon the cape ſo called. At length you come to the hauen of the Greeks, into which Xanthus and Somoeis runne ioyntly together, as

alſo Palæ-Scamander, but firſt it maketh a lake. The reſt that *Homer* ſo much ſpeaks of, namely Rhæſius, Heptaporus, Careſus, and Rhodius, there is no mention or token remaining of them: as for the riuer Granicus, it runneth from diuers parts into the chanel of Propontis. Yet there is at this day a little city called Scamandria: and one mile and a halfe from the port or ſea, the free city Ilium, that enioyeth many immunties and liberties; of which towne goeth all that great name. Without this gulfe lieth the coaſt Rhœtea, inhabited with theſe townes vpon it, namely, Rhœteum, Dardanium, and Arisbe. There ſtood ſometimes alſo Acheleum, a towne neere vnto the tombe of *Achilles*; founded firſt by the Mityleneans, and afterwards re-edified by the Athenians, vpon the Bay Sigæum, vnder which his fleet rode at anchor. There alſo was Acantium, built by the Rhodians, in another coine or canton of that coaſt, where *Aiax* was interred, a place thirty ſtadia diſtant from Sigæum, and the very Bay wherein his fleet alſo lay at harbour. Aboue Æolis and one part of Troas, within the Continent and firme land there is the towne called Teuthrania, which the Myſians in old time held. And there ſpringeth Caicus the riuer aboue ſaid. A large countrey this is of it ſelfe, and eſpecially when it was vnited to Myſia, and all ſo called: containing in it Pioniæ, Andera, Cale, Stabulum, Coniſium, Tegium, Balcea, Tiare, Teuthrane, Sarnaca, Haliſerne, Lycide, Parthenium, Thymbrum, Oxiopum, Lygdanum, Apollonia, and Pergamus the goodlieſt city of them all by many degrees: through it paſſeth the riuer Selinus, and Cætius runneth hard vnder it, iſſuing out of the mountain Pindaſus. And not far from thence is Elea, which as we ſaid ſtandeth vpon the ſtrond. And verily all that tract and iuriſdiction is of that city named Perganena. To the Parliament and judiciall Aſſiſes there reſort the Thyatyrenes, Mygdones, Moſſines, Bregmenteni, Hieracomitæ, Perpereni, Tyareni, Hierapolenſes, Harmatapolites, Attalenſes, Pantaenſes, Apollonidenſes, and other pety cities of no name and account. As for Dardanium, a pretty towne it is, threeſcore and ten ſtadia from Rhœteum. Eighteene miles from thence is the cape Trapeza, where the ſea beginneth to ruſh roughly into the ſtreight Helleſpont. *Eratoſthenes* mine Authour ſaith, That the cities of the Solymi, Leleges, Bebrices, Colycantij and Trepſedores ſomtime flouriſhed, but now are vtterly periſhed. *Iſidorus* reporteth as much of the Arymeos and Capretæ, the very place where Apamia was built by *Seleucus*, betweene Cilicia, Cappadocia, Cataonia, and Armenia: and for that he had vanquiſhed moſt fierce and cruell nations, at the firſt he named it Damea.

Chap. XXXI.

¶ *The Iſlands lying before little Aſia, and in the Pamphylian ſea. Alſo Rhodus, Samus, and Chios.*

THe firſt Iſland of Aſia is iuſt againſt the mouth or channell of Nilus, called Canopicus of *Canopus*, (as men ſay) the Pilot of K. *Menelaus*. The ſecond is Pharus, which is ioined to Alexandria by a bridge: in old time it was a daies ſailing from Ægypt to it: and now by fires from a watch-tower ſailers are directed in the night along the coaſt of Egypt. *Cæſar* Dictator erected therein a colony. And in truth it ſerueth in right good ſtead as a Lanthorne: for the hauens about Alexandria be very dangerous and deceitfull, by reaſon of the barres and ſhelues in the ſea: and there are but three chanels and no more, by which a man may paſſe ſafely to Alexandria, to wit, Tegamum, Poſideum, and Taurus. Next to that Iſle, in the Phœnician ſea before Ioppa, lies Paria, an Iſle of no great compaſſe, for it is all one town. This is the place, folke ſay, where lady *Andromeda* was expoſed and caſt out to a monſter. Moreouer, Aredos, the Iſle before named, between which and the Continent there is a fountaine, as *Mutianus* writeth, in the ſea where it is fifty cubits deep, out of which freſh water is drawne and conueighed from the very bottome of the ſea, through pipes made of leather. As for the Pamphylian ſea, it hath ſome ſmal Iſlands of little or no reckoning. In the Cicilian ſea there is Cyprus, one of the fiue greateſt in thoſe parts, and it lieth Eaſt and Weſt full againſt Cilicia and Syria. The Seate it was in times paſt, whereunto nine Kingdomes did homage, and of which they held. *Timoſthenes* ſaith, That it contained in circuit foure hundred and nineteene miles and an halfe: but *Iſidorus* is of opinion, that it is but three hundred ſeuenty fiue miles about. The ful length thereof

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A thereof betweene the two capes, Dinaretas and Acamas, which is Southward, *Artemidorus* reporteth to be a hundred and ſixtie miles and a halfe: and *Timoſthenes* two hundred; who ſaith beſides, that ſometime it was called Acamantis: according to *Philonides*, Ceraſtis: after *Xenagoras*, Aſpelia, Amathuſia, and Macatia: *Aſtynomus* calleth it Cryptos and Colinia. Townes there be in it fifteene, Paphos, and Palepaphos (that is, Paphos the new, and Paphos the old,) Curias, Citium, Corineum, Salamis, Amathus, Lepathos, Solœ, Tamaſeus, Epidarum, Chytri, Arſinoe, Carpaſium, and Golgi. There were in it beſides, Cinirya, Marium and Idalium: but now are they come to nothing. And from the cape Anemurium in Cilicia, it is fifty miles diſtant. All that ſea which lieth betweene it and Cilicia, they call Aulon Cilicium, that is to ſay, The plaine of Cilicia. In this tract is the Iſland Elæuſa: and foure others beſides, euen before the cape, named Clides, ouer-againſt Syria. Likewiſe one more, named
B Stiria, at the other cape or point of Cilicia. Moreouer, againſt Neampaphos, [*i.* new Paphos] the Iſle Hierocepia. Againſt Salamis, Salaminæ. Moreouer in the Lycian ſea there be Iſles, Illyris, Telendos, Attelebuſſa, and three Cypriæ, all barren and fruitleſſe: beſides Dionyſia, before-time called Caretha. Moreouer, againſt the promontory of Taurus, and the Chelidoniæ, hurtfull and dangerous to ſaylers: and beſides them as many more, together with the towne Leucola, called Pactiæ, namely, Laſia, Nymphous, Macris, Megiſta, in which the citie that ſtood is gone. Beſides theſe, many others there were, but of no importance. But ouer-againſt the cape Chimera, Dolichiſte, Chirogilium, Crambuſſa, Rhoge, Enagora of eight miles. Againſt Dædalion, two: againſt Cryeon, three: Stongyle, moreouer, againſt
C Sidynia, which king *Antiochus* founded: and toward the riuer Glaucus; Laguſa, Macris, Didymæ, Helbo, Scope, Aſpis, and Telandria: howbeit, the towne in it is ſunke and gone: laſt of all the Iſle Rhoduſſa, next to the harborough or hauen Caunus. But the faireſt of all is the Iſle Rhodes, a free ſtate, and ſubiect to none: It containeth in compaſſe an hundred and thirtie miles, or if we rather giue credit to *Iſidorus*, an hundred and three. Three great townes there be in it well peopled, Lindus, Camirus, and Ialyſus, now called Rhodes. By the account of *Iſidorus* it is from Alexandria in Ægypt, fiue hundred ſeuenty and eight miles: but according to *Eratoſthenes* fiue hundred ſixty and nine: after *Mutianus* fiue hundred, and from Cyprus foure hundred and ſixteene. Many names hath it been knowne by in times paſt, to wit, Ophyuſa, Aſteria, Æthræa, Trinacria, Corymbia, Pœeſſa, Atabyria of king *Atabyris*: and finally, Macaria,
D and Oloeſſa. Many other Iſlands be ſubiect vnto it, and namely Carpathus (which gaue name to the ſea Carpathium) Caſos, Achme in times paſt: and Niſeros, diſtant from Gnidos twelue miles and an halfe, which heretofore had beene called Porphyris. And in the ſame raunge, Syme, betweene Rhodes and Gnidus, and is in circuit ſix and thirtie miles and a halfe. Enriched this Iſland is with eight commodious hauens. Ouer and beſides theſe, there lie about Rhodes, Cyclopis, Teganon, Cordyluſa, foure vnder the name of Diabete: Hymos, Chalcis, wherein ſtandeth a good towne: Seutluſa, Narthecuſa, Dimaſtos, and Progne. Being paſt Gnidos, yee ſhall diſcouer Ciferuſſa, Therionarce, Calydne beautified with three townes, to wit, Notium, Niſyrus, Mendeterus: with Arconeſus the Iſle, wherein ſtandeth the towne Ceramus. Vpon the coaſt of Caria, the Iſlands, twenty in number, called Argiæ: beſides, Hye-
E tuſſa, Lepſia, and Leros. But the goodlieſt & moſt principall of all others in that coaſt is Cos, which lieth from Halicarnaſſus fifteene miles; and in compaſſe about, it beareth an hundred miles: as men thinke, Merope it was called: as *Staphylus* ſaith, Cos: but according to *Dionyſius*, Meropis: and afterwards Nymphæa. This Iſle is fortified with the mount Prion: and as ſome thinke, Niſyris the Iſland, named before-time Porphyris, was of old vnited to this, and afterwards diſmembred from it. Beyond this Iſland yee may diſcouer Carianda, with a towne in it: and not farre from Halicarnaſſus, Pidoſus. Moreouer, in the gulfe Ceramicus, Priaponneſus, Hipponeſus, Pſyra, Mya, Lampſemandus, Paſſala, Cruſa, Pyrrhe, Sepiuſſa, Melano. And within a little of the maine, another called Cinedopolis, by occaſion of certain Catamites and ſhamefull baggages that king *Alexander* the Great left there. The coaſt of Ionia
F hath in the ſea the Iſlands Ægeæ and Corſeæ, beſides Icaros, ſpoken of before. Alſo Lade, before-time called Latæ: and among ſome other little ones of no worth, the two Camelides neer to Miletus. Moreouer, Mycalum, Trogyliæ, Trepſilion, Argennon, Sardalion: & the free Iſland Samos, which in circuit hath foureſcore and ſeuen miles, or as *Iſidorus* thinkes, a hundred. *Ariſtotle* writeth, how at the firſt it was called Parrhania, afterwards Dryuſa, and then Anthemuſa.

Aristocritus giueth it moreouer other names, to wit, Melamphyllus, yea, and Cypariſſia: others terme it Partheno-aruſa, and Stephane. Riuers in it be Imbraſus, Cheſius, and Ibettes: fountaines of freſh water, Gigarto, and Leucothea: but no other hils, ſaue only Cercetius. There lie adioyning to it other Iſlands beſides, namely, Rhypara, Nymphæa, and Achillea. Foureſcore and thirteene miles from it, you may diſcouer Chios, a free ſtate, with a town in it, which is an Iſland as renowned euery way as Samos: *Ephorus* by the ancient name calleth it Æthalia: *Metrodorus* and *Cheobulus*, Chia, of a certaine lady Nymph, whoſe name was *Chio*: others ſuppoſed it was ſo called of Chion, *i.* Snow: and ſome would haue it to be Macris and Pityuſa. An hill there is in it called Pellenæas, where the good marble is digged, called Chium. The ancient Geographers haue written, That it is a hundred twenty and fiue miles about; and *Iſidorus* addeth nine more. Scituate it is betweene Samos and Lesbos, full oppoſite vnto the cape Erythræ. Neere vnto it lie Thalluſa (which ſome write Dapnuſa,) Oenuſſa, Elaphites, Euryanaſſa, Arginuſſa with a towne. Now are all theſe about Epheſus, as alſo the Iſles of *Piſiſtratus*, ſo called: and thoſe which are named Anthinæ, to wit, Myonneſus, and Diareuſa. In both theſe the townes that were, be loſt through water. Furthermore, the Iſland Poroſelenæ with a towne in it, Cerciæ, Halone, Commone, Illetia, Lepria, and Rheſpheria, Procuſæ, Bolbulæ, Phanæ, Priapos, Syce, Melane, Ænare, Siduſa, Pela, Drymuſa, Anydros, Scopelos, Sycuſſa, Marathuſſa, Pſile, Perirheuſa, and many others of no reckoning. But among the Iſles of name, is that of Teos, lying farther in the deepe ſea, which hath a towne in it: and lieth from Chios foureſcore and one miles, and as much from the Bay Erythræ. Neere vnto Smyrna are the Iſlands Periſterides, Catieria, Alopece, Elæuſſa, Bachina, Pyſtira, Crommyonneſus, and Megale. And iuſt before Troas, the Iſles Aſcaniæ, and three Plateæ. Then the Lamiæ, and two Plitaniæ. Moreouer, the Iſlands Plate, Scopelos, Getone, Artheidon, Celæ, Laguſſæ, and Didymæ. But the moſt ſtately of all others in this ſea, is Lesbos, which lies from Chios threeſcore and fiue miles. Named it was in times paſt, Hemerte, Laſia, Pelaſgia, Ægira, Æthiope and Macaria: within it were eight townes of name; whereof one, namely Pyrrha, is ſwallowed vp of the ſea: and another, to wit, Arisbe, ouerthrown by an earthquake. As for the Iſle Methymna was peopled from Antiſſa, which was vnited to it, and wherein were eight townes, and is about ſeuen and thirtie miles from * Aſia the leſſe. As for the townes Agamede and Hiera which were in it, gone they be now and vtterly periſhed. Yet there remaine Ereſos, Pyrrha, and Mitylenæ, which hath continued for fiue hundred yeeres, mighty and puiſſant. *Iſidorus* ſaith, That this Iſland is in circuit about a hundred ſeuenty and three miles: but the old Geographers, a hundred ninety and fiue. In it are theſe mountaines, Lepethymus, Ordymnus, Mariſtus, Creon, and Olympus. Eight miles and a halfe it is from the Continent, where it lieth neereſt. About this Iſland Lesbos, there lie neere at hand other little ones, namely, Saudalion, and the fiue Leucæ. Of which Cydonea is one, wherein is a fountaine of hot water. As for Argenuſſæ, from thence to Ægæ is reckoned foure miles. There are beſides in this coaſt Phelluſa, & Pedua. Now without Helleſpont, ouer-againſt the bay and cape Sigeum, lieth the Iſle Tenedus, called ſometimes Leucophrys, Phænice, and Lyrneſſos. From Lesbos it is ſix and fifty miles, and from Sigæum twelue miles and a halfe.

* Natolia

Chap. XXXII.

¶ *Helleſpontus, Myſia, Phrygia, Gallatia, Bithynia, Boſphorus.*

Archipelago.

LEt vs now leaue the Iſles in the ſea Ægeum, and come to Helleſpont, now called the ſtreights of Callipolis: whereinto the maine ſea guſhes with a mighty force and violence, with his gulfes and whirlepooles, digging before him a way, vntil he haue limited and diuided Aſia from Europe. The promontory firſt appearing there, we named Trapeza. From which tenne miles off, ſtandeth the towne Abidum, where the ſtreights are but ſeuen ſtadia ouer. Beyond it is Percote the towne: and Lampſacum, called before-time Pityuſa. Moreouer, the Colonie Parium, which *Homer* named Adraſtia. Moreouer, the towne Priapos, the riuer Æſepus and the cape Zelia. Then come ye to Propontus, for ſo is the place called where the ſea begins to enlarge it ſelfe. Into this channell runneth the riuer Granicum, which maketh the hauen Artace, where once ſtood a towne. Beyond it there is an Iſland, which *Alexander* the Great ioined to the Continent [by two bridges, according to *Strabo*] in which ſtandeth the towne Cyzicum,

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A zicum, founded by the Mileſians, called heretofore Arconneſos, Dolionis, & Dindymis, neere the top whereof is the mountaine Dindymus. When ye are beyond Cizycum, you meet with theſe townes beſides, Placia, Ariacos, Scylacum, & behind them, the hill Olympus, called ſometime Mæſius. Alſo the city Olympena. The riuers Horiſius and Rhyndacus, named heretofore Lycus. This riuer taketh his beginning in the mariſh or meere Artynia, neere to Miletopolis. It receiueth into it Mareſtos, and many others, and parteth Aſia from Bithynia. This region in antient time was called Cronia: after, Theſſalis: then Malianda, and Strymonis. All this nation of theſe quarters, *Homer* named Halizones, for that they be enuironed with the ſea. Therein ſtood in old time a mighty great city named Attuſa. At this day it hath 15 cities, amongſt
B which is Gordiu-come, now called Iuliopolis: and in the very coaſt vpon the ſea, Daſcylos. Go further on and ye meet with the riuer Gebes: and within the main, the towne Helgas, the ſame that Germanicopolis, knowne alſo by another name, Booſcœte, as alſo Apamea, now called Myrtea of the Colophonians. Being paſt it, you come to the riuer Etheleum, the antient limit of Troas, where Myſia beginneth. Afterwards you enter into the gulfe of Bryllion, whereinto runneth the riuer Aſcanium, vpon which ſtandeth the towne Bryllion, and beyond it you ſhall ſee the riuers Helas and Cios, together with a town of that name. A mart town this was, whereto reſorted the Phrygians that border neere to it, for to traffique and furniſh themſelues with merchandiſe: built verily it was by the Mileſians: but the place whereon it ſtood was called Aſcania of Phrygia. And therefore me-thinks we cannot do better than euen here to ſpeake of
C that country. Phrygia then ſpreadeth out aboue Troas and the nations before-named, from the cape Lectus vnto the riuer Etheleus. It confronteth on the North ſide vpon part of Galatia, Southward it boundeth hard to Lycaonia, Piſidia, and Mygdonia. And on the Eaſt part it reacheth to Cappadocia. The townes of greateſt name, beſides thoſe before rehearſed, be Ancyra, Andria, Celænæ, Coloſſæ, Carina, Cotiaion, Ceranæ, Iconium, and Midaion. Certain Authors I haue, who write, that out of Europe there come to inhabit theſe parts, the Myſi, Bryges, and Thyni, of whom are deſcended and likewiſe named, the Myſians, Phrygians, and Bithynians.

And euen here I think it good to write alſo of Galatia, which lying higher than Phrygia, yet poſſeſſeth a greater part of the plaine countrey thereof, yea and the capitall place of it, ſome-
D time called Gordium. They that inhabited and held that quarter of Phrygia were Gaules, called Toliſtobogi, Voturi, and Ambitui: but they that occupied the countreys of Mæonia and Paphlagonia were named Trochmi. This region confronteth Cappadocia on the North and Eaſt ſide, and the moſt fruitfull part thereof the Tectoſages and Teutobodiaci kept in their poſſeſſion. And ſo much for the principall nations of this countrey. As for the States, Tetrarchies, and regiments, there be in all 195. The townes are theſe: of the Tectoſages, Ancyra: of the Trochmi, Tavium: of the Toliſtobogians, Peſinus. Beſides theſe, there be States of good account, Attalenſes, Araſenſes, Comenſes, Dioſhieronitæ, Lyſtreni, Neapolitani, Oeandenſes, Seleucenſes, Sebaſteni, Timmoniacenſes, and Tebaſeni. This Galatia extendeth euen as far as to Gabalia and Milyæ in Pamphylia, which are ſcituate about Baris: alſo Cyllanticum and
E Oroadicum, the marches of Piſidia, likewiſe Obigene, part of Lycaonia. Riuers there be in it, beſide thoſe before named, Sangarium and Gallus, of which riuer, the gelded prieſts of dame *Cybelæ*, mother of the gods, were named Galli. Now it reſteth to ſpeake of the towns vpon the ſea coaſt. Yet I cannot ouerpaſſe Pruſa neere to Cios, which lieth farre within the countrey of Bithynia, which *Anniball* founded at the foot of the hill Olympus: from Pruſa to Nicæa are counted 25 miles: in which way lieth the lake Aſcanius betweene. Then come vou to Nicæa in the very vtmoſt part of the gulf Aſcanium, which before was called Olbia: alſo to another Pruſa, built vnder the mountaine Hippius. Once there were in this coaſt Pythopolis, Parthenopolis, and Coryphanta. And now there be vpon the ſea ſide theſe riuers, Æſius, Bryazon, Plataneus, Areus, Siros, Gendos, named alſo Chryſorrhoas. The promontory alſo, vpon which
F ſtood the towne Megaricum. Then the gulfe or arme of the ſea which was called Craſpedites, for that that towne before named ſtood as it were in a fold, plait, or nouke thereof. Sometimes alſo there was the towne Aſtacum, whereupon the Creeke tooke the name of Aſtacenus. Moreouer, in antient time, the Towne Libyſſa, by report, was planted there: But now there remaineth nothing elſe to be ſeen but the tombe of *Anniball*. But in the inmoſt part of the Gulfe, where it endeth, there ſtandeth the goodly faire City of Bithynia called Nico-

media. The cape Leucatas, which incloſeth the gulfe Aſtarenus, is from Nicomedia 42 miles and halfe. Being paſt this gulfe, the ſea begins to ſtreighten again, and the land to meet neer together; and theſe ſtreights reach as far as Boſphorus in Thracia. Vpon theſe ſtreights ſtands the free city Chalcedon, 72 miles and a halfe from Nicomedia. Before-time it was called Proceraſtis: then Compuſa: afterwards, the city of the Blind, for that they who founded it, being in a place but 7 ſtadia from Bizantium, where was a ſeat in all reſpects more commodious and fit for a city, were ſo blind as not to chuſe it for the plot of Chalcedon. But within the firme land of Bithynia is the colony Apamena: and there inhabit alſo the Agrippenſes, Iuliopolites, and they of Bithynium. Moreouer, for riuers ye haue Syrium, Lapſias, Pharmicas, Alces, Crynis, Lylæus, Scopius, Hieras, which parteth Bithynia from Galatia. Beyond Chalcedon ſtood Chryſopolis: then Nicopolis, of which the gulfe ſtill retaines the name, wherein is the hauen of Amycus: the cape Naulocum, Eſtia, wherein is the temple of *Neptune*: and the Boſphorus, a ſtreight halfe a mile ouer, which now once again parteth Aſia and Europe. From Chalcedon it is 12 miles and an halfe. There beginneth the ſea to open wider, where it is 8 miles & a quarter ouer, in that place where ſtood once the towne Philopolis. All the maritime coaſts are inhabited by the Thyni, but the inland parts by the Bithynians. Lo here an end of Aſia, and of 282 nations, which are reckoned from the limits and gulf of Lycia, vnto the ſtreights of Conſtantinople. The ſpace of the ſtreights of Helleſpont and Propontis together, vntill you come to Boſphorus in Thracia containeth in length 188 miles, as we haue before ſaid. From Chalcedon to Sigeum, by the computation of *Iſidor*, are 372 miles and a halfe. Iſlands lying in Propontis before Cyzicum, are theſe, Elaphonneſus, from whence commeth the Cyzicen marble; and the ſame Iſle was called Neuris, and Proconneſus. Then follow Ophyuſa, Acanthus, Phœbe, Scopelos, Porphyrione, and Halone with a towne. Moreouer, Delphacia and Polydora, alſo Artacæon, with the towne. Furthermore, ouer againſt Nicomedia is Demonneſos: likewiſe beyond Heraclea, iuſt againſt Bithynia, is Thynias, which the Barbarians call Bithynia. Ouer and beſides, Antiochia: and againſt the foſſe or riuer Rhyndacus, Besbicos, 18 miles about. Laſt of all, Elæa, two Rhoduſſæ, Erebinthus, Magale, Chalcitis, and Pityodes.

THE SIXTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I.

¶ *Pontus Euxinus.*

THe ſea called Pontus Euxinus, and named by the Greeks in old time, Axenos, for the hard vſage that paſſengers found at the hands of thoſe ſauage Nations vpon the coaſts thereof, is ſpred alſo betwixt Europ and Aſia, vpon a very ſpite and ſpeciall enuy of Nature, as it ſeems, to the earth, and a wilfull deſire to maintaine the ſea ſtill in his greatneſſe, and to fulfill his greedy and endleſſe appetite. For ſhee was not contented to haue inuironed the whole earth, with the main Ocean, yea and taken from it a great part thereof, with exceeding rage ouerflowing the ſame, and laying all empty and naked: it ſufficed not, I ſay, to haue broken through the mountaines, and ſo to ruſh in, and after the ſea had diſmembred * Caſpe from Affricke, to haue

* Mouth of Gibraltar.

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A haue ſwallowed vp much more by far than is left behind to be ſeen: no nor to haue let Proponti ſguſh through Helleſpont, and ſo to encroach again vpon the earth and gaine more ground: vnleſſe from the ſtreights of Boſphorus alſo he enlarge himſelfe into another huge and vaſt ſea, and yet is neuer content, vntill the lake Mœotis alſo with his ſtreight, meet with him as he thus ſpreadeth abroad and floweth at liberty, and ſo ioine together and part as it were, their ſtolne good betweene them. And verily that all this is happened maugre the earth, and that it made all reſiſtance that it could, appeareth euidently by ſo many ſtreights and narrow paſſages lying between theſe two elements of ſo contrary nature (conſidering that in Helleſpont, the ſpace is not aboue 875 paces from land to land; and at the two Boſphori the ſea is ſo paſſeable, that oxen or kine may ſwim at eaſe from the one ſide to the other: and hereupon they both
B tooke their name:) the which vicinitie ſerueth very wel to entertaine and nouriſh amity among nations, ſeparated by nature one from another; and in this diſunion as it were, appeareth yet a brothely fellowſhip and vnitie. For the cocks may be heard to crow, and the dogs to bark, from the one ſide to the other; yea and men out of theſe two worlds may parly one to another with audible voice, and haue commerce of ſpeech together, if the weather be calme, and that the windes doe not carry away the ſound thereof.

Well, the meaſure ſome haue taken of the ſea, from Boſphorus Thracius to the lake of Mœotis, and haue accounted it to be 1438 miles and a halfe. But *Eratoſthenes* reckoneth it leſſe by one hundred. *Agrippa* ſaith, that from Chalcedon to Phacis, is a thouſand miles, and ſo to Boſphorus Cimmerius 360 miles. As for vs we will ſet downe ſummarily and in generall, the diſtances of places, according to the moderne knowledge of our nation in theſe daies, foraſmuch
C as our armies haue warred in the very ſtreight and mouth of this Cimmerian ſtreight.

Being paſſed then from the ſtreight of Boſphorus Thracius, we meet with the riuer Rhebas, which ſome haue called Rhœſus; and beyond it Pſillis another riuer; then come we to the port of Calpas, and Sangarius one of the principall riuers of Aſia; it ariſeth in Phrygia, it receiueth other huge riuers into it, and among the reſt Tembrogius and Gallus. The ſame Sangarius was called alſo Coralius. After this riuer, begin the gulfes Mariandini, vpon which is to be ſeen the towne Heraclea, ſcituate vpon the riuer Lycus. It is from the mouth of Pontus 200 miles. Beyond it is the port Acone, curſed for the venomous herbe and poiſonous Aconitum, which taketh name thereof. Alſo the hole or caue Acheruſia. Riuers alſo there be, Pedopiles, Callichorum and Sonantes. One towne, Tium, eight and thirty miles from Heraclea: and laſt of all, the
D riuer Bilis.

Chap. II.

¶ *The nation of the Paphlagonians and Cappadocians.*

BEyond this riuer Bilis, is the countrey Paphlagonia, which ſome haue named Pylemerina, and it is incloſed with Galatia behinde it. The firſt towne ye meet in it, is Maſtya, built by the Mileſians: and next to it, is Cromna. In this quarter the Heneti inhabit, as *Cornelius Nepos* ſaith. Moreouer, from thence the Venetians in Italy, who beare their name, are deſcended as he would haue vs beleeue. Neere to the ſaid towne Cromna, is another called Seſamum in
E times paſt, and now Amaſtris. Alſo the mountaine Cytorus, 64 miles from Tium. When you are gone paſt this mountain, you ſhall come to Cimolus and Stephane, two townes, and likewiſe to the riuer Parthenius; and ſo forward to the cape and promontory Corambis, which reacheth forth a mighty way into the ſea: and it is from the mouth of the ſea Pontus 315 miles, or as others rather thinke, 350. As far alſo it is from the ſtreight Cimmerius, or as ſome would rather haue it, 312 miles and a halfe. A towne there was alſo in times paſt of that name; and another likewiſe beyond it called Arminum: but now, there is to be ſeen the colony Sinope, 164 miles from Citorum. Being paſt it, you fall vpon the riuer Varetum, the people of Cappadocia, the townes Gazima and Gazelum, and the riuer Halyto, which iſſuing out of the foot of the hill Taurus, paſſeth through Cataonia and Cappadocia. Then meet you with theſe towns
F following, Gangre, Cariſſa, and the free city Amiſum, which is from Sinope 130 miles. As you trauell farther, you ſhall ſee a gulfe carrying the name of the ſaid towne, where the ſea runneth ſo far within the land, that it ſeems to make Aſia well-neare an Iſland: for from thence vnto the gulf Iſſicus in Cilicia is not aboue 200 miles through the continent. In al which tract, there be

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no more than three nations which iustly and by good right, may be called Greekes, to wit, the Dorians, Ionians, and Æolians; for all the rest are reputed barbarous. Vnto Amisum, there ioined the towne Eupatoria, founded by K. *Mithridates*; and after that he was vanquished, both together tooke the name of Pompeiopolis. G

Chap. III.

¶ *Cappadocia.*

IN Cappadocia, there is a city well within the land, called Archelais, scituate vpon the riuer Halys: which *Claudius Cæsar* the Emperor erected as a colony, and peopled it with Romane souldiers. There is besides a towne which the riuer Sarus runneth vnder: also Neo-cæsarea, H which Lycus passeth by: and Amasia with the riuer Iris running vnder it, within the countrey Gazacena. Moreouer, in the quarter called Colopena, there stand Sebastia & Sebastopolis, little towns indeed, howbeit comparable with those aboue said. In the other part of Cappadocia there is the city Melita, built by queene *Semiramis*, not far from Euphrates: also, Dio-Cæsarea, Tyana, Castabala, Magnopolis, Zela, and vnder the mountaine Argæus, Mazaca, which now is named Cæsarea. That part of Cappadocia which lieth before Armenia the greater, is called Melitene: that which bordereth vpon Comagene, Cataonia: vpon Phrygia, Garsauritis: vpon Sargaurasana, Cammaneum; and finally vpon Galatia, Morimene. And there the riuer Cappadox separateth the one from the other. Of this riuer the Cappadocians took name, whereas beforetime they were called Leucosyri: as for the lesse Armenia, the riuer Lycus diuideth it from I Neo-Cæsarea beforesaid. Within the country there runneth also the great riuer Ceraunus. But on the coast side, when you are past the city Amysum, you meet with the town Lycastum, and the riuer Chadisia; and once past them, you enter into the countrey Themiscyra. In this quarter also you may see the riuer Iris, bringing down with it another riuer Lycus that runneth into it. And in the midland parts there is the city Zela, ennobled for the ouerthrow of *Triarius*, whom *C. Cæsar* defeated with his whole army. But in the coast againe you shall encounter the riuer Thermodon, which issueth from before a castle named Phanarœa, and passeth beside the foot of the mountaine Amazonius. In which place there stood somtime a towne of that name, and other fiue, namely, Phamizonium, Themiscyra, Sotira, Amasia, Comana, at this present called Manteium. K

Chap. IV.

¶ *The people of the region Themiscyrene.*

MOreouer, in Pontus ye haue the nations of the Genetæ & the Chalybes, together with a town of Cotyi. People besides called Tibareni, and Mossyni, who brand and marke their body with hot fearing yrons. Also the nation of the Macrocephali, with the towne Cerasus, and the port Cordulæ. Beyond which you come to a people named Bechires, and Buzeri, and to the riuer Melas. And so forward to the quarter of the Macrones, Sideni, & so to the riuer Sydenum, vpon which is scituat the town Polemonium, distant from Amisum 220 miles: L where ye shall finde the riuers Iasonius and Melanthius; and a towne 80 miles from Amisum, called Pharnacea; the castle and riuer of Tripolis. Item, Philocalia, and Liuiopolis without a riuer: and lastly the imperiall & free city Trapezus, enuironed with a high mountain, 100 miles from Pharnacea. And being past Trapezus, you enter into the country of the Armenochalybes, and Armenia the greater; which are 30 miles asunder. But vpon the coast you shall see the riuer Pyxites that runneth euen before Trapezus; and beyond it the country of the Sanni Heniochi. Moreouer, the riuer Absarus, in the mouth whereof there is a castle likewise so named, from Trapezus 150 miles. Behind the mountains of that quarter, you meet with the region Iberia; but in the coast therof the Heniochi, Ampreutæ and Lazi. The riuers Campseonysis, Nogrus, Bathys. When ye are once past them, you come into the countrey of the Colchians, M where stands the town Matium, with the riuer Heracleum passing vnder it, & a Promontorie of that name, & last of all, the most renowned riuer of all Pontus, called Phasis: this riuer riseth from out of the Moschian mountains, & for 38 miles and an halfe, is nauigable, & beareth any great vessels whatsoeuer. And then for a great way it carrieth smaller bottoms, & hath ouer it

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A 120 bridges. Beautified it was ſometimes with many faire townes vpon the bankes thereof on both ſides, and the principall of them all, were Tyritaum, Cygnus, and the city Phaſis ſcituate in the very mouth thereof, as it falleth into the ſea. But the goodlieſt city planted vpon this riuer, and moſt famous of all the reſt was Æa, fifteene miles diſtant from the ſea: where Hippos and Cyanos, two mighty great riuers, comming from diuers parts, enter both into the riuer Phaſis. But now there is no count made of any but of Surium onely, which taketh name of the riuer Surium which runneth to it. And thus far we ſaid that Phaſis was capable of great ſhips. Among other riuers which it receiues, for number and greatneſſe admirable, is the riuer Glaucus. In the foſſe and mouth of this riuer Phaſis, where hee is diſcharged into the ſea, there be ſome little Iſlands of no reckoning. And there, from Bſarus it is 75 miles. Being paſt Phaſis you meet with another riuer called Charien: vpon which bordereth the nation of the Salæ, na-
B med in old time Phthirophagi and Suani, where you ſhall meet with the riuer Cobus, which iſſueth out of Caucaſus, and runneth through the country of the Suani aboue-ſaid. Then you come to another riuer Rhoas, and ſo forward to the region Eerectice: to the riuers Sigania, Terſos, Atelpos, Chryſorrhoas, and the people Abſilæ: the caſtle Sebaſtopolis, an hundred miles from Phaſis, the nation of the Sanigores, the towne Cygnus, the riuer and towne both called Pityus. And laſt of all ye arriue vpon the country of the Heniochæ, where be nations entituled with many and ſundry names.

Chap. V.

C ¶ *The region of Colchis, the Achæi, and other nations in that tract.*

NExt followeth the region of Colchis, which is likewiſe in Pontus: wherin the mountain Caucaſus windes and turnes toward the Rhiphæan hils, as hath been ſaid before, and that mountaine of the one ſide bendeth downe toward Euxinus, Pontus, and Mæotis; and of the other, enclineth to the Caſpian and Hircane ſeas. When ye are deſcended to the maritime coaſts, ye ſhall find many barbarous and ſauage nations there inhabiting, to wit, the Melanchlæni, and the Choruxi, where ſometimes ſtood Dioſcurias a city of the Cholchians, neere vnto the riuer Anthemus, which now lieth waſt and diſpeopled, notwithſtanding it was ſo renowned in times paſt, that by the report of *Timoſthenes*, there repaired thither and inhabited therein
D 300 nations of diuers languages. And euen afterwards our Romanes were forced to prouide themſelues of 130 interpreters, when they would negotiate and traffick with the people in and about Dioſcurias. Some there be that think how it was firſt founded by *Amphitus* and *Telchius*, who had the charge of the chariots of *Caſtor* and *Pollux*: for certain it is, that the fierce and wild nation of the Heniochi, are from them deſcended. Being paſt Dioſcurias, you come vp the towne Heraclium, which from Sebaſtopolis is 80 miles diſtant: and ſo forward to the Achæi, Mardi and Cercetæ: and after them to the Serri, and Cephalotomi. For within that tract ſtood the moſt rich and wealthy town Pitius, which by the Heniochians was ranſacked and ſpoiled. On the backe part thereof inhabit the Epagerites [a nation of the Sarmatians] euen vpon the mountaine Caucaſus: and on the other ſide of that hill, the Sauromatæ (the country is at this day called Tartaria the great.) Hither retired and fled king *Mithridates* in the time of *Claudius*
E *Cæſar* the Emperor: who made report, that the Thali dwell thereby, and confine Eaſt-ward vpon the very opening of the Caſpian ſea: which by his report remaineth dry, whenſoeuer the ſea doth ebbe. But now to turne vnto the coaſt neer vnto the Cercetæ, you meet with the riuer Icaruſa, with a towne and riuer called Hierum, 136 miles from Heracleum. Then come yee to the cape Cronea, in the very ridge and high pitch whereof the Toretæ inhabit. But beneath it you may ſee the citie Sindica, 67 miles ſcituate from Hierum: and laſt of all, you arriue vpon the riuer Sceaceriges.

Chap. VI.

F ¶ *Mæotis, and the ſtreights thereof called Boſphorus Cimmerius.*

FRom the ſaid riuer to the very entrance of the Cimmerian Boſphorus are counted 88 miles and a halfe. But the length of the very demy Iſland, which extendeth and ſtretcheth out between Pontus and Mæotis, is not aboue 87 miles and a halfe, and the breadth in no place

leſſe

leſſe than two acres of land. This the paiſants of that country do call Eione. The very coaſts of G
this ſtreight Boſphorus, both of Aſia ſide and Europa, boweth and windeth like a curb to Mœotis. As touching the townes here planted, in the very firſt entry thereof ſtandeth Hermonaſſa, and then Cepi, founded by the Mileſians. Being paſt Cepi you come ſoone after to Stratilia, Phanagoria, and Apaturos, in manner vnpeopled and void: and laſt of all, in the very vtmoſt point of the mouth where it falleth into the ſea, you arriue at the towne Cimmerius, named before-time Cerberian.

Chap. VII.

¶ *Nations about Mœotis.*

BEing paſſed Cimmerium, yon come to the very broad lake Mœotis, whereof we ſpake be- H
fore in the Geography of Europe. Vpon the coaſt wherof, beyond Cimmerium on the ſide of Aſia, inhabite the Mœotici, Vati, Serbi, Archi, Zingi, and Pſeſij. After this, you come to the great riuer Tanais, which runneth into Mœotis with two armes or branches: and on the ſides of it dwell the Sarmations, an off-ſpring deſcended in old time (as men ſay) from the Medians: but ſo multiplied now, that they themſelues are diuided and diſperſed into many nations. And firſt of all are the Sauromatæ, ſurnamed Gynæcocratumeni; *i.* (as one would ſay) ſubiect to women: from whence the Amazones are prouided and furniſhed of men to ſerue their turne in ſtead of husbands, Next to them, are the Euaſæ, Cottæ, Cicimeni, Meſſeniani, Coſtobocci, Choatræ, Zigæ; Dandari, Thuſſageræ, and Turcæ, euen as far as the wildernesſes, I
forreſts chaſes, and rough vallies. But beyond them are the Arnuphæi, who confine vpon the mountaine Rhiphæi. As for as the riuer Tanais, the Scythians call it Silys: and Mœotis, they name Temerinda, that is to ſay, the mother of the ſea, or rather, the ſeas end. In ancient time there ſtood a great towne vpon the very mouth of Tanais, where it falleth into the ſea. As for the neighbour borders of this ſea, inhabited they were ſometime by the Lares: afterwards, by the Clazomenij, and Mœones: and in proceſſe of time, by the Panticapenſes. Some Authours write, that about Mœotis toward the higher mountaine Ceraunij, theſe nations following doe inhabit, to wit, firſt vpon the very coaſt and ſea ſide, the Napææ: and aboue them, the Eſſedones, ioyning vpon the Colchy, and the high mountain [Corax.] After them, the Carmaces, the Oranes, Anticæ, Mazacæ, Aſcantici, Acapeates, Agagammatæ, Phycari, Rhimoſoli, and K
Aſcomarci. Moreouer, vpon the hill Caucaſus, the Icatales, Imaduches, Ranes, Anelaks, Tydians, Charaſtaſci, and Aſuciandes. Moreouer, along the riuer Lagous, iſſuing out of the mountaines Cathei, and into which Opharus runneth, theſe nations enſuing do dwell, to wit, the Caucadians, and the Opharites: beyond whom runneth the riuers Menotharus, and Imitues, out of the mountaines Ciſſij, which paſſeth through the Agedi, Carnapes, Gardei, Acciſi, Gabri, and Gregari: and about the ſource or ſpring of this riuer Imitues, the people Imitui and Aparrheni. Others ſay, that the Suites, Auchetes, Saternei, and Aſampates, inuaded and conquered theſe parts; and that the Tanaites and Nepheonites, were by them put to the edge of the ſword, and not one perſon of them ſpared. Some write, that the riuer Opharius runneth through the Canteci, and the Sapæi: and that the riuer Tanais trauerſed ſometime through the L
Phatareans, Herticei, Spondolici, Synthietæ, Amaſſi, Iſſi, Catareti, Tagori, Catoni, Neripi, Agandei, Mandarei, Saturchei, and Spalei.

Chap. VIII.

¶ *Cappadocia.*

HItherto haue wee treated and gone through the nations and inhabitants of the coaſts vpon the Mediterranian ſea. Now are wee to ſpeake of the people inhabiting the very midland parts of the maine within: wherein I proteſt, and deny not, but that I will deliuer many things otherwiſe than the ancient Geographers haue ſet downe: foraſmuch as I haue M
made diligent ſearch into the ſtate of thoſe regions, as wel by enquiry of *Domitius Corbulo* (who lately went with an army through thoſe quarters (as of diuers kings and princes, who made repaire to Rome with ſutes and ſupplications, but eſpecially of thoſe kings ſons that were left as hoſtages in Rome. And firſt to begin with the nation of the Cappadocians. This is a country

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A that of all others which bound vpon Pontus,reacheth fartheſt within the firm land; for on the left hand it paſſeth by both Armenias,the greater and the leſſe,& Comagene:and on the right all thoſe nations in Aſia before-named,confining many others; and ſtill preuailing with great might,growing on and climing Eaſtward vp to the mountain Taurus,it paſſeth beyond Lycaonia,Piſidia,and Cilicia:and with that quarter which is called Cataonia, pierceth aboue the tract of Antiochia,and reacheth as far as to the region Cyrrheſtica, which lyeth well within that country. And therefore the length of Aſia there,may containe 1250 miles, & the breadth 640.

Chap. IX.

B ¶ *Armenia the greater and the leſſe.*

THe greater Armenia,beginning at the mountains Pariedri,is diuided from Cappadocia by the riuer Euphrates,as hath bin ſaid before: & where the riuer Euphrates beginneth to turne his courſe from Meſopotamia,by the riuer Tigris as renowned as the other, both theſe riuers is it furniſhed withal,which is the cauſe that it taketh the name of Meſopotamia, as being ſcituate between them both. The main land which lyeth between, is poſſeſſed by the mountains of Arabia called Orei:howbeit,it extendeth vntil it confine vpon Adiabene. Being paſt it once,it is hemmed in with mountains that incounter it ouerthwart,which cauſe it to inlarge it ſelfe into a bredth on the left hand,as far as to the riuer Cyrus:and then it turneth euer croſſe,vntill it meet with the riuer Araxes: but it carrieth his length into the leſſe Armenia, C confining ſtil vpon the riuer Abſarus,which falleth into the Ponticke ſea:and the mountaines Pariedri (from which the ſaid riuer iſſueth) which diuide it from the leſſe Armenia. As for the riuer Cyrus,it ſpringeth in the mountains Heniochij,which ſome called Coraxici. But Araxes iſſueth out of the ſame mountain from whence Euphrates commeth,and there is not aboue ſix miles ſpace between them both. This riuer Araxes is augmented with the riuer Muſis;and then himſelfe loſeth alſo his name,and as moſt haue thought,is carried by the riuer Cyrus into the Caſpian ſea:as for the townes of name in the leſſe Armenia,they be theſe,Cæſarea, Aſia,and Nicopolis. In the greater yee haue Arſamole, faſt vpon the riuer Euphrates: likewiſe Carcathiocerta,ſcituate vpon Tigris. In the higher country,is the city Tigranocerta, built in D the plain beneath,neere to Araxes,Artaxata. *Aufidius* ſaith,that both the Armeniæ containe in all 500 miles. *Clandius Cæſar* reporteth, that in length from Daſcuſa to the confines of the Caſpian ſea,it taketh 1300 miles,and in bredth halfe ſo much,to wit, from Tigranocerta to Iberia. This is wel knowne,that diuided it is into certain regiments, which they call Strategians;and yet ſome of them in old time,were as large each of them as realmes and kingdomes: and to the number they were of 120,but ſuch barbarous names they had,that they cannot well be ſet downe in writing. Encloſed it is Eaſtward with the mountains, but neither the hils Ceraunij,nor yet the region Adiabene,do preſently and immediatly confine thereupon: for the country of the Sopheni lyeth between:then you come to the mountaines aforeſaid, and being paſt them,you enter into the countrey of the Adiabenes. But on that coaſt where the plaines E lie and the flat vallies,the next neighbors to Armenia,be the Menobardi and Moſcheni. As for Adiabene,enuironed it is partly with the riuer Tigris,and partly compaſſed with an vnacceſſible ſteep mountaines. On the left hand,it confineth vpon the Medians, and hath a proſpect to the Caſpian ſea,the which commeth out of the Ocean (as we ſhall ſhew in meet and conuenient place) and is incloſed wholly within the mountains of Caucaſus. As for the nations there inhabiting along the marches and confines of Armenia,now wil we ſpeake of them.

Chap. X.

¶ *Albania,and Iberia.*

F ALl the plaine country between Armenia and the riuer Cyrus,the Albanois of Aſia do inhabit. Being paſt it,you enter anon into the Iberians region, who are ſeparated from the Albanois aforeſaid by the riuer Alazon,which runneth downe from the Caucaſian hills into Cyrus. The townes of importance,in Albania,is Cabalaca;in Iberia, Harmaſtis, neere to the riuer Neoris: beyond which,is the region Thaſie,and Triare, as farre as vnto the mountaines

tains Partedori. And when you are past them, you enter into the desarts of Cholchis: and on the G
side of them which lyeth toward the Ceraunij, the Armenochalybes do inhabit: and so forward you come into the tract and marches of the Moschi, which extend to the riuer Iberus, that runneth into Cyrus. Beneath them, inhabit the Sacassani, and beyond them the Macronians, who reach euen to the riuer Absarus. Thus you see how the plaines and the hanging of the hills in these parts are inhabited. Againe, from the marches and frontiers of Albania, all the forefront of the hils is taken vp and possessed by the sauage people of the Sylui; and beneath them, of the Lubienes, and so forward by the Didurians, and Sodij.

Chap. XI.

¶ *The gates and passages of the mountaine Caucasus.* H

WHen ye are beyond the Sodij, you come to the Streights of the hill Caucasus, which many haue erroniously called Caspiæ Portæ. And certes, Nature hath performed a mightie piece of worke, in cleauing asunder at one instant those mountaines, where the gates were barred vp as it were with iron portculleises, whiles vnder the mids therof, the riuer Dyriodorus runneth: and on this side of it, standeth a strong fort and castle called Cumania, scituate vpon a rock, able to impeach an army neuer so puissant & innumerable that would passe thereby; in such sort, as in this place by means of these bar-gates, one part of the world is excluded from the other: and namely most of all they seeme to be set opposite as a rampart against Harmastis a towne of Iberia. But being passed these said gates, you come to the mountains Gordyei, where the Valli and Suarni, barbarous and sauage nations, are imployed onely I
in the mines of gold. Beyond them as far as to the Ponticke sea, you enter into the countrey of the Heniochi, wherof be many sorts, and soon after to the Achei. And thus much as touching this tract of the sea Ponticke, and of the most renowned gulfes of all others. Some haue set downe in writing, that between Pontus and the Caspian sea, it is not aboue 375 miles. *Cornelius Nepos* saith it is but 150. See into what great streights betweene both seas Asia is driuen again, and as it were thronged. *Claudius Cæsar* hath reported, that from Cimmerius Bosphorus to the Caspian sea, it is 150 miles, and that *Seleucus Nicator* purposed if he had liued, to cut the land through from the one side to the other: but in this purpose of his, himselfe was cut short and slain by *Ptolomæus Ceraunus*. To conclude, it is in manner held for certain, that from those K
gates of Caucasus vnto the Pontick sea, it is 200 miles, and no lesse.

Chap. XII.

¶ *The Iflands in the Ponticke sea.*

IN the Pontick sea lye the Islands Planctæ, otherwise Cyaneæ or Symplegades. Then Apollonia, named also Thynnias, for distinction sake from that other so named in Europe: it is from the continent one mile, and is in circuit three. Iust ouer-against Pharnacea, is the Isle Chalceritis, which the Greeks called Aria, consecrated as it were to *Mars*; wherein they say the foules that are, vsed to fight and flutter with their wings against all other birds that come L
thither.

Chap. XIII.

The Regions and people confining vpon the Scythian Ocean.

HAuing thus sufficiently discourssed of all the countries within the firme land of Asia, let vs now determine to passe ouer the Rhiphæan hills, and discouer the coasts of the Ocean which lie on the right hand of those hills. Wherein we haue to consider, that Asia is dashed and beaten vpon by this maine sea on three parts: to wit, on the North side, and there it is M
called Scythicus: on the East, where they call it Eous: and last from the South, and there they name it Indicus. And according to the sundry gulfes and creekes that it maketh, and the inhabitants by whom it passeth, many names it taketh. Howbeit, a great part of Asia toward the North, lieth desart, and hath in it much wildernesse vnhabitable, by reason of the exreme cold of that frozen climat, so subiect to the Pole Artick. But being once past the vtmost quarter of the

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A the North-point,and came to the North-Eaſt where the Sun ariſeth at midſommer,then you come to the Scythians. Beyond whom, and the very point of the North-pole and the winde from thence,ſome haue placed the Hyperborei; of whom we haue ſpoken at large in the treatiſe of Europe. On this ſide the Hyperborei,the firſt cape or promontory that you meet with-all in the countrie Celtica, is named Lytarmis:and then you come vnto the riuer Carambucis, where by the forcible influence of the ſtarres,the high mountains Rhiphæa,as being wearied, begin to ſettle and abaſe themſelues lower. At the fall and deſcent of which mountains,I haue heard ſay, that certain people named Arnupheæ inhabited: a nation not much vnlike in their maner of life to the Hyperboreans. They haue their habitations in forreſts;their feeding is vp-
B on berries of trees:ſhorne they be all and ſhauen, for both men and women count it a ſhame to haue haire on their heads:otherwiſe they are ciuill enough in their conuerſation and behauior: and therefore, by report, they are held for a ſacred people and inuiolable, in ſo much as thoſe cruell nations and inhumane that border vpon them,will offer them no abuſe; neither do they reſpect them only,but alſo in regard and honour of them,they forbeare thoſe alſo that flie vnto them as to a place of franchiſe and priuiledge. Goe beyond them once, you come among the *Scythians indeed,the Cimmerij,Cicianthi,Georgi,and the nation of the Amazons,& theſe confront the Caſpian or Hircan ſea:for it breaks forth of the deep Scithian Ocean,toward the back parts of Aſia,and takes diuers names of the inhabitants coaſting vpon it, but eſpecially aboue all other of the Caſpians & Hircaneans. *Clitarchus* is of this opinion,that this ſea is full
C as great and large as Pontus Euxinus. And *Eratoſthenes* ſets downe the very meaſure and pourpriſe thereof:namely,from Eaſt to South along the coaſt of Caduſia and Albania,5400 ſtadia: from thence by the Aratiaticks,Amarbi,and Hircanij,to the mouth of the riuer Zoum, 4800 ſtadia:from it to the mouth of Iaxartes where it falleth into the ſea, 2400 ſtadia: which being put together amount in all to 1575 miles. *Artemidorus* counteth leſſe by 25 miles. *Agrippa* in bounding out and limiting the circuit of the Caſpian ſea,& the regions coaſting vpon it,together with them Armenia both the greater and the leſſe,namely, Eaſtward with the Ocean of the Seres,Weſtward with the mountains of Caucaſus;on the South ſide with the hill Taurus,and finally on the North with the Scithian Ocean,hath written,That the whole precinct and compaſſe of theſe parts may contain in length[ſo far as is known & diſcouered of thoſe countries]
D 590 miles,and 290 in breadth. Yet for all this,there want not others who ſay, That the whole circuit of that ſea,and begin at the very mouth and firth thereof,ariſeth to 2500 miles. As for this mouth aforeſaid where it breakes into the ſea it is very narrow,but exceeding long:howbeit when it begins once to enlarge it ſelfe and grow wide,it turns and fetcheth a compaſſe with horned points like to a quarter moone,and after the maner of a Scithian bow,as *M. Varro* ſaith, it windes along from his mouth toward the lake Mœotis. The firſt gulfe that it makes is called Scythicus; for the Scithians inhabit on both ſides, and by meanes of the narrow ſtreight between haue commerce and trafficke one with another:for of the one ſide are the Nomades and Sauromatæ,compriſing vnder them many other nations of diuers names:and on the other, the Abzoæ,who haue no fewer ſtates vnder them. At the very entry of this ſea on the right hand,the
E Vdines, a people of the Scithians, dwell vpon the very point of this mouth:and then along the coaſt,the Albanois,a nation deſcended (as men ſay) from *Iaſon*;where the ſea lying before them is called Albanum. This nation is ſpread alſo vpon the mountaines of Caucaſus, and ſo along downe the hills as far as to the riuer Cyrus,which confines the marches between Armenia and Iberia,as hath bin ſaid. Aboue the Maritime coaſts of Albania & the Vdines country,the Sarmatians,called Vtidorſi,and Aroteres,are planted:and behinde them,the Amazones,whom we haue already ſhewed;who alſo are women Sauromatians. The riuers of Albani which fall into the ſea,are Caſſios and Albanos: and then Cambices,which hath his head in the Caucaſian mountains:and ſoon after Cyrus,which ariſes out of the hills Corax,as before is ſaid. Moreouer *Agrippa* writes,that this whole coaſt of Albanie(fortified with thoſe high and inacceſſable mountains of Caucaſus)contains 425 miles. Now when you are paſt the riuer Cyrus,the Caſ-
F pian ſea begins to take that name, for that the Caſpians doe inhabit the coaſts thereof. And here the errour of many is to be laid open and corrected,euen of thoſe alſo who were in the laſt voyage with *Corbulo* in Armenia with the Romane armie: for they tooke it, that thoſe gates of Caucaſus whereof we ſpake before,were the Caſpian gates, and ſo called them: and the verie mappes and deſcriptions which are painted and ſent from thence, beare that name and title.

* At this day, the Moſchouites,white & blackRuſians, Georgians, Amazonians,& the leſſe Tartatia.

Likewise the menacing commandements, and threatning commissions sent out by *Nero* the Emperour for to gaine and conquer those gates, which through Iberia lead into Sarmatia, made mention of the gates Caspiæ there, which had in a manner no passage at all to the Caspian sea, by reason that the mountaine Caucasus empeached it. Howbeit in very truth, there be other gates so called, which joine vpon the Caspian nations, which wee had neuer knowne from the other, but by relation of those that accompanied *Alexander* the Great in his voyage and expedition to those parts. For the realme and kingdome of the Persians, which at this day wee take that the Parthians hold, lyeth aloft betweene the Persian and Hircane seas vpon the mountaines of Caucasus, in the very hanging and descent thereof, on both sides confining vpon Armenia the greater: and on that part which lieth to Comagene, confronteth and joineth (as we haue said) vpon Sepheniæ: and vpon it againe bordereth Adiabene, where the realme of the Assyrians doth begin: whereof Arbelitis, which boundeth next vpon Syria, taketh vp a good part: which is the countrie wherein *Alexander* the Great discomfited and vanquished *Darius*. All this tract, the Macedonians who entered with *Alexander*, surnamed Mygdonia, for the resemblance of that in Greece from which they came. Townes of name there be in it, Alexandria, and Antiochia, which they call Nisibis: and from Artaxata it is 750 miles. There was also another citie called Ninus, or Niniue, seated vpon the riuer Tygris, which regarded the West, which in times past was highly renowned. But on the other side, where it lieth toward the Caspian sea, lieth the region Atropatene, separated by the riuer Araxes, from Otene in Armenia: wherein is the citie Gazæ, 450 miles from Artaxata: and as many from Ecbatana in Media, whereon some part the Atropatenes doe hold.

Chap. XIIII.

¶ *Media, and the gates Caspiæ.*

AS for Ecbatana the head citie of Media, *Seleucus* the king founded it: and it is from Seleucia the great 750 miles, and from the Caspian gates 20. The other great towns of importance in Media, be Phausia, Agamzua, and Apamia, named also Rhaphane. And as for the streights there, called the Caspian gates, the same reason is there of that name, as of the other by Caucasus; by reason that the mountaine is clouen and broken through, and hath so narrow a lane, that hardly a waine or cart is able to passe by it; and that for the length of 8 miles: all done by the picke-axe and mans hand. The rockes and cliffes that hang ouer on the one side and the other, be like as if they were scorched and half burnt: so dry and thirsty is all that tract, and without fresh water for 38 miles space: for all the liquor and moisture issuing out of those craggie rockes, runneth through it, which letteth the passage, and causeth folke to auoid that way. Besides, such a number of serpants doe there haunt, that no man dare passe that way but in winter onely.

Chap. XV.

¶ *Nations about the Hircane sea.*

VNto Adiabene, joyneth the countrie of the Carduchy, so called in times past, and now Cordueni, by which the riuer Tigris runneth: and vpon them the Pratitæ do confine, called also Paredoni: who keepe the hold of the Caspian gates aforesaid. On the other side of whom, you shall meet with the deserts of Parthia, and the mountaine Cithenus: but being passed that once, you come streight into the most pleasant and beautiful tract of the same Parthia, called Choara; and there stand two cities of the Parthians, built sometimes as forts opposite against the Medians: namely, Calliope & Issatis, scituate in times past vpon another rocke. As for the capitall citie of al Partia, Hecatompylos, it is from the Caspian gates aboue-said 133 miles. Thus you see how the kingdome of the Parthians also is limited & separat by these mountaines and streights. When a man is once gotten forth of these gates, presently he enters vpon the Caspians countrie, which reacheth as far as to the sea side, and gaue the name as well to it as to the gates afore-named. Howbeit al the region vpon the left hand is ful of mountains from whence backward to the riuer Cyrus, are by report 220 miles, but from that riuer if you would go higher vp to those gates, you shal find it 700 miles. And in very truth from this place began *Alexander* to make the account and reckoning of his iournies, in that voyage of his to India,

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A India, ſaying, that from thoſe gates to the entrance of India, it was 15680 ſtadia: from thence to the city Bacha, which they call Zariaſpa 3700, and ſo to the riuer Iaxartes 5 miles.

Chap. XVI.

¶ *Other Nations alſo.*

FRom the Caſpians country Eaſtward, lieth the region called Zapanortene, & in it the land Daricum, the moſt fertile tract of all thoſe parts. Then come you to the Tapyrians, Anariaci, Stauri and Hircani, at whoſe coaſts the ſame ſea begins to take the name Hircanum, euen from the riuer Syderis. About it are other riuers, to wit, Mazeras and Stratos, all iſſuing
B out of Caucaſus. Out of the realme of Hircania, you enter into the country Margiana, ſo commendable for the warme Sun-ſhine weather there, and the only place in all that quarter which yeeldeth vines. Enuironed it is on euery ſide with goodly pleaſant hils to the eie, for the compaſſe of 1500 ſtadia. Fortified it is beſides, and affordeth hard acceſſe vnto it by reaſon of the ſandy and barren deſarts for the ſpace of 120 miles. And ſcituat it is euen against the tract of Parthia, wherein *Alexander* the Great ſometime had built Alexandria, which beeing raſed and deſtroied by the Barbarians, *Antiochus* the ſon of *Seleucus* re-edified in the ſame place vpon the riuer Margus, which runs through it, together with another riuer Zodale, and it was called Syriana [or rather Seleucia.] Howbeit, he deſired rather that it ſhould be named Antiochia. This
C citie containeth in circuit 70 ſtadia: and into it, *Orodes* after that he had defeated *Craſſus* & his hoaſt, brought all the Romans whom he had taken priſoners. Being paſt the high country Margiana, you come to the region of Mardi, a fierce & ſauage people, ſubiect vnto none, they inhabit the mountain Caucaſus, and reach as far as to the Bactrians. Beyond that tract are theſe nations, the Ochanes, Chomares, Berdrigei, Hermatotrophi, Bomarci, Commani, Marucæi, Mandrueni and Iatij. The riuers alſo Mandrus and Gridinus. Beyond inhabit the Choraſmij, Gandari, Attaſini, Paricani, Sarangæ, Parraſini, Maratiani, Naſotiani, Aorſi, Gelæ, whom the Greeks called Caduſij, and the Matiani. Moreouer, in it ſtood the great towne Heraclea, built by *Alexander* the Great, which afterwards was ſubuerted and ouerthrowne: but when it was repaired again by *Antiochus*, he named it Achais. Beneath in the country, the Derbines do inhabit, thorough whoſe marches in the very midſt runneth the riuer Oxus, which hath his beginning out
D of a lake called Oxus. Beyond them are the Syrmatæ, Oxij, Tagæ, Heniochi, Bateni, Saraparæ, and Bactrians, with their towne Zariaſpe, called afterwards Bactrum, of the riuer Bactra. This nation inhabiteth the back parts of the hill Paropamiſus, ouer against the ſource & ſpring of the riuer Indus, & is inuironed with the riuer Ochus. Beyond the Bactrians are the Sogdianes, & Panda the principal city of that country. In the very vtmoſt marches of their territory ſtandeth the town Alexandria built by *Alexander* the Great, wherin are to be ſeen the altars and columnes, erected by *Hercules*, prince *Bacchus*, *Cyrus*, *Semiramis*, and *Alexander*: ſuppoſed and taken to be the very end of all their voiages in that part of the world, reſting within the riuer Iaxartes, which the Scythians call Silys. For *Alexander* and his ſoldiers thought it had bin Tanais. Howbeit, captain *Demonax*, who ſerued vnder the kings *Seleucus* and *Antiochus*, paſſed ouer that
E riuer with an army; and at the end of his voiage ſet vp altars vnto *Apollo Didymæus*. And the *Demonax* we follow, eſpecially in this deſcription and Geographie of ours.

Chap. XVII.

¶ *The Scythian Nation.*

BEyond the realm Sogdiana, inhabit the Nations of the Scythians. The Perſians were wont to call them in general Sacas, of a people adioyning vnto them, ſo named. In old time they were known by the name of Arameans. And on the other ſide, the Scythians for their part vſed to term the Perſians, Chorſari: and the hil Caucaſus, they called Graucaſus, that is to ſay,
F white with ſnow. The principal nations of Scythia, be the Saræ, Maſſagetæ, Dahæ, Eſſedones, Ariacæ, Rhymnici, Peſici, Amordi, Hiſti, Edones, Camæ, Camacæ, Euchatæ, Cotieri, Antariani, Pialæ, Arimaſpi beforetime called Cacidiri, Aſæi & Oetei. As for the Napæans & Apellæans who ſometime dwelt there, they be vtterly extinct and gone. The riuers there of name be Mandagræus and Caſpaſius. And ſurely there is not a region wherein Geographers doe varie

and disagree more thau in this: and as I take it, this commeth of the infinit number of those G
nations, wandring to & fro, and abiding neuer in one place. *Alexander* the Great and *M. Varro* make report, that the water of the Scythian sea is fresh in taste, & potable. And in truth *Pompey* the great had such water brought vnto him from thence to drink, when he waged war thereby against *Mithridates*: by reason no doubt of the great riuers that fall into it, which ouercome the saltnesse of the water. *Varro* saith moreouer, That during this expedition and iourny of *Pompeius*, it was for certain knowne, that it is but seuen daies iourney from out of India to the Bactrians countrey, euen as far as to the riuer Icarus which runneth into Oxus: and that the merchandise of India, transported by the Caspian sea, and so to the riuer Cyrus, may be brought in fiue daies by land as far as to Phasis in Pontus. Many Islands there lie all ouer that sea: but one aboue the rest, and most renowned, is Tazata; for thither all the shipping from out of the Cas- H
pian sea and the Scythian Ocean, do bend their course & there arriue; for that all the sea coasts do affront the Leuant, and turn into the East. The frontiers of Scythia from the first cape thereof is vnhabitable by reason of the snow that lies continually: neither are the next regions thereto frequented and tilled, for the barbarous crueltie of those nations that border vpon it: such as the Anthropophagi, who liue of mans flesh, and haunt those parts. Hereupon it commeth, that you shall find nothing there but huge desart forests, with a number of wild beasts, lying in wait for men as sauage as themselues. When you are past this region, you enter againe amongst the Scythians, where you shal find likewise a wildernes ful of wild beasts, euen as far as to the promontory & mountain called Tabis, which regardeth the sea. In such sort as one moitie in manner of that coast, all along which looketh toward the East, lieth wast, and is not inhabited. The I
first people of any knowledge and acquaintance be the Seres, famous for the fine silk that their woods do yeeld. They kemb from the leaues of their trees the hoary downe thereof, and when it is steeped in water, they card and spin it, yea, and after their manner make therof a sey or web, whereupon the dames here with vs haue a double labour both of vndoing, and also of weauing again this kind of yearn. See what ado there is about it, what labour and toile it costeth, & how far fet it is; and all for this, that our ladies and wiues when they go abroad in the street may cast a lustre from them, and shine again in their silks and veluets. As for the Seres, a mild and gentle kind of people they are by nature: howbeit, in this one point they resemble the bruit and wild beasts, for that they cannot away in the commerce with other nations, with the fellowship and society of men, but shun and auoid their company, notwithstanding they desire to* traf- K
ficke with them. The first riuer known among them is Psitaras: the next to it Carabi: the third Lanos: and then you come to a cape of that name. Beyond it is the gulfe Chryse, the riuer Attanos, and another bay or creeke called Attanos. By it lyeth the region of the Attaci, a kind of people, secluded from all noisome wind & aire, keeping vpon hils, exposed to the pleasant sunshine, where they inioy the same temperature of aire that the Hiperboreans liue in. Of this country and people, *Amonetus* hath written a seuerall booke of purpose: like as *Herateus* hath compiled such another treatise of the Hyperboreans. Beyond the Attaci or Attacores, the Thyrians and Tocharians do inhabit; yea, and the Casirians, who now by this time belong to the Indians, & are a part of them. But they within-forth that lie toward the Scithians, feed of mans flesh. As for the Nomades of India, they likewise wander to & fro, and keep no resting place. L
Some write, that they confine vpon the very Ciconians and Brysanians on the North side. But there (as all Geographers do agree) the mountains Emodi arise and shoot vp: and there entereth the country of the East Indians, and extendeth not only to that sea, but also to the Southerne, which we haue named the Indian sea. And this part of the Orientall Indians, which lieth directly streight forth, as far as to that place where India beginneth to twine and bend toward the Indian sea, containeth 1875 miles. And all that tract which windeth and turneth along the South, taketh 2475 miles (as *Eratosthenes* hath collected & set downe) euen vnto the riuer Indus, which is the vtmost limit of India West-ward. But many other writers haue set downe the whole length of India in this maner, namely, that it requireth 40 daies and nights sailing, with a good gale of a forewind: also, that from the North to the South coast thereof, is 2750 miles. M
Howbeit, *Agrippa* hath put down in writing that it is 3003 miles long, and 2003 broad. *Posidonius* took measure of it from the Northeast to the Southeast: & that by this means it is directly opposit vnto Gaule, which he likewise measured along the West coast, euen from the North west point where the Sun goeth down at Mid-summer, to the South-west where it setteth in the

* Euen at this day they set abroad their wares with the prices vpō the shore, and goe their waies: thē the forain merchants come and lay down the money, and haue away the merchandise: and so depart without any communication at all.

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A in the midſt of Winter. He addeth moreouer and ſaith, That this Weſt wind which from be-
hind Gaule bloweth vpon India, is very healthſome & wholſome for that country, and this he
proued by very good reaſon & demonſtration: and verily the Indians haue a far different aſpect
of the ſky from vs. Other ſtars riſe in their Hemiſphære, which we ſee not. Two Summers they
haue in one yere, and as many haruеſts: and their winter between hath the Eteſian winds blow-
ing in our dog-daies, in ſtead of the Northern blaſts with vs. The winds are kind and mild with
them: the ſea alwaies nauigable: the nations there dwelling, & the cities and towns there built,
innumerable, if a man would take in hand to reckon them al, for India hath bin diſcouered, not
only by *Alexander* the great his mighty and puiſſant army, and by other kings his ſucceſſors (&
namely *Seleucus* and *Antiochus*, and their Admirall *Patrocles*, who ſailed about it euen to the
Hircane and Caſpian ſeas:) but alſo by diuers other Greek Authors, who making abode, & ſo-
B journing with the kings of India (like as *Megaſthenes* and *Dionyſius* ſent thither of purpoſe from
Philadelphus) haue made relation of the forces which thoſe nations are able to raiſe and main-
tain. And yet further diligence is to be imploied ſtil in this behalfe, conſidering they wrote of
things there ſo diuers one from another, and incredible withall. They that accompanied *Alex-
ander* the great in his Indian voiage, haue teſtified in their writings, that in one quarter of India
which he conquered, there were of towns 500 in number, and not one leſſe than the city Cos:
of ſeuerall nations nine. Alſo that India was a third part of the whole earth: & the ſame ſo wel
inhabited, that the people in it were innumerable. And this they ſaid (beleeue mee) not with-
out good apparance of reaſon; for the Indians were in manner the onely men of all others that
neuer went out of their own country. Moreouer, it is ſaid, That from the time of *Bacchus* vnto
C *Alexander* the Great, there reigned ouer them ſucceſſiuely 154 kings, for the ſpace of 5402 yeres
between, and 3 moneths ouer. As for the riuers in that country, they be of a wonderfull bignes.
And reported it is, that *Alexander* ſailed euery day at the leaſt 600 ſtadia vpon the riuer Indus,
and yet in leſſe than fiue moneths and ſome few daies ouer, he could not come vnto the end of
that riuer; and leſſe it is than Ganges by the confeſſion of all men. Furthermore, *Seneca* a Latine
writer, aſſaied to write certain commentaries of India: wherein he hath made report of 60 Ri-
uers therein, and of nations 120 lacking twaine. As great a labour it were to reckon vp & num-
ber the mountains that be in it. As for the hils Imaus, Emodiſus, Paropamiſus, as parts all and
members of Caucaſus, but one vpon another, and conioine together. And being paſt them yee
D go downe into a mighty large plain country, like to Ægypt. It remaineth now to ſhew the con-
tinent and firm land of this great country, and for the more euident demonſtration, let vs fol-
low the ſteps of *Alexander* the great, and his Hiſtoriographers. *Diogneus* and *Beton*, who ſet down
all the geaſts and iournies of that prince, haue left in writing, That from the Caſpian ports vn-
to the city Hecatompylos which is in Parthia, there are as many miles as we haue ſet down al-
ready. From thence to Alexandria in the Ariane country (which city the ſame king founded)
562 miles: from whence to Prophthaſia in the Dranganes land, 199 miles: & ſo forward to the
capitoll towne of the Arachoſians, 515 miles. From thence to Orthoſpanum, 250 miles: laſt of
all, from it to the city of Alexandria in Opianum, 50 miles. In ſome copies theſe numbers are
found to vary and differ. But to return to this foreſaid city, ſcituat it is at the very foot of Cau-
E caſus. From which to the riuer Chepta and Pencolaitis, a town of the Indians, are counted 227
miles. From thence to the riuer Indus & the towne Tapila, 60 miles: and ſo onward to the no-
ble and famous riuer Hidaſpes, 120 miles: from which to Hypaſis, a riuer of no leſſe account
than the other, 4900, or 3900. And there an end of *Alexanders* voiage: howbeit, he paſſed ouer
the riuer, and on the other ſide of the bank, he erected certaine altars and pillers, and there de-
dicated them. The letters alſo of the king himſelfe, ſent back into Greece, do cary the like cer-
tificate of his iournies, and agree iuſt herewith. The other parts of the country were diſcouered
& ſurueied by *Seleucus Nicator*; namely from thence to Heſudrus 168 miles: to the riuer Ioames
as much: & ſome copies adde 5 miles more therto: from thence to Ganges 112 miles: to Rho-
dapha 119, & ſome ſay, that between them two it is no leſſe than 325 miles. From it to Calini-
F paxa, a great town, 167 miles & an half: others ſay, 265. And ſo the confluent of the riuers Io-
manes & Ganges, where both meet together, 225 miles, & many put therto 12 miles more: from
thence to the town Palibotta 425 miles: & ſo to the mouth of Ganges where he falleth into the
ſea, 638 miles. As for the nations, which it pains me not to name, from the mountains Emodi,
& the principal cape of them, Imaus, which ſignifies in that country, language ful of ſnow, they

be theſe: the Iſari, Coſyri, Izgi, and vpon the very mountains, the Ghiſiotoſagi: alſo the Brachmanæ, a name common to many nations, among whom are the Maccocalingæ. Of riuers beſides, there are Pinnas & Cainas, the later of which twain runneth into Ganges, & both are nauigable. The people called Calingæ, coaſt hard vpon the ſea. But the Mandei & Malli, among whom is the mountain Mallus, are aboue them higher in the country. And to conclude, then you come to Ganges, the fartheſt bound and point of all that tract, India.

Chap. XVIII.

¶ *The riuer Ganges.*

MAny haue bin of opinion, & ſo haue written, that the ſpring of Ganges is vncertain, like as that alſo of Nilus: and that he ſwelleth, ouerfloweth, and watereth all the countries whereby he paſſeth, in the ſame ſort that Nilus doth. Others again haue ſaid that it iſſueth out of the mountains of Scythia: & how into it there run 19 other great riuers: of which ouer and aboue thoſe beforenamed, certain are nauigable; namely, Canucha, Vama, Erranoboa, Coſaogus, and Sonus. There be alſo that report, that Ganges preſently ariſeth to a great bigneſſe of his owne ſources and ſprings, and ſo breaketh forth with great noiſe and violence, as running downe with a fal ouer craggy and ſtony rocks: and when he is once come into the flat plains and euen country, that he taketh vp his lodging in a certain lake; and then out of it carrieth a mild and gentle ſtream, 8 miles broad where it is narroweſt; and 100 ſtadia ouer for the moſt part, but 160 where he is largeſt: but in no place vnder 20 paces deep, [*i.* a 100 foot.]

Chap. XIX.

¶ *The nation of India, beyond the riuer Nilus.*

WHen ye are ouer Ganges, the firſt region vpon the coaſt that you ſet foot into, is that of the Gandaridæ and the Calingæ, called Parthalis. The king of this countrey hath in ordinance for his wars 80000 foot, 1000 horſe, and 700 Elephants, ready vpon an houres warning to march. As for the other nations of the Indians that liue in the champion plaine countries, there be diuers ſtates of them, of more ciuility than the mountainers. Some apply themſelues to tillage and husbandry: others ſet their minds vpon martiall feats: one ſort of them practiſe merchants trade, tranſporting their owne commodities into other countries, and bringing in forrein merchandiſe into their own. As for the nobility and gentry, thoſe alſo that are the richeſt and mightieſt among them, they manage the affaires of State and Commonweale, and ſit in place of juſtice, or els follow the court, and ſit in counſell with the king. A fit eſtate there is beſides in great requeſt, & namely of Philoſophers & Religions, giuen wholly to the ſtudy of wiſdom & learning; and theſe make profeſſion of voluntary death: and verily when they are diſpoſed to die at any time, they make a great funerall fire, caſt themſelues into it, and ſo end their daies. Beſides all theſe, one thing there is among them halfe brutiſh, and of exceeding toile and trauell (and yet it is that which partly maintaineth all the other eſtates aboueſaid) namely, the practiſe of hunting, chaſing and taming Elephants. And in very truth, with them they plow their ground, vpon them they ride vp & down: with theſe beaſts are they beſt acquainted; they ſerue in the wars for maintenance of their liberty, and defence of their frontiers againſt all inuaſion of enemies. In the choiſe of them for war-ſeruice, they regard and conſider their ſtrength, their age, and bigneſſe of body. But to leaue them. An Iſland there is within the riuer Ganges, between two arms thereof, of great largeneſſe and capacity, which receiueth one nation by it ſelfe, apart from others, & named it is Modogalica. Beyond it are ſeated the Modubians and Molindians, where ſtandeth the ſtately city Molinda, ſcituat in a plentiful and rich ſoile. Moreouer, the Galmodroeſians, Pretians, Caliſſæ, Saſuri, Faſſalæ, Colubæ, Orxulæ, Abali, and Talactæ. The king of theſe countries hath in ordinary for his wars 50000 foot, 3000 horſe, and 400 Elephants. Then you enter into a country of a more puiſſant & valiant nation, to wit, the Andarians, planted with many villages well peopled: and moreouer with 30 great townes, fortified with ſtrong walls, towers, and baſtiles. Theſe find and maintain preſt & ready to ſerue the king in his wars, an Infantery of 100000 foot, a Cauallery of 2000 horſe, and 100 Elephants beſides, wel appointed. Of all the regions of India, the Dardanian country

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A is moſt rich in gold mines,and the Selian in ſiluer. But aboue all the nations of India thorowout,and not of this tract and quarter only,the Praſij far exceed in puiſſance,wealth,and reputation; where the moſt famous,rich, and magnificent city Palibotria ſtands, whereof ſome haue named the people about it,yea and all the nation generally beyond Ganges,Palibotrians:their king keeps continually in pay 600000 foot men,and 30000 horſemen, and 9000 Elephants euery day in the yere, whereby you may ſoon gueſſe the mighty power & wealth of this prince. Beyond Palibotria,more within the firme land,inhabit the Monedes and Suari,where ſtandeth the mountain Maleus: and there for ſix moneths ſpace the ſhadowes in winter time fal Northward; and in ſummer ſeaſon go into the South. The pole Arcticke ſtarres in all that tract are ſeen but once in the yere,and that no longer than for 15 daies,as *Beton* reporteth. But *Megaſthe-*
B *nes* writeth,that this is vſuall in other parts of India. The Antarctique or South pole the Indians call Dromoſa. As for the riuer Iomanes,which runs into Ganges,it trauerſeth through the Palibotrians country,and paſſeth between the townes Methora and Cyriſoborca. Beyond the riuer Ganges,in that quarter and clymate which lieth Southward, the people are caught with the Sun,and begin to be blackiſh,but yet not all out ſo ſun-burnt and blacke indeed as the Æthyopians and Moores. And it ſeemeth, that the neerer they approch to the riuer Indus,the deeper coloured they are and tanned with the Sun: for you are not ſo ſoone paſt the Praſians country,but preſently you are vpon Indus: and among the mountaines of this tract,the Pygmæans,by report,do keepe. *Artemidorus* writeth, that betweene theſe two riuers there is a diſtance of 21 miles.

C

Chap. XX.

¶ *The riuer Indus.*

THe great riuer Indus,which the natiue people call Sandus,iſſueth out of a part or dependance of the hill Caucaſus, which is called Paropamiſus: hee takes his courſe and runs full againſt the Sun riſing,and makes 19 riuers more to loſe their names,which he takes in vnto him: among which the principall are theſe, Hydaſpis one,bringing with him 4 more: and Cantabra another,accompanied with 3 beſides. Moreouer,of ſuch as are of themſelues nauigable,without the help of others,Aceſines,and Hypaſis. And yet for all their additions, the riuer of Indus (ſuch a ſober and modeſt courſe as it were his waters keepe) is in no place either
D aboue 50 ſtadia ouer,or 15 paces, *i.* 75 foot,or 12 fathom and halfe deep. This riuer incloſeth within two branches of it,a right great Iſland named Praſiane,and another that is leſſe, called Patale. As for himſelfe,they that haue written the leaſt of him ſay he beareth veſſels for 1240 miles: and turning with the courſe of the Sun, keepeth him company Weſtward vntill hee is diſcharged into the Ocean. The meaſure of the ſea coaſt from Ganges vnto him I wil expreſſe generally and in groſſe,as I find it written, albeit there is no agreement at all of Authors touching this point. From the mouth of Ganges where he entreth into the ſea, vnto the cape Caliugon and the towne Dandagula,are counted 725 miles: from thence to Tropina 1225 miles. Then to the promontorie Perimula,where ſtands the chiefe mart or towne of merchandiſe in
E all India,they reckon 750 miles: from which to the towne aboue-ſaid Patale within the Iſle, 620 miles. The mountainers inhabiting betwixt it and Iomanes, are the Ceſti and Celiboni, wilde and ſauage people: next to them the Megallæ, whoſe king hath in ordinary preſt for ſeruice 500 Elephants, of foot and horſe a great number, but vncertaine it is how many, ſometime more, ſomtime fewer. As for the Chryſeans, Paraſangians,and Aſangians, they are full of the wilde and cruell Tygers: they are able to arme 30000 foot and 800 horſe, and to ſet out with furniture 300 Elephants. This country is on three ſides enuironed and incloſed with a raunge of high mountaines, all deſart and full of wilderneſſe for 625 miles, and of one ſide confined with the riuer Indus. Beneath thoſe wilde hills you enter among the Dari & Suræ: then you come againe to waſte deſarts for 188 miles,compaſſed about for the moſt part with great bars
F and banks of ſand,like as the Iſlands with the ſea. Vnder theſe deſart forreſts you ſhall meet with the Maltecores, Cingians, Marobians, Rarungians, Moruntes, Maſuæ, and Pangungæ. Now for thoſe who inhabit the mountains,which in a continuall raunge without interruption ſtand vpon the coaſts of the Ocean,they are free States and ſubiect to no Prince,and many fair townes and cities they hold among theſe cliffes and craggy hills. Then come you to the Na-

ræans, inclosed within the highest mountaine of all the Indian hills, Capitalia. On the other G
side of this mountaine great store there is all ouer it, of gold and siluer mines, wherein the Inhabitants do dig. Then you enter vpon the kingdom of Oratura, whose king indeed hath but ten Elephants in all, howbeit a great power of footmen. And so forward to the Varetates, who vnder their King keepe no Elephants at all for his seruice, trusting vpon their Cauallery and Fanterie, wherein they are strong. Next to them the Odomboerians & Salabastres, where standeth a goodly faire city called Horata, enuironed and fortified with deepe fosses and ditches full of standing water: wherein there keepe a great number of Crocodiles, which for the greedy appetite to deuoure mens bodies, wil suffer none to passe into the town but ouer the bridge. Another towne there is besides among them, of great name and importance, to wit, Automela, standing vpon the sea side: and otherwise much resort there is vnto it of merchants from all H
parts, by reason of 5 great riuers which meet all there in one confluence. Their king maintains in ordinary 1600 Elephants, 150000 footmen, and 5000 horse. The king of the Charmians is but poore to speake of: his strength lieth in 60 Elephants, for his power otherwise is but smal. Being past that realme, you come into the country of the Padians, the only nation of all the Indians, which is gouerned by women. One of this sex, they say, was begotten somtime by *Hercules*, in which regard she was the better accepted, and had the prerogatiue of the regencie ouer the greatest kingdome. From her the other Queens fetch their pedegree, and haue the dominion and rule ouer 30 great townes, and the command of 150000 foot, and 500 Elephants. Beyond this realme you come to the nation of the Syrieni, containing 300 Cities: and from them to the Deraugæ, Posunge, Bugæ, Gogyarei, Vmbræ, Nereæ, Brancosi, Nobundæ, Cocon- I
* Babul. dæ, Nesei, Pedatritæ, Solobriasæ, and Olostræ, who confine vpon the Island * Patale: from the vtmost point of which Ihand vnto the gates Caspiæ, are reckoned 18025 miles. Now on this side the riuer Indus, iust against them, as appear th by euident demonstration, there dwell the Amatæ, Bolingæ, Gallitalutæ, Dimuri, Megari, Ordabæ, and Mesæ. Beyond them the Vri and Sileni, and then you come to the desarts for 250 miles: which hauing passed ouer, you shall meet with the Organages, the Abaorts, Cibaræ, and the Suertæ: and beyond these, a wilderneſſe againe as great as the former. Passe on farther, you come among the Sarophages, Sorgæ, Baraomatæ, and the Gunbretes, of whom there be 13 seuerall nations, and each one hath two great cities apiece. As for the Aseni, they people three cities: their capitall city is Bucephala, built in the very place where king *Alexanders* horse called *Bucephalus* was interred. Aboue K
them are the mountainers on the rising of the hill Caucasus, named Soleadæ, and Sondræ: and when you are on the other side of the riuer Indus, as you go along the coast and banks thereof, you shall see the Samarabrians, the Sambrucenes, the Brisabrites, Osij, Autixeni, and Taxillæ, with a famous city called Amandra, of which all that tract now lying more flat and plaine within the countrey is named Amandria. Foure other nations there be besides of Indians, the Peucolaitæ, Arsagalites, Geretes, and Asei: for many of the Geographers set not down Indus the riuer, for to determine the marches of the Indians Westward; but lay thereto foure other prouinces and seuerall seigniories, to wit, of the Gedrosians, Arachotes, Arij, and Paropamisades.

L

Chap. XXI.

¶ *The Arij, and other nations depending vnto them.*

Other writers are of opinion, that the vtmost frontier and limit of India is the riuer Cophetes, and both it and all those quarters are included within the territorie of the Arij; yea and most of them affirme, that the city Nysa, as also the mountaine Merus consecrated to god *Bacchus*, belong vnto India as parcels thereof. This is that mountaine whereof arose the poeticall fable, That *Bacchus* therein was borne, and issued out of *Iupiters* thigh. Likewise they assigne and lay to India the country of the Aspagores, so full of vines, laurel, and box, and generally of all sorts of apple trees and other fruitfull trees that grow within Greece. Many strange, wonderfull, and in manner fabulous things they report of the fertilitie of that land, of the diuers sorts of corne, of trees bearing cotton, of wilde beasts, of birds, and other creatures there breeding and liuing: which because they are not properly belonging to this Treatise now in hand, I will reserue them for another part of this Worke, and write more particularly M

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A larly of them in their due and ſeuerall places. And as for thoſe 4 prouinces which I touched before, I will ſpeake of them anon: for now I haſten and thinke it long vntill I haue ſaid ſomewhat of the Iſland Taprobane. And yet before I come to it there be other Iſles which I cannot paſſe by, and namely that of Patala, which I noted to ly in the very mouth of the riuer Indus, and it carrieth the forme and ſhape of a triangle figure, and is 220 miles long. Without the mouth of the riuer Indus two other Iſles there be, Chryſe and Agyræ, ſo named (as I think) of the gold and ſiluer mines which they do yeeld: for I cannot eaſily beleeue, that the very earth and ſoile there is all gold and ſiluer entire, as ſome haue made report. Twenty miles from them lieth the Iſle Crocala: and 12 miles farther into the ſea, Bibaga, where of oiſters and other ſhel fiſhes called Purples are found good ſtore. And laſt of all, 9 miles beyond it, Toralliba ſhewes it ſelfe, and many other petty Iſlands of no regard.

B

Chap. XXII.

¶ *The Iſland Taprobane.*

IT hath beene of long time thought by men in antient daies, That Taprobane was a ſecond world, in ſuch ſort as many haue taken it to be the place of the Antipodes, calling it the Antichthones world. But after the time of *Alexander* the Great, and the voiage of his army into thoſe parts, it was diſcouered and knowne for a truth, both that it was an Iſland, and what cmpaſſe it bare. *Oneſicrátus* the Admiral of his fleet hath written, that the Elephants bred in this Iſland be bigger, more fierce and furious for war ſeruice than thoſe of *India*. *Megaſthenes* C ſaith there is a great riuer which parteth it in twaine, and that the people thereof dwelling along the riuer be called Palæogoni: adding moreouer, that it affordeth more gold and bigger pearles by farre than India doth. *Eratoſthenes* alſo tooke the meaſure thereof, and ſaith, that in length it beareth 7000 ſtadia, and in bredth 5000: that in it there be no cities or great towns, but villages to the number of 700. It begins at the Levant ſea of Oriental Indians, from which it ſtretcheth and extendeth between the Eaſt and Weſt of India; and was taken in times paſt to ly out into the ſea from the Praſians countrey 20 daies ſailing. But afterwards, for that the boats and veſſels vſed vpon this ſea in the paſſage thither, were made & wound of paper reeds like thoſe of the riuer Nilus, and furniſhed with the ſame kinde of tackling, the voiage thither D from the foreſaid country was gaged within a leſſe time: and well knowne it was, that according to the ſaile of our ſhips and gallies, a man might arriue there in 7 daies. All the ſea lying between is very ebbe, full of ſhallowes and ſhelues, no more than 5 fathom deepe: howbeit in certain chanels that it hath, it is ſo deep that it canot be ſounded, neither wil any anchors reach the bottom, and there reſt; and withall, ſo ſtreight & narrow theſe chanels are, that a ſhip cannot turne within them: and therefore to auoid the neceſſitie of turning about in theſe ſeas, the ſhips haue prows at both ends, and are pointed each way: in ſailing they obſerue no ſtar at all. As for the North pole, they neuer ſee it: but they carry euer with them certaine birds in their ſhips, which they ſend out oft times when they ſeeke for land, euer obſeruing their flight: for knowing well that they wil fly to land, they accompany them, bending their courſe accordingly: neither vſe they to ſaile more than one quarter of a yeare: and for 100 daies after the Sun is E entred into Cancer, they take moſt heed, and neuer make ſaile: for during that time it is winter with them. And thus much we come to knowledge of, by relation of antient Writers. But we came to far better intelligence, and more notable information, by certain Embaſſadors that came out of that Iſland, in the time of *Claudius Cæſar* the Emperor: which happened vpon this occaſion, and after this manner; It fortuned that a free ſlaue of *Annius Plocamus*, (who had farmed of the Exchequer the cuſtoms for impoſt of the red ſea) as he made ſaile about the coaſts of Arabia, was in ſuch wiſe driuen by the North windes beſides the realme of Carmania, and that for the ſpace of 15 daies, that in the end he fell with an harbour thereof called Hippuros, and there arriued. When he was ſet on land, he found the King of that Countrey ſo curteous F that hee gaue him entertainment for ſix moneths, and entreated him with all kindeneſſe that could be deuiſed. And as he vſed to diſcourſe and queſtion with him about the Romanes and their Emperour, he recounted vnto him at large of all things. But amongſt many other reports that he heard he wondred moſt of all at their iuſtice in all their dealings, & was much in loue therewith, and namely, that their Deniers of the money which was taken, were alwaies of

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like weight,notwithſtanding that the ſundry ſtamps and images vpon the pieces ſhewed plain- G
ly that they were made by diuers perſons. And hereupon eſpecially was he mooued & ſollici-
ted to ſeeke for the alliance and amitie of the people of Rome : and ſo diſpatched 4 Embaſſa-
dours of purpoſe,of whom one *Rachias* was the chiefe and principall perſonage. By theſe Em-
baſſadours we are informed of the ſtate of that Iſland, namely, that it contained fiue hundred
great townes in it:& that there was a hauen therin regarding the South coaſt, lying hard vnder
Paleſimundum the principall citie of all that realme,and the kings ſeat and pallace:that there
were by iuſt account 200000 of commoners & citizens:moreouer,that within this iſland there
was a lake 270 miles in circuit, containing in it certain Iſlands good for nothing elſe but pa-
ſturage, wherein they were fruitfull;out of which lake there iſſued 2 riuers, the one,Paleſimun-
das, paſſing neere to the citie aboueſaid of that name, and running into the hauen with three H
ſtreames, whereof the narroweſt is fiue ſtadia broad,and the largeſt 15;the other Northward on
India ſide,named Cydara:alſo that the next cape of this country to India is called Colaicum,
from which to the neereſt port of India is counted foure daies ſailing : in the midſt of which
paſſage,there lieth in the way,the Iſland of the Sunne. They ſaid moreouer,that the water of
this ſea was all of a deepe greene colour;and more than that,full of trees growing within it:in-
ſomuch as the pilots with their helmes many times brake off the heads and tops of thoſe trees.
The ſtars about the North-pole,called Septentriones,the Waines or Beares, they wondred to
ſee here among vs in our Hemiſphere : as alſo the Brood-hen, called *Vergiliæ* in Latine, as if it
had been another heauen. They confeſſed alſo they neuer ſaw with them,the Moone aboue the
ground before it was 8 daies old, nor after the 16 day. That the Canopus, a goodly great and I
bright ſtar about the pole Antarcticke,vſed to ſhine all night with them. But the thing that
they maruelled and were moſt aſtonied at was this,that they obſerued the ſhadow of their own
bodies fell to our Hemiſphere,and not to theirs;and that the Sun aroſe on their left hand, and
ſet on their right,rather than contrariwiſe. Furthermore they related, that the front of that I-
ſland of theirs which looked toward India,contained 10000 ſtadia,& reached from the South-
Eaſt beyond the mountains Enodi. Alſo,that the Seres were within their kenning,whom they
might eaſily diſcouer from out of this their Iſland ; with whom they had acquaintance by the
meanes of trafficke and merchandiſe:and that *Rachias* his father vſed many times to trauell thi-
ther. Affirming moreouer,that if any ſtrangers came thither,they were encountred and aſſailed
by wild & ſauage beaſts:and that the inhabitants themſelues were gyants of ſtature,exceeding K
the ordinary ſtature of men, hauing red haire,eies of colour blewiſh,their voice for ſound hor-
rible,for ſpeech not diſtinct nor intelligible for any vſe of traffick and commerce. In all things
elſe their practiſe is the ſame that our merchants and occupiers do vſe : for on the farther ſide
of the riuer,when wares and commodities are laid downe, if they liſt to make exchange they
haue them away,and leaue other merchandiſe in lieu thereof to content the forrein merchant.
And verily no greater cauſe haue we otherwiſe to hate & abhor this exceſſiue ſuperfluitie,than
to caſt our eie ſo far and conſider with our ſelues,what it is that weſeeke for,from what remote
parts we fetch it,and to what end we ſo much deſire al this vanitie. But euen this Iſland Tapro-
bane,as farre off as it is,ſeeming as it were caſt out of the way by Nature, and diuided fro m all
this world wherein we liue,is not without thoſe vices and imperfections wherwith we are tain- L
ted and infected. For euen gold & ſiluer alſo is there in great requeſtand highly eſteemed:and
marble, eſpecially if it be faſhioned like a tortois ſhell. Iemmes and pretious ſtones ; pearles
alſo,ſuch as be orient and of the better ſort,are highly priſed with them:and herein conſiſteth
the very height of our ſuperfluous delights. Moreouer,theſe Embaſſadors would ſay, that they
had more riches in their Iſland,than we at Rome,but we more vſe thereof than they. They affir-
med alſo, that no man with them had any ſlaues to command : neither ſlept they in the mor-
ning after day-light,ne yet at all in the day time. That the maner of building their houſes was
low,ſomewhat raiſed aboue the ground, and no more adoe : that their markets were neuer
deare, nor price of victuals raiſed. As for courts, pleading of cauſes, and going to law, they
knew not what it meant. *Hercules* was the onely god whom they worſhipped. Their king was M
alwaies choſen by the voices of the people : wherein they had theſe regards ; that hee were
aged,milde,and childleſſe : but in caſe he ſhould beget children afterward, then hee was depo-
ſed from his regall dignitie, to the end that the kingdome ſhould not in proceſſe of time bee
hereditary and held by ſucceſſion, but by election onely. This king being thus choſen and
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A inueſted,hath thirtie other gouernours aſſigned vnto him by the people: neither can any perſon be condemned to death, vnleſſe he be caſt by the more part of them, and pluralitie of voices:and thus condemned as he is,yet may he appeale vnto the people. Then are there 70 judges deputed to ſit vpon his cauſe: and if it happen that they aſſoile and quit this party condemned:then thoſe 30 who condemned him,are diſplaced from their ſtate and dignity,with a moſt bitter and ſharpe rebuke,and for euer after,as diſgraced perſons liue in ſhame and infamie. As for the king, arraied he is in aparrell as prince *Bacchus* went in old time: but the ſubiects and common people are clad in the habit of Arabians. If it fortune that the king offend,death is his puniſhment:howbeit,no man taketh in hand to doe execution. All men turne away their faces from him, and deigne him not a looke nor a word. But to do him to death in the end,they
B appoint a ſolemne day of hunting,right pleaſant and agreeable vnto Tygres and Elephants,before which beaſts they expoſe their king,and ſo he is preſently by them deuoured. Moreouer, in that Iſland good husbands they are for their ground,and till the ſame moſt diligently. Vines haue they no vſe of at all:for all ſorts of fruits otherwiſe they haue abundance. They take alſo a great pleaſure and delight in fiſhing,and eſpecially in taking of tortoiſſes:and ſo great they are found there,that one of their ſhels will ſerue to couer an houſe: and ſo the inhabitants doe imploy them in ſtead of rouſes. They count an hundred yeeres no long life there: that is theordinary time of their age. Thus much we haue learned and knowne as touching Taprobane. It remaineth now to ſay ſomewhat of thoſe foure Satrapies or prouinces, which we did put off vnto this place. Of them therefore as followeth.

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Chap. XXIII.

¶ *Capiſſene, Carmania.*

BEyond thoſe nations that confine hard vpon the riuer Indus,as yee turn toward the mountaines,yee enter vpon the realme of Capiſſæne,wherein ſometime ſtood the citie Capiſſa, which *Cyrus* the king cauſed to be raſed. At this day there ſtandeth the citie Arachoſia, with a riuer alſo of that name in the country Arachoſia:which citie ſome haue called Cophe, founded by queene *Semiramis*. There likewiſe is to be ſeen the riuer Hermandus,which runneth by Abeſte, a city of the Aracoſians. The next that confront Aracoſia Southward, toward part of the Arachotes,are the Gedroſi:and on the Northſide,the Paropamiſades. As for the towne
D Cartana,named afterwards Tetragonius,ſcituate it is at the foot of the mountaine Caucaſus. This country lies ouer-againſt the Bactrians:then you come to the principall towne therof Alexandria, named ſo of king *Alexander* the founder thereof: vpon the marches whereof are the Syndrari,Dangulæ,Porapiani,Cantaces,and Maci. Moreouer,vpon the hill Caucaſus ſtandeth the towne Cadruſi,built likewiſe by the ſaid *Alexander*. On this ſide all theſe regions lieth the coaſt of the riuer Indus. Then followes the region of the Arianes,all ſcorched and ſenged with the parching heate of the Sunne, and inuironed about with deſarts: howbeit, many ſhadowie vallies lie between to allay the exceeding heat. Well peopled it is about the two riuers eſpecially,Tonderos and Aroſapes. Therein ſtands the citie Artaccana. Being paſt it,the riuer Arius runneth vnder the city Alexandria,built by *Alexander* the Great. The towne containes in com-
E paſſe 30 ſtadia. Then come you to Artacabane, a citie as it is much more ancient, ſo it is alſo fairer by far,which by *Antiochus* the king was walled the ſecond time,and enlarged to 50 ſtadia. The next in order is the nation of the Doriſci. The riuers Pharnacotis and Ophradus. Prophtaſia,a towne in Zaraſparia. The Drangæ,Argetæ,Zarangæ,and Gedruſij. Townes moreouer,Peucolais and Lymphorta. After you are paſt their territory,you enter into the deſarts of the Mithoricanes,and ſo to the riuer Mauain,and the nation of the Augutturi. The riuer Borru, the people called Vrbi, the nauigable riuer Ponamus, which paſſeth through the marches of the Pandanes. Ouer and beſides,the riuer Ceberon within the country of the Sorates,which in the mouth thereof where it falleth into the ſea,makes many baies and harbours. As you go far-
F ther,you come vpon the towne Candigramma,with the riuer Cophes: into which there runne other riuers that carry veſſels,to wit,Sadarus,Paraſpus, and Sodinus. As for the country Daritus,ſome would haue it to be a part of Ariana,and they ſet down the meaſure of them both together to be in length 1950 miles,& in breadth leſſe by half than India. Others haue ſet down that the country of the Gedruſians and Scyrians may contain 183 miles. Being paſſed which

quarters,

quarters,you enter into the region of the Ichthyophagi, ſurnamed Oritæ or mountainers (who haue a proper language by themſelues,and ſpeake not in the Indian tongue) which reaches on full for 200 miles. And beyond it you meet with the people of the Arbians,who likewiſe continue for other 200 miles. As for thoſe Ichthyophagi before-named, *Alexander* by an expreſſe edict forbad them all to feed on fiſh. Being paſt them, you are in the deſarts:and beyond them you come into Carmania,Perſis,and Arabia. But before that we treat diſtinctly of theſe countries,I thinke it meet to ſet downe what *Oneſicritus* (who hauing the conduct of a fleet vnder *Alexander* the great,ſailed from off India,about the Southerly coaſts of Perſis) reports according to thoſe intelligences which came lately from king *Iuba*. In like maner thoſe voiages of ours for theſe yeeres paſt,performed,by which euen at this day we are guided. Howbeit, in the reports made by *Oneſicritus* and *Nearchus*, of their nauigations,we finde neither the diſtance, ne yet the names of the ſeueral reſting places,after euery daies iournie. And to begin with the citie Xylenepolis built by *Alexander*,from which they entred firſt into their voiage,it is not put down by them,either in what place it is ſcituate,nor vpon what riuer. Yet theſe particulars following are by them reported worth remembrance:to wit,that in this voyage *Nearchus* founded a towne in thoſe parts:that the riuer Nabrus runs thereby, and is able to beare great veſſels : ouer-againſt which there is an Iſland 70 ſtadia within the ſea. Moreouer,that *Leonatus* cauſed Alexandria to be built in the frontiers of that region,by direction and commandement from king *Alexander*, where the riuer Argenus enters into the ſea, and yeelds a ſafe & commodious hauen. Alſo that the riuer Tuberum is nauigable,along the bankes whereof the Parites inhabit. And after them the Ichthyophagi,who tooke vp ſo long a tract,that they were 20 daies ſailing by their coaſts. They make relation likewiſe of the Iſle of the Sun,named alſo the couch or bed of the nimphs: This Iſland is red all ouer, and no liuing creature will liue therin,but is conſumed,& periſhes no man knoweth how,or vpon what cauſe. They ſpeake beſides of the nation of the Orians : as alſo of Hytanis a riuer in Carmania,which affordeth many baies and harbours,yea,and plentie of gold in the grauell and ſand therof. And here was the firſt place wherin they obſerued, that they had a ſight of the North-pole ſtar. As for the ſtarre *Arcturus*, they affirmed,that they ſaw it not euery night,nor at any time all night long. Furthermore,that the country of the Achæmenides in Perſea,reached thus farre. Ouer and beſides,that as they trauelled, ordinarily they found good ſtore of mines, wherein was digged for braſſe, yron, Arſenicke or Sardaracha and Vermilion. And then they came to the cape of Carmania:from which to the coaſt ouer-againſt them of the Maræ,a people in Arabia, the cut ouer ſea is 50 miles. Vpon theſe coaſts they diſcouered 3 Iſlands, whereof Organa onely is inhabited, by reaſon of freſh water within it, and from the continent it lieth about 25 miles. And foure Iſlands more they fell vpon,euen in the Perſian gulf ouer-againſt Perſia. And about theſe Iſlands they might ſe ſea-adders & Serpents ſo monſtruous great that as they came ſwimming toward them,they put the very fleet in great fright,for there were among them ſome,20 cubits long. Beyond it they met with the Iſland Acrotadus:likewiſe the Gaurates Iſles, wherein the nation the Chiani doe inhabit. About the middle of this gulfe or arme of the ſea,the riuer Hiperus hath his courſe,able to beare great hulkes and ſhips of burden. Alſo the riuer Sitiogagus, vpon which a man may paſſe in 7 daies to Paſargadia. Alſo a riuer that is nauigable called Phirſtimus,and an Iſland within it,but it is nameleſſe. As for the riuer Granius which runs through Suſiane,it carries but ſmall veſſels. Along the coaſt on the right hand of this riuer dwell the Deximontanes,who dreſſe and prepare Bitumen. Then the come to the riuer Oroatus,with a dangerous hauen or mouth where it falls into the ſea,vnleſſe a man be guided by skilfull pilots:& full againſt this riuer there are diſcouered 2 little Iſlands. Paſt which,the ſea is very low and ſhallow,full of ſhelues and ſands,more like a meere and mariſh water,than a ſea. Howbeit there be certaine trenches or channels in it that draw deepe water,wherein they may without danger ſaile. Then met they with the mouth of the riuer Euphrates. Alſo the lake which the two riuers Eulæus and Tigris doe make,neere vnto Characum. And ſo from thence they arriued vpon the riuer Tigris,at Suſa. And there an end of the nauigation performed by *Oneſicritus* and *Nearchus*. For after they had beene three months embarked and in their voiage vpon the ſea,they found *Alexander* at Suſa (where he feaſted and made ſolemne bankets) and that was 7 monthes after he parted from them at Patalæ. And thus much concerning the voiage of *Alexander* his fleet. Now afterwards from Syagrus,a Promontory in Arabia,it was counted vnto Patale 1332 miles, & held it was for certain then that,

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A that the Weſt wind with the people of that country call Hypalus, was thought moſt proper for to make ſaile to the ſame place. Howbeit the age enſuing diſcouered a ſhorter and ſafer cut, namely, if from the ſaid promontorie or cape Syagrus, they ſet their courſe directly to the mouth of the riuer Zizerus, which maketh an harborough in India. And in truth this paſſage held a long time, vntill ſuch time that in the end the merchants found out a more compendious and ſhorter courſe, and gained by their voiage to India: for euery yeere now they ſaile thither, and for feare of pirats and rouers that were wont very much to infeſt and annoy them, they vſed to embarke in their ſhips certaine companies of Archers. And ſeeing that all theſe ſeas are now diſcouered, and neuer before ſo certainly, I will not thinke much of my pains, to declare
B and ſhew, the whole courſe of our Indian voiages from out of Ægypt. And firſt and formoſt this is a thing worthy to be noted and obſerued of euery man, that there is not a yeere goeth ouer our heads, but it coſts our State to furniſh a voiage into India, 500 hundred thouſand Seſterces, *i.* fifty millions of Seſterces. For which the Indians ſendeth backe againe commodities and merchandiſe of their owne, which being at Rome, are ſold for an hundred times as much as they coſt, or yeeld in the price an hundred fold gain. But to returne againe to our voiage, from Alexandria in Ægypt, it is two miles to Iuliopolis: from whence vpon the riuer of Nilus, they ſaile 303 miles to Coptus, which may be done in 12 daies ſpace, hauing the Eteſian winds at the poupe. From Coptus they trauell forwards vpon Cammels backs: and for great default of water in thoſe parts, there be certain ſet places for bait, lodging, and watering.
C The firſt is called Hydreuma 32 miles from Coptus. The ſecond one days journey from thence in a certaine mountaine. The third watering place at another Hydreuma, 95 miles from Coptus. The fourth againe in a ſecond mountaine. The fifth is at a third Hydreuma of *Apollo*, from Coptus 184 miles. Beyond which, the reſting place is vpon another hill. And then to Hydreuma the new, from Coptus 234 miles. Another water towne there is, called Hydreuma the old, named alſo Trogloditicum, where two miles out of the port way lieth a garriſon, keeping watch and ward both day & night: and foure miles diſtant it is from new Hydreuma. From whence they trauell to the towne Berenice, an hauen towne ſtanding vpon the red ſea, 258 miles from Coptus. But for as much as the journey all this way is for the moſt part performed in the night ſeaſon, by reaſon of the exceſſiue heat, & the trauellers are forced to reſt all the day long, there-
D fore twelue daies are ſet down for the whole voiage between Coptus and Berenice. The time then that they vſually begin to ſet ſaile, is about Midſummer before the dog daies, or preſently vpon the riſing of the dog ſtarre. And about the 30 daies end they arriue to Ocelis in Arabia, or els at Cama, within Saba, the countrey of incenſe. A third port there is beſides called Muza, vnto which there is no reſort of merchants out of India: neither is it in requeſt but with merchants that aduenture only for incenſe, drugs, & ſpices of Arabia. Howbeit peopled this country is within-forth, and hath diuers great townes. Of which, Saphar is the principall, and the kings ſeat: & another beſides of good importance called Sabe. But for them that would make a voiage to the Indians, the moſt commodious place to ſet forward is Ocelis: for from thence, and with the Weſt wind called Hypalus, they haue a paſſage of forty daies ſailing to the firſt
E towne of merchandiſe in India, called Muziris. Howbeit a port this is, not greatly in requeſt, for the daunger of pirates and rouers, which keep ordinarily about a place called Hydræ: and beſides that, it is not richly ſtored and furniſhed with merchandiſe. And more than ſo, the harborough is farre from the town, ſo as they muſt charge and diſchrge their wares to and fro in little boats. At the time when I wrot this ſtory, the king that reigned there, was named *Celebothras*. But another hauen there is more commodious, belonging to the Necanidians, which they cal Becare: the kings name at this preſent is *Pandion*: not far off is another town of merchandiſe within the firme land, called Maduſa. As for that region, from whence they tranſport pepper, in ſmall punts or troughes made of one peece of wood, it is named Corona. And yet of all theſe nations, hauens, and towns, there is not a name found in any of the former writers. By which it appeareth, that there hath been great change and alteration in theſe places. But to come again
F to India, our merchants returne from thence back in the beginning of our month December, which the Ægiptians cal Tybis, or at fartheſt before the ſixt day of the Ægyptians month Machiris, and that is before the Ides of Ianuary: and by this reckoning they may paſſe to and fro, and make return within the compaſſe of one yere. Now when they ſaile from India, they haue the Northeaſt wind Vulturnus with them: and when they be entered once into the red ſea, the

So as it appeareth that euery dais journy was aboue 32 miles.

South or Southweſt. Now wil we return to our purpoſed diſcourſe as touching Carmania. The coaſt wherof after the reckoning of *Niccarchus* may take in circuit 12050 miles. From the firſt marches thereof to the riuer Sabis is counted 100 miles. From whence all the way as far as to the riuer Andaius, the country is rich and plenteous, for in it are vineyards and corne fields wel husbanded. This whole tract is called Amuzia. The chiefe townes of Carmania be Zetis and Alexandria. Vpon the marches of this realme the ſea breaks into the land in two armes, which our countrymen call the red ſea, and the Greekes Erythræum, of a king named *Erythras*: or as ſome thinke, becauſe the ſea by reaſon of the reflection and beating of the Sun beams, ſeemes of a reddiſh colour. There be that ſuppoſe this redneſſe is occaſioned of the ſand and ground which is red: and others againe, that the very water is of the own nature ſo coloured.

Chap. XXIV.

¶ *The Perſian and Arabian gulfes.*

THis red ſea is diuided into two armes: that from the Eaſt is named the Perſian gulfe, being in compaſſe 2500 miles, by the computation of *Eratoſthenes*. Ouer againſt this gulfe, in Arabia (which lieth in length 1200 miles) on the other ſide another arme there is of it called the Arabian gulfe, which runs into the Ocean Azanius. The mouth of the Perſian gulfe where it maketh entrance is 5 miles ouer, and ſome haue made it but 4: from which to the fartheſt point thereof, take a direct and ſtraight meaſure by a line, and for certaine it is, that it containeth 1225 miles: and is faſhioned directly like a mans head. *Oneſichritus* and *Nearchus* write, That from the riuer Indus to the Perſian gulfe, and ſo from thence to Babylon by the meeres and fens of the riuer Euphrates, it is 2500 miles. In an angle of Carmania inhabit the Chelonophagi, *i.* ſuch as feed vpon the fleſh of Tortoiſes, and the ſhells of them ſerue for roofes to couer their cottages. They inhabit all that coaſt along the riuer Arbis, euen to the very cape: rough they are, hairy all their body ouer but their heads, and weare no garment but fiſh skins.

Chap. XXV.

¶ *The Iſland Caſſandrus: and the kingdomes vnder the Parthians.*

WHen you are paſt this tract of the Chelonophagi, directly toward India, there lieth fifty miles within the ſea the Iſland Caſſandrus, by report all deſart and not inhabited: and neere to it, with a little arme of the ſea between, another Iſland called Stois; wherein pearles are good chaffer, and yeeld gainfull trafficke. But to returne againe to Carmania, when you are beyond the vtmoſt cape thereof, you enter preſently vpon the Armozei, who ioyn vpon the Carmanians. But ſome ſay that the Arbij are between both: and that their coaſt may containe in the whole 402 miles. There are to be ſeen the port or hauen of the Macedonians, and the altars or columnes which *Alexander* erected vpon the very promontorie and vtmoſt cape. Where alſo be the riuers Saganos, Daras, and Salſos. Beyond which is the cape Themiſceas, and the Iſle Aphrodiſias well peopled. Then beginneth the realme of Perſis, which extendeth to the riuer Oroatus, that diuides it from Elymais. Ouer-againſt the coaſts of Perſis, theſe Iſlands be diſcouered, Philos, Caſſandra, and Aratia, with an exceeding high mountaine in it: and this Iſle is held conſecrated to *Neptune*. The very kingdome of Perſis Weſtward hath the coaſts lying out in length 450 miles. The people are rich, and giuen to royall and ſuperfluous expence in all things: and long ſince are become ſubiect to the Parthians, carying their name. And ſeeing we are come to ſpeake of them, we will briefly now mention their dominion and empire: the Parthians haue in all 18 realmes vnder them; for ſo they termed all their prouinces as they lie diuided about the two ſeas, as wee haue before ſaid: namely the red ſea Southward, and the Hircane ſea, toward the North. Of which, eleuen that lie aboue in the countrey, and are called the higher Prouinces, they take their beginning at the confines and marches of Armenia, and the coaſts of the Caſpians on the one ſide: and reach to the Scythians, whom they confront of the other ſide, with whom they conuerſe and keepe company together as Equalls. The other ſeuen are called the baſe or lower Realmes. As for the Parthians, their land was alwaies counted to ly at the foot and deſcent of thoſe mountains wherof we haue ſo often

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A ſpoken, which do enuirone and encloſe all thoſe nations. It confineth Eaſtward vpon the Arij, and Southward, vpon Carmania and the Arians: on the Weſt ſide it butteth vpon the Pratites and Modes: and on the North, boundeth vpon the realm of Hircania: compaſſed round about with deſerts and mountaines. The vtmoſt nations of the Parthians before yee come to thoſe deſarts be called Nomades: and their cheife townes ſeated toward the Weſt, are Iſlaris and Calliope, whereof we haue written before: but toward the Northeaſt, Europum; and Southeaſt Mania. In the heart and midland ſtandeth the citie Hecatompylos, as alſo Arſacia. And there likewiſe the noble region of Nyſæa in Parthyerum: together with the famous city Alexandropolis, bearing the name of *Alexander* the firſt founder.

Chap. XXVI.

B *Media, Meſopotamia, Babylon, and Seleucia.*

REquiſit now it is and needfull in this place to deſcribe the poſiture and ſituation of the Medians kingdom, and to diſcouer all thoſe countries round about, as farre as to the Perſian ſea, to the end that the deſcription of other regions hereafter to be mentioned, may the better be vnderſtood. Wherein this firſt and formoſt is to be obſerued, that the kingdome of Media on the one ſide or other confronteth both Perſis and Parthia, and caſting forth a crooked and winding horne as it were toward the Weſt, ſeemeth to encloſe within that compaſſe both the ſaid realmes. Neuertheleſſe, on the Eaſt ſide it confineth vpon the Parthians and Caſpians: on the South, Sittacene, Suſiane, and Perſis: Weſtward, Adiabene: and Northward, Ar-
C menia: as for the Perſians, they alwaies confronted the red ſea, whereupon it was called the Perſian gulfe. Howbeit, the maritime coaſt thereof is called Cyropolis, and that part which confineth vpon Media, Elymais. In this realme there is a ſtrong fort called Megala, in the aſcent of a ſteep high hill, ſo direct & vpright, that a man muſt mount vp to it by ſteps and degrees, and otherwiſe the paſſage is very ſtreight and narrow. And this way leadeth to Perſepolis the head city of the whole kingdome, which *Alexander* the great cauſed to be raſed. Moreouer in the frontiers of this Realme, ſtandeth the city Laodicea, built by king *Antiochus*. From whence as you turn into the Eaſt, the ſtrong fort or caſtle Paſſagarda is ſeated, which the ſages or wiſe men of Perſia called Magi, do hold, and therein is the tomb of *Cyrus*. Alſo the citie Ecbatana
D belonging to theſe ſages, which *Darius* the king cauſed to be tranſlated to the mountaines. Between the Parthians and the Arians lie out in length the Parotacenes. Theſe nations and the riuer Euphrates ſerue to limit and bound the ſeuen lower realmes abouenamed. Now are we to diſcourſe of the parts remainitg behind of Meſopotamia; ſetting aſide one point and corner thereof, as alſo the nations of Arabia, wherof we ſpake in the former booke. This Meſopotamia was in times paſt, belonging wholly to the Aſſyrians, diſperſed into pettie villages and burgades, all ſaue Babylon & Ninus. The Macedonians were the firſt, that after it came vnder their hands reduced it into great cities, for the goodneſſe and plenty of their ſoile and territorie. For now beſides the abouenamed townes, it hath in it, Seleucia, Laodicea, and Artemitá: likewiſe within the quarters of the Arabians named Aroei & Mardani, Antiochea: and that which
E being founded by *Nicanor*, gouernor of Meſopotamia, is called Arabis. Vpon theſe ioine the Arabians, but well within the countrey are the Eldamarij. And aboue them is the citie Bura, ſituat vpon the riuer Pelloconta: beyond which are the Salmanes and Maſeans Arabians. Then there joine to the Gordiæans thoſe who are called Aloni, by whom the riuer Zerbis paſſeth, and ſo diſcharged into Tigris. Neere vnto them are the Azones and Silices mountainers, together with the Orentians: vpon whom confronteth the city Gaugamela on the Weſt ſide. Moreouer, there is Sue among the rocks: aboue which are the Sylici and Claſſitæ, through whom Lycus the riuer runneth out of Armenia. Alſo, toward the Southeaſt, Abſitris, and the town Azochis. Anon you come down into the plains & champion country, where you meet with theſe
F towns, Dioſpage, Poſitelia, Stratonicea, & Anthemus. As for the city Nicephorium, as we haue already ſaid, it is ſeated neer to the riuer Euphrates, where *Alexander* the great cauſed it to be founded, for the pleaſant ſeat of the place, and the commodity of the country there adioining. Of the city Apamia we haue before ſpoken in the deſcription of Zeugma: from which they that goe Eaſtward meet with a ſtrong fortified town, in old time carrying a pourpriſe & compaſſe of 65 ſtadia, called the royall pallace of their great dukes & potentates, named Satrapæ,

vnto which from all quarters men reſorted to pay their impoſts, cuſtoms, and tributes; but now it is come to be but a fort and caſtle of defence. But there continue ſtill in their entire and as flouriſhing ſtate as euer, the city Hebata and Oruros, to which by the fortunat conduct of *Pompey* the Great, the limits and bounds of the Roman empire were extended; and is from Zeugma 250 miles. Some writers report, that the riuer Euphrates was diuided by a gouernor of Meſopotamia, and one arme thereof brought to Gobaris, euen in that place where we ſaid it parted in twain: which was done for feare leſt one day or other the riuer with his violent ſtreame ſhould indanger the city of Babylon. They affirme alſo, that the Aſſyrians generally called it * Armalchar, which ſignifieth a royall riuer. Vpon this new arme of the riuer aforeſaid, ſtood ſometime Agrani, one of the greateſt towns of that region, which the Perſians cauſed to be vtterly raſed and deſtroyed.

* Or rather Nahal Nalca, i. the kings riuer.

As for the city of Babylon, the chiefe city of all the Chaldæan nations, for a long time carried a great name ouer all the world: in regard whereof all the other parts of Meſopotamia and Aſſyria was named Babylonia: it contained within the walls 60 miles: the walls were 200 foot high, and 50 thick, reckoning to euery foot 3 fingers bredth more than our ordinary meaſure. Through the middeſt of this goodly great city paſſeth the riuer Euphrates: a wonderfull piece of worke, if a man conſider both the one and the other. As yet to this day the temple of *Iupiter Belus* there ſtands entire. This prince was the firſt inuenter of Aſtronomie. It is now decayed, and lieth waſte and vnpeopled, for that the city Seleucia ſtands ſo neere it, which hath drawne from it all reſort and traffique; and was to that end built by *Nicator* within 40 miles of it, in the very confluent where the new arm of Euphrates is brought by a ditch to meet with Tigris: notwithſtanding it is named Babylonia, a free ſtate at this day, and ſubiect to no man; howbeit they liue after the lawes and manners of the Macedonians. And by report, in this city there are 600000 citiſens. As for the walls thereof, it is ſaid they reſemble an Eagle ſpreading her wings: and for the ſoile, there is not a territorie in all the Eaſt parts comparable to it in fertilitie. The Parthians in deſpight again of this city, and to do the like by it, as ſomtime was done to old Babylon, built the city Cteſiphon within three miles of it, in the tract called Chalonitis, euen to diſpeople and impouerish it; which is now the head city of that kingdom. But when they could do little or no good thereby to diſcredit the ſaid new Babylon, of late dayes *Vologeſus* their king founded another city hard by called Vologeſo Certa. Moreouer, other cities there are beſides in Meſopotamia, namely Hipparenum, a city likewiſe of the Chaldæans, and innobled for their learning as well as Babylon; ſcituate vpon the riuer Narragon, which gaue the name vnto that city. Howbeit the Perſians cauſed this Hypparenum to be diſmantled, and the walls thereof to be demoliſhed. There be alſo in this tract the Orchenes towards the South, from whence is come a third ſort of the Chaldæans, called Orcheni. Being paſt this region, you meet with the Notites, Orthophants, and Græciophants. *Nearchus* and *Oneſicratus*, who regiſtred the voiage of *Alexander* the Great into India, report, That from the Perſian ſea to the city Babylon by the riuer Euphrates, is 412 miles. But the later and moderne Writers do count from Seleucia to the Perſian gulfe 490 miles. K. *Iuba* writeth, That from Babylon to Charax is 175 miles. Some affirme moreouer, That beyond Babylon the riuer Euphrates doth maintaine one entire courſe, and keepeth one channel 87 miles, before he is diuided into ſeuerall branches here and there, for to water the country: and that he holdeth on his courſe from his head to the ſea for the ſpace of 1200 miles. This varietie of Authors as touching the meaſure is the cauſe why a man may not ſo wel reſolue and conclude thereof, conſidering that euen the very Perſians agree not about the dimenſions of their Scœnes and Parafanges, but haue diuers meaſures of them. Whereas the riuer Euphrates giueth ouer his owne chanel, (which for the bredth thereof is a ſufficient munition to it ſelfe) and beginneth to part into diuers branches, which it doth about the marches & confines of Charax, in all the tract neere adioyning, great danger there is of the Attalæ, a theeuiſh nation amongſt the Arabians, who preſently ſet vpon all paſſengers comming and going to and fro. When you are paſt this infamous and ſuſpected Region, you ſhall enter into the Countrey of the Schenites. As for the Arabians which are called Nomades, they occupie all the coaſts of the riuer Euphrates, as farre as to the Deſarts of Syria. From the which place we haue ſaid that hee turned, and tooke his way into the South, abandoning the deſarts of Palmyrene. To conclude, from the beginning and head of Meſopotamia, it is counted to Seleucia, if you paſſe vpon the riuer Euphrates, 1125 miles:

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A miles: and from the red ſea, if you go by the riuer Tigris, 320 miles: from Zeugma 527 miles: and to Zeugma from Seleucia in Syria vpon the coaſt of our ſea, is reckoned 175 miles. This is the very true and iuſt latitude there, of the firm land between the two ſeas, to wit, the Perſian gulfe and the Syrian ſea. As for the kingdome of Parthia, it may containe 944 miles. Finally, there is yet another towne of Meſopotamia vpon the banke of Tigris, neere the place where the riuers meet in one, called Digba.

Chap. XXVII.

¶ *The riuer Tigris.*

B MEet alſo and conuenient it is to ſay ſomewhat of the riuer Tigris. It begins in the land of Armenia the greater, iſſuing out of a great ſource; and euident to be ſeen in the very plaine. The place beareth the name of Elongoſine. The riuer it ſelfe ſo long as it runs ſlow and ſoftly is named Diglito; but when it begins once to carry a more forcible ſtreame it is called Tigris, for the ſwiftneſſe thereof; which in the Medians language betokens a ſhaft. It runs vp into the lake Arethuſa, which beareth vp aflote all that is caſt into it, ſuffering nothing to ſinke; and the vapors that ariſe out of it carry the ſent of Nitre. In this lake there is but one kind of fiſh, and that entreth not into the chanell of Tigris as it paſſeth through, not more than any fiſhes ſwim out of Tigris into the water of the lake. In his courſe and colour both he
C is vnlike, and as he goes may be diſcerned from the other: and being once paſt the lake, and incountreth the great mountain Taurus, he loſeth himſelf in a certain caue or hole in the ground, and ſo runs vnder the hill, vntill on the other ſide thereof he breaketh forth again, and appeares in his likeneſſe, in a place called Zoroanda. That it is the ſame riuer it is euident by this, that he carrieth through with him, and ſheweth in Zoroanda, whatſoeuer was caſt into him before he hid himſelfe in the caue aforeſaid. After this ſecond ſpring and riſing of his he enters into another lake, and runneth through it likewiſe, named Thoſpites; and once again takes his way vnder the earth through certain blinde gutters, and 25 miles beyond he putteth forth his head about Nymphæum. *Claudius Cæſar* reporteth, that in the countrey Arrhene, the riuer Tigris runs ſo neere the riuer Arſania, that when they both ſwell, and their waters are out, they ioyne
D both their ſtreams together, yet ſo, as the water is not mingled: for Arſanias being the lighter of the twain, ſwimmeth and floteth ouer the other for the ſpace wel-neere of 4 miles: but ſoon after they part aſunder, and Arſania turneth his courſe toward the riuer Euphrates, into which he entreth. But Tigris receiuing into him certain goodly great riuers out of Armenia, to wit, Parthenis, Agnice, and Pharion, & ſo diuiding the Arabians & Troeanes from the Adiabenes, and by this means making as it were an Iſland of Meſopotamia aforeſaid, after he hath paſſed by and viewed the mountaines of the Gordiæans, neere vnto Apamia a town of Meſene on this ſide Seleucia ſyrnamed Babylonia, 125 miles: diuiding himſelfe into two armes or channels, with the one he runneth Southward to Seleucia, watering as he goeth the country of Meſſene; and with the other windeth Northward: he goeth on the backſide of the ſaid Meſene, and cutteth through the plains of the Cauchians. Now when theſe two branches are re-vnited again,
E the whole is called Paſitigris. After this, he taketh into him out of Media, the great riuer Coaſpes: and ſo paſſing between Seleucia and Cteſiphon, as we haue ſaid, he fals into the meeres and lakes of Chaldæa, which he furniſheth and repleniſheth with water for the compaſſe of ſeuentie miles: which done, he iſſueth forth againe, guſhing out with a mighty great and large ſtreame, and running along the towne Charax, on the right hand thereof, he diſchargeth himſelfe into the Perſian ſea, carrying there a mouth ten miles ouer. Between the mouthes of theſe two riuers, Tigris & Euphrates, where they fall into the ſea, were counted in old time 25 miles, or as ſome would haue it but ſeuen: and yet both of them were nauigable, and bare right great ſhips. But the Orcheniens and other neighbor inhabitants, long ſince turned the courſe of Euphrates aſide to ſerue their owne turnes in watering their fields, and ſtopped the ordinarie paſ-
F ſages thereof, inſomuch as they forced him to run into Tigris, & not otherwiſe than in his chanell to fall into the ſea. The next country bordering vpon Tigris is called Parapotamia, in the marches whereof is the city Meſene, whereof we haue ſpoken. The chiefe towne thereof is Dibitach: from thence you enter preſently into the region Chalonitis, ioyning hard vpon Cteſiphon, a rich country, beautified not only with rowes of date trees, but alſo with Oliue, Apple,

and peare trees, and generally with all sorts of fruit. Vnto this country extends the mountaine Zagrus, comming along from out of Armenia, between the Medes and Adiabenes, aboue Parætacene and the realme of Persis. Chalonitis is from Persis 480 miles distant: & some write, that going the streight, direct, and neerest way, it is so much and no more from the Caspian sea to Assyria. Between these countries and Mesene lieth Sittacene, the same that Arbelitis and Palestine. The townes of importance therein are Sittace, held by the Grecians, scituat toward the East, and Sabata: but on the West side Antiochia, seated betweene the two riuers Tigris and Tornadotus. In like manner Apamia, which *Antiochus* the king so called after his mothers name. This City is inuironed as it were with the riuer Tigris, and diuided with the riuer Archous which passeth through it. Somwhat lower than these countries lieth the region Susian, wherein stood the antient royall pallace and seat towne of the Persian kings, Susa, founded by *Darius* son of *Hystaspes*; and from Seleucia Babylonia it is 450 miles distant: & as much from Ecbatana in Media, taking the way along the mountaine Charbanus. Vpon that branch of the riuer Tigris that taketh his course Northward, stands the towne Babytace; and from Susa it is 135 miles. The people of this country are the only men in the world that hate gold: and in very truth get it they do, and when they haue it, they bury it sure enough within the ground, that it may serue for no vse. Vpon the Susianes Eastward ioyn the Cossæans, Brigands, and theeues generally all. Likewise the Mizæans, a free state, and subiect to no gouernment, hauing vnder them 40 nations, all wilde, and liuing as they list. Aboue these quarters you enter into the countries of the Parthusians, Mardians, Saites, and Hyans, who confine vpon high Persia called Elemais, which ioineth to the maritime coasts of Persis, as is aboue said. The city of Susa is from the Persian sea 250 miles. On that side whereas the Armada of *Alexander* the Great came vp the great riuer Pasitigris to Susa, there stands a Village on the lake Chaldais, name Aphle, from which to Susa is 65 miles and an halfe by water. The next that border vpon the Susians Eastward are the Cossæans: and aboue the Cossæi Northward lieth Mesobatene vnder the hil Cambalidus, which is a branch and dependant of the mountain Caucasus; and from thence is the most easie and ready passage into the country Bactriana. The riuer Eulæus makes a partition betwixt the high country of Persis called Elimais, and Susiane. This riuer issueth out of the Medians country, & in the midst of his course loseth himself vnder the ground: but being once vp againe he runneth through Mesobatene, and inuironeth the fort & castle of Susa, with the Temple of *Diana*, which is had in great reuerence and honour aboue all other Temples in those parts: yea, and the very riuer it selfe is in much request, and the water thereof ceremoniously regarded; in such wise, as the kings drinke of no other, and therefore they fetch it a great way into the country. And it receiueth into it the riuer Hedypnus, which commeth along the Priuiledged place whereinto the Persians vse to retyre for sanctuarie, and one more out of the Susianes countrey. A towne there is planted neere vnto it, called Magoa, 15 miles from Charax: yet some there be that would haue this towne to stand in the vtmost marches of Susiana, euen close to the mountaines and desarts. Beneath the riuer Eubæus lieth Elimais, ioyning to Persis in the very maritime coast; 240 miles it is from the riuer Oroates to Charax: the towns in it be Seleucia and Sosirate, both scituate vpon the hanging of the hill Casyrus. The flat coast and leuell thereof, which lieth before it, is, as we haue said before, no lesse dangerous and vnaccessible than the Syrts, for quavemires, by reason of the great store of mud and sand together, which the riuers Brixia and Ortacea bring downe with them. Ouer and besides, the countrey Elemais is so fenny, and standeth with water so wet, that there is no way through it to Persis, but a man must fetch a great circuit and compasse about it to come thereto. Moreouer, it is much haunted and annoied with serpents, which breed and come downe in those riuers: And as troublesome as the passage is all the countrey ouer, yet that part yeeldeth the worst aduenues, and is least frequented, which is called Characene, of the towne Charax, which limits the kingdomes of Arabia, whereof we will speake anon more at large, after wee haue set downe the opinion of *M. Agrippa*, which he hath deliuered as touching these quarters: for he hath written, that Media, Parthia, and Persis are bounded on the East side with the riuer Indus; on the West with Tigris; on the North part with the two mountaines, Taurus and Caucasus; and on the South coast with the red sea: also that they extend in length 1320 miles, and in bredth eight hundred forty. Moreouer, that Mesopotamia by it selfe alone is inclosed Eastward with the Riuer Tigris, and Westward with Euphrates; hauing on the North side the mountaine

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A Taurus, and on the South the Perſian ſea: lying out in length 800 miles, and in bredth 360: now to returne vnto Charax, the inmoſt towne within the Perſian gulfe, from which Arabia called Eudæmon, *i.* happie, begins and runneth forth in length; ſcituate it is vpon a mount artificially reared by mans hands between the confluents of Tygris on the right hand, and Eulæus on the left; and yet notwithſtanding it carrieth a pourpriſe or precinct of three miles compaſſe. Founded firſt it was by *Alexander* the great, who hauing drawne Coloners to inhabite it out of the kings city Durine (which then was ruinat) and leauing there behind him thoſe ſoldiers which were not fit for ſeruice, nor able to follow in the march, ordained, that this town ſhould be called Alexandria: and the territory about it Pellæum, of the town where himſelfe was born: and withall appointed, that it ſhould be peopled only with Macedonians. But this towne of his by
B him founded, was ouerthrowne and deſtroied by the two riuers aforeſaid. Afterwards K. *Antiochus* the fift rebuilt it again, and named it of himſelf Antiochia. But when it was decaied a ſecond time by theſe riuers, *Spaſines*, ſon of *Sogdonacus*, who held Arabia, bordering neere by as an abſolute king, and not (as *Iuba* reporteth) as a duke or gouernor vnder *Alexander*, raiſed great wharfes, and oppoſed mightie dams and cauſies againſt thoſe riuers, and ſo re-edified the town a third time. Which done, he called it after his own name Charax of Spaſines: and verily hee fortified thus the ſite and foundation thereof, three miles in length, and little leſſe in breadth. At the beginning it ſtood vpon the ſea-coaſt, and from the water ſide not aboue ten ſtadia, and euen from thence it hath certain falſe baſtard galleries: but by the report of *Iuba* in his time, 50 miles. Howbeit, at this day both the Arabian Embaſſadors, and alſo our merchants that come from thence, ſay it is from the ſea ſhore 125 miles. In ſuch ſort, that it cannot be found in any
C place of the world again, where the earth hath gained more, nor in ſo ſhort a time, of the water, by reaſon of the ſtore of mud brought down with riuers. And the more maruell it is, that conſidering the ſea floweth, and the tide riſeth far beyond this towne, yet thoſe made grounds are not beaten back, and carried away againe. In this very towne I am not ignorant that *Dionyſius* the lateſt of our moderne Geographers was born, whom *Auguſtus* the Emperor ſent of purpoſe beforehand into the Eaſt countries to diſcouer thoſe parts, and record faithfully in writing whatſoeuer he there found, for the better aduertiſement of his elder ſon, who was vpon his voiage aud expedition of Armenia, to war againſt the Parthians and Arabians. Neither haue I forgotten, that in my firſt entrance into this worke in hand, I made ſome proteſtation to follow
D thoſe who had written of their owne countries, as men lightly moſt diligent and of beſt intelligences in that behalfe. Howbeit, in this place I chuſe rather to follow our martiall captaines that haue warred there, and report me alſo to K. *Iuba*, who hath written certain books to *C. Cæſar Caligula*, as touching the occurrences in the Arabian voiage.

Chap. XXVIII.

¶ *Arabia, Nomades, Nabatæi, and Omani: Tylos and Ogyris two Iſlands.*

ARabia commeth behind no country in the world, for largeneſſe and greatneſſe, eſpecially reaching out in length a mighty way. For it beginneth at the fall and deſcent of the mountaine Amanus ouer-againſt Cilicia and Comagene, as we haue before ſaid: where it
E is peopled with many nations brought from thence thither by *Tigranes* the great, to inhabite that quarter, and in old time deſcended naturally, and reached as far as to our ſea & the Ægyptian coaſt, as we haue ſhewed; yea, and extendeth into the midland parts of Syria to the mountain Libanus, where the hils reach vp to the very clouds: vpon which bound the Ramiſians, then the Taraneans, and after them the Patami. As for Arabia it ſelf, being like a demie Iſland, runneth out between two ſeas, the red and the Perſian, by a certain artificiall workmanſhip of nature, framed according to Italy in likeneſſe of forme and bigneſſe: yea, and lieth along the ſea coaſts in manner of Italy. And more than that, it regardeth the ſame quarter and line of heauen, without any difference at all. This tract thereof, for the rich ſeat it hath, is named *Fœlix*,
F *i.* Happy. The nations therein dwelling, from our ſea-coaſts to the deſarts of Palmyreum, wee haue treated of already. Therfore ouerpaſſing them, we will diſcourſe of the reſt forward. Now then, the Nomades & thoſe robbers that ſo lie vpon the Chaldæans & trouble them, the people called Scenitæ, as we haue beforeſaid, do confine vpon. And euen they alſo make no certain place of abode and habitation, but are called Scenitæ, of their tabernacles and booths which they

they make of haire clothes,and encamp vnder them when & where they liſt. Being paſt them, G
you meet with the Nabatæans in the vale, who inhabite a towne there named Petra,little leſſe
than 2 miles large;inuironed with ſteep mountains round about,which cut off al the aduenues
to it:and beſides,hauing a riuer running through the midſt thereof. Diſtant it is from Gaza (a
town ſcituat vpon our coaſt in Syria) 600 miles:and from the Perſian gulfe 122. And here at
this town meet both the port high waies,to wit,the one which paſſengers trauell to Palmyra in
Syria,and the other,wherein they go from Gaza. Beyond Petra and the vale thereof, you enter
into the Omanes country:which reached ſomtime as far as to Carax, and inhabited 2 famous
towns built by queen *Semiramis*,namely,Abeſanius,and Soractia. But now all is but a wilder-
neſſe. Then come you to a town named Forath,ſcituat vpon the riuer Paſitigris, and ſubiect to
the king of the Caracins or Zarazins: to which towne there is much reſort from Petra, as to a H
ſhire towne: and from thence to Charax,they may paſſe with the tide when the water ebbeth
for the ſpace of 12 miles. But they that come by water out of the Parthian kingdom,meet with
a village called Teredon, lower than the place where Euphrates and Tigris meet together in
one. Where the Chaldæans inhabit the left hand coaſt of the riuer, and the Nomades called
Scenitæ,the right. Some writers affirm,that as ye ſaile and row vpon the riuer Tigris, yee paſſe
by two other townes diſtant far aſunder:the one called Barbatia in times paſt, and afterwards
Thumata,which our merchants that trafficke in thoſe parts, auouch to be ten daies ſaile from
Petra,and is vnder the king of the Characenes:and the other Apamia, ſcituat in the very place
where Euphrates the riuer ſo ſwelleth ouer his bankes, that he ioineth with Tigris in one con-
fluent. And therefore the Apamians, at what time as the Parthians are about to make inrodes I
and inuade their territorie,ſet open the ſluces,and breake vp the wharfes and banks that keepe
theſe two riuers aſunder,and ſo impeach their enterpriſe by the ouerflow and inundation of
the waters. Now being paſt Charax,we will diſcourſe of the other coaſts of Arabia, & namely
that which firſt was diſcouered and declared by *Epiphanes*. And to begin with the place where
ſometime the mouth of Euphrates was. When you are once paſt it,you meet with a riuer of ſalt
brackiſh water,and the promontory or cape Chaldonum:where the ſea is more like a deep pit
or whirlepoole than a ſea,for 50 miles. Vpon this coaſt you find the riuer Achana,and beyond
it,deſarts for 100 miles,vntil you come to the Iſland Ichara. Then ſheweth it ſelfe the gulfe or
arme of the ſea named Capeus,vpon which inhabit the Gaulopes and Chateni. Beyond them
another creeke called Gerraicus,and the towne Gerræ vpon it,fiue miles large;& fortified with K
turrets made of great huge ſtones ſquared,of ſalt minerall. Fifty miles from the ſea ſide is the
region Attene:and ouer-againſt it the Iſland Tylos,as many miles from the ſhore,with a town
in it,bearing the name of the Iſland,much frequented by merchants for the plentie of pearles
that there be ſold:and not far from it there is another ſomewhat leſſe, not paſt 12 miles from
the cape of the foreſaid Tylos. Beyond theſe there are diſcouered by report certaine great I-
ſlands,but as yet they haue not bin landed vpon by our merchants. As for this laſt Iſland,it con-
taineth as they ſay 112 miles and an halfe in circuit, & is far from Perſis; but no acceſſe there
is vnto it,but only by one narrow gutter or channell. Then ſheweth it ſelfe the Iſland Aſgilia.
And in theſe parts likewiſe are other nations,namely,the Nocheti,Zurachi,Borgodi,Cataræi,
and Nomades:and withall the riuer Cynos. Beyond that,as K. *Iuba* ſaith, there is no more diſ- L
couered vpon this ſea of that ſide, by reaſon of the dangerous rockes therein. And I maruell
much that he hath made no mention at all of the towne Batraſabe in the Omanians countrey,
ne yet of Omana, which the antient Geographers haue held to be an hauen of great impor-
tance in the kingdome of Carmania. *Item*,he ſaith not a word of Omne and Athanæ,which our
merchants report to be at this day 2 famous mart towns,much frequented by thoſe that traf-
ficke from the Perſian gulfe. Beyond the riuer Caius,as K. *Iuba* writeth,there is an hill, which
ſeemeth all ſcortched and burnt. Paſt which,you enter into the countrie of the Epimaranites:
and anon after into the region af the Ichthyophagi: and paſt them there is diſcouered a deſart
Iſland,and the Bathymians country:and ſo forward, the mountaines Eblitæi are diſcouered,
and the Iſland Omœnus,the hauen Machorbæ,the Iſlands Etaxalos,Onchobrice,and the peo- M
ple called Chadæi. Many other Iſlands alſo of no account,and nameleſſe: but of importance,
Iſura, Rhinnea; and one other verie neere thereto, wherein are ſtanding certaine Columnes
or pillers of ſtone engrauen with vnknowne Characters and Letters. A little beyond the port
towne Gobœa, and the deſart vnpeopled Iſlands Bragæ. The Nation of the Thaludæans:

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A the region Dabanegoris, the mountaine Orſa with an hauen vnder it: the gulfe or arme of the ſea called Duatus, with many Iſlands therein. Alſo the mountaine Tricoryphus: the countrey Cardalena, the Iſlands Solanidæ and Capina. Soone after you fall vpon other Iſlands of the Ichthyophagi: and after them the people called Glarians. The ſtrond called Hammæum, wherein are golden mines. The region Canauna. The people Apitami and Gaſani. The Iſland Deuadæ, with the fountaine Goralus. Then come you to the Garphets country: the Iſlands Aleu & Amnamethu. Beyond which are the people called Darræ, the Iſland Chelonitis, & many other of the Ichthyophagi. The Iſle Eodanda which lieth deſart, & Baſage, beſides many other that belong to the Sabæans. For riuers you haue Thamar & Amnon, & in the the Iſlands Dolicæ, wherein be the fountaines Daulotes and Dora. Ilands beſides, to wit, Pteros, Labaris, Covoris and Sambracate, with a towne ſo named alſo in the firme land. On the South ſide ma-

B ny Iſlands there be, but the greateſt of them all is Camari. Then haue you the riuer Myſecros, the hauen Leupas, & the Sabæans called Scenitæ, for that they liue vnder tabernacles & rents. Moreouer, many other Iſlands. The chiefeſt mart or town of merchandiſe in thoſe parts is Acila, where the merchants vſe to imbarke for their voiage into India. Then followeth the region Amithoſcutia, and Damnia. The Mizians, both the greater and the leſſe: the Drimutians and Macæ. A promontory of theirs is ouer-againſt Carmania, and diſtant from it 50 miles. A wondrous thing is reported to haue bin there done, & that is this: that *Numenus* lord deputy vnder K. *Antiochus*, ouer Meſena, & general of his army, defeated the nauy of the Perſians in ſea-fight, and the ſame day with the opportunity of the tide returned to land againe, & gaue their horſe-

C men an ouerthrow to it: whereupon, in memoriall of a twofold victory in one day atchieued, he erected 2 triumphant trophies, the one in honor of *Iupiter*, & the other of *Neptune* Farre within the deep ſea there lieth another Iſland called Ogyris, diſtant from the continent 125 miles, and containing in circuit 112, much renowned for the ſepulchre of K. *Erythra*, who there was enterred. Another likewiſe there is of no leſſe account, called Dioſcoridu, lying in the ſea Azanium and is from Syagrum, the vtmoſt point or cape of the main, 280 miles. But to returne to the Continent: there remaine yet not ſpoken of, the Antarides toward the South, as you turn to the mountains, which continue for 7 daies iourny ouer: then theſe nations, Larendanes, Catabanes, and Gebanites: who haue many townes, but the greateſt are Nagia and Tamna, with 65 churches or temples within it, whereby a man may know how great it is. From thence you come to

D a promontory; from which to the continent of the Troglodites it is 50 miles. And in thoſe quarters remaine the Toanes, Acchitæ, Chatramotitæ, Tomabei, Antidalei, Lexianæ, Agrei, Cerbani, and Sabæi, of all the Arabians for their ſtore of frankincenſe moſt famous, as alſo for the largeneſſe of their country, reaching from ſea to ſea. Their townes ſcituate vpon the coaſt of the red ſea, are Marane, Marma, Cocolia and Sabatra. Within the firme land are theſe townes, Naſcus, Cardaua, Carnus, and Tomala, where the Sabæans keep their faires and markets for to vent and ſel their commodities of incenſe, myrrhe, and ſuch drugs and ſpices. One part of them are the Atramites, whoſe capitall city Sobotale, hath within the wals thereof 60 temples. But the roiall city and chiefe ſeat of the whole kingdome is Nariaba: ſcituat vpon a gulfe or arm of the ſea that reacheth into the land 94 miles, ful of Iſlands, beautified with ſweet odoriferous

E trees. Vpon the Atramites within the main land joine the Minæi: but the Elamites inhabit the maritine coaſt, where there ſtandeth a city alſo called Elamitum. To them the Cagulates lye cloſe: and their head towne is Siby, which the Greekes name Apate. Then come you to the Arſicodani and Vadei, with a great towne: and the Baraſei: beyond whom is Lichemia, and the Iſland Sygaros, into which no dogs will come willingly: and if any be put there, they will neuer lin wandring about the ſhore vntill they die. In the fartheſt part of the aboue-ſaid gulfe are the Leanites, whereof the gulfe tooke the name Leanites. Their head ſeat and roiall ſeat is Agra: but the city Leana, or as others would haue it, Ælana, is ſcituate vpon the verie gulfe. And hereupon our writers haue called that arme of the ſea Ælaniticum, others Ælenaticum; *Artemidorus*, Aleniticum; and king *Iuba*, Læniticum. Arabia is reported to take in circuit

F from Charax to Leana, 4870 miles. But *Iuba* thinketh it ſomewhat leſſe than 4000. Wideſt it is in the North parts betweene the townes Herous and Chrace. Now it remaineth that wee ſpeake of other parts within the Mid-land thereof. Vpon the Nabatæi, the Thimaneans doe border, after the deſcription of the old Geographers: but at this day, the Tauenes, Suellenes, and Saracenes: their principall Towne is Arra, wherein is the greateſt trafficke and

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resort of merchants. Moreouer, the Hemnates and Analites, whose townes are Domada and E- G
rage: also the Thamusians, with their towne Badanatha: the Carreans, and their towne Chariati: the Achoali, and a city of theirs Phoda. Furthermore, the Minæi, descended as some thinke from *Minos* king of Crete: whose citie Charmæi hath 14 miles in compasse. Other towns likewise be there standing a far off, and namely, Mariaba, Baramalacum, a town ywis of no mean account: likewise Carnon, and Ramei, who are thought to come from *Rhadamanthus* the brother of *Minos*. Ouer and besides, the Homerites, with their towne Massala: the Hamirei, Gedranitæ, Anapræ, Iliſanitæ, Bochilitæ, Sammei, and Amathei; with these townes Nessa and Cennesseri. The Zamanenes, with these townes, Saiace, Scantate, and Bacasmani: the towne Rhiphearma, which in the Arabian tongue signifieth Barley: also the Antei, Rapi, Gyrei, and Marhatæi. The Helmadenes, with the towne Ebode. The Agarturi in the mountaines, hauing a towne 20 H
miles about, wherein is a fountaine called Emischabales, that is as much to say, as The Camels town. Ampelone, a colony of the Milesians: the towne Actrida: and the people Calingij, whose towne is named Mariaba, as much to say as, Lords of all. Towns moreouer, Pallon & Murannimal, neere vnto a riuer, by which men thinke that Euphrates springeth and breaketh forth aboue ground. Other nations besides, namely, Agrei and Ammonij: with a towne, Athenæ: and the Caurarani, which signifieth, Most rich in droues of cattell. Then the Caranites, Cæsanes, and Choanes. There were sometime also certaine townes in Arabia, held by Greeks, and namely, Arethusa, Lariſſa, and Chalcis, which all in the end came to ruine and were destroyed in diuers and sundry wars. The onely man among the Romans vntill this day that warred in those parts, was *Ælius Gallus* a knight of Rome. As for *Caius Cæsar* the son of *Augustus* the Emperor, I
he did but looke only into Arabia, and no more: but *Gallus* wasted townes that were not once named by Authors that wrote before, namely Egra, Annestum, Essa, Magusum, Tamuracum, Laberia, and the aboue-named Marieba, which was in circuit six miles about: likewise Caripeta, the farthest that he went vnto As for all other matters, he made report vnto the Senate of Rome, according as he had found and discouered in those parts; to wit, that the Nomades liue of milke and venison: the rest of the Arabians presse wine, like as the Indians do, out of dates: and oile of Sesama, a kinde of graine or pulse in those countries. That the Homerites country of all others is most populous and replenished with people: the Minæans haue plenteous and fruitfull fields, full of date trees and goodly hortyards stored with all sorts of fruit: but their principall riches lieth in cattell. The Cembanes and Arians are good warriours and martiall K
men, but the Chatramotites that way excell all the rest. The Caræans haue the largest territories and most fertile fields for corne. As for the Sabæans, their wealth standeth most vpon their woods and trees, that bring forth the sweet gums of Frankincense and myrrhe: also in mines of gold: hauing water at commandement to refresh their lands, and plenty besides of hony & wax. As concerning the sweet odours and spices that come from thence, we will speake thereof in a seuerall booke by it selfe. The Arabians weare miters or turbants ordinarily vpon their heads, or else go with their haire long and neuer cut it: as for their beards, them they shaue, saue only on their vpper lippe, which they let grow still: and yet some of them there be that suffer their beards to grow long and neuer cut them. But this one thing I maruell much at, that being such an infinit number of nations as they be, the one halfe of them liue by robberie and theeuing, L
howsoeuer the other liue by traffick and merchandise. Take them generally, they be exceeding rich; for with them the Romans and Parthians leaue exceeding sums of gold and siluer, for the commodities out of their woods and seas which they sell vnto them: but they themselues buy nothing of them againe. Now will we speake of the other coast opposite vnto Arabia. *Timosthenes* hath set downe, that the whole gulfe or arm of the sea called Red, was from one end to the other foure daies sailing: and from side to side, two daies: that the streights of the firth were seuen miles ouer. But *Eratosthenes* saith, that taking the measure at the very mouth, it is euerie way 1300 miles.

Chap. XXIX.

M

¶ *The gulfe of the Red Sea: likewise of the Trogloditicke and Æthiopian Seas.*

Artemidorus auoucheth, that the Red Sea toward Arabia side, is 1450 miles: but on the coast of the Troglodites 1182, vntill you come to the citie Ptolemais. Most Geographers haue set downe the breadth thereof to bee 462 miles: and that the mouth of it,

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A where it openeth wide, ful againſt ſun-riſing in winter [*i.* South-weſt] ſome ſay, is 7 miles broad; and others 12. As for the poſiture ſcituation thereof, thus it lyeth: beyond the branch or arme thereof called Ælaniticus, there is another creeke which the Arabians call Æant, vpon which ſtandeth the towne Heroon. In old time there was a city called Cambiſu, betweene the Nelians and Marchandians, into which the ſicke and feeble ſouldiers of our armie were conueied, as to a place of retreat and repoſe. Beyond which, you enter into the land of Tyra: and there is the port Daneon to be ſeene, from which *Seſoſtris* a king of Ægypt, was the firſt that imagined and deuiſed to draw one arme of it with a channell nauigable, into Nilus, in that part where it run-neth to the place called Delta, and that for 62 miles ſpace, which is between the ſaid riuer and the red ſea. This enterpriſe of his was followed by *Darius* king of the Perſians: yea and by *Pto-*
B *lomæus* king of Egypt, ſecond of that name, who made a channell 100 foot ouer, and 30 deep, for 37 miles in length and an halfe, euen to the bitter fountaines. But this deſigne was interrup-ted and the ditch went no farther, for feare of a generall deluge and inundation: for found it was, that the red ſea lay aboue the land of Egypt three cubits. Some alledge not that to be the cauſe, but this, namely, That if the ſea were let into Nilus, the ſweet water thereof (wherof they drinke only and of none elſe) ſhould be corrupted thereby and marred. Yet neuertheleſſe, al-though this worke went not forward, the way is well beaten all the country ouer betweene the Red ſea, and the Ægyptian, for trafficke: and three ſeuerall ordinarie waies there are between: the one from Peluſium ouer the ſands; where, vnles there be reeds ſet vp pitched in the ground to giue guidance and direction, there would no path be found, for euer & anon the wind blow-eth the ſand ouer the tracts of mens feet and coureth all. A ſecond beginneth 2 miles beyond
C the mountaine Caſius, which after 60 miles commeth into the former Peluſiacke way. (Vpon this great rode way, the Arabians called Autei, do inhabit.) The third taketh his head and be-ginning at Gereum, which they call Adipſon, and holdeth on through the ſaid Arabians, & is 60 miles neerer way, but full of craggie hils and altogether without waters. All theſe foreſaid waies lead to the city Arſinoe, built vpon the gulfe Charandra by *Ptolomæus Philadelphus*, and bare his ſiſters name: and verily hee was the firſt that diſcouered thoſe parts, and ſearched nar-rowly into the region Trogloditicum: and the riuer that paſſeth by Arſinoe, he called Ptolo-mæus. Within a little of this place, there is a little town named Ænum; for which, ſome there be that write, Philotera. Beyond them, are the Azarei: Arabians of the wilder ſort & halfe Tro-
D glodites, by reaſon they marry their wiues from out of the Troglodites countrey. Beeing paſt theſe coaſts, you ſhall finde the Iſlands Sapyrene and Scytala: and within a little thereof, de-ſarts vntil you come to Myos-hormos, where there is a fountaine called Taduos, the mount Eos, the Iſland Lambe, many hauens beſides, and Berenice a town, bearing the name of the mo-ther to K. *Ptolomæus Philadelphus*, to which there is a way lying from Coptos, as we haue ſaid: & laſt of all the Arabians called Autei, and Gnebadei. Now it remaineth to ſpeake of the region Trogloditicum, which the antient men of old time called Michoe, & others Midoe: & therein ſtandeth the mountaine Pentedactylos. Vpon the coaſt of this country, there lie to be ſeen cer-taine Iſlands called Stenæ-deiræ: and others no fewer in number named Halonneſi: alſo Car-damine, and Topazos, which Iſland gaue the name to the precious ſtone called the Topaze.
E Then come you to an arme of the ſea betweene two lands, full of pettie Iſlands, whereof that which is called Mareu, is well ſerued with water ſufficient: another, Eratonos, is altogether dry and vnprouided of freſh water. Theſe Iſlands tooke name of two captains and gouernors there vnder the king. Within-forth farther into the firm land, inhabit the Candei, whom they call Ophiophagi, becauſe they are wont to feed on ſerpents: and in truth there is not another coun-try that breeds them more than it. K. *Iuba* who ſeemeth to haue taken great paines in the dili-gent peruſing and diſcouery of theſe parts, omitted in all this tract (vnleſſe there be ſome fault and defect in them that copied out his firſt originall) to ſpeake of a ſecond city named Bere-nice, with the addition of Panchryſos; as alſo of a third called Epidires, and yet renowned it is in regard of the place wherupon it is ſeated: for ſcituat it is vpon a knap of land bearing far into
F the red ſea, euen where the mouth of it is not aboue 4 miles & an halfe, from Arabia. Within the proſpect of this tract there is the Iſland Cytis, which alſo bringeth forth good ſtore of the Topaze ſtones. Beyond this quarter, nothing but woods and forreſts, where K. *Ptolomæus* ſurna-med *Philadelphus* built the city Ptolemais, onely for to chaſe and hunt the Elephant, neere to the lake Monoleus; and in regard of his game there, he named it Epi-theras. This is the verie

countrey

country mentioned by me in the ſecond booke: wherein for 45 daies before Mid-ſummer, or the entrance of the Sun into Cancer, and as many after, by the ſixt houre of the day, that is to ſay, about noone, no ſhadowes are to be ſeen: which being once paſt, all the day after they fall into the South. As for other daies of the yere beſides, they ſhew into the North: whereas in that citie Berenice which we mentioned firſt, vpon the very day only of the Sun-ſtead, at the ſixth houre or noon-tide, the ſhadowes are cleane gone and none to be ſeene (for otherwiſe there is no alteration at all to be obſerued throughout the yeare) for the ſpace of 600 miles all about Ptolemais. A ſtrange & notable thing worth obſeruation, that it ſhould be ſo but in one houre all the yere long, and a matter that gaue great light and direction to the world, yea and miniſtred occaſion to a ſingular inuention and ſubtil concluſion: for *Eratoſthenes* vpon this vndoubted argument and demonſtration of the diuerſitie of ſhadowes, ſet in hand hereupon to take the meaſure of the whole globe of the earth, and put it downe in writing to all poſteritie. Beyond this city Ptolemais, the ſea changeth his name and is called Azanium; ouer which the cape ſheweth it ſelfe, which ſome haue written by the name of Hiſpalus: alſo, anon appeareth the lake Mandalum, and in it the Iſland Colocaſitis; but in the deep ſea many more, wherin are taken many tortoiſes. Farther vpon this coaſt is the towne Suchæ, and then you may diſcouer in the ſea the Iſland Daphnis, and the city Aduliton, built by certaine Ægyptian ſlaues who ran away from their maſters and took no leaue: and verily this is the greateſt and moſt frequented mart towne of all the Troglodites country, and put the Ægyptians to them: and it is from Ptolemais 5 daies ſailing. Thither is brought great ſtore of yuorie, or the Elephants tooth, and of the horn of the Rhinoceros: there many a man haue plenty of the ſea-horſe hides, of tortoiſe ſhels, of little Monkies or Marmoſets: there alſo a man may be ſped with bondſlaues. A little beyond are the Æthiopians, called Aroteres: alſo the Iſlands named Aliæa: and beſides them other Iſlands, namely, Bacchias, Antibacchias, and Stratonis: being paſt them, there is a gulf in the coaſt of Æthiopia, as yet not diſcouered or knowne by any name: a thing that may make vs maruel much, conſidering that our merchants ſearch into farther corners than ſo. Alſo a promontory, wherein there is a fountaine of freſh water named Curios, much deſired of the ſailers that paſſe that way, and in great reſpect for the refreſhing that it yeeldeth vnto them: beyond it, is the harbor or port of Iſis, diſtant from the towne of the Adulites aboueſaid, ten days rowing with ores; and thither is the Troglodites myrrhe brought, and there laid vp. Before this hauen, there lie in the ſea two Iſlands, named Pſeudopylæ: and as many farther within, called Pylæ: in the one of them be certaine pillers of ſtones, ingrauen with ſtrange and vnknowne Letters. When you are paſt this hauen, you come to an arme of the ſea called Abalites: within it is the Iſland Diodori, and other lying deſart and vnpeopled. Alſo along the continent, there is much wilderneſſe: but being paſt them, you come to the towne Gaza: the promontorie alſo & port Moſſylites, vnto which ſtore of cynamon and canell is brought. Thus far marched K. *Seſoſtris* with his army. Some writers make mention of one town more in Æthiopia beyond all this, vpon the ſea ſide, called Baradaza. K. *Iuba* would haue the Atlantick ſea to begin at the promontorie or cape aboue-named, Moſſylites: on which ſea (as he ſaith) a man may ſaile very well with a Weſt-north-weſt winde, by the coaſts of his kingdomes of Mauritania or Marocco, as farre as to the coaſts of Gibralter called Gades: and ſure he ſpeaketh ſo confidently thereof, as I will not altogether diſcredit his reſolution in this behalfe. From a promontorie of the Indians called Lepteacra, and by others Drepanum, vnto the Iſle of Malchu, hee ſaith plainely, that by a ſtraight and direct courſe it is 15 hundred miles, and neuer reckon thoſe parts that are burnt with the Sun. From thence to a place called Sceneos, he affirmeth it is 225 miles: and from it to the Iſland Sadanum, 150 miles; and thus by this means he concludeth, that in all, to the open and knowne ſea, it is 1885 miles. But all other writers beſides him were of opinion, that there could not poſſibly be any ſailing vpon it, for the exceeding heat of the Sun. Ouer and beſides, the Arabians named Aſcitæ, doe much harme and annoyance from out of the Iſlands which they hold, vnto merchants that trafficke that way: for theſe Arabians, according as their name doth import, couple bottles made of good oxe leather, two by two together, and going vpon them with eaſe as it were a bridge vnder them, ſcoure the ſeas, and ſhooting their empoyſoned arrowes, practiſe pyracie, to the great loſſe and miſchiefe of merchants & ſailers. The ſame *Iuba* writeth moreouer, that there be certaine people of the Troglodites, named Therothoes, for their hunting of wilde beaſts, of their exceeding and wonderful ſwiftneſſe in chaſing of Deere

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A vpon land:as the Ichthyophagi for courſing of fiſh in the ſea, ſwimming as naturally as if they were water creatures. Moreouer, he nameth other nations in thoſe parts,as the Bargeni,Zageres,Chalybes,Saxinæ,Syreces, Daremes and Domazanes. Furthermore, he affirmeth, that the people inhabiting along the ſides of Nilus from Syene vnto Meroe, are not Æthiopians, but Arabians,who for to ſeeke freſh water,approached Nilus;and there dwelt:as alſo that the citie of the Sunne,which we ſaid before in the deſcription of Ægypt,ſtandeth not farre from Memphis,was firſt founded and built by the Arabians. Contrariwiſe, other Geographers there be, who affirme that the farther ſide or banke of Nilus is no part of Æthiopia, and they lay it as a dependant annexed to Affrick.But be it as will be,I wil not greatly buſie my head thereabout, but ſuffer euery man to abound in his own ſence,and haue his own way:only I will content my
B ſelfe with this,to ſet downe the townes on both ſides thereof, in that order as they are declared vnto me. And firſt to begin with that ſide toward Arabia : after you are paſt Syene, enter you ſhall vpon the countrie of the Catadupi,and ſo forward into the land of the Syenites. Wherin theſe towns ſtand in order as followes : Tacompſon,which ſome haue called Thatire, Aranium, Seſanium, Sandura,Naſandum,Anadoma,Cumara, Beda and Bochiana,Leuphithorga,Tantarene,Machindira,Noa,Gophoa,Gyſtatæ,Megeda,Lea,Rhemnia, Nupſia,Direa,Patara,Bagada,Dumana,Rhadata,wherein a golden cat is worſhipded as a god. Boron in the midland part of the continent,and Mallos,the next towne to Meroe. Thus hath *Bion* digeſted and ſet them downe.But king *Iuba* hath raunged them otherwiſe in this manner. Firſt,Megatichos a towne ſcituate vpon a hill betweene Ægypt and Æthiopia,which the Arabians vſe to call Myrſon:
C next to it Tacompſon:then Aranium,Seſanium, Pide,Mamuda, and Corambis;neere vnto it a fountaine of liquid Bitumen: Hammodara, Proſda, Parenta, Mama, Theſſara, Gallæ, Zoton, Graucome,Emeum,Pidibotæ,Hebdomecontacometæ,and the Nomades, who ordinarily are encamped vnder tents and pauilions. Cyſte,Pemma,Gadagale, Palois, Primmis, Nupſis, Daſelis,Patis,Gambrenes,Magaſes, Segaſmala, Cranda, Denna, Cadeuma,Thena,Batha,Alana, Macum, Scammos,and Gora within an Iſland.Beyond which, Abala, Androcanis, Seres,Mallos & Agoce. And thus much on the ſide of Arabia. Now for Affrick ſide,they are in this wiſe reckoned. Firſt, Tacompſos, according to the others name, or a parcell rather of the former: then,Magora,Sea, Edoſa, Pelenaria,Pyndis,Maguſa, Bauma, Linitima, Spyntuma, Sydopta, Genſoa,Pindicitora,Eugo,Orſima,Suaſa,Maunia,Rhuma,Vrbubuma,Mulona,which town the
D Greeks were wont to call, Hypaton,Pagoargas,Zanones,& there begin the Elephants to come in,Mamblia,Berreſa,Cetuma. There was moreouer a towne ſometime named Epis,ſcituate againſt Meroe:but raſed it was and vtterly deſtroyed before that *Bion* wrote his Geography. See what cities and towns of name were recorded in times paſt to haue bin in thoſe parts,vntil you come to the Iſle Meroe. And yet at this day there is neither ſtick nor ſtone to be found of any of them in a manner on neither ſide. Only deſarts and a vaſt wilderneſſe in ſtead of them,by report made vnto *Nero* the Emperor by the Prætorian ſouldiers, ſent thither from him vnder the leading of a Tribune or Colonel,to diſcouer thoſe quarters of Æthiopia,& to relate accordingly:at what time as among other his deſignes,that Prince intended an expedition with his army againſt the Æthiopians. And yet before his time,euen in the daies of *Auguſtus Cæſar* of happie
E memory, the Romanes pierced thither with a power of armed men vnder the conduct of *Pub. Petronius*,a knight of Rome,and gouernour of Ægypt,deputed by the ſaid Emperour. Where he forced by aſſault and conquered all thoſe townes in Æthiopia which he then found ſtanding in this order following : namely, Pſelcis,Primis,Abaccis,Phthuris,Cambuſis,Attena,Stadiſis,where the riuer Nilus runs down with ſuch a mighty fall, that with the noiſe thereof the inhabitants there by loſe their hearing and become deafe. Beſides theſe he won alſo and ſacked Napata. And albeit he marched forward ſtill a great way into the countrie,euen 870 miles beyond Syene,yet this Romane armie of his laid not all waſt in thoſe parts,& left the country ſo deſart as now it is. No,no : It was the Ægyptians warres and not the Romanes that gaue the waſt to Æthiopia:and albeit ſomtimes it woon and otherwhiles loſt;one time bare the ſcepter
F and ruled,another time vnderwent the yoke, and were ſubdued : yet was it of great name in the world and puiſſant,vntill the reigne of king *Memnon*,who ruled at the time of the Trojane war : yea,and Syria was ſubject vnto it, as alſo the coaſt of our ſea in king *Cephas* daies,as appeareth by the fabulous tales that go as touching *Andromeda*. Semblably the Geographers varie and diſagree much about the meaſure and dimenſion of Æthiopia. And firſt of al others, *Dalion*, al-

beit he passed far beyond Meroe: after him, *Aristocreon*, *Bion*, and *Basilis*. As for *Simonides* (the yonger and the later writer) had soiourned the Meroe fiue yeares, when he wrote of Æthiopia. For *Timosthenes* the Admirall of *Ptolomæus Philadelphus* his naue, hath left in record, that from Syene to Meroe is 60 days iourny, without any further particularizing of the measure by miles. But *Eratosthenes* precisely noteth, that it is 625 miles. *Artemidorus* but 600. *Sebostus* affirmeth, That from the frontiers of Egypt it is 1675 miles. From whence, the last rehearsed Writers count forward but 1270. But all this difference and dispute about this point, is lately determined & ended by the report of those trauellers whom *Nero* sent of purpose to discouer those countries; & they made relation of the truth vpon their certain knowledge, that it is 874 miles from Syene in this maner particularly by iournies. Namely, from the said Syene to Hiera-Sycaminon 54 miles: from thence to Tama 75 miles: from Tama to the Euonymites country, the first of all the Æthiopians, 120. Forward to Acina 54. To Pitara 25. To Tergedum 106 miles. Where by the way it is to be noted, that in the midst of this tract lieth the Island Gagandus: where they began first to haue a sight of the birds called Parats; & beyond another Isle in the same way which is called Artigula, they might see monkies & marmosets: but being once beyond Tergedum, they met with the beasts Cynocephali. From thence to Napata 80 miles: this is the only little town among all the rest before named. From which to the Island Meroe is 360 miles. They reported moreouer, that about Meroe (& not before) the grasse and herbs appeared fresh and green, yea, and the woods shewed somwhat in comparison of all the way besides, and that they espied the tracts of Elephants & Rhinocerotes where they had gone. As for the town it selfe Meroe, they said it was within the Isle from the very entrie therof 70 miles: & that iust by, there was another Island called Tatu, which yeelded a bay or hauen to land at for them that took the arme & channell of Nilus on the tight hand. As for the building within Meroe, there were but few houses in it: that the isle was subject to a lady or queen named *Candace*, a name that for many yeres already went from one queen to another successiuely. Within this town there is the temple of great holinesse and deuotion in the honor of *Iupiter Hammon*: and in all that tract many other chappels. Finally, so long as the Ethyopians swaied the scepter and raigned, this Island was much renowned & very famous. For by report, they were wont to furnish the Ethyopian king with armed men 250000, & to maintain of Artisans 400000. Last of all there haue bin counted 45 kings of the Ethyopians, and so it is reported at this day.

Chap. XXX.

¶ *The manifold, strange, and wonderfull formes and shapes of men.*

All Ethyopia in generall was in old time called Ætheria: afterwards Atlantia: and finally of *Vulcans* son *Æthiops*, it took the name Ethyopia. No wonder it is, that about the coasts thereof there be found both men and beasts of strange and monstrous shapes, considering the agilitie of the suns fierie heat, so strong and powerfull in those countries, which is able to frame bodies artificially of sundry proportions, and to imprint and graue in them diuers forms. Certes, reported it is, that far within the country Eastward there are a kinde of people without any nose at all on their face, hauing their visage all plain and flat. Others again without any vpper lip, and some tongueless. Moreouer, there is a kind of them that want a mouth, framed apart from their nose-thrils: and at one and the same hole, and no more, taketh in breath, receiueth drinke by drawing it in with an oaten straw; yea, and after the same maner feed themselues with the grains of oats, growing on the own accord without mans labour and tillage, for their only food. And others there be, who in stead of speech and words, make signes, as well with nodding their heads, as mouing their other members. There are also among them, that before the time of *Ptolomæus Lathyrus* king of Egypt, knew no vse at all of fire. Furthermore, writers there be, who haue reported, that in the countrey neere vnto the meeres and marishes from whence Nilus issueth, there inhabit those little dwarfes called Pygmei. But to return againe to the vtmost coasts of Ethyopia, where we left: there is a continuall raunge and course of mountains all red like fire, as if they were euer burning. Moreouer, beyond Meroe there is a countrey lying aboue the Troglodites and the red sea: where, after you be three daies journy from Napata toward the coast of the said red sea, you shall find that in most places they saue raine water for their ordinarie vse to drinke, and otherwise: all the countrey betweene is very plenteous and full of

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A of gold mines. All beyond this region is inhabited by the Atabuli, a people alſo of Ethiopia. As for the Megabares, whom ſome haue named Adiabares, they lie againſt Meroe, and haue a towne bearing the name of *Apollo*. Among them are certain Nomades encamping vnder tents and tabernacles, who liue of Elephants fleſh. Iuſt againſt them in a part of Africke are the long liuing Macrobians. Again, being paſt the Megabarenes, you come vnto the Memnones & Daveli: & 20 daies iourny from them, to the Critenſes. Beyond whom you meet with the Dochi, and the Gymnetes who are euer naked. Soon after you ſhall find the Anderæ, Mathitæ, Meſagebes, Hipporeæ, who be all ouer blacke, and therfore they colour and paint their bodies with a kind of red chalk or rudle called Rubrica. But vpon the coaſt of Africk are the Medimni. Beyond whom you ſhal come to another ſort of Nomades liuing vnder tents, who feed of no other
B thing but the milk of certain creatures headed like dogs, called Cynocephali: alſo to the Olabi and Syrbotæ, who are reported to be 8 cubits high. Moreouer, *Ariſtocreon* ſaith, that on Libya ſide, fiue daies iourny from Meroe, there is a town called Tole: & 12 daies iourny from thence, there ſtandeth Eſar, a town built by the Egyptians, who fled thither to auoid the cruelty and tyrannie of K. *Pſammeticus*. And reported it is, that the Egyptians held it for 300 yeres. Alſo, that the ſame fugitiues founded the towne Daron on the contrary ſide in the coaſt of Arabia. But that which *Ariſtocreon* nameth Eſar, *Bion* called Sapa, and ſaith withall, that the very word Sapa ſignifieth in the Ethyopian language, ſtrangers or aliens come from other parts. Hee affirmeth beſides, that their capitall city is within an Iſland, Sembobitis, and that Sai within Arabia, is the third city of that nation. Now between the mountains and the riuer Nilus, are the Symbarians and the Phalanges: but vpon the very hils liue the Aſachæ, who haue many other
C nations vnder them: and they are by report ſeuen daies iourney from the ſea. They liue vpon the veniſon of Elephants fleſh, which they vſe commonly to hunt and chaſe. As for the Iſland within Nilus, of the Semberrites, it is ſubiect to a queen. And eight daies iourney from thence lieth the country of the Ethiopians, named Nubæi. Their chiefe town Tenupſis is ſeated vpon the riuer Nilus. Beyond the Nubians, you enter vpon the countrie of the Sambri: where all the foure-footed beaſts, yea, euen the very Elephants, are without ears. Vpon the coaſt of Africk inhabit the Ptœambati and Ptœmphanæ: who haue a dog for their king, and him they obey, according to the ſignes which he maketh by mouing the parts of his bodie, which they take to be his commandements, and religiouſly they do obſerue them. Their head citie is Auriſpi, far
D diſtant from Nilus. Beyond them are the Achiſarmi, Phaliges, Marigeri, and Caſamarri. *Bion* affirmeth, That beyond Pſembobitis, there be other townes in the Iſlands of that coaſt, toward Meroe, all the way as you paſſe for 20 daies iourny. The towne of the next Iſland is Semberritarum, vnder the queen: likewiſe another called Aſar. Alſo there is a ſecond Iſland hauing in it the towne Daron: a third which they cal Medœ, wherein ſtandeth the town Aſel: and a fourth named Garode, like as the towne alſo. Then along the banks of Nilus are many townes, to wit, Navos, Modunda, Andabis, Setundum, Colligat, Secande, Navectabe, Cumi, Agroſpi, Ægipa, Candrogari, Araba, and Summara. The region aboue Sirbithim, where the mountains do end, is reported to haue vpon the ſea coaſt certaine Æthyopians called Niſicaſtes and Niſites, that is to ſay, men with three or foure eies apiece: not for that they are ſo eied indeed, but becauſe
E they are excellent archers, & haue a ſpeciall good eie in aiming at their marke, which lightly they wil not miſſe. *Bion* affirmeth moreouer, That from that clime of the heauen which beares aboue the greater Syrtes, & bendeth toward the South Ocean ſea, they be called Dalion, to wit, the Ciſorians and Longopores, who drinke and vſe rain water only. And beyond Oecalices for fiue daies iournie, the Vſibalks, Iſuelians, Pharuſeans, Valians and Ciſpians. All the reſt are nothing but deſarts not inhabited. But then he telleth fabulous and incredible tales of thoſe countries. Namely, that Weſtward there are people called Nigrœ, whoſe king hath but one eie, and that in the mids of his forehead. Alſo he talketh of the Agriophagi, who liue moſt of panthers and lions fleſh. Likewiſe of the Pomphagi, who eat all things whatſoeuer. Moreouer, of the Anthropophagi, that feed on mans fleſh. Furthermore, of the Cynamolgi, who haue
F heads like dogs. Ouer and beſides, the Artabatites who wander and go vp and downe in the foreſts like foure-footed ſauage beaſts. Beyond whom, as he ſaith, be the Heſperij, & Peroeſi, who, as we ſaid before, were planted in the confines of Mauritania. In certain parts alſo of Ethyopia the people liue of Locuſts only, which they pouder with ſalt, and hang vp in ſmoke to harden, for their yerely prouiſion, and theſe liue not aboue 40 yeares at the moſt. Finally, *Agrippa* ſaith

that all Ethiopia,and take the land with it of *Prester Iehan* bordering vpon the red sea, contai- G
neth in length 2170 miles:& in bredth,together with the higher Egypt,1291. Some Geographers haue taken the bredth in this manner. From Miroe to Sirbitum, 12 daies iournie vpon Nilus:from thence to the country of the Dauillians another 12, and from them to the Ethyopian Ocean 6 daies. But in general all writers in a manner do resolue vpon this, that betweene Ocean and Meroe,it is 725 miles: and from thence to Syene,as much as we haue set downe before. As for the posture and scituation of Ethyopia,it lies Southeast & Southwest. In the meridian South parts thereof,there be great woods of Ebene especially, alwaies greene. Toward the mids of this region,there is a mighty high mountain looking ouer the sea,that burns continually,which the Greeks cal Theon ochema,*i.* The chariot of the gods: from the which it is counted foure daies iourny by sea to the promontory or cape called Hesperion-Ceras, which
Cap de bonne Esperance confines vpon Africk,neere to the Hesperian Ethyopians. Some writers hold,that this tract is H
beautified with pretty little hils,and those pleasantly clad & garnished with shadowie groues, wherein the Ægipanes,and Satyres do conuerse.

Chap. XXXI. *The Islands in the Æthyopian Sea.*

Ephorus,*Eudoxus*,and *Timosthenes*,do all agree in this,that there be very many Islands in all that sea. *Clitarchus* witnesseth,that report was made to *Alexander* the Great,of one aboue the rest,which was so rich and well monied, that for an ordinary horse the inhabitants would not stick to giue a talent of gold:also of another, wherein was found a sacred hill adorned with a goodly wood vpon it,where the trees distilled and dropped sweet water of a wonderfull odoriferous smell. Moreouer,full against the Persian gulf,lieth the Isle named Cerne, opposite vnto Æthiopia,but how large it is,or how far off it beareth into the sea from the continent,is not certainly knowne:this only is reported, that the Ethyopians and none but they, are the inhabitants therof. *Ephorus* writeth,that they who would saile thither from the red sea, are not able for extreme heate to passe beyond certain columnes or pillars, for so they call the little Isles there. Howbeit *Polybius* auoucheth,that this Island Cerne where it lieth in the vtmost coast of the Mauritanian sea ouer-against the mountaine Atlas, is but 8 stadia from the land. And *Cornelius Nepos* affirmeth,that likewise it is not aboue a mile from the land, ouer against Carthage:& besides,that it is not aboue two miles in circuit. There is mention made also by authors,of anorher Isle before the said mountain Atlas,named also therupon Atlantis. K
And fiue daies sailing from it,appeare the desarts of the Ethyopian Hesperians,together with the foresaid cape,which we named Hesperion-Ceras,where the coasts of the land begin first to turn about their forefront to wind Westward,and regard the Atlanticke sea. Iust ouer-against this cape,as *Xenophon Lampsacenus* reporteth, lye the Islands called Gorgates,where sometimes the Gorgones kept their habitation,and 2 daies sailing they are thought to be from the firme land. *Hanno*,a great commander and generall of the Carthaginians,landed there with an army: who made this report from thence,That the women were all ouer their bodies hairy:as for the men,he could not catch one of them,so swift they were of foot that they escaped out of all sight: but he flead two of these Gorgone women and brought away their skins,which for a testimoniall of his being there,and for a wonder to posteritie,he hung vp in *Iunoes* temple,where L
they were seen vntill Carthage was won and sacked. Beyond these Isles,there are by report,two more discouered,by the name of Hesperides. But so vncertaine are all the intelligences deliuered concerning these parts,that *Statius Sebosus* affirmeth,that it is 40 good daies sailing from the Islands of these Gorgones along the coast of Atlas, vnto the Isles of the Hesperides; and from thence to Hesperion-Ceras,but one. As little resolution and certaintie there is, as touching the Islands of Mauritania. In this only they all jumpe and accord, that K. *Iuba* discouered some few of them ouer-against the Autolotes,in which he meant and purposed to die Gætulian purple.

Chap. XXXII.

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¶ *Of the Islands Fortunatæ,or Canarie.*

Some Authors there be who thinke,that the Islands Fortunatæ,and certaine others besides them,are beyond the Antolotes: among whom, the same *Sebosus* aboue rehearsed was so bold,as to speake of their distances: and namely,that the Island Iunonia is from Gades 750 miles:

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A 750 miles:and that from it Weſtward,the Iſles Pluvialia and Capraria,are as much. Alſo that in the Iſland Pluvialia there is no freſh water,but only that which they haue by ſhowrs of rain. He ſaith moreouer,that from them to the Fortunate Iſlands are 250 miles; which lie 8 miles from the coaſt of Mauritania to the left hand,called the coaſt of the Sun, or Valley of the ſun, for that it is like a valley or hollow leuell flore of earth,whereupon alſo it is called Planaria,reſembling an euen plain. And in very truth,this vally containeth in circuit 300 miles: wherein are trees to be ſeen that grow vp in height to 144 foot. As for the Iſlands named Fortunatæ, *Iuba* learned thus much by diligent inquiſition,that they lie from the South neere to the Weſt 625 miles from the Iſlands Purpurariæ,where they die purple; ſo as to come thither,a man muſt ſaile 250 miles aboue the Weſt,and then for 75 miles more bend his courſe Eaſtward:he ſaith alſo,that the firſt of theſe Iſlands is called Ombrion, wherein ate to be ſeen no token or
B ſhew at all of houſes. Alſo that among the mountains,it hath a lake or meere: and trees reſembling the plant Ferula,out of which they preſſe water:that which iſſueth out of the black trees of that kinde,is bittet;but out of the whiter ſort,ſweet and potable. As for a ſecond,he writeth that it is named Iunonia,wherein there is one little houſe or chappell made of ſtone: beyond it,but neere by,there is a third of the ſame name,but leſſe than the other:and then you come to a fourth called Capraria,full of great Lizards. Within a kenning from theſe, lyeth the Iſland Niuaria,which tooke this name of the ſnow that lieth there continually,and beſides, it is full of miſts and fogs. The next to it and the laſt of all,is Canaria,ſo called, by reaſon of a number of dogs of mighty bigneſſe;of which K.*Iuba* brought away two;& in this Iſland there are ſome marks remaining of buildings which giue teſtimonie that ſomtime it was inhabited and peo-
C pled. And as all theſe Iſlands generally do abound plentifully in fruitfull trees, & flying fouls of all ſorts:ſo this aboue the reſt named Canaria, is repleniſhed with rowes of date trees that beare abundance of dates,and likewiſe with pine trees that yeeld ſtore of Pine nuts. Furthermore he affirmeth,that there is great plenty of hony in it:that the riuers therein are well ſtored with fiſh,and the Sturgeon eſpecially:in which there groweth the red Papyrus as ordinarily as in Nilus. Howbeit in concluſion he ſaith, that theſe Iſles are much annoied with great whales and ſuch monſters of the ſea,that daily are caſt vpon the ſhore,which lie aboue ground & putrifie like carrion. Thus hauing at large gone through the deſcription of the globe of the earth as well without as within,it remaineth now to knit vp briefely with the meaſure and compaſſe
D of the ſeas.

Chap. XXXIII.

¶ *A ſummarie of the earth,digeſted according to the dimenſions thereof.*

Polybius ſaith, that from the ſtreights of Gibralter, vnto the very mouth and firth of Mœotis,it is found by a direct and ſtraight courſe to be 3437 miles and an halfe. Begin there again,and hold on a right courſe Eaſtward to Sicily, it is 1260 miles and an halfe. From thence forward to the Iſland Creta,375 miles: forward to Rhodes, 146 miles and an halfe: to the Chelidoniæ Iſles as much,and ſo to Cyprus 325 miles: from whence to Seleucia Pieria in Syria 115 miles. Which particulars being laid together,make by computation the groſſe ſum
E of 2340 miles. Howbeit, *Agrippa* counteth 3440 miles for all this diſtance aboue-ſaid, beginning at the ſtraits of Gibraltar aboue-ſaid,and carrying the length ſtraight forward to the gulf of Iſſa. In which reckoning of his,I wot not whether ther be an error in the number,foraſmuch as the ſame writer hath ſet down from the ſtreit of Meſſine in Sicilie to Alexandria in Egypt, 1250 miles. As for the whole circuit that may be comprehending therein, all the gulfes and creekes before-named, from the ſame point where we firſt began,as far as to the lake Mœotis,is 15600 miles. *Artemidorus* addeth thereto 756 miles. And the ſame Geographer writeth, that take the lake Mœotis to the reſt,all commeth to 17390 miles. Loe,what the meaſure is of the ſeas taken by Philoſophers and learned men,without armor and weapon in hand; of men I ſay,
F who haue not feared to hazard themſelues boldly and prouoke Fortune, in trauerſing the ſeas ſo farre off. Now are we to compare reſpectiuely the greatneſſe of each part of the world in ſeuerall:notwithſtanding that I ſhall finde much ado and difficulty enough therein, conſidering the diſagreement of authors in that behalf. But moſt plainly ſhal this appeare which we ſeek for, by ioining longitude & latitude together:acording to which preſcript rule to begin with

Europe, it may wel contain in largenes 8148 miles. Africk (taking the middle and mean computation between them all that haue ſet it down) containeth in length 3748 miles. As for the bredth of ſo much as is known and inhabited, in no place where it is wideſt exceedeth it 250 miles. True it is, that *Agrippa* would haue it to contain 910 miles in breadth, beginning at the bounds of Cyrene, and ſo comprehending in this meaſure the deſarts thereof as far as to the Garamants, ſo far as is knowne and diſcouered, and then the whole meaſure collected into one generall ſum, amounteth to 4608 miles. As for Aſia, confeſſed it is and reſolued vpon by all Geographers, that in length it carrieth 63750 miles: and verily in bredth (if you account from the Æthiopian ſea to Alexandria ſcituate vpon Nilus, ſo as your meaſure run through Meroe and Syrene) it taketh 1875 miles: wherby it appeareth euidently, that Europe is little wanting of halfe as big again as Aſia: and the ſame Europa, is twiſe as much again as all Africa & a ſixt part ouer. Reduce now all theſe ſums together, it wil be found cleare, that Europ is a third part of the whole earth, & an eight portion ouer and ſomwhat more: Aſia, a fourth part, with an ouerdeale of 14: and Africk a fifth part, with an ouer-plus of a ſixtieth portion. To this calculation, we wil ſet to, as it were to boot, one ſubtill deuiſe & inuention more of the Greeks, which ſheweth their ſingular wit (to the end we ſhould omit nothing that may ſerue our turn in this Geographie of ours) and that is this: after that the poſiture and ſite of euery region is knowne and ſet downe, how a man may likewiſe come to the knowledge what ſocietie and agreement there is between the one & the other, either by length of daies and nights, by the ſhadow at noon day, or by equality of climats of the world. To bring this about effectually, I muſt part and digeſt the whole earth into certain ſections or euen portions, anſwerable to thoſe in heauen; whereof there be very many) which our Aſtronomers and Mathematicians cal Circles; but the Greeks, Parallels.

G H I

Chap. XXXIV.

¶ *The diuiſion of the earth into Climates or lines Parallele, and equall ſhadowes.*

FOr to make an equall partition of the world, begin we wil at the Meridionall Indians, & go directly as far as Arabia, and the inhabitants of the red ſea Vnder this climat are compriſed the Gedroſians, Perſians, Carmanes, and Elimæans: Parthyene, Aria, Suſiane, Meſopotomia, Seleucia ſyrnamed Babylonia, Arabia, ſo far as Petræ incluſiuely, Cœle-Syria, & Peluſium in Egypt: the low Low-countries, which are called the tract of Alexandria: the maritine coaſts of Africk: all the towns of Cyrenaica, Thapſus, Adrumetum, Clupea, Carthage, Vtica, both Hippoes, Numidia, both realmes of Mauritania, the Atlanticke ſea, and *Hercules* pillars. In all the circumference of this climat and parellele, at noon tide vpon an Equinoctiall day, the ſtile in the diall which they call Gnomon 7 foot long, caſteth a ſhadow not aboue 4 foot. The longeſt night or day in this climate, is 14 houres: and contrariwiſe the ſhorteſt, ten. The ſecond circle or parallele line, beginneth at the Indians Occidentall, and paſſeth through the mids of Parthia, Perſepolis, the hithermoſt parts of Perſis (in reſpect of Rome) the hither coaſt of Arabia, Iudæa, and the borders neere vnto the mountaine Libanus. Vnder the ſame are contained alſo Babylon, Idumæa, Samaria, Hieruſalem, Aſcalon, Ioppe, Cæſarea, Phœnice, Ptolemais, Sydon, Tyrus, Berytrus, Betrys, Tripolis, Byblus, Antiochia, Laodicea, Seleucia, the Sea coaſts of Cilicia, Cyprus the South part of Candy, Lilybœum in Sicilia, the North parts of Africke and Numidia. The Gnomon in a diall vpon the Equinoctiall day 35 foot of length, maketh a ſhadow 24 foot long. The longeſt day or night is 14 houres Equinoctial, and the fift part of an houre. The third circle beginneth at the Indians next vnto the mountaine Imaus, and goeth by the Caſpian gates or ſtreights hard by Media, Cataonia. Cappadocia, Taurus, Amanus, Iſſus, the Cilician ſtraits, Soli, Tarſus, Cyprus, Piſidia, Syde in Pamphilia, Lycaonia, Patara in Lycia, Xanthus, Caunus, Rhodus, Cous, Halicarnaſſus, Gnidus, Doris, Chius, Delus, the mids of the Cyclades, Gytthium, Malea, Argos, Laconia, Elis, Olympia, Meſſene, Peloponneſus, Syracuſa, Catine, the mids of Sicily, the South part of Sardinia, Cardei, and Gades. In this clime the Gnomon of 100 inches, yeeldeth a ſhadow of 77 inches. The longeſt day hath Equinoctiall houres 14 & an halfe, with a 30 part ouer. Vnder the fourth circle or parallele lye they that are on the other ſide of Imaus, the South parts of Cappadocia, Galatia, Myſia, Sardis,

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A Sardis, Smyrna, Sipylus, the mountaine Tmolus in Lydia, Caria, Ionia, Trallis, Colophon, Epheſus, Miletus, Samos, Chios, the Icarian ſea, the Iſles Cyclades lying Northward, Athens, Megara, Corinth, Sicyon, Achæa, Patræ, Iſthmos, Epirus, the North parts of Sicily, * Narbonenſis Gallia toward the Eaſt, the maritime parts of Spaine beyond new Carthage, and ſo into the Weſt. To a Gnomon of 21 foot, the ſhadowes anſwer of 17 foot. The longeſt day is fourteen Æquinoctiall houres, and two third parts of an houre. The 5 diuiſion containeth vnder it, from the entrance of the Caſpian ſea, Bactra, Iberia, Armenia, Myſia, Phrygia, Helleſpontus, Troas, Tenedus, Abydus, Scepſis, Ilium, the hill Ida, Cyzicum, Lampſacum, Sinope, Aniſum, Heraclea in Pontus, Paphlagonia, Lemnus, Imbrus, Thaſus, Caſſandria, Theſſalia, Macedonia,
B Lariſſa, Amphipolis, Theſſalonice, Pella, Edeſſa, Beræa, Pharſaliæ, Caryſtum, Eubœa, Bœotia, Chalcis, Delphi, Acarnania, Ætolia, Apollonia, Brundiſium, Tarentum, Thurij, Locri, Rhegium, Lucani, Naples, Puteoli, the Tuſcan ſea, Corſica, the Baleare Iſles, the middle of Spain. A Gnomon of 7 foot giueth ſhadow ſix foot. The longeſt day is 15 Æquinoctiall houres. The ſixt paralell compriſeth the city of Rome, and containeth withall the Caſpian nations, Caucaſus, the North parts of Armenia, Apollonia vpon Rhindacus, Nicomedia, Nicæa, Chalcedon, Bizantium, Lyſimachia, Cherrhoneſus, the gulfe Melane, Abdera, Samothracia, Maronea, Ænus, Beſſica, the midland parts of Thracia, Pœonia, the Illyrians, Dyrrhachium, Canuſium, the vtmoſt coaſts of Apulia, Campania, Hetruria, Piſæ, Luna, Luca, Genua, Liguria, Antipolis, Maſſilia, Narbon, Tarracon, the middle of Spain called Tarraconenſis, & ſo through Luſitania.
C To a Gnomon of 9 foot, the ſhadow is anſwerable 8 foot. The longeſt day hath 15 Æquinoctiall houres, and the 9 part of an houre, or the fift, as *Nigidius* is of opinion. The 7 diuiſion begins at the other coaſt of the Caſpian ſea, and falls vpon Callatis, Boſphorus, Boryſthenes, Tomos, the backe parts of Thracia, the Tribals country, the reſt of Illyricum, the Adriaticke ſea, Aquileia, Altinum, Venice, Viceria, Patavium, Verona, Cremona, Ravenna, Ancona, Picenum, Marſi, Peligni, Sabini, Vmbria, Ariminium, Bononia, Placentia, Mediolanum, and all beyond Apenninum: alſo ouer the Alps, Aquitane in Gaule, Vienna, Pyræneum, and Celtiberia. The Gnomon of 35 foot, caſteth a ſhadow 36 foot in length; yet ſo, as in ſome part of the Venetian territorie, the ſhadow is equall to the Gnomon. The longeſt day is 15 Æquinoctiall houres, and three fift parts of an houre. Hitherto haue we reported the labors in this point of antient
D Geographers, and what they haue reported. But the moſt diligent and exacteſt modern Writers that followed, haue aſſigned the reſt of the earth not yet ſpecified, to three other ſections or climats. The firſt, from Tanais through the lake Mœtis and the Sarmatians, vnto Boryſthenes, and ſo by the Dakes and a part of Germany, containing therein France and the coaſts of the Ocean, where the day is 16 houres long. A ſecond, through the Hyperboreans and Britain, where the day is 17 houres long. Laſt of all is the Scythian paralell, from the Rhiphæan hills into Thule: wherein (as we ſaid) it is day and night continually by turnes, for ſixe moneths. The ſame writers haue ſet downe two paralell circles, before thoſe points where the other began, and which we ſet downe. The one through the Iſlands Meroe and Ptolemais vpon the red ſea, built for the hunting of Elephants, where the longeſt daies are but 12 houres and an halfe:
E the ſecond paſſing through Syrene in Ægypt, where the day hath 13 houres. And the ſame authors haue put to euery one of the other circles, euen to the very laſt, half an houre more to the daies length than the old Geographers.

* Languedoc

Thus much of the Earth.

THE

THE SEVENTH BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

The Proeme.

THus, as you see, we haue in the former books sufficiently treated of the vniuersall world; of the Lands, Regions, Nations, Seas, Islands, and renowned Cities therein contained. It remaines now to discourse of the liuing creatures comprised within the same, and their natures: a point doubtlesse that would require as deepe a speculation as any part else thereof whatsoeuer, if so be the spirit and minde of man were able to comprehend and compasse all things in the world. And to make a good entrance into this treatise and history, me thinkes of right we ought to begin at Man, for whose sake it should seeme that Nature made and produced all other creatures besides: though this great fauour of hers, so bountifull and beneficiall in that respect, hath cost them full deare. Insomuch as it is hard to iudge, whether in so doing she hath done the part of a kinde mother, or a hard and cruell step-Dame. For first and formost, of all other liuing creatures, man she hath brought forth all naked, and cloathed him with the good and riches of others. To all the rest she hath giuen sufficient to clad them euery one according to their kinde; as namely, shells, cods, hard hides, prickes, shag, bristles, haire, downe feathers, quills, skales, and fleeces of woll. The very trunkes and stems of trees and plants she hath defended with barke and rinde, yea and the same sometimes double, against the iniuries of heate and cold: Man alone, poore wretch, she hath layed all naked vpon the bare earth, euen on his birth day, to cry and wraule presently from the very first houre that hee is borne in such sort, as among so many liuing creatures there is none subiect to shed teares and weepe like him. And verily to no babe or infant is it giuen once to laugh before he be forty daies old, and that is counted very early, and with the soonest. Moreouer, so soone as he is entred in this manner to enioy the light of the Sunne, see how he is immediatly tyed and bound fast, and hath no member at libertie: a thing that is not practised vpon the yong whelpes of any beast among vs, be he neuer so wilde. The childe of man thus vntowardly borne, and who another day is to rule and command all other, loe how he lieth bound hand and foot, weeping and crying, and beginning his life in miserie, as if he were to make amends and satisfaction by his punishment vnto Nature, for this onely fault and trespasse, that he is borne aliue. O folly of all follies, euer to thinke (considering this simple beginning of ours) that we were sent into this world to liue in pride, and cary our heads aloft! The first hope that we conceiue of our strength, the first gift that Time affourdeth vs, maketh vs no better yet than foure footed beasts. How long is it ere we can go alone? how long before we can prattle and speake, feed our selues, and chew our meat strongly? what a while continueth the mould and crowne of our heads to beate and pant, before our braine is well settled; the vndoubted marke and token that bewraieth our exceeding great weakenesse aboue all other creatures? What should I say of the infirmities and sicknesses that do soone seise vpon our feeble bodies? what need I speake of so many medicines and remedies deuised against these maladies: besides the new diseases that come euery day, able to checke and frustrate all our prouision of physicke whatsoeuer? As for all other liuing creatures, there is not one, but by a secret instinct of nature knoweth his own good, and wherto he is made able; some make vse of their swift feet, others of their slight wings; some are strong of limne; others are apt to swim, and practise the same: man only knoweth nothing vnlesse he be taught; hee can neither speake, nor goe, nor eate, otherwise than he is trained to it: and to be short, apt and good at nothing he is naturally, but to pule and cry. And hereupon it is, that some haue beene of this

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A *opinion, That better it had been, and ſimply beſt for a man, neuer to haue been borne, or elſe ſpeedily to die. None but we doe ſorrow and waile, none but we are giuen to exceſſe and ſuperfluitie infinitely in euery thing, and ſhew the ſame in euery member that we haue. Who but we againe are ambitious and vain-glorious? who but we are couetous and greedie of gathering good? we and none but we deſire to liue long and neuer to die, are ſuperſtitious, carefull of our ſepulture and buriall, yea and what ſhall betide vs when we are gone. Mans life is moſt fraile of all others; and in leaſt ſecuritie he liueth: no creature luſteth more after euery thing than he: none feareth like vnto him, and is more troubled and amazed in his fright: and if he beſe once vpon anger, none more raging and wood than he. To conclud, all other liuing creatures liue orderly and well, after their owne kinde: we ſee them flocke and gather together, and ready to make head and ſtand againſt all others of a contrary kinde: the lyons as fell and ſauage as they be, fight not one with another; ſerpents ſting not ſerpents, nor bite one another with their venomous teeth: nay the very monſters and huge*
B *fiſhes of the ſea, war not among themſelues in their owne kinde: but beleeue me, Man at mans hand receiueth moſt harme and miſchiefe.*

Chap. I.

¶ *The ſtrange and wondrous ſhapes of ſundry nations.*

C IN our Coſmographie and reports of nations and countries, wee haue ſpoken in generall of all mankinde, ſpred ouer the face of the whole earth: neither is it our purpoſe at this preſent to decipher particularly all their cuſtomes and manners of life, which were a difficult enterpriſe, conſidering how infinit they be, and as many in manner as there be ſocieties and aſſemblies of men. Howbeit I thinke it good, not to ouer-paſſe all, but to make relation of ſome things concerning thoſe people eſpecially, who liue fartheſt remote from our ſeas; among whom I doubt not but I ſhall find ſuch matter, as to moſt men will ſeeme both prodigious and incredible. And verily who euer beleeued that the Æthiopians had bin ſo blacke, before he ſaw them with his eies: nay what is it, I pray you, that ſeemeth not a wonder at the firſt ſight? How many things are judged impoſſible before they are ſeene done and effected? And certes, to ſpeake a truth, The power and majeſtie of Nature, in euery particular action of hers & ſmall things, ſeemeth incredible, if a man conſider the ſame ſeuerally, and enter not into a generall conceit of
D her wholly as ſhe is. For to ſay nothing of the painted peacocks feathers, of the ſundry ſpots of tygres, luzernes, and panthers, of the variable colours and markes of ſo many creatures beſides: let vs come to one only point, which to ſpeake of ſeemes but ſmall, but being deepely weighed and conſidered, is a matter of exceeding great regard, and that is, The varietie of mens ſpeech; ſo many tongues and diuers languages are amongſt them in the world, that one ſtranger to another ſeemeth well-neere to be no man at all. But come to view and marke the variety that appeares in our face and viſage, albeit there be not paſt ten parts or little more therin, ſee how among ſo many thouſands as we are, you ſhall not find any two perſons, who are not diſtinct in countenance and different one from another: a thing that no artificer nor painter (be he neuer ſo cunning and his craftſmaſter euery way) can performe, but in a few pictures, and take what
E heed he can with all his curious affectation. And yet thus much muſt I aduertiſe the readers of this mine hiſtory by the way, that I will not pawne my credit for many things that herein I ſhall deliuer, nor bind them to beleeue all I write as touching ſtrange and forrein nations: refer them rather I will to mine authors, whom in all points (more doubtfull than the reſt) I will cite and alledge, whom they may beleeue if they liſt: onely let them not thinke much to follow the Greeke writers, who from time to time in this behalfe haue been more diligent in penning, and more curious in ſearching after antiquities.

Chap. II.

F ¶ *Of the Scythians, and the diuerſitie of other nations.*

THat there bee Scythians, yea, and many kindes of them that feed ordinarily of mans fleſh, wee haue ſhewed alreadie in our former diſcourſes. A report haply that would be thought incredible, if we did not conſider and thinke withall, how in the very middle and heart of the world, euen in Sicily and Italy, here hard by, there haue beene ſuch monſters of men,

men,namely,the Cyclopes and Lyſtrigones: nay, if we were not credibly informed, that euen G
of late daies,and go no farther than to the other ſide of the Alpes,there be thoſe that kill men
for ſacrifice after the maner of thoſe Scythian people;& that wants not much of chewing and
eating their fleſh. Moreouer,neere vnto thoſe Scythians that inhabit toward the pole Articke,
and not far from that climate which is vnder the very riſing of the North-eaſt wind,and about
that famous caue or whole out of which that wind is ſaid to iſſue,which place they call Geſ-
clithron,[*i.* the cloiſter or key of the earth]the Arimaſpians by report do dwel,who as we haue
ſaid before,are known by this marke,for hauing one eie only in the mids of their forehead:and
theſe maintain war ordinarily about the mettall mines of gold, eſpecially with griffons,a kind
of wilde beaſts that flie,and vſe to fetch gold out of the veines of thoſe mines(as commonly it
is receiued:)which ſauage beaſts(as many authors haue recorded,and namely,*Herodotus* & *Ari-*
ſteas the Proconneſian,two writers of greateſt name) ſtriue as eagerly to keepe and hold thoſe H
golden mines,as the Arimaſpians to diſſeize them therof,and to get away the gold from them.
Aboue thoſe, are other Scythians called Anthropophagi, where is a countrie named Abari-
mon,within a certain vaile of the mountain Imaus,wherin are found ſauage & wild men,liuing
and conuerſing vſually among the bruit beaſts, who haue their feet growing backward,& tur-
ned behind the calues of their legs,howbeit they run moſt ſwiftly. Theſe kinde of men can en-
dure to liue in no other aire nor in any clime elſe than their own,which is the reaſon that they
cannot be drawne to come vnto other kings that border vpon them, nor could be brought vnto
Alexander the great:as *Beton* hath reported, the marſhall of that princes campe,& who alſo put
downe his geſts and iournies in writing. The former Anthropophagi or eaters of mans fleſh,
whom we haue placed about the North-pole, ten daies iournie by land aboue the riuer Bory- I
ſthenes,vſe to drink out of the skuls of mens heads,and to weare the ſcalpes haire & al,in ſtead
of mandellions or ſtomachers before their breaſts, according as *Iſogonus* the Nicean witneſſes.
The ſame writer affirmeth moreouer, That in Albanie there be a ſort of people borne with eies
like owles,whereof the ſight is fire red:who from their childhood are grey headed,and can ſee
better by night than day. He reporteth alſo,that tenne daies iourny beyond Boryſthenes, the
Sauramates neuer eat but one meale of meat in three daies. *Crates* of Pergamus ſaith, That in
Helleſpont about Parium there was a kind of men(whom he nameth Ophiogenes) that if one
were ſtung with a ſerpent,with touching only,will eaſe the paine:and if they doe but lay their
hands vpon the wound,are wont to draw forth all the venome out of the body. And *Varro* teſti- K
fies,that euen at this day there be ſome there who wariſh & cure the ſtinging of ſerpents with
their ſpittle,but there are but few ſuch,as he ſaith. *Agatharcides* writes,that in Affrick the Pſyl-
lians (ſo called of king *Pſyllus*, from whoſe race they were deſcended, and whoſe ſepulchre or
tombe is at this day preſent to be ſeene in a part of the greater Syrtes)could do the like. Theſe
men had naturally that in their own bodies,which like a deadly bane and poyſon would kill al
ſerpents: for the very aire & ſent that breathed from them,was able to ſtupifie and ſtrike them
ſtarke dead. And by this means they vſed to try the chaſtitie and honeſtie of their wiues. For ſo
ſoon as they were deliuered of children,their manner was to expoſe and preſent the ſilly babes
new borne,vnto the moſt fell and cruell ſerpents they could find: for if they were not right,but
gotten in adultery,the ſaid ſerpents would not auoid & fly from them. This nation verily in ge- L
nerall hath been defeated,& killed vp in manner all by the Naſamones, who now inhabit thoſe
parts wherin they dwelt:howbeit a kind remains ſtill of them, deſcended from thoſe that made
ſhift away and fled,or elſe were not preſent at the ſaid bloudy battell, but there are very few of
them at this day left. The Marſians in Italy at this preſent continue with the like naturall ver-
tue againſt ſerpents:whom being reputed for to haue deſcended from ladie *Circes* ſon,the peo-
ple in this regard do highly eſteem,& are verily perſuaded,that they haue in them the ſame fa-
cultie by kinde. And what great wonder is this,conſidering that all men carry about them that
which is poyſon to ſerpents: for if it be true that is reported, they will no better abide the
touching with mans ſpittle,than ſcalding water caſt vpon them:but if it happen to light with- M
in their chawes,or mouth, eſpecially if it come from a man that is faſting, it is preſent death:
Beyond thoſe Naſamones,and their neighbours confining vpon them (the Machlyes)there be
found ordinarily Hermaphrodites,called Androgyni,of a double nature, and reſembling both
ſexes,male and female,who haue carnal knowledge one of another interchangeably by turns,as
Calliphanes reports. *Ariſtotle* ſaith moreouer,that on the right ſide of their breaſt they haue a lit-

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A tle teat or nipple like a man, but on the left they haue a full pap or dug like a woman. In the ſame Affricke, both *Iſogonus* and *Nymphodorus* doe auouch, there be certain houſes and families of ſorcerers: who, if they chance to bleſſe, praiſe, and ſpeak good words, bewitch preſently withall; inſomuch as ſheepe therewith die, trees wither, and infants pine and winder away. *Iſogonus* adds furthermore, That ſuch like there be among the Triballians and Illyrians, who with their very eie ſight can witch, yea, and kil thoſe whom they look wiſtly vpon any long time, eſpecially if they be angred, and that their eies bewray their anger: and more ſubiect to this daunger be men growne, than children vnder fourteene yeares of age. This alſo is in them more notable and to be obſerued, that in either eie they haue two ſights or apples. Of this kind and property, as *Apollonides* mine author ſaith, there be certaine women in Scythia named Bithyæ. *Philarchus* witneſſeth, That in Pontus alſo the whole race of the Thibians, and many others beſides, haue
B the ſame quality, & doe the like: and known they are (ſaith he) by theſe markes, In one of their eies they haue two ſights, in the other the print or reſemblance of an horſe. He reports beſides of theſe men, that they wil neuer ſinke or drowne in the water, be they charged neuer ſomuch with weighty and heauy apparel. Not vnlike to theſe there are a people in Æthiopia called Pharnaces, whoſe ſweat if it chance to touch a mans body, preſently he falleth into a phthiſick or conſumption of the lungs. And *Cicero* a Romane writer here among vs teſtifieth, that generally all women that haue ſuch double apples in their eies, haue a venemous ſight, and doe hurt therewith. See how nature, hauing engraffed naturally in ſome men this vnkind appetite (like wild beaſts) to feed commonly vpon the bowels and fleſh of men, hath taken delight alſo & pleaſure to giue them inbred poiſons in their whol body, yea & venom in the very eies of ſome;
C that there ſhould be no naughtineſſe in the world againe, but the ſame might be found in man. Not farre from Rome city, within the territory of the Faliſci, there be ſome few houſes, & families called Hirpiæ, which at their ſolemne yearely ſacrifice celebrated by them in the honour of *Apollo* vpon the mount Soracte, walke vpon the pile of wood as it is on fire, in great iolity, and neuer a whit are burnt withall. For which cauſe it is ordained by an expreſſe areſt or act of the Senat, that they ſhould be priuiledged, and haue immunity of warfare and all other ſeruices whatſoeuer. Some men there be that haue certaine members and parts of their bodies naturally working ſtrange and miraculous effects, and in ſome caſes medicinable. As for example, king *Pyrrhus*, whoſe great toe of his right foot was good for them that had big, ſwelled, or
D indurate ſpleenes, if he did but touch the parties diſeaſed, with that toe. And they ſay moreouer, that when the reſt of his body was burnt (after the manner) in the funerall fire, that great toe the fire had no power to conſume: ſo, that it was beſtowed in a litle caſe for the nones, and hung vp in the temple for a holy relique. But principally aboue all other countries, India and the whole tract of Æthiopia is full of theſe ſtrange and miraculous things. And firſt & formoſt the beaſts bred in India be very big, as it may appeare by their dogs, which for proportion are much greater than thoſe in other parts. And trees grow there to that tallneſſe, that a man cannot ſhoot a ſhaft ouer them. The reaſon hereof is the goodneſſe and fatneſſe of the ground, the temperat conſtitution of the aire, and the abundance of water: which is the cauſe alſo that vnder one fig tree [beleeue it that liſt] there may certaine troupes and ſquadrons of horſmen ſtand
E in couert, ſhaded with the boughes. And as for reeds, they be of ſuch a length, that between euery ioint they will yeeld ſufficient to make boats able to receiue three men apeece, for to row therein at eaſe. There are to be ſeene many men there aboue fiue cubits tall: neuer are they known once to ſpit: troubled they are not with pain in the head, tooth-ach, or griefe of the eies; and ſeldome or neuer complaine they of any ſorance in other parts of the body, ſo hardy are they, and of ſo ſtrong a conſtitution thorough the moderat heat of the Sun. Ouer and beſides, among the Indians be certain Philoſophers, whom they call Gymnoſophiſts, who from the Sun riſing to the ſetting thereof are able to endure all the day long, looking full againſt the Sunne, without winking or once mouing their eies: & from morning to night can abide to ſtand ſomtimes vpon one leg, and ſometimes on the other in the ſand, as ſcalding hot as it is. Vpon a cer-
F taine mountaine named Milus, there be men whoſe feet grow the tother way backward, and of either foot they haue eight toes, as *Megaſthenes* doth report. And in many other hils of that countrey, there is a kind of men with heads like dogs, clad all ouer with skins of wild beaſts, who in lieu of ſpeech vſe to bark: armed they are and well appointed with ſharp and trenchant nailes: they liue vpon the prey which they get by chaſing wild beaſts, & fowling. *Cteſias* writes

that

that there were discouered and knowne of them aboue 120000 in number. By whose report also, in a certaine country of India the women beare but once in their life, and their infants presently waxe grey so soone as they are borne into the world. Also, that there is a kind of people named Monoscelli, that haue but one leg apeece, but they are most nimble, and hop wondrous swiftly. The same men are also called Sciopodes, for that in hotest season of the Summer, they ly along on their back, and defend themselues with their feet against the Suns heate: and these people as he saith are not farre from the Troglodites. Againe, beyond these Westward, some there be without heads standing vpon their necks, who cary eies in their shoulders. Among the Westerne mountains of India the Satyres haunt, (the country wherein they be, is called the region of the Cartaduli) creatures of all other most swift in footmanship: which one whiles run with all foure; otherwhiles vpon two feet only like men: but so light footed they are, that vnlesse they be very old and sick, they can neuer be taken. *Tauron* writeth, That the Choromandæ are a sauage and wild people: distinct voice and speech they haue none, but in stead thereof, they keep an horrible gnashing and hideous noise: rough they are and hairy all ouer their bodies, eies they haue red like the houlets, and toothed they be like dogs. *Eudoxus* saith, That in the Southern parts of India, the men kind haue feet a cubit long, but the wome so short & smal, that thereupon they be called Struthopodes, *i.* sparrow footed. *Megasthenes* is my Author, that among the Indian Nomades there is a kind of people, that in stead of noses haue only two smal holes, and after the manner of snakes they haue their legs & feet limmer, wherwith they crawle and creep, and named they are Syrictæ. In the vtmost marches of India, Eastward, about the source & head of the riuer Ganges, there is a nation called the Astomes, for that they haue no mouths: all hairy ouer the whole body, yet clothed with soft cotton and down that come from the leaues of trees: they liue only by the aire, and smelling to sweet odors, which they draw in at their nosthrils: No meat nor drinke they take, only pleasant sauours from diuers and sundry roots, floures, and wild fruits growing in the woods they entertaine: and those they vse to carry about with them when they take any farre journey, because they would not misse their smelling. And yet if the sent be any thing strong and stinking, they are soone therwith ouercome, & dy withal. Higher in the country, and aboue these, euen in the edge and skirts of the mountains, the Pygmæi Spythamæi are reported to be: called they are so, for that they are but a cubit * or three * shaftments (or spannes) high, that is to say, three times nine inches. The clime wherein they dwel is very wholsome, the aire healthy, and euer like to the temperature of the Spring: by reason that the mountains are on the North side of them, & beare off all cold blasts. And these prety people *Homer* also hath reported to be much troubled & anoied by cranes. The speech goeth, that in the Spring time they set out all of them in battell aray, mounted vpon the backe of rammes and goats, armed with bowes and arrowes, and so downe to the sea side they march, where they make foule worke among the egges & yong cranelings newly hatched, which they destroy without all pitty. Thus for three months this their journy and expedition continueth, and then they make an end of their valiant seruice: for otherwise if they should continue any longer, they were neuer able to withstand the new flights of this foule, grown to some strength and bigneſſe. As for their houses and cottages, made they are of clay or mud, fouls feathers, and birds egge shels. Howbeit, *Aristotle* writes, That these Pygmæans liue in hollow caues & holes vnder the ground. For all other matters he reports the same that all the rest. *Isogonus* saith, that certain Indians named Cyrni, liue a hundred and fortie yeares. The like he thinketh of the Æthyopian Macrobij, and the Seres: as also of them that dwell on the mount Athos: and of these last rehearsed, the reason verily is rendred to be thus, because they feed of vipers flesh, & therefore is it that neither lice breed in their heads, nor other vermine in their cloths, for to hurt & annoy their bodies. *Onesicritus* affirmeth, That in those parts of India where there are no shadowes to be seene, the men are fiue cubits of stature, and two hand breadths ouer: that they liue 130 yeares, and neuer age for all that and seem old, but die then, as if they were in their middle and settled age. *Crates* of Pergamus nameth those Indians who liue aboue an hundred yeare, Gymnetes: but others there be, and those not a few, that call them Macrobij. *Ctesias* saith there is a race or kinred of the Indians named Pandore, inhabiting certaine vallies, who liue two hundred years: in their youthfull time the haire of their head is white, but as they grow to age, waxeth black. Contrariwise, others there be neer neighbours to the Macrobij, who exceed not fortie years, and their women beare but once in their life time. And this also is auouched by *Agatharcides*,

* πυγων.
* σπιθαμιαι.

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A *tharcides*, who affirmeth moreouer, that all their feeding is vpon locuſts, and that they are very quicke and ſwift of foot. *Clitarchus* and *Megaſthenes* both name them Mandri, and thinke they haue 300 villages in their countrey. Moreouer, that the women bring forth children at ſeuen yeares of age, and wax old at forty. *Artemidorus* affirmes, that in the Iſland Taprobana the people liue exceeding long without any malady or infirmitie of the body. *Duris* maketh report, That certaine Indians ingender with beaſts, of which generation are bred certaine monſtrous mungrels halfe beaſts and halfe men. Alſo, that the Calingian women of India conceiue with childe at fiue yeares of age, and liue not aboue eight. In another tract of that countrey there be certaine men with long ſhagged tailes, moſt ſwift and light of foot: and ſome againe that
B with their eares couer their whole body. The Orites are neighbours to the Indians, diuided onely from them by the riuer Arbis, who are acquainted with no other meate but fiſh, which they ſplit and ſlice into pieces with their nailes, and roſt them againſt the Sun, and then make bread thereof, as *Clitarchus* reporteth. *Crates* of Pergamus ſaith likewiſe, that the Troglodites aboue Ethyopia be ſwifter than horſes: and that ſome Æthiopians are aboue eight cubites high: and theſe are a kinde of Ethiopian Nomades, called Syrbotæ, as he ſaith, dwelling along the riuer Aſtapus toward the North pole. As for the nation called Meniſmini, they dwel from the Ocean ſea twenty dayes iourney, who liue of the milke of certain beaſts that we cal Cynocephales, hauing heads and ſnouts like dogs. And whole heards and flocks of the females they keepe and feed, killing the male of them all, ſaue onely to ſerue for maintenance of the breed. In the deſarts of Africke ye ſhall meet oftentimes with Fairies, appearing in the ſhape of men
C and women, but they vaniſh ſoone away like fantaſticall deluſions. See how Nature is diſpoſed for the nones to deuiſe full wittily in this and ſuch like paſtimes to play with mankinde, thereby not only to make her ſelf merry, but to ſet vs a wondring at ſuch ſtrange miracles. And I aſſure you, thus dayly and hourely in a manner playeth ſhe her part, that to recount euery one of her ſports by themſelues, no man is able with all his wit and memory. Let it ſuffice therfore to teſtifie and declare her power, that we haue ſet downe thoſe prodigious and ſtrange workes of hers ſhewed in whole nations: and then go forward to diſcourſe of ſome particulars approued and knowne in man.

Chap. III.

D

¶ *Of prodigious and monſtrous births.*

THat women may bring forth three at one birth appeares euidently by the example of the three twins *Horatij* and *Curiatij*. But to go aboue that number is reputed and commonly ſpoken to be monſtrous, and to portend ſome miſhap: but only in Egypt, where women are more than ordinary fruitfull, by drinking of Nilus water, which is ſuppoſed to help generation. Of late yeres, and no longer ſince than in the later end of the reigne of *Aug. Cæſar*, at Oſtia there was a woman (a Commoners wife) deliuered at one birth of two boies & as many girles, but this was a moſt prodigious token, and portended no doubt the famine that enſued ſoone after. In Peloponneſus there is found one woman that brought forth at foure births 10 Chil-
E dren, and the greater part of them all did well and liued. *Trogus* ſaith, that in Egypt it is an ordinarie thing for a woman to haue ſeuen at a birth. It falleth out moreouer, that there come into the world children of both ſexes, whom wee call Hermophrodites. In old time they were knowne by the name of Androgyni, and reputed then for prodigious wonders, how ſoeuer now men take delight and pleaſure in them. *Pompey* the great, in his Theatre which hee adorned and beautified with ſingular ornaments and rare deuices of antique worke, as wel for the admirable ſubiect and argument thereof, as the moſt curious and exquiſit hand of cunning and skilfull artificers, among other images and pourtracts there ſet vp, repreſented one *Eutiche* a Woman of Tralleis, who after ſhe had in her life time borne thirty births, her corps was caried out by twenty of her children to the funerall fire to be burnt, according to the maner of that coun-
F trey. As for *Alcippe* ſhe was deliuered of an Elephant, marie that was a monſtrous and prodigious token, and foreſhewed ſome heauy fortune that followed after. Alſo in the beginning of the Marſians war there was a bondwoman brought forth a Serpent. In ſum, there be many miſ-ſhapen monſters come that way into the world, of diuers and ſundry formes. *Claudius Cæſar* writeth, That in Theſſalie there was borne a monſter called an Hippocentaure, that is, halfe

a man and halfe a horse, but it died the very same day. And verily after he came to weare the diadem, we our selues saw the like monster sent vnto him out of Egypt, embalmed and preserued in honey. Among many strange examples appearing vpon record in Chronicles, we reade of a childe in Sagunt, the same yeare that it was forced and rased by *Anabal*, which so soone as it was come forth of the mothers wombe presently returned into it againe.

Chap. IIII.

¶ *Of the change of one Sex to another, and of Twins borne.*

IT is no lie nor fable, that females may turne to be males: for we haue found it recorded, that in the yearely Chronicles called Annals, in the yere when *Publius Licinius Crassus*, and *C. Cassius Longinus* were Consuls, there was in Cassinum a maid childe, vnder the very hand and tuition of her parents, without suspition of being a changeling became a boy: and by an Ordinance of the Soothsayers called Aruspices, was confined to a certain desart Island, and thither conueyed. *Licinius Mutianus* reporteth, that he himselfe saw at Argos one named *Arescon*, who before time had to name *Arescusa*, and a married wife: but afterwards in processe of time came to haue a beard, and the generall parts testifying a man, and thereupon wedded a wife. Likewise (as he saith) he saw at Smyrna a boy changed into a girle. I my selfe am an eye witnesse, That in Africke one *L. Cossicius* a citisen of Tisdrita, turned from a woman to be a man vpon the very mariage day, who liued at the time I wrot this booke. Moreouer, it is obserued, that if women bring twins, it is great good hap if they all liue, but either the mother dieth in childbed, or one of the babes, if not both. But if it fortune that the twinnes be of both sexes, the one male, the other female, it is ten to one if they both escape. Moreouer this is well knowne, that as women age sooner than men, and seeme old, so they grow to their maturitie more timely than men, and are apt from procreation before them. Last of all, when a woman goeth with childe, if it bee a man childe, it stirreth oftner in the wombe, and lieth commonly more to the right side: whereas the female moueth more seldom, and beareth to the left.

Chap. V.

¶ *The Generation of Man, the time of childe-birth from seuen moneths to eleuen, testified by many notable examples out of historie.*

ALl other creatures haue a set time limited by Nature, both of going with their yong, and also of bringing it forth, each one according to their kinde: Man only is borne all times of the yeare, and there is no certaine time of his abode in the wombe after conception; for one commeth into the world at the seuen moneths end, another at the eighth, and so to the beginning of the ninth and tenth. But before the seuenth moneth there is no infant euer borne that liueth. And none are borne at seuen moneths end, vnlesse they were conceiued either in the very change of the moone, or within a day of it vnder or ouer. An ordinary thing it is in Egypt for women to go with yong eight moneths, and then to be deliuered. And euen in Italy also now adaies children so borne liue and do well: but this is against the common receiued opinion of all old writers. But there is no certainty to ground vpon in all these cases, for they alter diuers waies. Dame *Vestilia* (the widow of *C. Herditius*, wife afterward to *Pomponius*, and last of all maried to *Orfitus*, all right worshipful citisens, and of most noble houses) had 4 children by her three husbands, to wit *Sempronius*, whom she bare at the seuenth moneth, *Suillius Rufus* at the eleuenth: and seuen moneths also she went with *Corbulo*, yet they liued all, and these two last came both to be Consuls: After all these sons, she bare a daughter, namely *Cæsonia* (wife to the Emperor *Caius Caligula*) at the eighth moneths end. They that are borne thus in this moueth haue much ado to liue, and are in great danger for forty dayes space: yea, and their mothers are very sickly, and subiect to fall into vntimely trauell all the fourth moneth and the eighth, and if they fall in labor and come before their time they die. *Massurius* writeth, that *L. Papyrius* the Pretor or Lord chief Iustice, when a second heire in remainder made claim, and put in plea for his inheritance of the goods, made an award, and gaue iudgement against him, in the behalfe of an Infant the right heire, borne after the decease of his father; vpon this, That the mother came in and testified, how she was deliuered of that childe within thirteene

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A moneths after the death of the Teſtator: the reaſon was, becauſe there is no definite time certaine for women to go with childe.

Chap. VI.

¶ *Of Conceptions: and ſignes diſtinguiſhing the ſex in great bellied women before they are deliuered.*

IF ten dayes after a woman hath had the company of a man ſhee feele an extraordinary ache in the head, and perceiue giddineſſe in the brain as if all things went round; finde a dazling
B and miſtineſſe in the eies, abhorring and loathing meat, and withall a turning and wambling in the ſtomacke; it is a ſigne that ſhe is conceiued, and beginneth to breed: if ſhe goe with a boy better coloured will ſhe be all the time, and deliuered with more eaſe, and by the 40 day ſhe ſhall feele a kinde of motion and ſtirring in her wombe. But contrarie it falleth out in the breeding of a girle, ſhe goeth more heauily with it, and findeth the burthen heauier, her legs and thighes about the ſhare will ſwell a little. And ninetie dayes it will be before ſhe abſolutely perceiueth any mouing of the infant. But be it male or female ſhee breeds, they put her to much paine and grieuance when their haire beginneth to bud forth, and euer at the full of the Moone: and euen the very infants after they are borne are moſt amiſſe and fartheſt out of frame about that time. And verily great care muſt be had of a woman with child all the time ſhe goeth therewith, both in her gate, and in euery thing elſe that can be named: for if women
C feed vpon ouer-ſalt and poudered meat they wil bring forth a child without nailes: and if they hold not their wind in their labor, longer it will be ere they be deliuered, and with more difficultie. Much yawning in the time of trauell is a deadly ſigne; like as to ſneeſe preſently vpon conception threatneth abortion or a ſlip.

Chap. VII.

¶ *Of the conception and generation of Man.*

I Am abaſhed much, and very ſory to thinke and conſider what a poore and tickliſh beginning man hath, the proudeſt creature of all others, when the ſmel only of the ſnuffe of a can-
D dle put out is the cauſe oft times that a woman fals into vntimely trauel. And yet ſee, theſe great tyrans, and ſuch as delight only in carnage and bloudſhed haue no better original. Thou then that preſumeſt vpon thy bodily ſtrength, thou that ſtandeſt ſo much vpon Fortunes fauors, and haſt thy hands full of her bountifull gifts, taking thy ſelf not to be a foſter-child and nurceling of hers, but a naturall ſon borne of her owne body: thou I ſay that buſieſt thy head euermore, and ſetteſt thy minde vpon conqueſts and victories: thou that art vpon euerie good ſucceſſe and pleaſant gale of proſperity puffed vp with pride, and takeſt thy ſelfe for a god, neuer thinkeſt that thy life when it was hung vpon ſo ſingle a thred, with ſo ſmall a matter might haue miſcarried. Nay more than that, euen at this day art thou in more danger than ſo, if thou chance to be but ſtung or bitten with the little tooth of a Serpent; or if but the verie kernell
E of a raiſin go downe thy throat wrong, as it did with the poet *Anacreon*, which coſt him his life. Or, as *Fabius* a Senator of Rome, and Lord chiefe Iuſtice beſides, who in a draught of milk fortuned to ſwallow a ſmall haire, which ſtrangled him. Well then, thinke better of this point, for he verily that will euermore ſet before his eies and remember the frailty of mans eſtate, ſhall liue in this world vprightly and in euen ballance, without inclining more to one ſide than vnto another.

Chap. VIII.

¶ *Of thoſe that be called Agrippæ.*

F TO be borne with the feet forward is vnnaturall and vnkinde: and ſuch as come in that order into the world the Latines were wont to name Agrippæ, as if a man ſhould ſay, born hardly and with much ado. And in this maner *M. Agrippa* (as they ſay) came forth of his mothers wombe, the only man almoſt, known to haue brought any good fortune with him, and proſpered in the world of all that euer were in that ſort borne. And yet as happy as hee was,

and how well ſoeuer he chieued in ſome reſpects,he was much pained with the gout,and paſſed all his youth and many a day after in bloudy wars,and in danger of a thouſand deaths. And hauing eſcaped all theſe harmfull perils,vnfortunate he was in all his children, and eſpecially in his two daughters the *Agrippinæ* both,who brought forth thoſe wicked Imps ſo pernicious to the whole earth,namely *C. Caligula* and *Domitius Nero*,two Emperours, but two fiery flames to conſume and waſte all mankinde. Moreouer, his infelicitie herein appeared, that hee liued ſo ſhort a time,dying as he did a ſtrong and luſty man, in the 51 yeare of his age, tormented and vexed with the adulteries of his owne wife,oppreſſed with the heauy and intolerable ſeruitude that he was in vnder his wiues father. In which regards it ſeems he paid full deare for the preſage of his vntoward birth and natiuitie. Moreouer,*Agrippina* hath left in writing, That her ſon *Nero* alſo,late Emperor, who all the time of his reigne was a very enemy to all mankinde, was borne with his feet forward. And in truth by the right order and courſe of Nature, a man is brought into the world with his head firſt,but is carried forth with his feet formoſt.

Chap. IX.

¶ *Births cut out of the wombe.*

BVt more fortunate are they a great deale whoſe birth coſteth their mothers life, parting from them by means of inciſion: like as *Scipio Africanus* the former, who came into the world in that manner: and the firſt that euer was ſirnamed *Cæſar*,was ſo called for the like cauſe. And hereof comes the fore-name alſo of the *Cæſones*. In like ſort alſo was that *Manlius* borne who entred Carthage with an army.

Chap. X.

¶ *Who are Vopiſci.*

THe Latines were wont to call him Vopiſcus [or rather Opiſcus] who being one of two twins,hapned to ſtay behinde in the wombe the full terme, when as the other miſcarried by abortiue and vntimely birth. And in this caſe there chance right ſtrange accidents,although they fall out very ſeldome.

Chap. XI.

¶ *Examples of many Infants at one birth.*

FEw creatures there be beſides women,that ſeeke after the male,and can skill of their companie after they be once conceiued with yong: one kind verily or two at the moſt there is knowne to conceiue double one vpon the other. We find in books written by Phyſitians, and in their records who haue ſtudied ſuch matters,and gathered obſeruations,that there haue paſſed or bin caſt away from a woman at one only ſlip, 12 diſtinct children:but when it falleth out that there is ſome pretty time betwixt two conceptions,both of them may tarry their full time,and be borne with life,as appeared in *Hercules* and his brother *Iphiclus*; as alſo in that harlot who was deliuered of two infants,one like her owne husband, the other reſembling the Adulterer: likewiſe in a Proconneſian bond-ſeruant,who was in one day gotten with childe by her maſter, and alſo by his Baily or Procurator; and being afterwards deliuered of two children,they bewrayed plainly who were their fathers. Moreouer, there was another who went her full time,euen nine moneths for one childe,but was deliuered of another at the fiue moneths end. Furthermore in another, who hauing dropped downe one childe at the end of ſeuen moneths,by the end of the ninth came with two twinnes more. Ouer and beſides it is commonly ſeen,that children be not alwaies anſwerable to the parents in euery reſpect: for of perfect fathers and mothers who haue all their limmes,there are begotten children vnperfect and wanting ſome members: and contrariwiſe, parents there are maimed and defectiue in ſome part,who neuertheleſſe beget children that are ſound and entire, and with all that they ſhould haue. It is ſeen alſo,that infants are at a default of thoſe parts their parents miſſe: yea and they carry often times certaine markes, moles, blemiſhes,and skarres of their fathers and mothers,

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A as like as may be. Among the people called Dakes the children vſually beare the markes imprinted in their armes, of them from whom they deſcend, euen to the fourth generation.

Chap. xii.

¶ *Examples of many that haue been very like and reſembled one another.*

IN the race and family of the *Lepidi* it is ſaid there were three of them (not ſucceſſiuely one after another, but out of order after ſome intermiſſion) who had euery one of them at their
B birth a little pannicle or thin skin growing ouer their eye. Some haue bin known to reſemble their grandſires, and of two twins one hath beene like the father, the other the mother; but he that was borne a yere after hath bin ſo like his elder brother, as if he had bin one of the twins. Some women there be that bring all their children like to themſelues; and others againe as like to their husbands: and ſome like neither the one nor the other. You ſhall haue Women bring all their daughters like to their fathers, and contrariwiſe their ſonnes like to themſelues. The ſame is notable, and yet vndoubted true, of one *Nicæus* a famous Wreſtler of Conſtantinople, hauing to his mother a woman begotten in adulterie by an Æthiopian, and yet with white skin nothing different from other women of that countrey, was himſelfe black, and reſembled his grandſire the Æthiopian aboueſayd. Certes, the cogitations and diſcourſes of the minde make much for theſe ſimilitudes and reſemblances whereof we ſpeake, and ſo likewiſe many
C other accidents and occurrent obiects are thought to be very ſtrong and effectuall therin, whether they come in ſight, hearing, and calling to remembrance, or imaginations only conceiued and deeply apprehended in the very act of generation, or the inſtant of conception. The wandring cogitation alſo and quicke ſpirit either of father or mother, flying to and fro all on a ſudden from one thing to another at the ſame time, is ſuppoſed to be one cauſe of this impreſſion, that maketh either the foreſaid vniforme likeneſſe, or confuſion and varietie. And hereupon it commeth, and no maruell it is, that men are more vnlike one another, than other Creatures: for the nimble motions of the ſpirit, the quicke thoughts, the agilitie of the minde, the varietie of diſcourſe in our wits, imprinteth diuers formes, and many marks of ſundry cogitations: whereas the imaginatiue facultie of other liuing creatures is immoueable, & alwaies continu-
D eth in one: in all it is alike, and the ſame ſtill in euery one, which cauſeth them alwaies to engender like to themſelues, each one in their ſeuerall kindes. *Artenon* a mean man amongſt the Commons, was ſo like in all points to *Antiochus* King of Syria, that *Laodicea* the Queen, after that *Antiochus* her husband was killed, ſerued her owne turne by the ſaid *Artenon*, and made him play the part of *Antiochus*, vntill ſhe had by his meanes, as in the Kings perſon, recommended whom ſhe would, and made ouer the kingdome and crown in ſucceſſion and reuerſion to whom ſhe thought good. *Vibius* a poore commoner of Rome, and *Publicius* one newly of a bond ſlaue made a free-man, were both of them ſo like vnto *Pompey* the Great, that hardly the one could be diſcerned from the other, ſo liuely did they repreſent that good viſage of his ſo full of honeſtie, ſo fully expreſſed they and reſembled the ſingular maieſtie of that countenance which
E appeared in *Pompeius* his forehead. The like cauſe it was that gaue his father alſo the ſyrname of *Menogenes*, his Cooke, albeit he was ſyrnamed already *Strabo*, for his ſquint eyes: but hee would needs beare the name of a defect and infirmitie euen in his bond-ſeruant, for the loue he had vnto him by reaſon of his likeneſſe. So was one of the *Scipio's* alſo ſyrnamed *Serapius* vpon the like occaſion, after the name of one *Serapia*, who was but a baſe ſlaue of his, and no better than his ſwine heard, or dealer in buying and ſelling of ſwine. Another *Scipio* after him of the ſame houſe came to be ſyrnamed *Salutio*, becauſe a certaine jeſter of that name was like vnto him. After the ſame manner one *Spinter*, a player of the ſecond place or part, and *Pamphilus* another player of the third part, or in the third place, gaue their names to *Lentulus* and *Metellus*, who both were Conſuls together in one yeare, for that they reſembled them ſo truly. And cer-
F tes mee thinkes this fell out very vntowardly, and was but a ridiculous pageant, and a very vnſeemly ſhew vpon a ſtage, to ſee both Conſuls liuely repreſented there at once in the perſons of theſe two players. Contrariwiſe, *Rubrious* the ſtage player was ſirnamed *Plancus*, becauſe he was ſo like to *Plancus* the Orator. Againe, *Burbuleius* and *Menogenes*, both players of Enterludes, reſembled *Curio* the father or the elder, and *Meſſala Cenſorius*, for all he had been Cenſor

that the one could not ſhift and auoid the ſyrname of *Burbuleius*, and the other of *Monogenes*. There was in Sicily a certaine fiſherman who reſembled in all parts *Suria* the Pro-conſull, not only in viſage and feature of the face, but alſo in mowing with his mouth when hee ſpake, in drawing his tongue ſhort, and in his huddle and thicke ſpeech. *Caſſius Seuerus* that famous orator was reproched for being ſo like vnto *Mirmillo* a drouer or keeper of kine and oxen. *Toranius* a merchant ſlaue-ſeller, ſold vnto *M. Antonius* (now one of the two great Triumvirs) two moſt beautiful and ſweet faced boyes, for twins, ſo lik ewere they one to the other, albeit the one was borne in Aſia, and the other beyond the Alps. But when *Antony* afterwards came to know the ſame, and that this fraud and couſenage was bewraied and detected by the language & ſpeech of the boyes, he fell into a furious fit of choler, and all to berated the foreſaid *Toranius*. And when among other challenges he charged him with the high price he made him pay (for they coſt him two hundred Seſterces, as for twins, when they were none ſuch) the wily merchant being his craftſmaſter anſwered, That it was the cauſe why he held them ſo deare, and ſold them at ſo deare a rate: for (quoth he) it is no maruell at all that two brethren twins that lay both together in one belly do reſemble one the other; but that there ſhould be any found borne as theſe were in diuers countries, ſo like in all reſpects as they, he held it for a moſt rare and wonderfull thing. This anſwer of his was deliuered in ſo good time, and ſo fitly to the purpoſe, that *Antonie* the great man, who neuer was well but when he outlawed citiſens of Rome, and did confiſcat their goods, he I ſay that erewhile was all enraged and ſet vpon reuiling and reprochfull termes, was not only appeaſed, but alſo contented ſo with his bargaine, that he priſed thoſe two boies as much as any thing elſe in all his wealth.

Chap. XIII.

¶ *The cauſe and manner of generation.*

Some bodies there be by a ſecret of nature ſo diſagreeing, that they are vnfit for generation one with another. And yet as barren as they be ſo coupled together, fruitfull they are enough being ioyned with others. Such were *Auguſtus* the Emperor and his wife *Liuia*. In like manner ſome men there be as well as women, that can skill of getting and breeding none but daughters: and others there be againe that are good at none but ſonnes: and many times it falleth out that folke haue ſonnes and daughters both, but they by turnes, this yeare a ſon, the next yeare a daughter, in order. So [*Cornelia*] the mother of the *Gracchi*, who for twelue childbeds kept this courſe duly: and *Agrippina*, the wife of *Cæſar Germanicus*, for nine, euer changing from the male to the female. Some women are barren all their youth; and others again beare but once in their whole life. Some neuer go their full time with their children; and ſuch women, if peraduenture by helpe of phyſicke or other good means, and choice keeping, they ouercome this infirmitie, bring daughters ordinarily and no other. The Emperor *Auguſtus* among other ſingularities that he had by himſelfe during his life, ſaw ere he died the nephew of his neece, that is to ſay his progenie to the fourth degree of lineall diſcent: and that was *M. Scyllanus*, who hapned to be borne the ſame yeare that he departed out of this world. He hauing been Conſull, and afterward Lord Gouernor of Aſia, was poyſoned by prince *Nero*, to the end that he might thereby attaine to the empire. *Qu. Metellus Macedonicus* left behind him ſix children, and by them eleuen nephewes: but daughters in law and ſons in law, and of all ſuch as called him father, ſeuen. In the Chronicles of *Auguſtus Cæſars* acts for his time, we finde vpon record, that in his twelfth Conſulſhip, when *L. Sylla* was his companion and collegue in gouernment, vpon the eleuenth day of Aprill, *C. Criſpinus Helarus* a gentleman of Feſulæ, came with ſolemne pompe into the Capitoll, attended vpon with his nine children, ſeuen ſons and two daughters; with 27 Nephewes the ſonnes of his children, and 29 nephewes more, once remoued, who were his ſons nephewes, and twelue Neeces beſides that were his childrens daughters, and with all theſe ſolemnly ſacrificed.

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Chap. XIIII.

¶ *Of the ſame matter more at large.*

A Woman commonly is paſt childe-bearing after 50 yeares of her age. And for the moſt part their monthly termes ſtay at forty. As for men, it is cleare and wel knowne, that king *Maßiniſſa* when he was aboue 86 yeres old, begat a ſon whom he called *Methymathmas*: & *Cato Cenſorius* that famous Cenſor begat another vpon the daughter of *Salonius* his vaſſal, when hee was paſt 80 yeares of age. And hereof it commeth, that the race which came of his other children were ſurnamed *Liciniani*, but the off-ſpring of this laſt ſonne, *Salonini*, from whom *Cato Vticenſis* (who ſlew himſelfe at Vtica) is lineally deſcended. Moreouer, it is not long ſince, that dame *Cornelia* of the houſe and linage of the *Scipio's*, bare vnto *Lu. Saturninus* her husband (who died whiles he was Prouoſt of the city of Rome) a ſon named *Voluſius Saturninus*, and who afterwards liued to be Conſull, who was begotten when his father was 62 yeares old with the better. To conclude, there haue beene amongſt meaner perſons very many knowne to haue gotten children after fourſcore and fiue.

Chap. XV.

¶ *Of Womens monethly ſickneſſe.*

OF all liuing creatures a woman hath a flux of bloud euery moneth: and hereupon it is, that in her wombe onely there are found a falſe conception called *Mola*, *i.* a Moone-calfe, that is to ſay, a lump of fleſh without ſhape, without life, and ſo hard withal, that vneth a knife will enter and pierce it either with edge or point. Howbeit, a kinde of mouing it hath, and ſtaieth the courſe of her moneths: and ſometime after the manner of a childe indeed, it coſteth the woman her life: otherwhiles it waxeth in her belly as ſhe groweth, and ageth with her; now and then alſo it ſlippeth and falleth from her with a laske and looſeneſſe of the guts. Such a thing breeds likewiſe in the bellies of men, vpon the hardneſſe of liuer or ſpleen, which the Phyſitions call *Scirrhus*, *i.* an hard wedge and cake vnder their ſhort-ribs. And ſuch an one had *Oppius Cato* a nobleman of Rome, late Pretour. But to come againe to women, hardly can there be found a thing more monſtrous than is that flux & courſe of theirs. For if during the time of their ſickneſſe, they happen to approch or go ouer a veſſel of wine, be it neuer ſo new, it wil preſently ſoure if they touch any ſtanding corne in the field, it wil wither and come to no good. Alſo, let them in this eſtate handle graffes, they will die vpon it: the herbes and young buds in a garden if they do but paſſe by, will catch a blaſt, and burne away to nothing. Sit they vpon or vnder trees whiles they are in this caſe, the fruit which hangeth vpon them will fall. Do they but ſee themſelues in a looking glaſſe, the cleare brightneſſe thereof turneth into dimneſſe, vpon their very ſight. Look they vpon a ſword, knife, or any edged toole, bee it neuer ſo bright, it waxeth duskiſh, ſo doth alſo the liuely hue of yvorie. The very bees in the hiue die. Yron & ſteele preſently take ruſt, yea, and braſſe likewiſe, with a filthy, ſtrong, and poiſoned ſtink, if they lay but hand thereupon. If dogs chance to taſte of womens fleures, they run mad therewith; and if they bite any thing afterwards, they leaue behinde them ſuch a venome, that the wounds are incureable: nay the very clammy ſlime Bitumen, which at certaine times of the yere floteth and ſwimmeth vpon the lake of Sodom, called Aſphaltites in Iury, which otherwiſe of the owne nature is pliable enough, ſoft and gentle, and ready to follow what way a man would haue it, cannot be parted and diuided aſunder (for by reaſon of the viſcoſitie, it cleaueth and ſticketh like glue, and hangeth all together, pluck as much as a man will at it) but only by a thred that is ſtained with this venomous bloud: euen the ſilly Piſmires (the leaſt creatures of all others) hath a perceiuance & ſence of this poiſon, as they ſay; for they caſt aſide & will no more come to that corn, which they haue found by taſt to be infected with this poiſon. This malady, ſo venomous and hurtful as it is, followeth a woman ſtil euery 30 daies; and at 3 moneths end, if it ſtay ſo long, it commeth in great abundance. And as there be ſome women that haue it oftner than once a month, ſo there are others again that neuer ſee ought of it. But ſuch lightly are barren, and neuer bring children. For in very deed, it is the materiall ſubſtance of generation: and the mans ſeed ſerueth in ſtead of a runnet to gather it round into a curd: which afterwards in proceſſe of time

time quickneth and grows to the form of a body; which is the cauſe that if women with childe G
haue this flux of the moneths, their children are not long liued, or elſe they proue feeble, ſickly and full of filthie humours, as *Nigidius* writeth.

Chap. xvi.

¶ *In like manner, of births: and infants in the mothers wombe.*

THe ſame *Nigidius* is of opinion, that a womans milke, nource to her owne child & giuing it ſucke, will not corrupt and be naught for the babe, if ſhe conceiue againe by the ſame man to whom ſhe brought the former childe. Alſo it is held, that in the beginning & end of the foreſaid menſtruall fleures, a woman is very apt to conceiue. Moreouer, it is commonly receiued for an infallible argument in women, that they are fruitfull and with childe, if when H
they annoint their eies with their owne ſpittle as with a medicine, the ſame appeare infected and to change the colour thereupon. Furthermore, doubtleſſe it is, that children breed their fore teeth in the ſeuenth moneth after they are borne, and firſt thoſe in the vpper chaw, for the moſt part: likewiſe that they ſhed the ſame teeth about the ſeuenth yere of their age, & others come vp new in the place. Certaine it is alſo, that ſome children are borne into the world with teeth, as *M. Curius*, who thereupon was ſurnamed *Dentatus*, and *Cn. Papyrius Carbo*, both of them very great men and right honourable perſonages. In women the ſame was counted but an vnlucky thing, & preſaged ſome misfortune, eſpecially in the daies of the KK. regiment in Rome: for when *Valeria* was borne toothed, the wizards and Soothſayers being conſulted thereabout, anſwered out of their learning by way of Propheſie, That look into what citie ſhe was caried to I
nource, ſhe ſhould be the cauſe of the ruine and ſubuerſion thereof; whereupon had away ſhee was and conueied to Sueſſa Pometia, a city at that time moſt flouriſhing in wealth and riches: and it proued moſt true in the end, for that city was vtterly deſtroied. *Cornelia* the mother of the *Gracchi* is ſufficient to proue by her own example, that women are neuer borne for good whoſe genitall parts for procreation are growne together, and yeeld no entrance. Some children are borne with an entire whole bone that taketh vp all the gum, inſtead of a row of diſtinct teeth; as a ſon of *Pruſias* king of the Bythinians, who had ſuch a bone in his vpper chaw. This is to be obſerued about teeth, that they onely check the fire and burn not to aſhes with other parts of the body: and yet as inuincible as they are and able to reſiſt the violence of the flame, they rot and become hollow with a little catarrhe or wateriſh rheume that droppeth and diſtilleth vpon K
them: white they may be made, with certaine mixtures and medicines called *Dentifices*. Some weare their teeth to the very ſtumps onely with vſe of chawing; others againe looſe them firſt out of their head; they ſerue not onely to grind our meat for our daily food and nouriſhment, but neceſſary alſo they be for the framing of our ſpeech. The fore-teeth ſtand in good ſtead to rule and moderate the voice by a certaine conſent and tuneable accord, anſwering as it were to the ſtroke of the tongue: and according to that row and ranke of theirs wherein they are ſet, as they are broader or narrower, greater or ſmaller, they yeeld a diſtinction and varietie in our words, cutting and hewing them thicke and ſhort, framing them pleaſant, plaine, and ready, drawing them out at length, or ſmuddering and drowning them in the end: but when they bee once falne out of the head, man is bereaued of all means of good vtterance and explanation of L
his words. Moreouer, there are ſome preſages of good or bad fortune, gathered by the teeth: men ordinarily haue giuen them by nature 32 in all, except the nation of the Turduli. They that haue aboue this number, may make account (as it is thought) to liue the longer. As for women, they haue not ſo many: they that haue on the right ſide in the vpper iaw two eie-teeth, which the Latines call Dogs-teeth, may promiſe themſelues the flattering fauors of Fortune, as it is well ſeene in *Agrippina* the mother of *Domitius Nero*: but contrariwiſe, the ſame teeth double in the left ſide aboue, is a ſigne of euill lucke. It is not the cuſtome in any countrey to burne in a funerall fire the dead corps of any infant before his teeth be come vp; but hereof will we write more at large in the Anatomie of man, when wee ſhall diſcourſe purpoſely of euerie member and part of the body. *Zoroaſtres* was the onely man that euer wee could heare of, who laughed the ſame day that he was borne: his brain did ſo euidently pant and beat, that it would beare vp their hands that laid them vpon his head: a moſt certain preſage & fore-token of that great learning that afterward, he attained vnto. This alſo is held for certain and reſolued vpon that a man at three yeares of age, is come to one moitie of his growth and height. As alſo this

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A is obſerued for an vndoubted truth, that generally all men come ſhort of the ful ſtature in time paſt, and decreaſe ſtil euery day more than other: and ſeldome ſhall you ſee the ſon taller than his father; for the ardent heat of the elementarie fire (whereunto the world enclineth already now toward the later end, as ſomtimes it ſtood much vpon the waterie element) deuoureth and conſumeth that plentifull humor and moiſture of naturall ſeed, that engendreth all things: and this appeareth more euidently by theſe examples following. In Crete, it chanced that an hill claue aſunder in an earth-quake, and in the chink thereof was found a body ſtanding, 46 cubits high; ſome ſay it was the body of *Orion*; others, of *Otus*. We find in chronicles & records of good credit, that the body of *Oreſtes* being taken vp, by direction from the Oracles, was ſeuen cubits long. And verily that great and famous poet *Homer*, who liued almoſt 1 000 yeres ago, complai-
B ned and gaue not ouer, That mens bodies were leſſe of ſtature euen then, than in old time. The Annales ſet not downe the ſtature and bigneſſe of *Nævius Pollio*; but that he was a mighty gy-ant, appeareth by this that is written of him, namely, that it was taken for a wonderfull ſtrange thing, that in a great rout & preſſe of people that came running together vpon him, he had like to haue bin killed. The talleſt man that hath bin ſeen in our age, was one named *Gabbara*, who in the daies of prince *Claudius* late Emperor, was brought out of Arabia; nine foot high was hee, and as many inches. There were in the time of *Auguſtus Cæſar* 2 others, named * *Puſio* and *Secun-*
C *dilla*, higher than *Gabbara* by halfe a foot, whoſe bodies were preſerued and kept for a wonder in a charnell houſe or ſepulchre within the gardens of the Saluſtians. Whiles the ſame *Auguſtus* ſate as preſident, his niece *Iulia* had a little dwarfiſh fellow not aboue 2 foot and a hand bredth high, called *Conopas*, whom ſhe ſet great ſtore by and made much of: as alſo another ſhe dwarfe named *Andromeda*, who ſomtime had been the ſlaue of *Iulia* the princeſſe, and by her made free. *M. Varro* reporteth, that *Manius Maximus*, and *M. Tullius*, were but two cubits high, & yet they gentlemen and knights of Rome: and in truth we our ſelues haue ſeen their bodies how they lie embalmed and cheſted, which teſtifieth no leſſe. It is well knowne that there be ſome that naturally are neuer but a foot and a halfe high; others again ſomwhat longer; and to this heigth they came in three yeres, which is the full courſe of their age, and then they die. Wee reade moreouer in the Chronicles, that in Salamis one *Euthimenes* had a ſon, who in three yeres grew to be three cubits high, but he was in his gate ſlow and heauy, and in his wit as dull and bloc-
D kiſh; howbeit in his time vndergrowne he was, and his voice changed to be great, and at three yeares end died ſuddenly of a generall crampe or contraction of all the parts of his body. It is not long ſince I ſaw my ſelfe the like in all reſpects (ſauing that vndergoing aforeſaid) in a ſon of one *Cornelius Tacitus*, a Roman knight, and a procurator or general receiuer and Treaſurer for the State in Gaule Belgique; ſuch the Greeks call Ἐκπαμπόδας, *i. Ectrapelos*; wee in Latine haue no name for them.

* Ten foot and an halfe.

* Such an one as little *John*, for ſo the nick-name ſignifieth.

Chap. XVI.

¶ *Certaine notable obſeruations in bodies of men and women.*

E WE ſee tried by experience, that take meaſure of a man from the ſole of the foot vp to the crowne of the head, ſo far it is between the ends of his two middle and longeſt fingers, when he ſtretcheth out his armes and hands to the full. As alſo, that ſome men and women be ſtronger of the right ſide than of the left: others againe that be as ſtrong of one as the other; and there be, that are altogether left handed, and beſt with that hand; but that is ſeldome or neuer ſeen in women. Moreouer, men weigh heauier than women; and in euerie kind of creature, dead bodies be more heauy than the quicke: and the ſame parties ſleeping weigh more than waking. Finally, obſerued it is, that the dead corps of a man floteth on the water with the face vpward; but contrariwiſe women ſwim groueling, as if Nature had prouided to ſaue their honeſty and couer their ſhame, euen when they are dead.

Chap. XVIII.

F ¶ *Examples of diuers extraordinarie caſes in mans body.*

WE haue heard, that ſome mens bones are ſollid and maſſie, and ſo do liue without any marrow in them: you may know them by theſe ſignes, they neuer feele thirſt, nor put forth any ſweat; and yet we know that a man may conquer and maſter his thirſt if hee liſt:

list: for so a gentleman of Rome one *Iulius Viator*, descended from the race of the Vocontians our allies; being falne into a kind of dropsie between the skin and the flesh during his minority and nonage, and forbidden by the Physicions to drink; so accustomed himselfe to obserue their direction, that naturally he could abide it: insomuch, that all his old age euen to his dying day he forbare his drink. Others also haue bin able to command and ouer-rule their nature in many cases, and breake themselues of diuers things. G

Chap. xix.

¶ *Strange natures and properties of diuers persons.*

IT is said, that *Crassus* (grandfather to that *Crassus* who was slaine in Parthia) was neuer known to laugh all his life time, and thereupon was called *Agelastus*; and contrariwise, many haue bin found that neuer wept. Also that sage and renowned wise man *Socrates*, was seene alwaies to carry one and the self-same countenance, neuer more merry and cheerefull nor more solemne and vnquiet, at one time than at another. But this obstinate constancy and firm cariage of the mind, turneth now and then in the end into a certain rigour and austerity of nature, so hard and inflexible that it cannot be ruled, and in very truth despoileth men of all affections; and such are called of the Greekes, Apathes, who had the experience of many such: and (that which is a maruellous matter) those especially that were the great pillars of philosophy and deep learned Clerks, namely *Diogenes* the Cinicke; *Pyrrho*, *Heraclitus* and *Timo*; and as for him he was so far gone in his humor, that he seemed professedly to hate all mankind. But these were examples of a corrupt, peruerse, & froward nature. As for other things, there be sundry notable obseruations in many; as in *Antonia* the wife of *Drusus*, who as it was well knowne, neuer spit: in *Pomponius* the poet, one that had sometimes bin Consull, who neuer belched. But as for such as naturally haue their bones not hollow, but whole and solid, they be very rare and seldom seene, and called they are in Latine *Cornei*, *i*. hard as horne. H I

Chap. xx.

¶ *Of bodily strength and swiftnesse.*

VArro in his treatise of prodigious and extraordinary strength, maketh report of one *Tritanus*, a man that of body was but little and lean withall, howbeit of incomparable strength, much renowned in the fence schoole, and namely, in handling the Samnites weapons, wearing their manner of armor, and performing their feats and masteries of great name. He maketh mention also of a sonne of his, a souldier, that serued vnder *Pompeius* the Great, who had all ouer his body, yea and throughout his armes and hands, some sinewes running streight out in length, others crossing ouerthwart lattise-wise; and he saith moreouer of him, that when an enemie out of the camp gaue him defiance and challenged him to a combat, he would neither put on defensiue harnesse, ne yet arme his right hand with offensiue weapon; but with naked hand made meanes to foile and ouercome him, and in the end when hee had caught hold of him, brought him away perforce into his own camp with one finger. *Iunius Valens* a captaine, pensioner or centurion of the gard-souldiers about *Augustus Cæsar*, was woont alone to beare vp a charriot laden with certain hogsheads or a butt of wine, vntill it was discharged thereof, & the wine drawne out: also his manner was with one hand to stay a coach against all the force of the horses striuing and straining to the contrary; and to perform other wonderfull masteries, which are to be seen engrauen vpon his tombe; and therefore (qd. *Varro*) being called *Hercules Rusticellus*, he tooke vp his mule vpon his back and carried him away. *Fusius Saluius* hauing two hundred pound weights at his feet, and as many in his hands, and twise as much vpon his shoulders, went withall vp a paire of staires or a ladder. My selfe haue seene one named *Athanatus*, do wonderfull strange matters in the open shew and face of the world, namely, to walke his stations vpon the stage with a cuirace of lead weighing 500 pound, booted besides with a pair of buskins or greiues about his legges that came to as much in weight. As for *Milo* the great wrestler of Crotone, when he stood firm vpon his feet, there was not a man could make him stir one foot; if he held a pomegranat fast within his hand, no man was able to stretch a finger of his and force it out at length. It was counted a great matter, that *Philippides* ran 1140 stadia, to K L M

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A wit, from Athens to Lacedæmon in two daies, vntill *Laniſis* a courtier of Lacedæmon, and *Philonides* footman to *Alexander* the great, ran between Sicyone and Olis in one day, 1200 ſtadia. But now verily at this day we ſee ſome in the grand cirque, able to indure in one day the running of 160 miles. And but a while agoe we are not ignorant, that when *Fonteius* & *Vipſanus* were Conſuls, a yong boy but 9 yeres old, between noon and euening ran 75 miles. And verily a man may wonder the more at this matter, and come to the full conceit thereof, if he do but conſider, that it was counted an exceeding great iourny that *Tiberius Nero* made with three chariots (ſhifting from one to the other freſh) in a day and a night, riding poſt haſte vnto his brother *Druſus* then lying ſicke in Germany, and all that was but 200 miles.

B

Chap. xxi.

¶ *Examples of good Eie-ſight.*

VVE find in hiſtories as incredible examples as any be, as touching quickneſſe of Eie-ſight. *Cicero* hath recorded, that the whole Poeme of *Homer* called Ilias, was written in a piece of parchment, which was able to be couched within a nut ſhel. The ſame writer maketh mention of one that could ſee and diſcerne out-right 135 miles. And *M. Varro* nameth the man, and ſaith he was called *Strabo*; who affirmeth thus much moreouer of him, that during the Carthaginian war he was wont to ſtand and watch vpon Lilybæum, a cape in Sicily, to diſcouer the enemies fleet looſing out of the hauen of Carthage, and was able to tel the very
C juſt number of the ſhips. *Callicrates* vſed to make Piſmires and other ſuch like little creatures, out of yvorie ſo artificially, that other men could not diſcerne the parts of their body one from another. There was one *Myrmecides*, excellent in that kinde of workmanſhip: who of the ſame matter wrought a chariot with foure wheeles and as many ſteeds, in ſo little roome, that a ſilly flie might couer all with her wings. Alſo he made a ſhip with all the tackling to it, no bigger than a little bee might hide it with her wings.

Chap. xxii.

¶ *Of Hearing.*

D AS for hearing, there is one example wonderfull. For the bruit of that battell, whereupon Sybaris was forced & ſacked, was heard the very ſame day as far as Olympia [in Greece.] As touching the news of the Cimbrians defeature, as alſo the report and tidings of the victorie ouer the Perſians, made by the Roman Caſtores, the ſame day that it was atchieued, were held for diuine reuelations rather than humane reports, and the knowledge thereof came more by way of viſion than otherwiſe.

Chap. xxiii.

¶ *Examples of Patience.*

E MAny are the calamities of this life, incident to mankind, which haue affoorded infinite trials of mens patience, in ſuffering paines in their body. Among others, for women, the example of *Leæna* the courtiſan, is moſt rare and ſingular, who for all the dolorous tortures that could be deuiſed, would neuer bewray *Harmodius* and *Ariſtogiton*, who ſlew the tyranous king. And for men, *Anaxarchus* did the like, who being for ſuch a cauſe examined vpon the racke, in the midſt of his torments bit off his own tongue with his teeth, the only means wherby he might haply reueale and diſcloſe the matter in queſtion, and ſpit it in the face of the tyrant that put him to his torture.

Chap. xxiiii.

F ¶ *Examples of Memorie.*

AS touching memorie, the greateſt gift of Nature, and moſt neceſſary of all others for this life; hard it is to iudge and ſay who of all others deſerued the chiefe honor therein: conſidering how many men haue excelled, and woon much glory in that behalfe. King *Cyrus*

was

was able to call euery souldier that he had through his whole army by his owne name. *L. Scipio* could do the like by all the citizens of Rome. Semblably, *Cineas*, Embassador of king *Pyrrhus*, the very next day that he came to Rome, both knew and also saluted by name all the Senate, & the whole degrees of Gentlemen and Cauallerie in the citie. *Mithridates* the king, reigned ouer two and twentie nations of diuers languages, and in so many tongues gaue lawes and ministred iustice vnto them, without truchman: and when he was to make speech vnto them in publicke assembly respectiuely to euery nation, he did performe it in their own tongue without interpretor. One *Charmidas* or *Charmadas*, a Grecian, was of so singular a memory, that he was able to deliuer by heart the contents word for word of all the books that a man would call for out of any librarie, as if he read the same presently within book. At length the practise hereof was reduced into an art of Memory: deuised and inuented first by *Simonides Melicus*, and afterwards brought to perfection and consummate by *Metrodorus Sepsius*; by which a man might learne to rehearse againe the same words of any discourse whatsoeuer after once hearing: and yet there is not a thing in man so fraile and brittle againe as it, whether it be occasioned by disease, by casual iniuries or occurrents, or by feare, through which it faileth somtime in part, and otherwhiles decaieth generally, and is clean lost. One with the stroke of a stone, fell presently to forget his letters onely, and could reade no more; otherwise his memorie serued him well enough. Another with a fall from the roofe of a very high house, lost the remembrance of his owne mother, his next kinsfolks, friends, and neighbors. Another in a sickneſse of his, forgot his own seruants about him: and *Messala Corvinus* the great Orator, vpon the like occasion, forgot his own proper name. So fickle and slipperie is mans memorie: that oftentimes it assaieth and goeth about to leese it selfe, euen whiles a mans body is otherwise quiet and in health. But let sleep creepe at any time vpon vs, it seemeth to be vanquished, so as our poore spirit wandreth vp and downe to seeke where it is, and to recouer it againe.

Carneades, according to *Cicero* and *Quintilian*.

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Chap. XXV.

¶ *The praise of C. Iulius Cæsar.*

FOr vigor and quickneſse of spirit, I take it, that *C. Cæsar* Dictatour, went beyond all men besides. I speake not now of his vertue and constancie, neither of his high reach and deep wit, whereby he apprehended the knowledge of all things vnder the cope of heauen; but of that agilitie of minde, that prompt and ready conceit of his, as nimble and actiue as the verie fire. I haue heard it reported of him, that he was wont to write, to reade, to indite letters, and withall to giue audience to suiters & heare their causes all at one instant. And being employed, as you know he was, in so great and important affairs, he ordinarily indited letters to foure secretaries or clerkes at once: and when he was free from other greater busineſse, he would otherwise finde seuen of them work at one time. The same man in his daies fought 50 set battels with banners displaied against his enemies: in which point, he alone out-went *M. Marcellus*, who was seene 40 times saue one in the field. Besides the carnage of citizens that hee made in the ciuill wars when he obtained victory, he put to the sword 1192000 of his enemies, in one battell or other. And certes for mine owne part, I hold this for no speciall glory and commendation of his, considering so great iniurie done to mankind by this effusion of bloud; which in some part he hath confessed himselfe, in that he hath forborne to set downe the ouerthrowes & bloud-shed of his aduersaries (fellow citizens) during the ciuill wars. Yet *Pompey* the great deserues honour more iustly for scouring the seas, and taking from the rouers 846 saile of ships. But to return again to *Cæsar*, ouer and aboue the qualities of worth before rehearsed, an especiall property of his owne he had, for clemency and mercy, wherein he so far forth surmounted all other men, that hee repented therof in the end. As for his magnanimity, it was incomparable, and he left such a president behind him, as I forbid all men to match or second it. For to speake of his sumptuosities, of his largesses, of the magnificent shewes exhibited to the people, the exceeding cost & charges therein bestowed, with all the stately furniture thereto belonging, were a point of him that fauored such lauish expence and superfluities. But herein appeared his true hautineſse of mind indeed, and that vnmatchable spirit of his, that when vpon the battel at Pharsalia, as wel the cofers & caskets with letters & other writings of *Pompey*, as also those of *Scipio's* before Thapsus, came into his hands, he was most true to them, and burnt all without reading one scrip or scrol.

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Chap. XXVI.

¶ *The commendation of Pompey the great.*

AS concerning all the titles and victorious triumphs of *Pompey* the great, wherein hee was equall in renowne and glory, not onely to the acts of *Alexander* the great, but alſo of *Hercules* in a manner, and god *Bacchus*: if I ſhould make mention therof in this place, it would redound not to the honour onely of that one man, but alſo to the grandeur and Maieſtie of the Roman empire. In the firſt place then, after he had recouered Sicily, and reduced it vnder obeiſance (where his firſt riſing was, and where hee began to ſhew himſelfe in the quarrell of the Common weale, and to ſide with *Sylla*) hauing alſo conquered and ſubdued Africke, and raunged it vnder the obedience of Rome, where he acquired the ſurname of *Magnus*, by reaſon of the great booty and pillage which he brought from thence; being no higher of birth and calling, than a Roman gentleman or man of armes, entred with triumphant chariot into Rome: a thing that was neuer ſeene before in a man of that place and qualitie. Immediatly after this, he made a voiage into the Weſt, and hauing brought vnder obeiſance of the Romans 876 great townes, which he forced by aſſault betweene the Alpes and the marches of Spaine, he erected trophies and triumphant columnes vpon the mountain Pyrenæus, with the title and inſcription of theſe victorious exploits; and neuer made one word of his victorie ouer *Sertorius*, ſo braue a mind he carried with him. And after the ciuill troubles and broiles appeaſed & quenched (which drew after them all forreine wars) he triumphed againe the ſecond time, being as yet but a knight of Rome: ſo oftentimes a generall of command & conduct; before he euer ſerued as ſoldier in the field. Theſe famous deeds atchieued, ſent out he was in another expedition, to ſcoure & cleere all the ſeas, and ſo forward into the Eaſt parts. From whence he returned with more titles ſtil of honor to his country, after the manner of thoſe that winne victories at the ſolemne feſtiuall *Games; for as the victors vſe not themſelues to accept the chaplets and guirlands in their own names, but to be crowned therwith in the behalf of their natiue countries; euen ſo, *Pompeius*, in that temple which he cauſed to be built of the bootie and pillage woon from the enemies, and dedicated to * *Minerva*, entituled the citie with the whole honour, and attributed all to them in an inſcription or table engrauen in this manner: *Pompeius the Great, Lord Generall, hauing finiſhed the warres which continued thirtie yeares, during which he had diſcomfited, put to flight, ſlaine, or receiued to mercie vpon ſubmiſſion 2183000 men: ſunke or taken 846 ſaile, woon and brought to his deuotion, of cities, townes and caſtles, to the number of 1538: ſubdued and put vnder ſubiection all lands and Nations, betweene the lake Mæotis and the red ſea, hath dedicated of right and good deſert this temple to Minerva.* This is the briefe and ſummarie of his ſeruice in the Eaſt. As for the triumph, wherein he rode the third day before the Calends of October, in the yeare wherein *M. Meſſala* and *M. Piſo* were Conſuls, the tenure and title ran in this form: Whereas *Cn. Pompeius* hath cleared all the ſea coaſts from Pyrats and rouers, and thereby recouered vnto the people of Rome the lordſhip and ſoueraignetie of the ſeas; and withall ſubdued Pontus, Armenia, Paphlagonia, Cappadocia, Cilicia, Syria, the Scythians, Iudæa, and the Albanois: the Iſland Creta, and the Baſtarnians, hath triumphed ouer them all, as alſo for the vanquiſhing of the 2 kings *Mithridates* and *Tigranes*. But the greateſt glorie of all glories in him was this (as himſelfe deliuered openly in a ful aſſembly, at what time as he diſcourſed of his owne exploits) That whereas Aſia when he receiued it, was the vtmoſt frontier prouince and limit of the Roman Empire, hee left the ſame in the very heart & mids therof, and ſo deliuered it vp to his countrey. Now if a man would ſet *Cæſar* on the other ſide againſt him, & likewiſe rehearſe his noble acts, who indeed of the two ſeemed greater in the ſight of the world, he had need verily to fetch a circuit about the world, and comprehend the whole globe thereof, which were an infinit piece of work, and in all reaſon impoſſible.

Olympia Nemæa, Pythia, Iſthmia.

* Or Victorie.

Chap. XXVII.

¶ *The praiſe of Cato, the firſt of that name.*

IN ſundry other kindes of vertues many men haue diuerſly excelled. But *Cato*, the firſt of the *Porcian* houſe, was thought to be the only perſon who was able to perform three things in the higheſt degree that are moſt commendable in a man. For firſt and formoſt he was a ſingular

good Oratour: secondly, a most braue captaine and renowned commander in the field: and last of all, a right worthy Senatour and approued counsellor. And yet in my conceit, all these excellent parts seeme to haue shined more bright (although he came after the other) in *Scipio Æmylianus*. To say nothing of this blessed gift besides, that he was not hated and spighted of so many men, as *Cato* was. But if you will seeke for one especiall thing in *Cato* by himselfe, this is reported of him, That he was judicially called to his answer 44 times, and neuer was there man accused oftner than he, yet went he euer cleare away and was acquit.

Chap. XXVIII.

¶ *Of Valour and Fortitude.*

AN endlesse peece of worke it were to know and set downe who bare the prize for valiancy, & namely if we admit the fabulous tales of poets. As for the poet *Ennius*, he had in greatest admiration. *T. Cæcilius Teucer*, and especially his brother: and in regard of those two, he compiled the sixt booke of his Annales to the rest. But *L. Siccius Dentatus*, a Tribune of the Commons, not long after the banishment of the kings, when *Sp. Tarpeius* and *A. Æterinus* were Consuls, by most voices surpasses in this kind, if it be true that a number of men report of him: namely, that he serued in 120 foughten fields: 8 times maintained combate with his enemy, giuing defiance, and euermore got the vpper hand: carrying before him the glorious markes of 45 skarres receiued by wounds, and neuer a one in the backe parts of his body. Moreouer, he woon the spoile of 34 seuerall enemies: and had giuen him of his captains, for his prowesse and good seruice, 18 headlesse speares, 25 caparisons and furnitures of great horses, 83 chains, 160 bracelets for to adorne his arms: 26 crowns, or triumphant chaplets, whereof 14 were ciuick, for rescuing of Roman citizens in jeopardy of death, 8 of beaten gold, 3 other murall, for mounting first ouer the enemies wall: and last of all, one obsidionall, for enforcing the enemy to leuie and breake vp his siege and depart; also with a stipend or pension-fee out of the Exchequer & chamber of the city; and lastly, the prise or ransom of ten prisoners, with 20 oxen besides to make vp the reward; and in this glorious pompe and shew he followed nine captain Generals going before him, who by his means triumphed all. Ouer and besides (which I suppose was the worthiest act that euer he did) he accused in open court before the body of the people, one commander and great captaine, named *T. Romulus* (notwithstanding he had bin a Consul) and conuicted him for his ill management and conduct of the wars. As for *Manlius Capitolinus*, he wan as many honourable testimonies of valour, but that he lost them all again, with that vnhappy end of his life that he made. Before he was full 17 yeres of age, hee had gained already two complete spoiles of his enemies. He was the first Roman knight or man of armes, that was honored with a murall crowne of gold for scaling ouer the wall in an assault; with six ciuicke chaplets for sauing the life of citizens six times out of the enemies hands. Moreouer, he receiued 37 gifts of the people for his good seruice, and carried the skars in the fore-part of his body of 33 wounds. He rescued *P. Seruilius*, Generall of the Roman Cauallerie, & in the rescue was himselfe wounded for his labor, in shoulder and thigh both. Aboue all other hardy acts, he alone guarded and defended the Capitoll, and thereby the whole State of Rome, against the Gaules: a braue piece of seruice, but that he marred all againe in aspiring to be king ouer the same. In these aboue rehearsed examples, certes vertue hath carried a great stroke, but yet fortune hath been the mightier, and preuailed more in the end. And in my iudgement verily, none may right & iustly prefer any man before *M. Sergius*; albeit *Catiline* his nephewes son discredited that name of his, & derogated much from the honor of his house. The second time that he went into the field and serued, his had was to lose his right hand: and in two other seruices hee was wounded no fewer than 23 times: by meanes whereof hee had little vse of either hand, and his feet stood him in no great stead. Howbeit, thus maimed and disabled as hee was for to be a souldiour, hee went many a time after to the warres, attended with one slaue onely, and performed his deuoire. Twise was he taken prisoner by *Annibal* (for he dealt not I may tell you with ordinary enemies) and twise brake he prison and made escape, notwithstanding, that for twentie moneths space he was euery day ordinarily kept bound with chaines and fetters. Foure times fought hee with his left hand onely, vntill two horses one after another, were killed vnder him. Then hee made himselfe a right hand of yron, which he fastened to his arme, and fighting with the help of it, he raised

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A raiſed the ſiege from before Cremona, and ſaued Placentia. In France he forced 12 fortified camps of the enemies. All which exploits appeare vpon record in that Oration of his which he made in his Pretorſhip, at what time as his Colleagues and companions in gouernement would not permit him to be at the ſolemne ſacrifices, becauſe he had a maim, and wanted a lim But what heaps of crowns and chaplets, thinke you, would he haue gathered together, if he had bin committed and matched with any other enemies but *Annibal*? Certes, to know a man of worth indeed, much materiall it is to conſider in what time hee liueth, and is imploied, for the proofe of his valour. For what ſtore of ciuick coronets and garlands, yeelded either the battell of Trebia and Ticinus, or of Thraſymenus the lake? What crowne could haue bin gained and
B woon at the iourney of Cannæ, where the beſt ſeruice was by good footmanſhip to flie & run away? To conclude, all others may vaunt verily, that they haue vanquiſhed men; but *Sergius* may boaſt, that he hath conquered and ouercome euen Fortune her ſelfe.

Chap. XXIX.

¶ *The commendation of ſome men for their quicke wits.*

WHo is able to make a muſter as it were of them that haue been excellent in wit: ſo difficult a matter it is to run through ſo many kinds of ſciences, and to take a ſuruey of curious handi-workes in ſuch varietie, of moſt rare and ſingular artiſanes? Vnleſſe haply we agree vpon this, and ſay, that *Homer* the Greeke poet excelled all other, conſidering
C either the ſubiect matter, or the happy fortune of his worke. And hereupon it was, that *Alexander* the Great (for in this ſo proud a cenſure and compariſon, I ſhal do beſt to cite the iudgment of the higheſt, and of thoſe that be not ſubiect to enuie) hauing found among the ſpoils of *Darius* the king, his perfumier or casket of ſweet ointments, and the ſame richly imbelliſhed with gold and coſtly pearls and precious ſtones, when his friends about him ſhewed him many vſes whereto the ſaid coffer or cabinet might be put vnto, conſidering that *Alexander* himſelf could not away with thoſe delicate perfumes, being a warriour, and ſlurried with bearing armes, and following warfare: when, I ſay, his gallants about him could not reſolue well what ſeruice to put it to: himſelfe made no more ado but ſaid thus, I will haue it to ſerue for a caſe of *Homers* bookes: judging hereby, that the moſt rare and precious worke proceeding from that ſo admi-
D rable a wit of man, ſhould be beſtowed and kept in the richeſt box and casket of all others: the ſame prince, in the forcing and ſaccage of the citie of Thebes, cauſed by expreſſe commandement, That the dwelling houſe & whole family of *Pindarus* the Poet ſhould be ſpared. He built againe the natiue city wherein *Ariſtotle* the Philoſopher was borne: and in ſo glorious a ſhew of his other worthy deeds, would needs intermingle this teſtimony of his bounty, in regard of that rare clerke who gaue light to all things in the world. The murderers of *Archilochus* the poet, the very Oracle of *Apollo* at Delphi diſcloſed and reuealed. When *Sophocles* the prince of all tragicall Poets was dead in Athens, at what time as the citie was beſieged by the Lacedæmonians, god *Bacchus* appeared ſundry times by way of viſion in a dreame to *Lyſander* their king, admoniſhng him to ſuffer his delight, and him whom he ſet moſt ſtore by, for to be enterred.
E Whereupon the king made diligent enquirie who lately was departed this life in Athens: and by relation of the citizens ſoone found it out and perceiued who it was that the foreſaid god meant, and ſo gaue them leaue to bury *Sophocles* in peace, and to performe his funeralls without any moleſtation or impeachment.

Chap. XXX.

¶ *Of Plato, Ennius, Virgil, M. Varro, and M. Cicero.*

F DEnis the tyrant, borne otherwiſe to pride and cruelty, being aduertiſed of the comming and arriuall of *Plato*, that great clerke and prince of learning, ſent out to meet him a ſhip adorned with goodly ribbands, and himſelfe mounted vpon a charriot drawne with foure white horſes, receiued him as if he had bin a K. at the hauen, when hee dis barked and came aland. *Iſocrates* ſold one Oration that he made for 20 talents of gold. *Æſchines* that famous oratour of Athens in his time, hauing at Rhodes rehearſed that accuſatorie oration which he had made

made against *Demosthenes*, read withall his aduersaries defence againe; by occasion wherof he G
was confined to Rhodes, and there liued in banishment: and when the Rhodians that heard it
wondred thereat; Nay (qd. *Æschines*) you would haue maruelled much more at it, if you had
heard the man himselfe pronouncing it, & pleading *Viua voce*: yeelding thus as you see a no-
table testimony of his aduersary, in the time of his aduersitie. The Athenians exiled *Thucidides*
their Generall Captaine: but after he had written his Chronicle, they called him home again,
wondring at the eloquence of the man, whose vertue and prowesse they had before condemned.
The KK. of Egypt and Macedonie gaue a singular testimony how much they honoured *Menan-*
der the Comicall poet, in that they sent Embassadors for him, and a fleet to waft him for his
more securitie: but he wan vnto himselfe more fame and glory by his owne setled iudgement,
for that he esteemed more of his owne priuat study and following his book, than of all those fa-
uors offered vnto him from great princes. Moreouer, there haue bin great personages and men H
of high calling at Rome, who haue shewed the like in token, how they esteemed and regarded
the learned crew of forrein nations. *Cn. Pompeius*, after he had dispatched the war against *Mi-*
thridates, inrended to go and visit *Posidonius*, that renowned professor of learning; and when hee
should enter into the mans house, gaue streight commandement to his Lictors or Huishers,
that they should not (after their ordinary maner with all others) rap at his dore; and this great
warriour, vnto whom both the East and West parts of the world had submitted, vailed bonet,
as it were, and based his armes and ensignes of state which his officers carried, before the verie
dore of this Philosopher. *Cato*, syrnamed *Censorius*, vpon a time when there came to Rome that
noble embassage from Athens, consisting of three, the wisest sages among them; when hee had I
heard *Carneades* speake (who was one of those three) gaue his opinion presently, That those em-
bassadors were to be dispatched and sent away with all speed; for feare least if that man argued
the case, it would be an hard piece of worke to sound and find out the truth, so pregnant were
his reasons, and so witty his discourses. But Lord! what a change is there now in mens manners
and dispositions! This *Cato*, the renowned Censor, both now and at all times else, could not a-
bide to haue any Grecian within Italy, but alwaies gaue judgement to them all in generall to
be expelled: but after him there comes his nephew once remoued, or his nephewes sonne, who
brought one of their Philosophers ouer with him, when he had bin military Tribune or knight
marshall: and another likewise vpon his embassage to Cypres. And verily a wonder it is and a
memorable thing to consider how these two *Catoes* differed in another point: for the former of
them could not away with the Greek tongue; the other that killed himselfe at Vtica, esteemed K
it as highly. But to leaue strangers, let vs now speak of our own countrimen, so renowned in this
behalfe. *Scipio Africanus* the elder, gaue expresse order, and commanded, That the statue of *Q.*
Ennius the poet should be set ouer his tomb, to the end, that the great name and stile of *Afri-*
canus, or indeed the booty rather that hee had woon and carried away from a third part of the
world, should in his monument vpon the reliques of his ashes be read together with the title of
this poet. *Augustus Cæsar* late Emperor, expressely forbad that the Poeme of *Virgil* should be
burned, notwithstanding that he by his last wil and testament on a modesty, gaue order to the
contrary: by which means there grew more credit and authority vnto the Poet, than if himselfe
had approued and allowed his owne verses. *Asinius Pollio* was the first that set vp a publicke Li- L
brary at Rome, raised of the spoile and pillage gained from the enemies. In the Library of
which gentleman, was erected the image of *M. Varro*, euen whiles he liued: a thing that won as
great honor to *M. Varro* in mine opinion (considering that amongst those fine wits, whereof a
great number then flourished at Rome, his hap only was to haue the garland at the hands of a
noble citizen and an excellent Orator beside:) as that other nauall crowne gained him, which
Pompey the Great bestowed vpon him for his good seruice in the pyrats war. Infinite examples
more there are of vs Romans, if a man would seeke after them and search them out: for this
only nation hath brought forth more excellent and accomplished men in euery kinde, than all
the lands besides of the whole world. But what a sin should I commit, if I proceeded farther
and speake not of thee, O *M. Cicero*? and yet how should I possibly write of thee according to M
thy worthinesse? would a man require a better proofe of thy condigne praises, than the most ho-
norable testimony of the whole body of that people in generall, and the acts onely of thy Con-
sulship, chosen out of al other vertuous deeds throughout thy whole life? Thine eloquence was
the cause that all the Tribes renounced the law *Agraria*, as touching the diuision of Lands a-

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among the commons, albeit their greateſt maintenance and nouriſhment conſiſted therein. Through thy perſuaſion they pardoned *Roſcius*, the firſt author of that ſeditious bill and law, whereby the States and degrees of the city were placed diſtinctly in their ſeats at the Theatre: they were content I ſay, and tooke it well, that they were noted and pointed at for this difference in taking place and rowms, which he firſt brought in. By means of thy orations, the children of proſcript and outlawed perſons were aſhamed and abaſhed to ſue for honorable dignities in common-weale: thy witty head it was that put *Catiline* to flight, and baniſhed him the city: thou, and none but thou didſt out-law *M. Antonius*, and put him out of the protection of the State. All haile therefore, O *M. Tullius*, faire chieue thee, thou that firſt was ſaluted by the name of *Parens patriæ, i.* Father of thy countrey: firſt that deſerued triumpth in thy long robe, & the laurel garland, for thy language: the only father indeed of eloquence & of the Latin tongue: and (as *Cæſar* Dictator ſomtime thine enemy hath written of thee) haſt deſerued a crown aboue all other triumphs, by how much more praiſe-worthy it is, to haue amplified and ſet out the bounds and limits of Roman wit and learning, than of Roman ground and dominion.

Chap. XXXI.

¶ *Of a certaine Maieſtie in behauiour and cariage.*

THoſe, who among other gifts of the minde haue ſurpaſſed other men in ſage aduiſe and wiſdome, were thereupon at Rome ſurnamed *Cati*, and *Corculi*. In Greece, *Socrates* carried the name away from all the reſt, being deemed by the Oracle of *Apollo Pythius*, the wiſeſt man of all others.

Chap. XXXII.

¶ *Of Authoritie.*

AGaine, *Chilo* the Lacedemonian was of ſo great reputation among men, that his ſayings were held for Oracles; and three precepts of his were written in letters of gold, & conſecrated in the temple of *Apollo* at Delphi: where the firſt was this, *Know thy ſelfe:* the ſecond, *Set thy minde too much on nothing*. The third, *Debt and Law are alwaies accompanied with miſery*. His hap was to die for ioy, vpon tidings that his ſon wan the beſt prize, and was crowned victour at the ſolemne game Olympia; and when he ſhould be interred, all Greece did him honour, and ſolemnized his Funerals.

Chap. XXXIII.

¶ *Perſons of a diuine ſpirit and heauenly nature.*

AMong women, *Sybilla* was excellent at diuination, and for a certaine fellowſhip and ſocietie with cœleſtiall wights, of great name. As for men, among the Greeks, *Melampus:* and with vs Romans, *Martius*, carried as great an opinion.

Chap. XXXIV.

¶ *Scipio Naſica.*

SCipio *Naſica* was iudged once by the Senat (ſworne to ſpeak without paſſion and affection) to be the beſt & honeſteſt man that euer was from the beginning of the world: howbeit the ſame man, as vpright as he was, ſuffered a repulſe and diſgrace at the peoples hands in his white Robe when he ſued for a dignity; and to conclude, in the end his hap was not to depart this life in his owne countrey; no more than it was the will of God that *Socrates* the wiſeſt man (ſo deemed by the Oracle of *Apollo*) ſhould die out of priſon.

Chap. XXXV.

¶ *Of Chaſtitie.*

SVlpitia, daughter of *Paterculus*, and wife to *Fulvius Flaccus*, by al the voices in general of Roman dames, carried away the prize for continencie, and was elected out of the hundred principall matrons of Rome to dedicate and conſecrate the image of *Venus*, according to

and ordinance out of *Sybils* bookes. *Claudia* likewise, was by a religious and deuout experiment proued to be such another, at what time as she brought the mother of the gods, *Cybele* to Rome. G

Chap. XXXVI.

¶ *Of Pietie or kindenesse.*

IN all parts verily of the world, there haue been found infinite examples of naturall loue and affection, but one example thereof at Rome hath been knowne singular aboue all others, and incomparable. There was a poore young woman of the common sort, and therefore base and of no account, who lately had been in childbed, whose mother was condemned to perpetuall prison, and there lay, for some great offence that she had committed: this daughter of hers and young nource aforesaid, obtained leaue to haue accesse vnto her mother, and euermore by the H gaoler was narrowly searched for bringing to her any victuall, because her iudgment was to be famished to death: thus she went and came so long, vntill at last she was found suckling of her mother with the milke of her breasts. This was reputed for such a strange and wondrous example, that the mother was released and giuen to the daughter for her rare piety and kindnes: both of them had a pension out of the city allowed them for their amintenance for euer; and the place where this hapned was consecrated to *Pietie*: in so much, as when *C. Quintius* and *M. Acilius* were Consuls, there was a temple to her built, in the very place where this prison stood, iust whereas now standeth the Theatre of *Marcellus*. The father of the *Gracchi* happened to light vpon and take two serpents within his house, whereupon he sent out to the Sooth-sayers for to I know, what this thing might presage? who made this answer, That if he would himselfe liue, the female snake should be killed; Nay marry (qd. he) not so, but rather kill the male; for my wife *Cornelia* is yong enough, and may haue more children. This said he, meaning to spare his wiues life, in consideration of the good she might do to the common-weale. And in truth; like as the wizards propheſied, so it fell out soone after, and their words tooke effect. *M. Lepidus* so entirely loued his wife *Apuleia*, that he died for very thought and griefe of heart, after shee was diuorced from him and turned away. *P. Rutilius* chanced to be somewhat ill at ease and sickish, but hearing of his brothers repulse, and that hee was put by his Consulship (for which he stood in suit) died suddenly for sorrow. *P. Catienus Philotimus* so loued his Lord and master, that notwithstanding he was by him made his sole heire of all that euer he had, yet for kind heart, cast him- K selfe into the funerall fire to be burnt with him.

Chap. XXXVII.

¶ *Of diuers excellent men in many Arts and Sciences, and namely in Astrologie, Grammer, and Geometrie.*

IN the skill and knowledge of sundry Sciences, an infinit number of men haue excelled; howbeit, we wil but take the very floure of them all, and touch those only whom meet it is to be named for their speciall desert. In Astrologie, *Berosus* was most cunning; in so much as the L Atheniens for his diuine predictions and prognostications, caused his statue with a golden tongue, to be erected in the publicke schoole of their Vniuersitie. For Grammer, *Apollodorus* was singular, and therefore was highly honored of the States of Greece, called Amphictyones. In Physicke, *Hippocrates* excelled, so far forth as by his skill hee foretold of a pestilence that should come out of Sclauonia; and for to cure and remedie the same, sent forth his disciples and schollers to all the cities about. In recompence of which good desert of his, all Greece by a publick decree ordained for him the like honors, as vnto *Hercules*. For the very same cunning and science, king *Ptolomæ* gaue vnto *Cleombrotus* of Cea (at the solemne feast holden in the honour of the great mother of the gods) a hundred talents, and namely for curing the king *Antiochus*. *Critobulus* likewise acquired and got himselfe a great name, for drawing an arrow forth of king *Philips* eie, and curing the wound when he had don, so as the sight remained, & no blemish or deformity appeared. But *Asclepiades* the Prusian, surpassed all others in this kind, who was the M first author of that new sect which bare his name, reiected the embassadors, the large promises & fauors offered of K. *Mithridates*: found out the way and means to make wine wholesome and

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A medicinable for ſicke folke: and recouered a man to his former ſtate of health, who was caried forth vpon his biere to be buried: and laſtly he attained the greateſt name; for laying a wager againſt fortune, and pawning his credit ſo farre as he ſhould not be reputed a Phyſitian, in caſe he euer were known to be ſicke or any way diſeaſed. And in truth the wager hee woon; for his hap was to liue in health vntill he was very aged, and then to fall downe from a paire of ſtaires, and ſo to die ſuddenly. A ſingular teſtimonie of skill and cunning *M. Marcellus* gaue vnto *Archimedes* that notable Geometrician and Enginer of Syracuſa, who in the ſaccage and rifling of that city gaue expreſſe commandement concerning him alone, that no violence ſhould be done vnto him: howbeit hee will failed of his execution, by occaſion of a ſouldier, who in that
B hurly-burly ſlew him, not knowing who he was. Much commended and praiſed is *Cteſiphon* of Gnoſos, for his notable knowledge in Architecture, and namely for the wonderful frame of *Dianaes* Temple at Epheſus. *Philon* likewiſe was highly eſteemed for making the Arſenall at Athens, able to receiue 1000 ſhips. *Cteſibius* alſo was much accounted of for deuiſing winde Inſtruments; and by means of certain engins to draw and ſend water to any place. *Dinocrates* alſo the enginier eterniſed his name for caſting the plot and deuiſing the modell of Alexandria in Egypt, at what time as *Alexander* the great founded it. To conclude, this mighty prince and commander *Alexander* ſtreightly forbad by expreſſe edict, That no man ſhould draw his pourtrait in colours but *Apelles* the painter: that none ſhould engraue his perſonage but *Pyrgoteles* the grauer: and laſt of all, that no workman ſhould caſt his image in braſſe but *Lyſippus* a Founder. In which three feats many Artiſans haue excelled for their rare workmanſhip.

C

Chap. XXXVIII.

¶ *Singular works of Artificers.*

KIng *Attalus* cheapned one picture wrought by the *Ariſtides* Theban, and 100 talents for it. *Ceſar* the Dictator offered to *Timomachus* eight talents for two pourtraits, to wit, of *Medea* and *Aiax*, which he meant to ſet vp and conſecrate in the temple of *Venus Genetrix*. King *Candaulas* bought of *Butarchus* a painted table, wherein was drawne the defeature and deſtruction of the Magnetes, which tooke vp no great roome, and weighed out the poiſe thereof in good gold. King *Demetrius*, ſirnamed *Expugnator*, [*i.* the conqueror and great forcer of cities]
D forbare to ſet Rhodes on fire, becauſe he would not burne one painted table the handiworke of *Protogenes*. *Praxiteles* was innobled for a rare Imager and cutter in ſtone and marble: he eterniſed his memoriall by making one image of *Venus* for the Gnidians, ſo liuely, that a certaine yong man became ſo amorous of it, and ſo doted thereon, that he went beſide himſelfe: which piece of worke was eſteemed of ſuch worth by *Nicomedes*, that whereas the Gnidians owed him a great ſum of money, he would haue taken it for full paiment of the whole debt. The ſtatue of *Iupiter Olympius* is to be ſeen, and dayly commendeth the workman *Phydias*. *Iupiter* likewiſe *Capitolinus*, and *Diana* in Epheſus yeeld good teſtimonies of *Mentors* cunning: and the tooles or inſtruments of the ſaid workeman were conſecrated (for their exquiſit making) vnto them in their temples, and there remaine.

E

Chap. XXXIX.

¶ *Of Seruants and Slaues.*

I Haue not knowne or heard to this day, of a man borne a ſlaue, that was priſed ſo high as *Daphnis* the Grammarian was: for *Cn. Piſaurenſis* held him at 300700 Seſterces to *M. Scaurus* a great and principall man of Rome. Howbeit in this our age certain ſtage players haue gon beyond this price, and that not a little: mary they were ſuch as had bought out their freedome before, and were not then ſlaues. And no maruell, for we finde vpon record, that the great
F Actor *Roſcius* in former time might yerely diſpend by the ſtage 500000 Seſterces. Vnleſſe a man deſire in this place to heare of the Treaſurer and purueior general of the army in Armenia for the late wars of King *Tyridates*, who was infranchiſed by means of *Nero*, for 120000 Seſterces, but it was the war that coſt thus much, and not the man. Like as *Sutorius Priſcus* gaue vnto *Seianus* 3500 Seſterces for *Pæzon* one of his gelded Eunuchs: For a man would ſay that this

was

was more to satisfie his filthy lust, than for any special beauty to be seen in the said *Pæzon*. But he tooke the vantage of the time, and went cleare away with this impious villanie: for at what time as he bought him, the city was in perplexitie and sorrow, and no man for thinking of greater affaires and troubles, had any leisure to finde fault or say a word in reproofe of such enormities. G

Chap. XL.

¶ *The excellencie of Nations.*

DOubtlesse it is, and past all question, that of all Nations vnder the Sun, the Romans excell and are the only men for all kinde of vertues. But to determine who is the happiest man in all the world is aboue the reach of humane wit; considering that some take contentment and repose felicitie in this thing, others in that, and euery one measureth it according to his seuerall fancy and affection: but to say a truth, and iudge aright indeed, laying aside all the glosing flatteries of fortune, and without courting her to determin this point, There is no man to be counted happy in this world. Right well it is on our side, and Fortune dealeth in exceeding fauor with vs, if we may not iustly be called vnhappy: for put case there be no other miserie and calamitie besides, yet surely a man is euer in feare lest Fortune will frowne vpon him, and do him a shrewd turne one time or other: and admit this feare once, there can be no sound happinesse and contentment in the minde. What shall I say moreouer than this, that no man is at all times wise and in his perfect wits? Would God that this were taken of most men for a Poets word only, and not a true saying indeed. But such is the vanity and folly of poore mortall men, that they flatter themselues, and are very witty to deceiue themselues, making their accounts and reckonings of good and euill fortune like to the Thracians, who by certain white and blacke stones which they cast into a certaine vessell, and there laid vp for the better proofe and triall of euery dayes fortune; and at the last day and time of their death they fall to parting these stones one from another, and telling them apart, and accotding to the number of the white and blacke, giue iudgement and pronounce of each ones fortune. But what say they to this, that many times it falleth out, that the day marked with a white stone, for a good day, had in it the beginning & ouerture of some great misfortune and calamitie? How many men haue seemed to fall into Fortunes lap, and entred vpon great empires and dominions, which in the end turned to their afflictions and miseries? How many haue we seen ouerthrowne, punished extremely, and brought to vtter ruine, euen by means of their owne good parts and commendable gifts? Certes these be good things & great fauors, if a man could make ful account to enioy them but one houre with contentment. But thus verily stands the case, and this is the ordinary course of this world: one day is the judge of another, and the day of death iudgeth and determineth all: and therefore there is no trust in them, neither may wee assure our selues of any. To say nothing of this, that our good fortunes are not in number equall to our bad: and say there were as many of the one as of the other, Is there any one ioy to be weighed in true ballance against the least grief and sorrow that commeth? Foolish and sottish men that we are for all our curiositie! for we reckon our daies by tale and number, whereas we should ponder and peise them by weight. H I K L

Chap. XLI.

¶ *Of the highest tipe and pitch of felicity.*

Lampido the Lacedemonian Lady is the only woman that euer was knowne to haue beene daughter to a King, a Kings wife, and mother to a King. Also *Pherenice* was known alone to be the daughter, sister, and mother to them that wan the victorie and carried away the best prise at the Olympian games. In one house and race of the *Curices* there were known three excellent Orators one after another by discent from the father to the son. The only family and line of the *Fabij* affoorded three Presidents of the Senat in course, one immediatly vnder another, to wit, *M. Fabius Ambustus* the father, *Fabius Rullianus* the father, *Fabius Rullianus* the son, and *Q. Fabius Gurges* the nephew. M

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Chap. XLII.

¶ *Examples of Fortunes mutabilitie.*

INfinite other examples we haue of the varietie and inconſtancie of Fortune: for what great ioyes to ſpeake of, gaue ſhe euer, but vpon ſome miſhap or other? Again, the greateſt miſeries and calamities that haue bin, haue they not enſued vpon the moſt ioyes and contents.

Chap. XLIII.

¶ *Of one twice outlawed and out of protection: as alſo of Q. Metellus and L. Sylla.*

B

FOrtune preſerued for 36 yeares *M. Fidueſtius* a Senator, outlawed by *Sylla*: yet hapned hee afterward to be outlawed the ſecond time; for he out-liued *Sylla*, and continued vnto the time of *Marcus Antonius*: and for certain it is knowne, that by him hee was baniſhed and outlawed againe, for no other reaſon but becauſe he had been ſo before-time. So kind was Fortune to *P. Ventidius*, as that ſhe would haue him to triumph alone ouer the Parthians: but ſhee had before time ſo good as played with him, when ſhee ſaw him led (being a boy) as priſoner in *Cn. Pompeius Strabo* his triumph for the defeature and ouerthrow of the Aſulanes. Although *Maſſurius* teſtifieth, that he was ſo led in triumph as a ſlaue twice: *Cicero* ſaith, that hee was at
C first but a Mulitier, and draue mules laden with meale for the oven, to ſerue the campe. Many other affirme, that in his youth hee was a poore ſouldier, and ſerued as a footman in his ſingle trouſes and grieues. Moreouer, ſuch good fortune had *Balbus Cornelius*, as to the ſenior Conſull and declared Elect before his fellow: but before time he had beene in trouble, and iudicially accuſed, yea and a Iury was impanelled to go vpon him, ſo as he was in danger to be whipped, vpon their verdict. Well, this mans hap for all this was to be the firſt Roman Conſull of Forreiners, and namely Iſlanders within the main Ocean: he (I ſay) attained to that honor, which our forefathers denied flatly to the Latines their neighbors. Among other notable examples, *L. Fulvius* may go for one, who was Conſull of the Tuſculans when they reuolted and rebelled againſt the Romans: howbeit forſaking his owne citiſens, and returning to Rome, was preſent-
D ly by the whole people aduanced to the ſame honour amongſt them, and he was the man alone knowne to haue triumphed in Rome ouer them whoſe Conſull he was, euen the ſame yere that he himſelfe was as a Roman enemie in the field. *L. Sylla* was the only man vntill our time that challenged vnto himſelfe the ſyrname of *Fælix*. But how was hee adopted as it were into this name, forſooth euen by ſhedding and ſpilling ſo much innocent bloud of Roman citiſens, and by waging war againſt his natiue country? And whereupon I pray you grounded he this happineſſe of his, and had ſo great an opinion thereof, if this were not it, that he was able to baniſh, that he was able to baniſh, confiſcate, and put to death ſo many thouſand citiſens? O falſe and deceitfull interpretation, dangerous, vnhappy, and pernicious euen to poſteritie and the time to come! For were not they more bleſſed and happy, who then fortuned to loſe their liues,
E (whoſe death at this day we pitty, and whom we take compaſſion of) than *Sylla*, whom all men at this day hateth and abhorreth? Moreouer, was not his end more cruell and horrible than the ſorrow of all thoſe that by him were outlawed, and their goods forfeit? for his owne wretched body did eat, gnaw, and conſume it ſelfe, and bred daily and hourely lothſome vermine to put the ſame to paine and torment. And ſay that he diſſembled all this, and would not be knowne of it; and ſuppoſe we gaue credit that laſt dreame of his (wherein he lay as it were dead or in a trance) vpon which he gaue out this ſpeech, that himſelfe and none but he had the glory to ſurmount all enuy: yet in this one thing he plainly confeſſed that his felicitie came ſhort & was defectiue, in that he had not time to conſecrate the Capitoll Temple. *Q. Metellus* in that funerall oration of his which he made in praiſe and commendation (as the maner was) of *L. Me-*
F *tellus* his father, gaue theſe laudable reports of him, that he had been the ſoueraigne Pontifie or high-Prieſt of Rome, twice Conſull, Dictator, Generall of the horſe, one of the fifteen Quindecemvirs deputed for diuiſion of lands among the ſouldiers and Commons: and that in the firſt Punicke warre he ſhewed many Elephants in a triumph: moreouer he left in writing, that hee had accompliſhed ten of the greateſt and beſt points belonging to this life: in the ſeeking whereof

whereof and in attaining thereunto, all the great Sages of the world spend their whole life: for (saith he) his desire was, and he thereto aimed, namely, to be a most doubty and hardy warrior, an excellent orator, a right valiant captaine and commander: also, to haue the conduct, charge, and execution of the greatest and most important affaires, to be in the highest place of honor, to be singular in wisdome, to be accounted the principall and chiefe in Senat, to come to great riches by good and lawful means, to leaue much faire issue behind him: and to conclude, to be simply the best man of all other, and the principall person in the city. To these perfections he (and none but he since Rome was Rome) attained. Now to confute this were a long and needlesse piece of worke, considering that one only mischance checked these fauors of Fortune, and fully disproued all: for the very same *Metellus* became blinde in his old age, for hee lost his eies in a skare-fire, at what time hee would haue saued and got away the *Palladium, i.* Image of *Minerua*, out of the temple of *Vesta*. His act I confesse was vertuous and memorable, but the event was ill for him and miserable. In regard whereof I know not how he should be called vnhappy and wretched: and yet I see not why he should be named happy and fortunate. This I must needs say in conclusion, that the people of Rome granted vnto him that priuiledge, that neuer man in the world was knowne to haue, namely, to ride in his coach to the Senat house so oft as he sate at the councell table. A great prerogatiue I confesse, and most stately, but it was allowed him for want of his eyes.

Chap. XLIV.

¶ *Of another Metellus.*

A Sonne likewise of this *Q. Metellus*, who gaue out those commendations aforesaid of his father, may be put in the ranke of the most rare presidents of felicitie in this world: for besides the most honorable dignities and promotions hee was aduanced vnto in his life time, and the glorious addition and syrname of *Macedonicus*, which he got in Macedonie; when he was dead, there attended vpon his dead corps at his funerals to inter him, foure of his sons; the one Pretor for the time being; the other three had been Consuls in their time: & of these three, two had triumphed in Rome, and the third had been Censor. These were points, I may tell you, of great note and regard, and few men are to be found in comparison, that can come to any one of them. And yet see! in the very prime and floure of all these honors, it fortuned that *Catinius Labeo*, syrnamed *Macerio*, a Tribune or protector of the Commons (whom he before by vertue of his Censorship had displaced out of the Senat) waited his time when he returned about noone from *Mars* field, and seeing no man stirring in the market place, nor about the Capitoll, tooke him away perforce to the cliffe Tarpeius, with a full purpose to pitch him downe headlong from thence and to breake his necke. A number came running about him, of that crue and company which was woont to salute him by the name of Father; but not so soone as such a case required, considering this so sudden an occurrent: and when they were come, went but slowly about any rescue, and kept a soft pace, as if they had waited vpon some corps to a buriall; and to make resistance and withstand perforce the Tribune, armed as he was with his sacrosanct and inuiolable authoritie, they had no warrant by Law: insomuch as hee was like to haue perished and come to a present mischiefe, euen for his vertue, and faithfull execution of his Censorship, had there not been one Tribune of ten found, hardly and with much adoe to step between and oppose himselfe against his Collegue, and so by good hap rescued him out of his clutches, and saued him as it were at the very pits brinke, enen from the vtter point of death. And yet he liued afterwards of the courtesie and liberalitie of other men: for why, All his goods from that day forward were seised as forfeit and confiscate, by that Tribune whom before-time he had condemned: as if hee had not suffered punishment and sorrow enough at his hands, to haue his necke so wrythed by him, as that the bloud issued out at his very eares. Certes for mine owne part I would reckon this for one of his crosses and calamities, That hee was an enemie to the later *Africanus Æmylianus*, euen by the testimonie and confession of *Macedonicus* himselfe: for after the death of the said *Africanus*, these were his words vnto his owne sonnes; Go your waies sirs and do honour to his Obsequies, for the funerall of a greater personage, and a better Citisen, shall you neuer see. And this spake he to them when as they had conquered Creta and the Baleare Islands, and thereof were syrnamed *Creticus* and *Balearicus*, and

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A and had worne the lawrell diadem in triumph; being himſelfe already entituled with the ſtile of *Macedonicus*, for the conqueſt of Macedonie. But if we conſider and weigh that onely wrong and iniurie offered him by the Tribune, who is it that can iuſtly deeme him happy, being expoſed as he was to the pleaſure, mercy, and force of his enemie, far inferior to *Africanus*, and ſo to come to confuſion? What were all his victories to this one diſgrace? what honors and triumphant chariots ſtrooke not Fortune downe with her foot, and ouerturned all againe, or at leaſt wiſe ſet not back again with this her violent courſe, ſuffering a Roman Cenſor to be haled and tugged in the very heart of the city (the only way indeed to bring him to his death) to be harried I ſay vp to that capitoll hill there to make his end, whither aforetime hee aſcended triumB phant, but neuer committed that outrage vpon thoſe priſoners and captiues whom hee lead in triumph, and for whoſe ſpoiles he triumphed, as to hale and pull them in that rude ſort? And verily the greater was this outrage, and ſeemed the more heinous, in regard of the felicity that afterward enſued: conſidering, that this *Macedonicus* was in danger to haue loſt ſo great an honor as he had in his ſolemne and ſtately ſepulture, namely when he was caried forth to his funerall fire by his triumphant children, as if he had triumphed once again at his buriall. In ſum, that can be no ſound and aſſured felicitie that is interrupted with any indignitie or diſgrace whatſoeuer: much leſſe by ſuch an one as this was. To conclude, I wot not well whether there be more cauſe to glory for the modeſt cariage of men in thoſe daies, or to grieue at the indignitie of the thing, in that among ſo many *Metelli* as there were, ſo audacious a villanie as this was of *Catinius* was neuer reuenged vnto this day.

C

Chap. XLV.

¶ *Of Auguſtus Cæſar late Emperor.*

AS touching the late Emperor *Auguſtus*, whom all the world rangeth in this ranke of men fortunat: if we conſider the whole courſe of his life we ſhal find the wheele to haue turned often, and perceiue many changes of variable fortune. Firſt, his owne vncle by the mothers ſide put him by the Generalſhip of the horſe; and notwithſtanding all his earneſt ſuit preferred *Lepidus* to that place before him: ſecondly, he was noted and thought hardly of for thoſe outlawries of Roman citiſens, and thereby purchaſed himſelfe much hatred and diſpleaD ſure: tainted alſo he was for being one of thoſe three in the Triumvirate, yoked and matched with wicked companions and moſt dangerous members to the weal publique: and this galled him the more, that in this fellowſhip, the Roman empire was not equally and indifferently parted among them three, but *Antonie* went away with the greateſt ſhare by odds. Alſo his ill fortune was in the battell before Philippos to fall ſicke, to take his flight, and for three daies, diſeaſed as he was, to lurke and lie hidden within a mariſh: whereupon (as *Agrippa* and *Mecænas* confeſſe) he grew into a kinde of dropſie, ſo as his belly and ſides were puffed vp and ſwelled with a wateriſh humor, gotten and ſpred betwixt the fleſh and the skin. Furthermore, he ſuffered ſhipwrecke in Sicily, and there likewiſe he was glad to skulk within a caue in the ground. What ſhould I ſay, how when he was put to flight at ſea, and the whole power of his enemies E at his heeles, he beſought *Proculeius* in that great danger to rid him out of his life: how he was perplexed for the quarrels and contentions at Peruſium: in what feare and agonie hee was in the battell of Actium (a towne of Albanie) as alſo for the iſſue of the Pannonian warre, for the fall of a bridge and a towne both. So many mutinies among his ſoldiers; ſo many dangerous diſeaſes: the iealouſie and ſuſpition that he had euermore of *Marcellus*: the roproch & ſhame he ſuſtained for confining and baniſhing *Agrippa*: his life ſo many times laid for, by poiſon and other ſecret traines: the death of his children, ſuſpected to haue bin by indirect meanes: the double ſorrow and griefe of heart thereby, and not altogether for his childeleſſe eſtate. The aF dulterie of his owne daughter, and her purpoſe of taking his life away, detected and publiſhed to the World: the reproch full departure and ſlipping aſide of *Nero* the ſonne of his Wife: another adulterie commited by one of his owne Neeces. Ouer and aboue all this, thus many more croſſes and troubles comming one in the necke of another: namely, want of pay for his ſouldiers, the rebellion of Sclauonia, the muſtering of ſlaues and bond-ſeruants to make vp his army, for want of other able youths to leuy vnto the warres: Peſtilence in Rome Citie: famin and drought vniuerſally throughout Italy: and that which more is, a deliberat purpoſe

and

and reſolution of his to famiſh and pine himſelfe to death, hauing to that end faſted 4 dayes and 4 nights; and in that time receiued into his body the greater part of his owne death. Beſides, the ouerthrow and rout of *Varius* his forces, the foule ſtaine and blemiſh to the touch of his honor and maieſtie very neere: the putting away of *Poſthumius Agrippa* after his adoption, and the miſſe that he had of him after his baniſhment: then, the ſuſpition that hee conceiued of *Fabius* for diſcloſing his ſecrets: adde hereto the opinion and conceit he tooke of his owne wife and *Tiberius*, which ſurpaſſed all his other cares. To conclude, that god, and he who I wot not whether obtained heauen, or deſerued it more, departed this life, and left behinde him as heire to the crowne his enemies ſonne.

Chap. XLVI.

¶ *Whom the gods iudge moſt happy.*

I Cannot ouerpaſſe in this diſcourſe and conſideration the Oracles of Delphos, deliuered from that heauenly god to chaſtiſe and repreſſe as it were the folly and vanitie of men: and two there be which giue anſwer to the point in queſtion after this manner: Firſt, that *Phedius*, who but a while before died in the ſeruice of his countrey, was moſt happy. Moreouer, *Gyges* (the moſt puiſſant king in thoſe daies of all the earth) ſent a ſecond time to know of the Oracle, who was the happieſt man next him: and anſwer was made, That *Aglaus Pſophidius* was happier than the former. Now this *Aglaus* was a good honeſt man well ſtept in yeares, dwelling in a very narrow corner of Arcadia, where he had a little houſe and land of his own, ſufficient with the yearely commodities thereof to maintaine him plentifully with eaſe, out of which hee neuer went, but employed himſelfe in the tillage and husbandry thereof, to make the beſt benefit he could: in ſuch ſort that (as it appeared by that courſe of life) as he coueted leaſt, ſo he felt as little trouble and aduerſitie while he liued.

Chap. XLVII.

¶ *Who was canoniſed a god here vpon earth liuing.*

BY the ordinance and appointment of the ſame Oracle, as alſo by the aſcent and approbation of *Iupiter* the ſoueraigne god, *Euthymus* the famous wreſtler (who alwaies wan the beſt prize at Olympia ſaue once) was reputed and conſecrated a god whiles he liued, and knew thereof: born he was at Locri in Italy, where one ſtatue of his, as alſo another at Olympia, were both in one day ſtricken with lightning: whereat I ſee *Callimachus* wondred, as if nothing elſe were worthy admiration, and gaue order that he ſhould be ſacrificed vnto as a god: which was performed accordingly both whiles he liued, and after hee was dead. A thing that I maruell more at than any thing elſe, That the gods were therewith contented, and would permit ſuch a diſhonour to their maieſtie.

Chap. XLVIII.

¶ *Of the longeſt liues.*

THe terme and length of mans life is vncertaine, not only by reaſon of the diuerſity of climats, but alſo becauſe Hiſtorians haue deliuered ſuch varietie of mens ages, and euerie man by himſelfe hath a ſeuerall time limited vnto him at the very day of his birth. *Heſiod* (the firſt writer, as I take it, who hath treated of this argument, and yet like a Poet) in his fabulous diſcourſe touching the age of man ſaith forſooth, that a crow liues nine times as long as we; and harts or ſtags 4 times as long as hee, but Rauens thrice as long as they. As for his other reports touching the Nymphs and the bird Phœnix, they are more like poeticall tales, than true relations. *Anacreon* the Poet maketh mention, that *Argantonius* king of the Tarteſſians, liued 150 yeares: and *Cynaras* likewiſe King of the Cyprians ten yeares longer. *Theopompus* affirmeth, that *Epimenides* the Gnoſſian died when he was 157 yeares old. *Hellanicus* hath written, That amongſt the Epians in Ætolia there be ſome that continue full two hundred years: and with him accordeth *Damaſes*: adding moreouer, that there was one *Pictoreus* among them, a man of exceeding ſtature, mighty and ſtrong withall, who liued three hundred yeares.

Ephorus

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A *Ephorus* teſtifieth, that ordinarily the kings of Arcadia were 300 yeares old ere they died. *Alexander Cornelius* writeth of one *Dando* a Sclauonian, who liued 500 yeres. *Xenophon* in his treatiſe of old age, makes mention of a King of the Latines, or as ſome ſay, ouer a people vpon the ſea coaſts, who liued 600 yeares; and becauſe he had not lied loud enough already, he goes on ſtill and ſaith, that his ſon came to 800. All theſe ſtrange reports proceed from the ignorance of the times paſt, and for want of knowledge how they made their account; for ſome reckoned the Summer for one yeare, and the Winter for another. There were againe that reckoned euery quarter for a yeare, as the Arcadians, whoſe yeare was but three moneths. Ye ſhall haue ſome, and namely the Egyptians, that count euery change or new Moon for a yeare: and therefore no
B maruell if ſome of them are ſaid to liue 1000 yeares. But to paſſe from theſe vncertainties, to things confeſſed and doubtleſſe. Held it is in maner for a certain truth, that *Arganthinus* King of Calis reigned full 80 yeares, and it is thought he was 40 yeares old when he came vnto the crowne. And as vndoubted true it is, that *Maſaniſſa* ware the crown 60 yeares. As alſo that *Gorgias* the Sicilian liued vntill he was 108 yeares old. As for *Q. Fabius Maximus* (a Roman) hee continued Augure 63 yeares. *M. Perpenna*, and of late daies *L. Voluſius Saturninus*, out-liued all thoſe Senators which ſate in councell with them when they were Conſuls, and whoſe opinions they were wont to aske. As for *Perpenna*, when hee died, hee left but 7 of thoſe Senators aliue, whom he had either choſen or re-elected in his Cenſorſhip: and he liued himſelfe 98 yeares. Where by the way one thing commeth into my mind worth the noting, That one Luſtrum or
C 5 yeares ſpace there was, and neuer but one, in which there died not a Roman Senator, and that was from the time that *Flaccus* and *Albinus* the Cenſors finiſhed their ſuruey, & ſolemnly purged the city after the order, to the comming in of the next new Cenſors; being from the foundation of Rome 579 yeres. *M. Valerius Corvinus* liued 100 yeares complete: between his firſt and ſixt Conſulate were 46 yeares; he tooke his ſeat vpon the yuorie chaire of eſtate, and was created a magiſtrate Curule 21 times, and no man elſe ſo often. *Metellus* the Pontifie or ſoueraigne prieſt liued full as long as he.

To come now to women: *Liuia* the wife of *Rutilius* liued 97 yeares with the better. *Statilia* a noble lady of Rome, in the time of *Claudius* the Emperor, was knowne to be 99 yeares of age. *Ciceroes* wife *Terentia* out-liued her husband vntill ſhe was 103 yeres old. *Clodia* wife to *Oſilius*,
D went beyond her, and ſaw 115 yeres, & yet ſhe had in her youth 15 children. *Luceia* a common vice in a play, followed the ſtage and acted thereupon 100 yeares. Such another vice that plaid the foole & made ſport between whiles in interludes, named *Galaria Copiola*, was brought again to act her feats vpon the ſtage, when *Cn. Pompeius* and *Q. Sulpitius* were Conſuls, at the ſolemne plaies vowed for the health of *Aug. Cæſar* the Emperor, in the 104 yere of her age: the firſt time that euer ſhe entred the ſtage, to ſhew proofe of her skil in that profeſſion, was 91 yeres before, and then ſhe was brought thither by *M. Pomponius* an Ædile of the Commons, in the yere that *C. Marius* and *Cn. Carbo* were Conſuls. And once again *Pompeius* the Great, at the ſolemne dedication of his ſtately Theatre, trained the old woman to the ſtage for to make a ſhew; to the wonder of the world. Moreouer, *Aſconius Pædianus* is mine Author, that one *Samula* liued 110
E yeares; and therefore I maruell the leſſe, that one *Stephanio* (who was the firſt of the long robe that brought dancing and footing vpon the ſtage) plaid his part & danced in both the Secular plaies, as well thoſe that were ſet out by *Auguſtus* late Emperor, as which *Claudius* exhibited in his 4 Conſulate, conſidering that between the one and the other there were but 63 yeares: and yet liued *Stephanio* many a day after. *Mutianus* witneſſeth, that in Tempſis (for ſo is the creſt or pitch of the mountain Tmolus called) folke liued ordinarily 150 yeares. At that age *T. Fullonius* of Bononia entred his name into the Subſidie book, at the time that *Cl. Cæſar* held the generall tax: and that he was ſo old indeed, appeared truly as wel vpon record in the regiſters office, by conferring and laying together ſeueral paiments by him made from time to time, as alſo by certain things he had ſeen and known done in his life time (for the Emperor had a ſpeci-
F all care and regard, that way to find out the truth.)

Chap. XLIX. *Of diuers Horoſcopes or Natiuities of men.*

THis point would require the conference and aduice of Aſtrologers: for *Epigenes* ſaith, it is not poſſible for a man to liue 122 yeres: and *Beroſus* is of opinion, that one canot paſſe 117. The proportion and reckoning holdeth ſtill for good, which *Petoſiris* and *Neſepſos*

calculated and grounded vpon their Quadrant, which they call *Tetartemorion*, that is to ſay, the compaſſe in the Zodiaque of three ſignes: Orientall, which determine of the life or death of men, according to which account it is euident, that in the tract or clymat of Italy men may reach to 126 yeares. The aboue-named Aſtrologers affirmed, that a man could not poſſibly paſſe the ſpace of 90 degrees from the Aſcendent or erection of his natiuitie (which they call Anaphoras) and that euen this courſe through the degrees of three ſignes, is many times interrupted and cut ſhort, either by the oppoſition and encounter of ſome wicked planets, or by the maligne aſpects of them or the Sun. On the other ſide, *Aſclepiades* and his ſect affirme, that the length of our life proceedeth from the influence of the [fixed] ſtars: but as touching the vtmoſt terme thereof they ſet downe nothing definitiuely: mary thus much they ſay, That the fewer ſort of men liue any long time; for that the greateſt number by far haue their natiuitie incident and liable to the dangerous houres and time, either of the moones occurrence (as in her Quadrature, Oppoſition, and Sextile aſpect) or of daies according to the number of ſeuen or nine (which are daily and nightly marked and obſerued:) whereupon enſueth the rule of the dangerous graduall yeares, called Clymactericke: and ſuch as are in that wiſe borne, lightly liue not aboue 54 yeares. And here we may ſee by the doubtfulneſſe and incertitude of this ſcience of Aſtrologie, how vncertain this whole matter is which we haue in hand. Moreouer, wee found the contrarie by experience and many examples; and namely in the laſt taxation, numbring, and review of the prouinces ſubiect to Rome within Italy, that was taken vnder the *Cæſars Veſpaſians*, the father and the ſonne, both Emperors and Cenſors. And here we need not to ſearch euery corner, and to ranſacke euery place very narrowly; we will onely giue inſtance and ſet downe the examples of the one moity thereof, namely that tract which lieth betweene Apennine and the Po. At Parma three men were found that liued ſixe ſcore yeares: at Brixels, one that liued 125 yeares: at Plaiſance one elder by a yeare: at Faventia there was one woman 132 yeares old: at Bononie, *L. Terentius* the ſonne of *Marcus*; and at Ariminum, *M. Aponius*, reckoned each of them 150 yeares. *Tertulla* was knowne to be 137 yeares old. About Plaiſance there is a towne ſcituate vpon the hills, named Velleiacium, wherein ſix men brought a certificate, that they had liued an hundred yeares apiece: foure likewiſe came in with a note of an hundred and twenty yeares: one, of an hundred and fourteene, namely *M. Mutius*, ſon of *Marcus*, named *Galerius fælix*. But becauſe we will not dwell long in a matter ſo euident and commonly confeſſed: in the review taken of the eighth region of Italy, there were found in the rolle 54 perſons of an hundred yeares of age: 57 of an hundred and ten: two, of 125: foure of 130: as many that were 135 or 137 yeares old: and laſt of all, three men of an hundred and fortie. But let vs leaue theſe ages, and conſider a while another inconſtant variety in the nature of mortall men: *Homer* reporteth, that *Hector* and *Polydamas* were borne both in one night, men ſo different in nature and qualitie. Whiles *C. Marius* was Conſull, and *Cn. Carbo* with him, who had been twice before Conſull, the fifth day before the calends of Iune, *M. Cæcilius Ruffus* and *C. Licinius Calvus* were borne vpon a day, and both of them verily proued great Orators: but they ſped not alike, but mightily differed one from another in the end. And this is a thing ſeen daily to happen throughout the World, conſidering that in one houre kings and beggars are borne, likewiſe lords and ſlaues.

Chap. L.

¶ *Sundry examples of diuers Diſeaſes.*

Pvb. Cornelius Rufus, who was Conſul together with *M. Curius*, dreamed that he had loſt his ſight, and it proued true indeed, for in his ſleep he became blind & neuer ſaw again. Contrariwiſe *Phalereus*, [or *Iaſon Phereus*] being giuen ouer by the Phyſitions for an impoſtume he had in his cheſt, in diſpaire of all health (purpoſing to kill himſelfe for to be rid out of his paine) ſtabbed his breaſt with a knife: but he found this deadly enemy to be his onely Phyſition. *Q. Fabius Maximus* being long ſicke of a quartane Ague, ſtrucke a battell with the People of Sauoy and Auvergne neere the riuer Iſara, vpon the ſixth day before the Ides of Auguſt, wherein

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A wherein he ſlew of his enemies 13000, and therewith was deliuered from his feuer, and neuer had it after. Certes this gift of life that we haue from nature, be it more or leſſe, is fraile & vncertain; and ſay that it be giuen to any in largeſt meaſure, it is but ſcant yet, and very ſhort, yea and of but ſmall vſe, if wee conſider the whole courſe thereof from the beginning to the end. For firſt, if we count our repoſe and ſleep in the night ſeaſon, a man can be truly ſaid to liue but halfe his life; for ſurely a good moity and halfe deale thereof which is ſpent in ſleeping, may be likened well to death: and if he cannot ſleep, it is a pain of all pains, and a very puniſhment. I reckon not in this place the yeares of our infancie, which age is void of reaſon and ſenſe; ne yet of old age, which the longer it continueth, the more are they plagued that be in it. What ſhould I ſpeake of ſo many kindes of dangers, ſo many diſeaſes, ſo many feares, ſo many penſiue
B cares, ſo many prayers for death, as that in maner we pray for nothing oftner? In which regards how can a man be ſaid to liue the while? and therefore Nature knoweth not what better thing to giue a man than ſhort life. Firſt and formoſt, the ſenſes wax dull, the members and limmes grow benummed, the eye ſight decaieth betimes, the hearing followeth ſoone after, then faile the ſupporters, the teeth alſo and the very inſtruments that ſerue for our food and nouriſhment: and yet forſooth all this time ſo full of griefe & infirmities is counted a part of our life. Hereupon it is taken for a miraculous example, and that to which again we canot find a fellow, that *Xenophilus* the muſitian liued 105 yeares, without any ſickneſſe or defect in all his body. For all other men, beleeue me, are vexed at certain houres (like as no other creatures beſides) with the peſtiferous heats and ſhaking colds of the feuer in euery ioynt, ſinew, and muſcle of the bo-
die, which go and come, keeping their times in their ſeuerall fits, not for certain houres in the
C day only, but from one day to another, and from night to night; one while euery third day or night, otherwhiles euery fourth, yea and ſomtime a whole yeare together. Moreouer, what is it but a very diſeaſe, to know the time and houre of a mans death, and ſo to die forſooth in wiſedome? For maladies there be in which Nature hath ſet down certain rules and lawes: namely a quartaine feuer neuer lightly begins in the ſhorteſt daies of the yeare, neither in the 3 moneths of winter [to wit, December, Ianuarie, Februarie.] Some diſeaſes are not incident to thoſe that are aboue 60 yeares of age: others againe do end and paſſe away when youths begin to be vndergrowne, and eſpecially this is obſerued in yong maidens. Moreouer, old folke of all other are leaſt ſubiect to take the plague. Furthermore, ſickneſſes there be that follow this re-
D gion or that, aſſailing and infecting the inhabitants generally therein. There be ſome againe that ſurpriſe and take hold of ſeruants only, both all and ſome: others touch the beſt perſons alone of the higheſt calling, and ſo from degree to degree. But in this place obſerued vſually it is by experience, That a peſtilence beginning in the South parts, goeth alwaies towards the Weſt, and neuer lightly but in winter, neither continueth it aboue three moneths.

† Alq etiam morb⁹ eſt aliquis per ſapientiam moriho. per ſtudium ſapientiæ. Ramaz. de morb. Art.

CHAP. LI.

¶ *Of the ſignes of death.*

E NOw let vs take a view of deadly tokens in ſicknes: in rage and furious madneſſe, to laugh is a mortall ſigne: in frenzie, wherein men are beſtraught of their right wits, to take care of the skirts, fringes, and welts of their garments, that they be in good order; to keepe a fumbling and pleiting of the bed-cloathes, the neglect of ſuch things as would trouble them in their ſleepe, and breake it: the voluntarie letting go of their water; prognoſticate death. A man may ſee death alſo in the eyes and noſe moſt certainly of all other parts: as alſo in the maner of lying, as namely when the patient lieth alwaies on his backe with his face vpward. We gather ſignes alſo by the vneuen ſtroke of the arterie; as alſo when the pulſe beateth ſo vnder the phyſitians hand as if he felt an ant creeping vnder it. Other ſignes alſo there be, which *Hipocrates* the prince and chief of all Phyſitions hath very wel obſerued and ſet down. Now where-
F as there be an infinite number of ſignes that preſage death; there is not one knowne than can aſſure a man certainly of life and health. For *Cato* that famous Cenſor, writing to his ſonne as touching this argement, hath deliuered, as it were out of an Oracle, That there is an obſeruation of death to be collected euen in them that are in the moſt perfect health: for (ſaith hee) youth reſembling age, is a certaine ſigne of vntimely death or ſhort life. As for diſeaſes, they

† magnitudo anicul'æ

are so innumerable, that *Pherecydes* of the Iland Syros died of a great quantity of Lice that G
came crawling out of his body. Some are knowne to be neuer free from the Ague, as *C. Mecænas*. The same man for three yeares before hee died neuer laid his eies together for sleepe a minute of an houre. *Antipater Sidonius* the Poet, once a yeare during his life had an ague fit vpon his birth day: he liued for all that to be an old man, and vpon the day of his natiuitie died in such a fit.

Chap. LII.

¶ *Of such as were carried forth vpon the Biers to be buried, and reuiued againe.*

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A Viola, one that had bin Consull, came again to himselfe when he was cast or put into the funerall fire to be burnt: but because the flame was so strong that no man could come neere to recouer him, he was burnt quicke. The like accident befell to *Lu. Lamia*, Pretor lately before. As for *C. Ælius Tubero*, that he was brought aliue again from the like fire, after he had bin Pretor of Rome, both *Messala Rufus* and many besides constantly affirme. See how it goeth with mortall men: see, I say, our vncertaine state and condition, and how we are born, exposed, and subiect to these and such like occasions of fortune: insomueh as in the case of man there is no assurance at all, no not in his death. We reade in Chronicles, that the ghost of *Hermotimus Clazomenius* was woont vsually to abandon his body for a time, and wandering vp and
downe into far countries, vsed to bring him newes from remote places, of such things as could I
not possibly be knowne vnlesse it had bin present there: and all the while his body lay as halfe dead, in a trance. This manner it continued so long, vntill the Cantharidæ, who were his mortall enemies, tooke his body vpon a time in that extasie, and burnt it to ashes; and by that means disappointed his poore soule when it came backe againe, of that sheath, as it were, or case where she meant to bestow her selfe. Moreouer, we finde in records, that the spirit or ghost of *Aristæas* in the Iland Proconnesus, was seen euidently to fly out of his mouth in forme of a Rauen; and many a like tale followeth thereupon. For surely I take it to be no better than a fable, which is in like manner reported of *Epimenides* the Gnosian, namely, that when he was a boy, he being for heate and trauell in his iourney all wearie, laid him downe in a certain caue, where he slept 57 yeares. At length he wakened as it were vpon the next morning, and wondred K
at such a sudden change of euery thing he saw in the world, as if hee had taken but one nights sleepe. Hereupon, forsooth, in as many daies after as he slept yeares, he waxed old. Howbeit he liued in all 175 yeares. But to returne to our former discourse, women of all others by reason of their sex are most subiect to this danger, to be reputed for dead when there is life in them: and namely because of the disease of the matrice called the rising of the Mother: which if it be brought againe, and setled streight in the place, they soone recouer and take breath againe. Not impertinent to this treatise is that notable and elegant booke among the Greeks compiled by *Heraclides*, where he writeth of a woman that for a seuen-night lay for dead, and fetched not her breath sensibly, who in the end was raised againe to life. Moreouer *Varro* reporteth, that
vpon a time when the twenty deputy Commissioners were diuiding lands in the territory of L
Capua, there was one there carried forth vpon his bier to be burnt, and came home again vpon his feet. Also, that the like hapned at Aquinum. Likewise, that in Rome one *Corfidius*, who had maried his owne Aunt by the mothers side, after he had taken order for his funeralls, and set out a certaine allowance therefore, seemed to yeeld vp his ghost and die: howbeit hee reuiued againe, and it was his chance to carry him forth indeed vnto buriall, who had prouided the furniture before for his funerall. This *Varro* writeth besides of other miraculous matters, which verily are worth the rehearsall at large. One of them is this: Two brethren there were, by birth and calling gentlemen of Rome; whereof the elder, named *Corfidius*, hapned in all appearance to die: and when his last will and testament was once opened and published, the yonger brother (who was his heire) was very busie and ready to set forward his funerall. In the mean time M
the man who seemed dead fell to clap one hand against another, and therewith raised the seruants in the house: when they were come about him, he recounted vnto them, that he was come from his yonger brother, who had recommended his daughter to his tuition and guardenage: and moreouer, had shewed and declared vnto him, in what place he had secretly hidden certain

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A gold vnder the ground, without the priuity of any man; requeſting him withal to imploy that funerall prouiſion which he had prepared for him, about his own buriall and ſepulture. As he was relating this matter, his brothers ſeruitors came in great haſt to this elder brothers houſe, and brought word their maſter was departed this life: and the treaſure before-ſaid was found in the place accordingly. And verily there is nothing more common in our daily ſpeech, than of theſe diuinations; but they are not to be weighed in equall ballance with theſe, nor to be reported or credited all ſo confidently, forſomuch as for the moſt part they are meere lies, as we will proue by one notable example. In the Sicilian voiage it fortuned that *Gabienus*, one of the braueſt ſeruitors that *Cæſar* had at ſea, was taken priſoner by *Sex. Pompeius*, and by commandement from him his head was ſtricken off in a maner, and ſcarce hung to the neck by the skin, B and ſo lay he all day long vpon the ſands in the ſhore. When it grew toward euening, and that a great companie were flocked about him, he fetched a great groane, and requeſted that *Pompeius* would come vnto him, or at leaſtwiſe ſend ſome one of his deare familiars that were neere vnto him. And why? Come I am (quoth he) from the infernal ſpirits beneath, and haue a meſſage to deliuer vnto him. Then *Pompey* ſent diuers of his friends to the man, vnto whom *Gabienus* related in this maner; That the infernall gods were well pleaſed with the iuſt quarrell and cauſe of *Pompey*, and therefore he ſhould haue as good iſſue therof as he could wiſh. This, quoth he, was I charged and commanded to deliuer. And for a better proofe of the truth in effect, ſo ſoon as I haue done mine errand I ſhall forthwith yeeld vp the ghoſt. And ſo it hapned indeed. Hiſtories alſo make mention of them that haue appeared after they were committed to earth. But our purpoſe is to write of Natures works, and not to proſecute ſuch miraculous end pro- C digious matters.

Chap. LIII.

¶ *Of ſudden Deaths.*

AS for ſudden death, that is to ſay, the greateſt felicitie and happines that can befall man, many examples wee haue thereof that alwaies ſeeme ſtrange and maruellous; howbeit they are common. *Verrius* hath ſet forth a number of them, but I will keepe within a meane, and make choice of them all. Beſides *Chilon* the Lacedemonian, of whom we ſpake before, the died ſuddenly for very ioy, *Sophocles* the poet, and *Denis* a king or tyran of Sicily: both D of them vpon tydings brought vnto them, that they had won the beſt priſe among the tragical Poets. Preſently after that famous defeat at Cannæ, a mother died immediatly vpon the ſight of her ſon aliue, whom by a falſe meſſenger ſhe heard to haue bin ſlain in that battell. *Diodorus* a great profeſſed Logician, for very ſhame that hee could not preſently aſſoile a friuolous queſtion, nor anſwer to ſome demands propoſed by *Stilbo*, ſwouned and neuer came again. Without any apparant cauſe at all that could be ſeen, diuers haue left their life: namely two of the *Cæſars*, the one Pretor for the time being, the other who had borne that dignity, the father of *Cæſar* the Dictator: both of them in the morning when they were new riſen, and putting on their ſhooes, the one at Piſæ, the former at Rome. In like maner *Q. Fabius Maximus* in his very Conſulſhip, vpon the laſt day of December, [which was the laſt alſo of his magiſtracie, had hee E liued longer] in whoſe place *Rebilus* made ſute to be Conſull for a very few houres that remained of that yere. Semblably *C. Vulcatius Gurgius* a Senator. All of them in perfect health, ſo luſtie and well liking that they thought to go forth preſently, and of nothing leſſe than to dy before. *Q. Æmylius Lepidus*, euen as he was going out of his bed chamber, hit his great toe againſt the dore ſill, and therewith died. *C. Aufidius* was gotten forth of his houſe, and as he was going to the Senat, ſtumbled with his foot in the Comitium or common place of aſſemblies, and died in the place. Moreouer, a certain Embaſſador of the Rhodians, who had to the great admiration of all that were preſent, pleaded their cauſe before the Senat, in the very entry of the Councell houſe, as he was going forth, fell downe dead and neuer ſpake word. *Cn. Bæbius Pamphilus*, who had bin Pretor, died ſuddenly as he was asking a boy what it was a clocke. *A. Pompeius*, ſo ſoon as he had worſhipped the gods in the Capitoll, and ſaid his Oraſons, immediately died. So did *M. Iuventius Talva* the Conſull, as hee was offering ſacrifice. And *Caius Seruilius Panſa*, as hee ſtood at a ſhop in the market place about eight of the clocke in the morning, leaning vpon his brother *P. Panſa* his ſhoulders. *Bæbius* the Iudge, as hee was adiourning

ning the day of ones appearance in the court. *M. Terentius Corax*, whiles he was writing letters in the market place. No longer since than the very last yeare, a Knight of Rome, as hee was talking with another that had been Consul, and rounding him in the eare, fell downe starke dead. And this hapned before the yvorie statue of *Apollo*, which stands in the Forum of *Augustus*. But aboue all others it is strange, that *C. Iulius* a Surgeon should die as he was dressing of a sore eie with a salue, and drawing his instrument along the eye. What should I say of *L. Manlius Torquatus*, a man who had bin somtime Consul, whose hap was to die sitting at supper, euen in reaching for a cake or wafer vpon the boord. *L. Durius Valla* the physition died whiles he was drinking a potion of mede or sweet honied wine. *Appius Ausetius* being come out of the Baine, after he had drunk a draught of honied wine, as he was supping off a rere egge died. *P. Quintius Scapula* as he was at supper in *Aquillius Gallus* his house. *Decimus Sausetius* the Scribe, as he sate at dinner in his owne house. *Cornelius Gallus*, one who had bin Lord Pretor, and *T. Aetherius* a Roman Knight, died both in the very act of *Venus*, whiles they lay vpon women. The like befell in our daies to two gentlemen of Rome, who died both as they were dealing contrary to nature with one and the same counterfeit Iester named *Mithycus*, a youth in those daies of surpassing beauty. But of all others, *M. Ofilius Hilarus*, an actor and plaier in comedies, as it is reported by antient writers, died most secure of death, & with the greatest circumstances about it: for after he had much delighted the people, & made them sport to their contentment on his birth day, he kept a feast at home in his house; and when supper was set forth vpon the table, hee called for a messe of hot broth in a pottinger to drinke off; and withall casting his eye vpon the maske or visor he put on that day, fitted it for his visage, and tooke off the chaplet or garland from his bare head, and set it thereupon: in this habit, disguised as he sate, hee was starke dead and key cold before any man perceiued it: vntill he that leaned next vnto him at the boord put him in minde of his pottage that it cooled, and making no answer, they found in what case he was.

These examples all be of happy deaths: but contrariwise there be an infinite number that are as miserable & vnfortunat. *L. Domitius*, a man descended of a most noble house and parentage, being vanquished by *Caesar* before Marseils, and taken prisoner at Corfinium by the same *Caesar*; for very irksomnesse of his tedious life, poisoned himselfe: but after he had drunke the poison, repented of that which he had done, and did all that euer hee could to liue still, but in vaine. We finde vpon record in the publique registers, that when *Felix* one of the carnation or flesh-coloured liuery that ranne with chariots in the great cirque or shew-place was had forth dead to be burnt, one of his fauorits and consorts flung himselfe into his funerall fire for company. A friuolous and small matter it is to speak of; but they of the other part that sided with the aduerse faction of other liueries, because this act should not turne to the honor and credit of their concurrent the actiue Chariotier aboue named, gaue it out and said, that this his friend and wel-willer did not do it for any loue he bare him, but that his head was intoxicate with the strong sauor of the incense and odors that were in the fire, and so being beside himself, wist not what he did. Not long before this chanced, *M. Lepidus*, a gentleman of Rome descended of a most noble family, who (as is aboue said) died for thought and griefe of heart that hee had diuorced his wife, was by the violent force of the flame cast forth of the funerall fire; & because of the extreme heat thereof, no man could come neere to lay his corps again in the place where it was & should be: they were fain to make another fire hard by of dry vine cuttings, and such like sticks, and so he was burnt bare and naked as he was.

Chap. LIIII.

¶ *Of Buriall or Sepulture.*

TO burne the bodies of the dead hath bin no antient custome among the Romans: the maner was in old time to inter them. But after they were giuen once to vnderstand, that the corses of men slain in the wars afar off, and buried in those parts, were taken forth of the earth again, ordained it was to burne them. And yet many families kept them still to the old guise and ceremonie of committing their dead to the earth: as namely the house of the *Cornelij*, whereof there was not one by report burned before *L. Sylla* the Dictator, and he willed it expressely, and prouided for it before hand, for feare himselfe should be so serued as *C. Marius* was, whose corps he caused to be digged vp after it was buried. Now in Latine he is said to be

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A be *Sepultus*, that is beſtowed or buried any way, it makes no matter how: but *humatus* properly, who is interred only, or committed to the earth.

Chap. LV.

¶ *Of the Ghoſts, or ſpirits of men departed.*

After men are buried, great diuerſitie there is in opinion, what is become of their ſouls & ghoſts, wandering ſome this way, and others that. But this is generally held, that in what eſtate they were before men were born, in the ſame they remain when they are dead. For neither body nor ſoule hath any more ſence after our dying day, than they had before the day of our natiuitie. But ſuch is the folly & vanitie of men, that it extendeth ſtil euen to the future
B time; yea, and in the very time of death flattereth it ſelfe with fond imaginations, and dreaming of I know not what life after this: for ſome attribute immortality to the ſoule: others deuiſe a certain transfiguration therof; & there be again who ſuppoſe, that the ghoſts ſequeſtred from the body, haue ſenſe; whereupon they do them honour and worſhip, making a god of him that is not ſo much as a man. As if the maner of mens breathing differed from that in other liuing creatures; or as if there were not to be found many other things in the World, that liue much longer than men, and yet no man iudgeth in them the like immortality. But ſhew me what is the ſubſtance and body as it were of the ſoule by it ſelfe? what kind of matter is it apart from the body? where lieth her cogitation that ſhe hath? how is her ſeeing, how is her hearing performed? what toucheth ſhe? nay, what doth ſhe at al? How is ſhe emploied? or if there be in her
C none of all this, what goodneſſe can there be without the ſame? But I would know where ſhee ſetleth and hath her abiding place after her departure from the body? and what an infinit multitude of ſouls like ſhadows would there be, in ſo many ages, as well paſt as to come? how ſurely theſe be but fantaſtical, fooliſh, and childiſh toies; deuiſed by men that would faine liue alwaies, and neuer make an end. The like foolery there is in preſeruing the bodies of dead men: & the vanity of *Democritus* is no leſſe, who promiſed a reſurrection thereof, and yet himſelf could neuer riſe again. And what a folly is this of all follies to think (in a miſchief) that death ſhould be the way to a ſecond life? what repoſe and reſt ſhould euer men haue that are borne of a woman, if their ſoules ſhould remain in heauen aboue with ſence, whiles their ſhadows tarried be-
D neath among the infernall wights? Certes, theſe ſweet inducements and pleaſing perſuaſions, this fooliſh credulitie and light beliefe, marreth the benefit of the beſt gift of Nature, to wit, Death, it doubleth beſides the paine of a man that is to die, if he happen to thinke and conſider what ſhall betide him the time to come. For if it be ſweet and pleaſant to liue, what pleaſure and contentment can one haue, that hath once liued, and now doth not. But how much more eaſe and greater ſecuritie were it for each man to beleeue himſelfe in this point, to gather reaſons, and to ground his reſolution and aſſurance vpon the experience that he had before hee was borne.

Chap. LVI.

E ¶ *The firſt inuenters of diuers things.*

Before we depart from this diſcourſe of mens nature, me thinks it were meet and conuenient to ſhew their ſundry inuentions, and what each man hath deuiſed in this world. In the firſt place, prince *Bacchus* brought vp buying and ſelling: he it was alſo that deuiſed the diadem that royall enſigne and ornament, and the manner of triumph. Dame *Ceres* was the firſt that ſhewed the way of ſowing corne, whereas before-time men liued of maſt. She taught alſo how to grind corne, to knead dough, and make bread thereof, in the land of Attica, Italy, and Sicily; for which benefit to mankind, reputed ſhe was a goddeſſe. She it was that beganne to make lawes, howſoeuer others haue thought, that *Rhadamanthus* was the firſt law giuer. As for
F Letters, I am of opinion, that they were in Aſſyria from the beginning time out of mind; but ſome thinke, and namely *Gellius*, that they were deuiſed by *Mercurie* in Ægypt: but others ſay they came firſt from Syria. True it is that *Cadmus* brought with him into Greece from Phœnice to the number of ſixteen, vnto which, *Palamedes* in the time of the Troian war added foure more in theſe characters following, Θ. Ξ. Φ. Χ. And after him *Simonides Melicus* came with other foure;

foure,to wit,Z.H.T.Ω, the force of all which letters we acknowledge and ſee euidently expreſſed in our Latine Alphabet. *Ariſtotle* is rather of mind, that there were 18 letters in the Greeke Alphabet from the beginning,namely, A.B Γ.Δ.E.Z I.K.Λ M.N.O.Π.P.Σ.T.Υ Φ,and that the other two Θ and and X. were ſet to by *Epicharmus*, and not by *Palamedes*. *Anticlides* writeth, That one in Egypt named *Menon*,was the inuentor of letters,fifteene yeares before the time of *Phoroneus*, the moſt antient king of Greece;and he goeth about to proue the ſame by antient records and monuments out of hiſtories. Contrariwiſe, *Epigenes*, an author as renowned, and of as good credit as any other,ſheweth, That among the Babylonians there were found Ephemerides containing the obſeruation of the ſtars, for 720 yeares,written in bricks and tiles: and they that ſpeake of leaſt,to wit,*Beroſus* and *Critodemus*,report the like for 480 yeares. Whereby it appeareth euidently,that letters were alwaies in vſe,time out of mind. The firſt that brought the Alphabet into Latium or Italy,were the Pelaſgians. *Euryalus* and *Hyperbius*,two brethren at Athens, cauſed the firſt bricke and tile-kils,yea,and houſes thereof to be made:whereas before their time men dwelt in holes and caues within the ground. *Gellius* is of opinion, that *Dexius* the ſonne of *Cælus*,deuiſed the firſt houſes that were made of earth and cley: taking his patterne from Swallowes and Martins neſts. *Cecrops* founded the firſt towne that euer was, and called it after his owne name Cecropia: which at this day is the caſtle or citadell in Athens. Some will haue that Argos was built before it,by king *Phoroneus*. And others againe, that Sycione was before them both. And the Ægyptians affirme, That long before that, their city Dioſpolis was founded. *Cinyra*,the ſonne of *Agriopa* deuiſed tiling and ſlating of houſes firſt, as alſo found out the braſſe mines;both within the Iſle Cyprus. He inuented alſo pinſers,hammers,yron crows, and the Anuil or Stithe. *Danaus* ſunk the firſt pits for wels in Greece, which then was called Argos Dipſion;& ſailed out of Egypt thither,for that purpoſe. *Cadmus* at Thebes (or, as *Theophraſt*. ſaith) in Phœnice,found out ſtone quarries firſt. *Thraſon* was the firſt builder of towne wals:of towers & fortreſſes,the Cyclops,as *Ariſtotle* thinketh: but the Tyrinthians according to *Theophraſt*. Weauing was the inuention of the Egyptians:and dying wool,of the Lydians in Sardis. *Cloſter* the ſon of *Arachne* taught the firſt making of the ſpindle for woollen yearne: and *Arachne* her ſelfe was the firſt ſpinner of flax thred, the weauer of linnen,and of nets. *Niceas* the Megarean deuiſed the fullers craft. *Bœthius* ſhewed the art of ſowing,as wel for tailors as Corviners and ſhoomakers. The Egyptians would haue the skill of phyſicke to haue bin firſt among them:but others affirme, That *Arabus* the ſon of *Babylon* & *Apollo*,was the author thereof. The firſt Herbariſt and Apothecarie, renowned for the knowledge of ſimples, & compoſition of medicines,was *Chiron*,ſon of *Saturne* & *Phyllira*. *Ariſtotle* thinketh,that *Lydus* the Scythian taught the feat of caſting and melting braſſe, with the tempering alſo of the ſame: howbeit, *Theophraſtus* ſaith it was *Delas* the Phrygian. As for the forges & furnaces of braſſe,ſome think the Chalypes deuiſed,others attribute that to the Cyclopes. The diſcouery of the yron and ſteel mines,as alſo the working in them,was the inuention (as *Heſiodus* ſaith) of thoſe in Creet, who were called Dactyli Idæi. Likewiſe of ſiluer, *Erichthonius* the Athenian beareth the name, or (after ſome) *Aeacus*. The gold mines,together with the melting and trying therof, *Cadmus* the Phœnician firſt found out neere the mountain Pangæus:but there be that giue the praiſe hereof to *Thoas* & *Aeaclis* in Panchaia: or els to *Sol* the ſon of *Oceanus*, to whom *Gellius* attributeth the inuention of Phyſick,and making hony. *Midacritus* was the firſt man that brought lead out of the Iſland Caſſiteris. And the Cyclopes inuented firſt the yron-ſmiths forge. *Corœbus* the Athenian deuiſed the potters craft,ſhewing how to caſt earthen veſſels in moulds,& bake them in furnaces. And therin, *Anacharſis* the Scythian,or after ſome, *Hyperbios* the Corinthian, inuented the caſt of turning the roundel or globe. Carpenters art was the inuention of *Dædalus*,as alſo the tools thereto belonging,to wit,the ſaw,the chip-axe,and hatchet,the plumb line;the augoer and wimble,the ſtrong glew,as alſo fiſh-glew,and ſtone-Saudre. As for the rule & ſquare, the leuell,the turners inſtrument,and the key, *Theodorus Samius* deuiſed them. *Phidon* the Argiue,or *Palamedes* as *Gellius* rather thinketh,found out meaſures and weights. *Pyrodes* the ſon of *Cilix*,deuiſed the way to ſtrike fire firſt out of the flint;and *Prometheus*,the means to preſerue & keep it in a ſtalke of *Ferula*,or Fennell gyant. The Phrygians inuented firſt the wagon & chariot with foure wheeles. As for trafficke and merchandiſe,the Carthaginians had the firſt honour thereof. *Eumolpus* the Athenian was of name for planting, pruning, and cutting vines: alſo for ſetting and graffing trees. *Staphylus* the ſonne of *Silenus* taught men how to delay wine

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A with water. *Ariſtæus* the Athenian inuented the making of oyle oliue, as alſo the preſſe & mill thereto belonging. The ſame man taught the caſt of drawing hony out of the combs. *Buzyges* the Athenian, or as others would haue it, *Triptolemus*, yoked oxen firſt for tillage of the ground, and deuiſed the plough. The Egyptians were the firſt of al men that were gouerned by the monarchy; and the Athenians, by a popular ſtate. After the reigne of *Theſeus*, the firſt king or tyrant was *Phalaris*, at Agrigentum in Sicily. The Lacedæmonians brought in bondage and ſlauery, firſt. The firſt judgement that paſſed for life and death, was in the court Ariopagus at Athens. The firſt battell that euer was fought, was between the Africanes and Egyptians; & the ſame performed by baſtons, clubs, & coulſtaues, which they call Phalangæ. Shields, bucklers,
B and targets were deuiſed by *Prætus* and *Aniſius*, when they warred one againſt the other: or els by *Calchus* the ſon of *Athamas*. *Midias* of Meſſene made the firſt cuirace. And the Lacedæmonians, the mourian, the ſword, and the ſpeare. The Carians deuiſed the grieues, the creſts, and pennaches vpon helmets. *Scythes* the ſon of *Iupiter*, deuiſed bow & arrowes: although ſome ſay that *Perſes* the ſon of *Perſeus* inuented arrows. The Ætolians inuented the launce and the pike: the dart with a loup, *Ætolus* the ſon of *Mars*, deuiſed. As for the light iauelins, and the Partuiſanes, *Tyrrhenus* brought them firſt into vſe: & *Penthesilea* the Amazon-queene, the gleiue, bill, battell-axe, and halbard. *Piſeus* found out the bore-ſpeare and chaſing ſtaffe. Among engines of artillery, the Cretes inuented the Scorpion or croſſe-bow: the Syrians, the Catapult: the Phœnicians the baliſt or brake, and the ſling. *Pyſeus* the Tyrrhenian brought vp the vſe of the braſen
C trumpet: and *Artenon Clozomenius* of the pauois, mantilets, targuet-roofs, for the aſſault of cities. The engine to batter wals (called ſometime the horſe, and now is named the ram) was the deuiſe of *Epeus* at Troy. *Bellerophon* ſhewed firſt how to ride on horſeback. *Peleth ronius* inuented ſaddle, bridle, and other furniture for the horſe. The Theſſalians called Centaures, inhabiting neere to the mountain Pelius, were the firſt that fought on horſeback. The Phrygians deuiſed firſt to driue and draw a chariot with two horſes; *Erichthonius*, with foure. *Palamedes* inuented (during the Troian war) the manner of ſetting an army in battell array: alſo the giuing of ſignall, the priuie watch-word, the *Corps de guard*, the watch and ward. In the time of the ſaid war, *Sinon* deuiſed the ſentinels and watch-towers, as alſo the eſpiall. *Lycanor* was the firſt maker of truce. *Theſeus* of leagues and alliances. *Car*, of whom Caria tooke the name, obſerued firſt the
D flight and cry of birds, and thereby gaue preſages and fore-tokens. *Orpheus* went farther in this skil, and tooke marks from other beaſts. *Delphus* pried into beaſts inwards, and therby foretold things to come. *Amphiaraus* was the firſt that had knowledge in Pyromancie, & gathered ſigns by ſpeculation of fire: like as *Tyreſias* the Thebane, by the feeding and geſture of birds. *Amphictyon* gaue the interpretation of ſtrange and prodigious ſights, as alſo of dreames. *Atlas* the ſon of *Libya* (or as ſome ſay, the Egyptians; & as others, the Aſſyrians) inuented Aſtrology: & in that ſcience *Anaximander* deuiſed the Sphere. As for the knowledge & deſtinction of the winds *Æolus* the ſon of *Hellen*, he profeſſed it firſt. *Amphion* brought muſicke firſt into the world. The flute and the ſingle pipe or recorder were the inuentions of *Pan*, the ſon of *Mercurie*. The crooked cornet, *Midas* in Phrygia deuiſed. And in the ſame country, *Marſyas* inuented the double
E fluit. But *Amphion* taught firſt to ſing and play to the Lydian meaſures: *Thamyras* the Thracian to the Dorian: and *Marſyas* of Phrygia to the Phrygian. *Amphion* likewiſe (or, as ſome ſay, *Orpheus*, and after others *Linus*) plaied firſt vpon the Citterne or the Lute. *Terpander* put ſeuen ſtrings more vnto it: *Simonides* added thereto an eight: and *Timotheus* the ninth. *Thamiras* was the firſt that plaied vpon the ſtringed inſtrument, Lute Cittern, or harpe, without ſong: & *Amphion* ſung withal, or according to ſome, *Linus*. *Terpander* was the firſt that ſet ſongs for the foreſaid ſtringed inſtrument. And *Dardanus* the Trœzenian began firſt vocall muſicke to the pipe. The Curets taught to daunce in armour; and *Pyrrhus* the Moriſk, in order of battell: and both theſe were taken vp firſt in Crete. The heroick or hexametre verſe we acknowledge to haue come firſt from the Oracle of *Pythius Apollo*. But about the original of Poemes & Poetry, there
F is a great queſtion among authors. And it is probably gathered by hiſtories, that there were Poets before the time of ths Trojane war. *Pherecides* of Syros, in the daies of king *Cyrus*, inuented firſt the writing in proſe. *Cadmus* the Mileſian wrote Chronicles, and compiled the firſt hiſtory. *Lycaon* hath the report of ſetting out the firſt publicke games, and prouing of maſteries & feats of ſtrength of actiuity, in Arcadia. To *Acoſtius* in Iolcum we are beholden for the firſt ſolemnities and games at funerals: and after him to *Theſeus*, in the ſtreights of Iſthmus. *Hercules*

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instituted the exercise of wrestlers and champions at Olympia: and *Pythus* was the first plaier at tennise. *Gyges* the Lydian gaue the first proofe of painting and limning, in Ægypt: but in Greece, *Euchir* a cousin of *Dædalus* was the first painter, as *Aristotle* supposeth; but after *Theophrastus*, it was *Polygnotus* the Athenian. *Danaus* was the first that sailed with a ship, and so he passed the seas from Egypt to Greece; for before that time they vsed but troughs or flat planks, deuised by K. *Erythra* to crosse from one Island to another in the red sea. But we meet with some writers who affirme, that the Troians and Mysians were the first sailers, and deuised nauigation before them in Hellespont, when they set out a voiage against the Thracians. And euen at this day in the British ocean, there be made certaine wicker boats of twigs couered with lether and stitched round about: in Nilus, of paper, cane-reed and rushes. *Philostephanus* witnesseth, that *Iason* first vsed the long ship or gally: but *Egesias* saith, that it was *Paralus*: *Ctesias* attributes it to *Samyras*; *Saphanas* to *Semyramis*: and *Archimachus*, to *Ægeon*. *Damastes* testifieth, that the Erythræans made the Bireme or gally with two banks of oares. *Thucydides* writeth that *Aminocles* the Corinthian built the first Trireme with three rows of oars to a side. *Aristotle* saith, that the Carthaginians were the first that set to sea the Quadrireme with 4 ranks of oares to a side: and *Nesichthon* the Salaminian, set aflote the first Quinquereme with 5 course of oares on either side. *Zenagoras* of Syracusa brought vp those of six; and so from it to those of ten, *Mnesigeton* was the inuenter. It is said, that *Alexander* the Great built gallies for 12 bankes to a side: and *Philostephanus* reporteth, that *Ptolemæ* syrnamed *Soter*, rose to fifteen: *Demetrius* the son of *Antigonus*, to thirty; *Ptolomæ Philadelphus*, to forty: and *Ptolomæ Philopator* syrnamed *Tryphon*, to fifty. As for ships of burthen and merchandise, as hoyes, &c. *Hippus Tyrius* inuented them. The Cyrenians made fregates; the Phœnicians, the bark; the Rhodians, the Pinace and Brigantine: and last of all the Cyprians made the hulke and great carrack. The Phœnicians were the first that in sailing, obserued the course of the stars. The Copeans deuised the oare: the Plateans inuented the broad and flat end thereof: *Icarus* the sailes: *Dædalus* the mast and the crosse saile-yard. The vessels for transporting of horses, were the inuention of the Samians, or else of *Pericles* the Athenien. The Thasij had the honour for framing the long ships couered with hatch: for before-time they fought only from out of the hin-decke in the poupe, and the fore-castle in the proe. Then came *Piseus* the Tyrrhene, and armed the stem and beake-head of the shippe with sharpe tines and pikes of brasse: *Eupalamus* deuised the anchor: *Anacharsis* made it first with two teeth or floukes: the grapling hookes and the yron hands were the deuise of *Pericles* the Athenien; and finally, *Typhis* inuented the help of the helme, for the Pylot to steere & rule the ship. The first that set out an Armada to the sea for fight was *Minos*. The first that killed beasts was *Hyperbius* the son of *Mars*: and *Prometheus* ventured to slay an oxe or a Bœufe.

Chap. LVII.

¶ *Wherein appeared first the generall agreement of all Nations.*

THe secret consent of all countries was shewed first in this, That they should vniuersally in all places vse the Ionian letters.

Chap. LVIII.

¶ *Of Antique Letters.*

THe old characters of Greeke letters, were the same in manner that the Latine be in these daies; and this appeareth sufficiently by an antique table of brasse which came from the temple at Delphos, the which at this day is in the great library of the Palatium dedicated to *Minerua*, by the liberality of the Emperors, with this or such like inscription vpon it, Ναυσικράτης πατρώνυμος, Ἀθηναῖος, κόρᾳ ἐ ἀθηναίᾳ ἀνέθηκαν, *i. Nausicrates* (the son) of *Tisamenus* an Athenien, caused this table to be made and set vp to the noble virgin *Minerua*.

Chap. LIX.

¶ *When Barbers were first seene at Rome.*

THe next thing that all people of the world agreed in, was to entertain Barbers, but it was late first ere they were in any request at Rome. The first that entered Italy came out of Sicilie, and it was in the 454 yeare after the foundation of Rome. Brought in they were by

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A by *P. Ticinius Mena*, as *Varro* doth report; for before-time they neuer cut their haire. The firſt that was ſhauen euery day was *Scipio Africanus*; and after him commeth *Auguſtus* the Emperor, who euermore vſed the raſor.

Chap. LX.

¶ *Of Horologies or Dials, when they were firſt deuiſed.*

THe third vniuerſal accord of all nations, was in the obſeruation how the houres went; and this was a point grounded vpon good reaſon: but at what time, and by whom this was de-
B uiſed in Greece, we haue declared in the ſecond booke of this work; & long it was before this order came vp at Rome, as well as the vſe of the Barber. In the 12 tables of Romane lawes, there is no mention at all made but of Eaſt and Weſt; after certain yeres the noon-ſtead point in the South quarter alſo was obſerued, and the Conſuls bedle or crier pronounced noon, when ſtanding at the hall or chamber of the councell, he beheld the Sun in that wiſe betweene the pulpit called Roſtra, and the Grecoſtaſis [which was a place where forrein embaſſadours gaue their attendance:] but when that the ſame ſun inclined downeward from the columne named Mœnia, to the common gaole or priſon, then he gaue warning of the laſt quarter of the day, and ſo pronounced. But this obſeruation would ſerue but vpon cleere daies, when the ſun ſhined: and yet there was no other means to know how the day went, vntill the firſt Punicke war. *Fabi-*
C *us Veſtalis* writeth, that *L. Papyrius Curſor*, 12 yeres before the war with *Pyrrhus*, was the firſt, that for to do the Romans a pleaſure, ſet vp a ſun-dyall to know what it was a clocke, vpon the temple of *Quirinus* at the dedication thereof, when his father had vowed it before him. Howbeit mine aurhor ſheweth not either the reaſon of the making of that diall, or the workman; ne yet from whence it was brought, nor in what writer he found it ſo written. *M. Varro* reporteth, that the firſt diall was ſet vp in the common market place, vpon a columne neere the foreſaid Roſtra, in the time of the firſt Punicke war, by *M. Valerius Meſſala* the Conſull, preſently after the taking of Catana in Sicily; from whence it was brought; thirty yeares after the report that goeth of the foreſaid quadrant and diall of *Papyrius*; namely, in the yeare after the foundation of the city 477. And albeit the ſtrokes and lines of this Horologe or diall agreed not fit with the
D houres, yet were the people ruled and went by it for an hundred yeares ſaue one, euen vntill *Q. Martius Philippus* (who together with *L. Paulus* was Cenſor) ſet another by it, framed & made more exquiſitly according to Art. And this piece of work among other good acts done by the Cenſor during his office, was highly accepted of the people as a ſingular gift of his. Yet for all this, if it were a cloſe and cloudy day wherein the Sun ſhone not out, men knew not what it was a clocke certainly; and thus it continued fiue yeres more. Then at laſt, *Scipio Naſica* being Cenſor with *Lænas*, made the deuiſe firſt to diuide the houres both of day and night equally, by water, diſtilling and dropping out one veſſell into another. And this manner of Horologe or water-clocke, he dedicated in the end within houſe, and that was in the 595 yere from the buil-
E ding of Rome. Thus you ſee how long it was, that the people of Rome could not certainly tell how the day paſſed. Thus much concerning the Nature of man: let vs returne now to diſcourſe of other liuing creatures; and firſt of land-beaſts.

THE

THE EIGHTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

CHAP. I.

¶ *Of landbeasts. The praise of Elephants: their wit and vnderstanding.*

PAsse we now to treat of other liuing creatures, and first of land-beasts: among which, the Elephant is the greatest, and commeth neerest in wit and capacitie, to men; for they vnderstand the language of that country wherin they are bred, they do what soeuer they are commanded, they remember what duties they be taught, and withall take a pleasure and delight both in loue and also in glory, nay more than all this, they embrace goodnesse, honestie, prudence, and equitie (rare qualities I may tel you to be found in men) and withal haue in religious reuerence (with a kinde of deuotion) not only the stars and planets, but the sun and moon they also worship. And in very truth, writers there be who report thus much of them, That when the new moon beginneth to appeare fresh and bright, they come downe by whole heards to a certaine riuer named Amelus, in the desarts and forests of Mauritania, where after that they are washed and solemnly purified by sprinckling and dashing themselues all ouer with the water, & haue saluted and adored after their manner that planet, they returne again into the woods & chases, carrying before them their yong calues that be wearied and tired. Moreouer, they are thought to haue a sense and vnderstanding of religion & conscience in others; for when they are to passe the seas into another country, they wil not embarke before they be induced thereto by an oath of their gouernors and rulers, That they shall returne again: and seene there haue bin diuers of them, being enfeebled by sickneſſe (for as big and huge as they be, subject they are to grieuous maladies) to lie vpon their backs, casting and flinging herbes vp toward heauen, as if they had procured and set the earth to pray for them. Now for their docility and aptnesse to learne any thing; the king they adore, they kneele before him, and offer vnto him garlands and chaplets of floures and green herbes. To conclude, the lesser sort of them, which they call Bastards, serue the Indians in good stead to eare and plough their ground.

CHAP. II.

¶ *When Elephants were put to draw first.*

THe first time that euer they were knowne to draw at Rome, was in the triumph of *Pompey* the Great, after he had subdued Africke, for then were two of them put in geeres to his triumphant chariot. But long before that, it is said that Father *Bacchus* hauing conquered India, did the like when he triumphed for his conquest. Howbeit, in that triumph of *Pompey*, *Procilius* affirmeth, That coupled, as they were, two in one yoke, they could not possibly go in at the gates of Rome, In the late solemnity of tournois & sword-fight at the sharp, which *Germanicus Cæsar* exhibited to gratifie the people, the elephants were seen to shew pastime with leaping & keeping a stir, as if they danced, after a rude and disorderly manner. A common thing it was

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A was among them to fling weapons & darts in the aire ſo ſtrongly, that the winds had no power againſt them; to flouriſh alſo before hand; yea, and to encounter and meet together in fight like ſword-fencers; and to make good ſport in a kinde of Moriske dance: and afterwards to go on ropes and cords: to carry (foure together) one of them laid at eaſe in a litter, reſembling the maner of women newly brought a bed: laſt of all, ſome of them were ſo nimble and well practiſed, that they would enter into an hall or dining place where the tables were ſet full of gueſts, and paſſe among them ſo gently and daintily, weighing as it were their feet in their going, ſo as they would not hurt or touch any of the company as they were drinking.

Chap. III.

B

¶ *The docilitie of Elephants.*

THis is knowne for certaine, that vpon a time there was an Elephant among the reſt, not ſo good of capacity, to take out his leſſons, and learn that which was taught him: and being beaten and beaten again for that blockiſh and dull head of his, was found ſtudying and conning thoſe feats in the night, which he had bin learning in the day time. But one of the greateſt wonders of them was this, that they could mount vp and clime againſt a rope; but more wonderfull, that they ſhould ſlide downe again with their heads downward. *Mutianus*, a man who had in his time bin thrice Conſull, reporteth thus much of one of them, that he had learned to make the Greeke characters, and was wont to write in that language thus much, *Thus haue I written, and made an offering of the Celticke ſpoiles*. Likewiſe hee ſaith, that himſelfe ſaw at
C Puteoli, a certain ſhip diſcharged of Elephants embarked therein; and when they ſhould be ſet aſhore, and forced to go forth of the veſſel, to which purpoſe there was a bridge made for them to paſſe ouer, they were affrighted at the length thereof, bearing out ſo far from the land into the water: and therefore to deceiue themſelues, that the way might not ſeeme ſo long, went backward with their tails to the banke, and their heads toward the ſea. They are ware, & know full well that their only riches (for loue of which, men lay wait for them) lieth in their armes and weapons that Nature hath giuen them: king *Iuba* calleth them their hornes: but *Herodotus*, who wrote long before him, and the cuſtome of ſpeech, hath tearmed them much better, teeth. And therefore when they are ſhed and fallen off, either for age, or by ſome caſualtie, the Elephants themſelues hide them within the ground. And this in truth is the only yuory: for all the
D reſt, yea, and theſe teeth alſo ſo far as lay couered within the fleſh, is of no price, and taken for no better than bone. And yet of late daies, for great ſcarcitie & want of the right teeth, men haue bin glad to cut and ſaw their bones into plates, and make yvorie therof. For hardly can we now come by teeth of any bignes, vnleſſe we haue them out of India. For all the reſt that might be gotten in this part of the world between vs and them, hath bin imploied in ſuperfluities only, and ſerued for wanton toies. You may know yong Elephants by the whitenes of theſe teeth: and a ſpeciall care and regard haue theſe beaſts of them aboue all. They looke to one of them alwaies, that the point be ſharp; and therefore they forbeare to occupie it, leaſt it ſhould bee blunt againſt they come to fight: the other they vſe ordinarily, either to get vp roots out of the earth, or to caſt down any banks or mures that ſtand in their way. When they chance to be en-
E compaſſed round about with hunters, they ſet formoſt in the rank to be ſeen, thoſe of the heard that haue the leaſt teeth: to the end, that their price might not be thought worth the hazard and venture in chaſe for them. But afterwards, when they ſee the hunters eager, and themſelues ouermatched and weary, they breake them with running againſt the hard trees, and leauing them behind, eſcape by this ranſome as it were, out of their hands.

Chap. IIII.

¶ *The clemencie of Elephants: their foreſight and knowledge of their owne dangers: alſo the fell fierceneſſe of the Tygre.*

F A Wonder it is in many of theſe creatures, that they ſhould thus know wherefore they are hunted, and withall take heed & beware of all their dangers. It is ſaid, that if an elephant chance to meet with a man wandering ſimply out of his way in the wilderneſſe, hee will mildly and gently ſet him in the right way again. But if he perceiue a mans freſh footing, before he eſpie the man, he will quake and tremble for feare of being forelaid & ſurpriſed: he wil

ſtay from farther following the ſent, look about him euery way, ſnuffe and puffe for very anger. Neither will he tread vpon the tract of a mans foot, but dig it out of the earth, and giue it the next Elephant vnto him, and he againe to him that followeth, and ſo from one to another paſſeth this intelligence and meſſage as it were, to the vtmoſt rank behind. Then the whole heard makes a ſtand, and caſt round about to returne backward, and withall put themſelues in battel array: ſo long continueth that ſtrong virulent ſmel of mens feet, and runneth through them all, notwithſtanding for the moſt part they be not bare but ſhod. Semblably, the Tigreſſe alſo, how fierce and cruell ſhe be to other wilde beaſts, & careth not a whit for a very Elephant; if ſhee happen to haue a ſight of a mans footing, preſently, by report, carieth away her young whelpes, and is gon. But how commeth ſhe to this knowledge of a man? where ſaw ſhe him euer before, whom thus ſhe feareth? for ſurely ſuch wild woods & foreſts are not much trauelled & frequented by men. Set caſe, that they may wel wonder at the ſtrange ſight and nouelty of their tracts, which are ſo ſeldome ſeen, how know they that they are to be feared? Nay, what ſhould be the reaſon, that they dread to ſee a man indeed, being as they are, far bigger, much ſtronger, and ſwifter by many degrees than a man? Certes, herein is to be ſeen the wonderfull worke of Nature, and her mightie power; that the greateſt, the moſt fell and ſauage beaſts that be, hauing neuer ſeen that which they ought to feare, ſhould incontinently haue the ſence and conceit, why the ſame is to be feared.

Chap. V.

¶ *The vnderſtanding and memorie of Elephants.*

THe Elephants march alwaies in troups. The eldeſt of them leadeth the vaward, like a captaine: and the next to him in age, commeth behind with the conduct of the arrereguard. When they are to paſſe ouer any riuer, they put for moſt the leaſt of al their company, for feare, that if the bigger ſhould enter firſt, they would, as they trod in the channell, make the water to ſwell and riſe, and ſo cauſe the fourd to be more deepe. *Antipater* writeth, that K. *Antiochus* had two Elephants, which he vſed in his wars aboue all the reſt; and famous they were for their ſurnames, which they knew well enough, and wiſt when any man called them thereby: and verily, *Cato* reciting in his Annals the names of the principall captaine Elephants, hath left in writing, That the Elephant which fought moſt luſtily in the point of the Punick war, had to name Surus, by the ſame token, that the one of his teeth was gone. When *Antiochus* on a time would haue ſounded the fourd of a certaine riuer, by putting the Elephants before, Ajax refuſed to take the water, who otherwiſe at all times was wont to lead the way. Wherupon the king pronounced with a loud voice, That look which Elephant paſſed to the other ſide, he ſhould be the captain and chiefe. Then Patroclus gaue the venture: & for his labor had a rich harniſh and capariſon giuen him, & was all trapped in ſiluer (a thing wherin they take moſt delight) and made beſides the ſoueraigne of all the reſt. But the other that was diſgraced thus, and had loſt his place, would neuer eat any meat after, but died for very ſhame of ſuch a reprochfull ignominy. For among other qualities, maruellous baſhfull they are: for if one of them be ouermatched & vanquiſhed in fight, he wil neuer after abide the voice & braying of the conqueror, but in token of ſubmiſſion, giueth him a turfe of earth, with veruaine or graſſe vpon it. Vpon a kind of ſhamefaced modeſty, they neuer are ſeen to ingender together, but perform that act in ſome couert & ſecret corner. They go to rut, the male at 5 yeres of age, the femal not before ſhe is 10 yeres old. And this they do euery third yere: and they continue therein fiue daies in the yeare (as they ſay) and not aboue: for vpon the ſixt day they all to waſh themſelues ouer in the running riuer: & before they be thus purified, return not to the heard. After they haue taken one to another once, they neuer change: neither fall they out and fight about their femalls, as other creatures do moſt deadly and mortally. And this is not for want of loue and hot affection that way: for reported it is of one Elephant, that he caſt a fancy and was enamoured vpon a wench in Ægypt that ſold noſegaies & garlands of floures. And leſt any man ſhould thinke that hee had no reaſon thereto, it was no ordinary maiden, but ſo amiable, as that *Ariſtophanes* the excellent Grammarian, was wonderfully in loue with her. Another there was, ſo kind and full of loue, that he fanſied a youth in the army of *Ptolomæus*, that ſcarce had neuer an haire vpon his face, and ſo entirely he loued him, that what day ſoeuer he ſaw him not, he would forbeare his meat

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A meat,and eat nothing.K.*Iuba* likewiſe reporteth alſo of an Elephant that made court to another woman,who made and ſold ſweet ointments and perfumes. All theſe teſtified their loue and kindnes,by theſe tokens: joy they would at the ſight of them, and looke pleaſantly vpon them:make toward them they would(after their rude and homely manner)by all means of flatterie:and eſpecially in this,that they would ſaue whatſoeuer people caſt to them for to eat,and lay the ſame ful kindly in their laps and boſomes. But no maruel it is that they ſhould loue who are ſo good of memorie.For the ſame *Iuba* ſaith, That an Elephant tooke knowledge and acquaintance of one man in his old age,and after many a yere,who in his youth had bin his ruler and gouernor.He affirmeth alſo,that they haue by a ſecret diuine inſtinct,a certain ſence of juſtice and righteous dealing.For when K.*Bacchus* meant to be reuenged of 30 Elephants,that he had cauſed to be bound vnto ſtakes,and ſet other 30 to run vpon them, appointing alſo cer-
B tain men among to pricke and prouoke them thereto;yet for all that,could not one of them be brought for to execute this butcherie,nor be miniſters of anothers crueltie.

Chap. VI.

¶ *When Elephants were firſt ſeen in Italy.*

THe firſt time that Elephants were ſeen in Italy,was during the war of K. *Pyrrhus*;& they called them by the name of *Lucæ boues*,*i*.Lucane oxen, becauſe they had the firſt ſight of them in the Lucans countrie,and it was in the 472 yere after the cities foundation.But in Rome it was ſeuen yeres after ere they were ſeen,and then they were ſhewed in a triumph. But
C in the yere 502,a number of them were ſeen at Rome by occaſion of the victorie of *L. Metellus Pontifex* ouer the Carthaginians:which Elephants were taken in Sicilie.For 142 of them were conueied ouer vpon planks and flat bottomes,which were laied vpon ranks of great tuns and pipes ſet thicke one by another.*Verrius* ſaith,that they were cauſed to fight in the great cirque or ſhew place,and were killed there with ſhot of darts and iauelins for want of better counſel, and becauſe they knew not well what to do with them:for neither were they willing to haue them kept and nouriſhed,ne yet to be beſtowed vpon any kings.*L. Piſo* ſaith they were brought out only into the ſhew place or cirque aforeſaid, and for to make them more contemptible were chaſed round about it by certaine fellowes hired thereto,hauing for that purpoſe certain
D ſtaues and perches,not pointed with iron,but headed with bals like foiles.But what became of them afterward,thoſe Authours make no mention: who were of opinion that they were not killed.

Chap. VII.

¶ *Their fights and combats.*

MVch renowned is the fight of one Roman with an Elephant,at what time as *Annibal* forced thoſe captiues whom he had taken of our men,to skirmiſh one againſt another to the vtterance.For the only Roman that remained vnſlaine at that vnnaturall conflict,he
E would needs match with an Elephant, and ſee the combate himſelfe, aſſuring him vpon his word,that if he could kil the beaſt,he ſhould be diſmiſſed and ſent home with life & liberty. So this priſoner entred into ſingle fight with the Elephant,& to the great hearts griefe of the Carthaginians ſlew him out-right. *Anniball* then ſent him away indeed according to promiſe and couenant;but conſidering better the conſequence of this matter; and namely, that if this combat were once by him bruted abroad,the beaſts would be leſſe regarded, and their ſeruice in the wars not eſteemed; made after him certaine light horſemen to ouertake him vpon the way to cut his throat,ſo making him ſure for telling tales. Their long ſnout or trunke which the Latins call *Proboſcis*,may be eaſily cut off, as it appeared by experience in the wars againſt K.*Pyrrhus*.*Feneſtella* writeth,That the firſt fight of them in Rome, was exhibited in the grand
F Cirque,during the time that *Claudius Pulcher* was Ædile Curule,when *M. Antonius* and *A. Poſthumius* were Conſuls:in the 650 yere after the citie of Rome was built. In like maner,20 yeres after,when the *Luculli* were Ædiles Curule,there was repreſented a combat between bulls and Elephants.Alſo in the ſecond Conſulſhip of *C. Pompeius* at the dedication of the temple to *Venus Victoreſſe*,20 of them,or as ſome write,17 fought in the great Cirque. In which ſolemnitie

the Gætulians were ſet to launce darts and jauelins againſt them. But among all the reſt, one G
Elephant did wonders: for when his legs and feet were ſhot and ſtucke full of darts, he crept vp-
on his knees, and neuer ſtaied til he was gotten among the companies of the ſaid Gætulians,
where he caught from them their targets and bucklers perforce, flung them aloft into the aire,
which as they fell, turned round, as if they had bin trundled by art, & not hurled & thrown with
violence by the beaſts in their furious anger: and this made a goodly ſight, and did great plea-
ſure to the beholders. And as ſtrange a thing as that was ſeen in another of them, whoſe fortune
was to be killed out of hand with one ſhot: for the dart was ſo driuen, that it entered vnder the
eie, and pierced as far as to the vitall parts of the head, euen the ventricles of the brain. Wher-
upon all the reſt at once aſſaied to break forth and get away, not without a great hurry & trou-
ble among the people, notwithſtanding they were without the liſts, and thoſe ſet round about H
with yron grates and bars. [And for this cauſe *Cæſar* the Dictatour, when afterwards hee was to
exhibit the like ſhew before the people, caſt a ditch round about the place, letting in the water
and ſo made a mote thereof: which prince *Nero* afterwards ſtopped vp, for to make more room
for the knights and men of armes.] But thoſe Elephants of *Pompey* being paſt all hope of eſca-
ping and going cleere away, after a moſt pittifull manner and rufull plight that cannot bee ex-
preſſed, ſeemed to make mone vnto the multitude, crauing mercie and pittie, with grieuous
plaints and lamentations, bewailing their hard ſtate and wofull caſe: in ſuch ſort, that the peo-
ples hearts earned again at this piteous ſight, and with tears in their eies, for very compaſſion,
roſe vp all at once from beholding this pageant, without regard of the perſon of *Pompey* that
great Generall and Commander, without reſpect of his magnificence and ſtately ſhew, of his I
munificence and liberality, where he thought to haue woon great applauſe and honor at their
hands; but in lieu thereof fell to curſing of him, and wiſhing all thoſe plagues and misfortunes
to light vpon his head, which ſoon after inſued accordingly. Moreouer, *Cæſar* the Dictatour in
his third Conſulſhip exhibited another fight of them, and brought forth 20 to maintain skir-
miſh againſt 500 footmen: and a ſecond time he ſet out 20 more, with woodden turrets vpon
their backs, containing 60 defendants a piece: and he oppoſed againſt them 500 footmen, and
as many horſe. After all this, *Claudius* and *Nero* the Emperors brought them forth one by one
into ſingle fight, with approued, expert, and accompliſhed fencers, at the end of al the other ſo-
lemnitie when they had done their prizes. This beaſt, by report of all writers, is ſo gentle to all
others that are but weak, and not ſo ſtrong as himſelfe, that if he paſſe through a flock or heard K
of ſmaller cattell, it will with the noſe or trunke which ſerueth in ſtead of his hand, remoue and
turn aſide whatſoeuer beaſt commeth in his way, for feare he ſhould go ouer them, and ſo cruſh
and tread vnder his foot any of them, ere it were aware. And neuer do they any hurt, vnleſſe they
be prouoked thereto. Alwaies walke they by troups together, and worſt of all other can they
away with wandring alone, but loue company exceeding well. If it fortune that they be inuiro-
ned with horſmen, look how many of their fellows be feeble, weary, or wounded, thoſe they take
into the mids of their ſquadron: and as if there were marſhalled and ordered by a Serjeant of
a band, or heard the direction of ſome Generall, ſo skilfully and as it were with guidance of
reaſon, do they maintain fight by turns, and ſucceed one after another in their courſe. The wild
ſort of them, after they be taken, are ſooneſt brought to be tame and gentle, with the iuice or L
decoction of husked barly.

Chap. VIII.

¶ *The manner of taking Elephants:*

THe Indians are wont to take Elephants in this manner: the gouernor driueth one of them
that are tame, into the chaſe and forreſts, and when he can meet with one of them alone, or
ſingle him from the heard, he all to beateth the wilde beaſt till he hath made him wearie,
and then he mounteth vpon him & ruleth him as wel as the former. In Africk they catch them
in great ditches which they make for that purpoſe: into which, if one of them chance to wan- M
der aſtray from his fellowes, all the reſt immediatly come to ſuccour him; they heap together a
deale of boughs, they rol down blocks & ſtones, and whatſoeuer may ſerue to raiſe a banke, and
with all that euer they can do, labor to plucke him out. Before-time, when they meant to make
them tractable, their maner was, by a troup of horſmen to driue or train them by little & little
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A a long way in a certain lawn or vally, made by mans hand for the nones, ere they were aware, and when they were incloſed within ditches or bankes, there they would keep them from meat ſo long, vntil for very hunger they would be glad to come to hand for food: & by this they might know they were gentle and tame enough to be taken, if they would meekly take a branch of a bow preſented and offred vnto them. But now adaies, ſince they ſeek after them for their teeths ſake, they make no more ado but ſhoot at their legges, which otherwiſe naturally are tender enough and the ſofteſt part of their whole body. The Troglodites, a people bounding vpon Æthiopia, who liue only vpon the veniſon of Elephants fleſh, vſe to clime trees that be neer their walk, and there take a ſtand: from thence (letting all the heard to paſſe quietly vnder the trees)
B they leap down vpon the buttocks of the hinmoſt: then he that doth this feat, with his left hand laieth faſt hold vpon his taile, and ſets his feet and legs faſt in the flanke of the left ſide, and ſo hanging and bending backward with his body, he cutteth the ham-ſtrings of one of his legges with a good keen bil or hatchet that he hath of purpoſe in his right hand: which done, the Elephant beginneth to ſlack his pace, by reaſon that one of his legs is wounded: the man then maketh ſhift to get away and alighteth on foot, and for a farwell he hougheth the ſinews likewiſe of the other ham; and all this doth he in a trice with wonderful agility and nimblenes. Others haue a ſafer way than this, but it is more ſubtill and deceitfull: they ſet or ſtick in the ground a great way off, mighty great bows ready bent; to hold theſe faſt, they chuſe certain tal luſty, and ſtrong fellows, and as many others as ſufficient as they, to draw with all their might and maine
C the ſaid bowes againſt the other, and ſo they let flie againſt the poore Elephants as they paſſe by, jauelins and bore-ſpears, as if they ſhot ſhafts, and ſtick them therwith, and ſo follow them by their bloud. Of theſe beaſts, the femals are much more fearfull than the male kind.

Chap. IX.

¶ *The manner of taming Elephants.*

AS furious and raging mad as they be ſometime, they are tamed with hunger and ſtripes: but men had need to haue the help of other Elephants that are tame already, to reſtraine the vnruly beaſt with ſtrong chains: of all times, when they go to rut they are moſt out of
D order and ſtarke wood; down go the Indian ſtables and beaſt ſtals then, which they ouer-turne with their teeth; and therfore they keepe them from entring into that fit, and ſeparate the femals apart from the males, making their parks and encloſures aſunder, as they doe by other beaſts. The tamed ſort of them ſerue in the wars, and carry little caſtles or turrets with armed ſouldiers, to enter the ſquadrons and battalions of the enemies: and for the moſt part, all the ſeruice in the wars of the Eaſt, is performed by them, and they eſpecially determine the quarrell: theſe be they that breake the ranks, beare down armed men that are in the way, and ſtampe them vnder foot. Theſe terrible beaſts (as outragious otherwiſe as they ſeem) are frighted with the leaſt grunting that is of a ſwine: be they wounded at any time or put into a fright, backeward alwaies they go, and do as much miſchiefe to their own ſide that way, as to their enemies.
E The African Elephants are afraid of the Indian, and dare not look vpon them; for in truth the Indian Elephants be far bigger.

Chap. X.

¶ *How they breed and bring forth their young: and of their nature otherwiſe.*

THe common ſort of men thinke, that they go with young ten yeres: but *Ariſtotle* ſaith that they go but two yeares, and that they breed but once and no more in their life, and bring not aboue one at a time: alſo that they liue commonly by courſe of nature 200
F yeres, and ſome of them 300. Their youthful time and ſtrength of age beginneth when they be 60 yeres old: they loue riuers aboue all things, and lightly ye ſhall haue them euermore wandring about waters; and yet by reaſon otherwiſe of their big and vnwealdie bodies, ſwim they cannot. Of all things they can worſt away with cold, and that is it they are moſt ſubiect vnto, and feele greateſt inconuenience by: troubled they be alſo with the collick, and ventoſities, as alſo with the flux of the belly: other maladies they feele not. I find it written in hiſtories, that if

they drinke oile, the arrows and darts which ſtick in their bodies wil come forth and fall off : G
but the more that they ſweat, the ſooner wil they take hold and abide in ſtil the faſter. The eating of earth breedes the conſumption in them, vnleſſe they feed and chew often therof: they deuoure ſtones alſo. As for the trunks and bodies of trees, it is the beſt meat they haue, & therin take they moſt delight. If the date trees be too high that they cannot reach the fruit, they will ouerturn them with their forehead, and when they lie along, eat the dates. They chew and eat their meat with their mouth: but they breath, drink, and ſmell, with their trunke, which not improperly is called their hand. Of all other liuing creatures, they cannot abide a mouſe or a rat, and if they perceiue that their prouander lying in the manger, taſt and ſent neuer ſo little of them, they refuſe it and wil not touch it. They are mightily tormented with paine, if they chance in their drinking to ſwallow down an horſleech (which worm, I obſerue, they begin now H
to cal, a bloud-ſucker:) for ſo ſoon as the horſleech hath ſetled faſt in his wind-pipe, he putteth him to intollerable pains. Their hide or skin of their back is moſt tough & hard; but in the belly, ſoft & tender: couered their skin is neither with haire nor briſtle, no not ſo much as in their taile, which might ſerue them in good ſtead to driue away the buſie & troubleſome flie (for as vaſt & huge a beaſt as he is, the flie hanteth & ſtingeth him) but ful their skin is of croſſe wrinkles lattiſewiſe; & beſides that, the ſmell thereof is able to draw and allure ſuch vermin to it: & therefore when they are laid ſtretched along, and perceiue the flies by whole ſwarms ſetled on their skin, ſuddenly they draw thoſe cranies and creuiſes together cloſe, and ſo cruſh them all to death. This ſerues them in ſtead of taile, main, and long haire. Their teeth beare a very high price, and they yeeld the matter of greateſt requeſt, and moſt commendable, for to make the ſta- I
tues and images of the gods: but ſuch is the ſuperfluity and exceſſe of men, that they haue deuiſed another thing in them to commend; for they find forſooth a ſpecial dainty taſt in the hard callous ſubſtance of that which they cal their hand: for no other reaſon (I beleeue) but becauſe they haue a conceit that they eat yvorie, when they chew this griſtle of their trunk. In temples are to be ſeen Elephants teeth of the greateſt ſize: howbeit in the marches of Africke where it confineth vpon Æthiopia, they make of yuory the very principals and corner poſts of their houſes: alſo with the Elephants tooth they make mounds & pales both to incloſe their grounds, and alſo to keep in their beaſts within park, if it be true that *Polybius* reporteth, from the teſtimony of king *Gulufſa*.

Chap. XI. K

¶ *Where the Elephants are bred : how the Dragons and they diſagree.*

ELephants breed in that part of Africke which lieth beyond the deſarts and wilderneſſe of the Syrtes : alſo in Mauritania: they are found alſo amongſt the Æthyopians and Troglodites, as hath beene ſaid : but India bringeth forth the biggeſt: as alſo the dragons that are continually at variance with them, & euermore fighting, and thoſe of ſuch greatneſſe, that they can eaſily claſp and wind round about the Elephants, and withall tye them faſt with a knot. In this conflict they die, both the one and the other: the Elephant he fals downe dead as conque- L
red, and with his heauy weight cruſheth and ſqueaſeth the dragon that is wound and wreathed about him.

Chap. XII.

¶ *The wittincſſe and policie in theſe creatures.*

WOnderfull is the wit and ſubtilty that dumbe creatures haue, and how they ſhift for themſelues and annoy their enemies; which is the only difficulty that they haue to ariſe & grow to ſo great an heigth and exceſſiue bignes. The dragon therfore eſpying the Elephant when he goeth to reliefe, aſſaileth him from an high tree and launceth himſelfe M
vpon him; but the Elephant knowing well enough he is not able to withſtand his windings & knittings about him, ſeeketh to come cloſe to ſome trees or hard rocks, and ſo for to cruſh and ſquiſe the dragon between him and them: the dragons ware hereof, entangle and ſnarle his feet & legs firſt with their taile: the Elephants on the other ſide, vndo thoſe knots with their trunk as with a hand: but to preuent that againe, the Dragons put in their heads into their ſnout, and

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A ſo ſtop their wind,and withall fret and gnaw the tendereſt parts they find there. Now in caſe theſe two mortall enemies chance to re-incounter on the way,they briſtle & bridle one againſt another,and addreſſe themſelues to fight; but the chiefe thing the dragons make at is the eie, whereby it comes to paſſe,that many times the Elephants are found blinde,pined for hunger, and worne away,and after much languiſhing, for very anguiſh and ſorrow die of their venome. What reaſon ſhould a man alledge of this ſo mortall warre betweene them, if it be not a very ſport of Nature,and pleaſure that ſhe takes, in matching theſe two ſo great enemies together, and ſo euen and equall in each reſpect? But ſome report this mutuall war between them after another ſort,and that the occaſion thereof ariſeth from a naturall cauſe: for (ſay they) the Ele-
B phants bloud is exceeding cold,and therefore the dragons be wonderful deſirous thereof to refreſh and coole themſelues therewith during the parching hot ſeaſon of the yeare. And to this purpoſe they ly vnder the water, waiting their time to take the Elephants at a vantage when they are drinking; where they catch faſt hold firſt of their trunke, and they haue not ſo ſoone claſped and intangled it with their taile, but they ſet their venomous teeth in the Elephants eare (the onely part of all their body which they cannot reach vnto with their trunke) and ſo bite it hard: now theſe dragons are ſo big withal,that they are able to receiue all the elephants bloud: thus are they ſucked dry vntill they fall down dead: and the dragons alſo,drunke with their bloud,are ſqueeſed vnder them,and ſo dy together.

Chap. XIII.

C ¶ *Of Dragons.*

IN Æthyopia there be as great dragons bred as in India, namely 20 cubits long: but I marruell much at this one thing,that king *Iuba* ſhould think they are creſted. They are bred moſt in a countrey of Æthyopia where the Aſachæi inhabit. It is reported, that vpon their coaſt they are inwrapped foure or fiue of them one within another, like to a hurdle or lattiſe-worke, and thus paſſe the ſeas to find out better paſturage in Arabia, cutting the waues, and bearing their heads aloft,which ſerue them in ſtead of ſailes.

Chap. XIV.

D ¶ *Of monſtrous great Serpents, and namely of thoſe called Boæ.*

MEgaſthes writeth,that there be ſerpents among the Indians growne to that bigneſſe, that they are able to ſwallow ſtags or bulls all whole. *Metrodorus* ſaith,that about the riuer Rhyndacus in Pontus, there be ſerpents that catch and deuoure the fowles of the aire, be they neuer ſo ſwift winged,and ſoare they neuer ſo high. Well knowne it is,that *Attilius Regulus*, Generall vnder the Romans during the wars againſt the Carthaginians,aſſailed a Serpent neere the riuer Bagrada,which caried in length 120 foot; and before hee could conquer him was driuen to diſcharge vpon him arrowes,quarrels, ſtones,bullets,and ſuch like ſhot,out of brakes,ſlings,and other engins of artillery,as if he had giuen the aſſault to ſome ſtrong warlike towne: the proofe whereof was to be ſeen by the marks remaining in his skin and chawes;
E which vntill the war of Numantia remained in a temple or conſpicuous place of Rome. And this is the more credible,for that we ſee in Italy other ſerpents named Boæ, ſo big and huge, that in the daies of the Emperor *Claudius* there was one of them killed in the Vaticane,within the belly whereof there was found an infant all whole. This ſerpent liueth at the firſt of kines milk,and thereof takes the name Boæ. As for other beaſts which ordinarily of late are brought from all parts into Italy,and oftentimes haue there been ſeen,needleſſe it is for me to deſcribe their formes in particular curiouſly.

Chap. XV.

F ¶ *Of Scythian beaſts,and thoſe which are bred in the North parts.*

VEry few ſauage beaſts are ingendred in Scythia for want of trees & paſturage. Few likewiſe in Germany bordering vpon it. Howbeit that country brings forth certaine kindes of goodly great wild bœufs: to wit,the Biſontes,mained with a collar like Lions: and the

Vri,

Vri, a mighty ſtrong beaſt and a ſwift, which the ignorant people call Buffles, whereas indeed G
the Buffle is bred in Africke, and ſomewhat reſembles a calfe rather, or ſtag. The Northerne
regions bring forth wilde horſes, which there are found in great troups: like as in Aſia and in
Africk there are to be ſeen wild Aſſes. Moreouer, a certain beaſt called the Alce, very like to a
horſe, but that his eares are longer, and his necke alſo with two markes diſtinguiſhing them a-
ſunder. Moreouer, in the Iſland of Scandinavia there is a beaſt called Machlis, not much vn-
like the Alce aboue-named: common he is there, & much talk we haue heard of him, howbeit
in theſe parts he was neuer ſeen. He reſembles, I ſay, the Alce, but that he hath neither ioynt in
the hough, nor paſternes in his hind legs; and therefore he neuer lieth downe, but ſleepeth lea-
ning to a tree. Wherefore the hunters that lie in wait for theſe beaſts, cut down the trees while
they are aſleepe, and ſo take them: otherwiſe they ſhould neuer be taken, they are ſo ſwift of H
foot, that it is wonderfull. Their vpper lip is exceeding great, and therefore as they graſe and
feed they go retrograde, leſt if they went paſſant forward, they ſhould fold that lip double vn-
der their muzzle. There is (they ſay) a wild beaſt in Pæonia, called Bonaſus, with a maine like
an horſe, otherwiſe reſembling a bull: mary his hornes bend ſo inward with their tips toward
his head, that they ſerue him in no ſtead at all for fight, either to offend, or defend himſelf: and
therefore all the helpe hee hath is in his good footmanſhip, and otherwhiles in his flight by
dunging, which he will ſquirt out from behind him three acres in length. This his ordure is ſo
ſtrong and hot, that it burneth them that purſue him, like fire, if haply they touch it. A ſtrange
thing it is, and wonderfull, that the Leopards, Panthers, Lions, and ſuch like beaſts, as they go,
draw in the points of their claws within their body, as it were into ſheaths, becauſe they ſhould I
neither breake nor wax blunt, but be alwaies keene and ſharpe: alſo, that when they runne they
ſhould turne the hooked nailes of their pawes back, and neuer ſtretch them forth at length but
when they meane to aſſaile or ſtrike any thing.

Chap. XVI.

¶ *Of Lions.*

THe Lions are then in their kind moſt ſtrong and couragious, when the haire of their main
or collar is ſo long that it couereth both necke and ſhoulders. And this comes to them
at a certain age, namely to thoſe that are ingendred by Lions: for ſuch as haue Pards to K
their ſires neuer haue this ornament, no more than the Lioneſſe. Theſe Lioneſſes are very le-
cherous, aad this is the cauſe that the Lions are ſo fell and cruell. This, Africke knowes beſt,
and ſees moſt; and eſpecially in a great drought, when for want of water a great number of
wild beaſts reſort by troups to thoſe few riuers that be there, and meet together: and hereupon
it is, that ſo many ſtrange ſhaped beaſts of a mixt and mungrell kind are there bred, whiles the
males either perforce or for pleaſure leap and couer the females of all ſorts. From hence it is
alſo that the Greeks haue this common prouerbe, *That Africke euermore brings forth ſome new and
ſtrange thing or other.* The Lion knoweth by ſent and ſmell of the Pard, when the Lioneſſe his
mate hath played falſe, and ſuffered her ſelfe to be couered by him; and preſently with all his
might and maine runneth vpon her for to chaſtiſe and puniſh her. And therefore when the Li- L
oneſſe hath done a fault that way, ſhe either goeth to a riuer and waſheth away the ſtrong and
ranke ſauor of the Pard, or elſe keepeth aloofe and followeth the Lion afar off, that he may not
catch the ſaid ſmell. I ſee it is commonly held, that the Lioneſſe brings forth yong but once
in her life, for that her whelps in her kinling teare her belly with their nailes, and make them-
ſelues roome that way. *Ariſtotle* writeth otherwiſe, a man whom I cannot name but with great
honour and reuerence, and whom in the hiſtorie and report of theſe matters I meane for the
moſt part to follow. And in very truth King *Alexander* the Great, of an ardent deſire that he
had to know the natures of all liuing creatures, gaue this charge to *Ariſtotle*, a man ſingularly
accompliſhed with all kinds of ſcience and learning, to ſearch into this matter, and to ſet down
the ſame in writing: and to this effect commanded certaine thouſands of men, one or other, M
throughout all the tract as well of Aſia as Greece, to giue their attendance and obey him: to
wit, all Hunters, Falconers, Fowlers, and Fiſhers that liued by thoſe profeſſions: Item, all For-
reſters, Park-keepers, and Wariners: all ſuch as had the keeping of heards and flockes of cat-
tell: of bee-hiues, fiſh-pooles, ſtewes, and ponds: as alſo thoſe that kept vp fowle tame or wild,

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A in mew: thoſe that fed poultry in barton or coup: to the end that he ſhould be ignorant of nothing in this behalfe, but be aduertiſed by them, according to his Commiſſion, of all things in the world. By his conference with them he collected ſo much, as thereof hee compiled thoſe excellent bookes *de Animalibus, i.* of Liuing creatures, to the number almoſt of 50. Which being couched by me in a narrow roome and briefe ſummary, with addition alſo of ſome things which he neuer knew, I beſeech the Readers to take in good worth: and for the diſcouerie and knowledge of all Natures works, which that moſt noble and famous King that euer was deſired ſo much to know, to make a ſhort ſtart abroad with me, and in a briefe diſcourſe by mine own pains and diligence digeſted, to ſee all. To return now vnto our former matter: That great phi-
B loſopher *Ariſtotle* therefore reporteth, That the Lioneſſe at her firſt litter bringeth forth fiue whelps, and euery yeare after fewer by one: and when ſhe commeth to bring but one alone, ſhe giueth ouer and is barren. Her whelps at the firſt are without ſhape like ſmall gobbets of fleſh no bigger than weeſels. When they are ſix moneths old they can hardly go, and for the two firſt they ſtir not at all. Lions there be alſo in Europe (only between the riuers Achelous and Neſtus) and theſe verily be far ſtronger than thoſe of Africke or Syria. Moreouer, there are two kinds of Lions: the one ſhort, wel truſſed, and compact, with more criſp and curled mains, but theſe are timerous and cowards to them that haue long and plain haire; for thoſe paſſe not for any wounds whatſoeuer. The Lions lift vp a leg when they piſſe, as dogs do: and moreouer, they haue a ſtrong and ſtinking breath, their very body alſo ſmelleth rank. Seldom they drink,
C and eate but each other day; and if at any time they feed til they be full, they wil abſtain from meat three daies after. In their feeding, whatſoeuer they can ſwallow without chewing, downe it goes whole: and if they finde their gorge and ſtomacke too full, and not able indeed to receiue according to their greedy appetite, they thruſt their pawes down their throats, and with their crooked clees fetch out ſome of it again, to the end they ſhould not be heauy and ſlow vpon their fulneſſe, if haply they be put to find their feet and fly. Mine Author *Ariſtotle* ſaith moreouer, That they liue very long: and hee proueth it by this argument, That many of them are found toothleſſe for very age. *Polybius*, who accompanied [*Scipio*] *Æmylianus* in his voiage of Africke, reporteth of them, That when they be growne aged they will prey vpon a man: the reaſon is, becauſe their ſtrength will not hold out to purſue in chaſe any other wild beaſts: then
D they come about the cities and good towns of Africke, lying in wait for their prey, if any folk come abroad: and for that cauſe, he ſaith, that while hee was with *Scipio*, hee ſaw ſome of them crucified and hanged vp, to the end that vpon the ſight of them other Lions ſhould take example, and be skarred from doing the like miſchiefe. The Lion alone of all wilde beaſts, is gentle to thoſe that humble themſelues vnto him, and will not touch any ſuch vpon their ſubmiſſion, but ſpareth what creature ſoeuer lieth proſtrate before him. As fell and furious as he is otherwhiles, yet he diſchargeth his rage vpon men, before he ſets vpon women, and neuer preyeth on babes vnleſſe it be for extreme hunger. They are verily perſuaded in Lybia, that they haue a certain vnderſtanding when any man doth pray or intreat them for any thing. I haue heard it reported for a truth, by a captiue woman of Getulia (which being fled was brought home again
E to her maſter) that ſhe had pacified the violent fury of many Lions within the woods and forreſts, by faire language and gentle ſpeech; and namely, that for to eſcape their rage, ſhee hath been ſo hardy as to ſay, ſhe was a ſilly woman, a baniſhed fugitiue, a ſickly, feeble, & weak creature, an humble ſuiter and lowly ſuppliant to him the nobleſt of all other liuing creatures, the Soueraigne and commander of all the reſt, and that ſhe was too baſe and vnworthy for his glorious Maieſtie to prey vpon her. Many and diuers opinions are currant, according to the ſundry occurrences that haue hapned, or the inuentions that mens wits haue deuiſed as touching this matter; namely, that ſauage beaſts are dulced and appeaſed by good words and faire ſpeech: as alſo that fell ſerpents may be trained and fetched out of their holes by charmes; yea and by certaine coniurations and menaces reſtrained and kept vnder for a puniſhment: but whether
F it be true or no, I ſee it is not yet by any man ſet downe or determined. To come againe to our Lions, the ſigne of their intent and diſpoſition is their taile; like as in horſes, their eares: for theſe two marks and tokens certainly hath Nature giuen to the moſt couragious beaſts of all others, to know their affections by: for when the Lion ſtirs not his taile, he is in a good mood, gentle, mild, pleaſantly diſpoſed, and as if he were willing to be plaied withall: but in that fit he is ſeldome ſeen, for lightly he is alwaies angry. At the firſt when he entreth into his choler,

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he beateth the ground with his taile: when he groweth into greater heats, he flappeth and jerketh his flanks and ſides withall, as it were to quicken himſelfe, and ſtir vp his angry humour. His maine ſtrength lieth in his breſt: hee maketh not a wound (whether it be by laſh of taile, ſcratch of claw, or print of tooth) but the bloud that followeth is black. When his belly is full all his anger is paſt, and he doth no more harme. His generoſitie and magnanimitie he ſhewes moſt in his dangers: which courage of his appeareth not only herein, that he ſeems to deſpiſe all ſhot of darts againſt him, defending himſelfe a long time onely with the terrible aſpect of his countenance, proteſting as it were that he is vnwilling to deale, vnleſſe he be forced thereto in his owne defence, *i. ſe defendendo*, and at length maketh head again, not as compelled or driuen thereto for any perill that hee ſeeth, but angred at their folly that aſſaile or ſet vpon him: but herein alſo is ſeen rather his noble heart and courage, That be there neuer ſo many hounds and hunters following after him, ſo long as he is in the open plains where he may be ſeene, hee maketh ſemblance as though he contemned both dog and man, diſmarching and retiring with honour, and otherwhiles ſeeming in his retreit to turne again and make head: but hauing gained the thickets and woods, and gotten into the forreſts out of ſight, then he skuds away, then he runneth amain for life, as knowing full well, that the trees and buſhes hide him, that his ſhamefull diſlodging and flight is not then eſpied. When hee chaſeth and followeth after oher beaſts he goeth alwaies ſaltant or rampant; which he neuer vſeth to do when he is chaſed in ſight, but is only paſſant. If he chance to be wounded, he hath a maruellous eye to mark the party that did it, and be the hunters neuer ſo many in number, vpon him he runneth only. As for him that hath let fly a dart at him, and yet miſſed his marke and done no hurt to him, if he chance to catch him, he all to touzeth, ſhaketh, toſſeth, and turneth him lying along at his feet, but doth him no harme beſides. When the Lioneſſe fighteth for her yong whelps, by report, ſhe ſetteth her eies wiſtly and entirely vpon the ground, becauſe ſhee would not be affrighted at the ſight of the chaſing ſtaues of the hunters. Lions are nothing at all crafty and fraudulent, neither be they ſuſpitious: they neuer look askew, but alwaies caſt their eye directly forward, and they loue not that any man ſhould in that ſort looke ſide-long vpon them. It is conſtantly beleeued, that when they ly a dying they bite the earth, & in their very death ſhed teares. This creature, ſo noble as hee is, and withall ſo cruell and fell, trembleth and quaketh to heare the noiſe of cart-wheeles, or to ſee them turne about; nay hee cannot abide of all things Chariots when they be void and empty: frighted hee is with the cockes combe, and his crowing much more, but moſt of all with the ſight of fire. The Lion is neuer ſicke but of the peeuiſhneſſe of his ſtomacke, loathing all meat: and then the way to cure him is to ty vnto him certaine ſhee Apes, which with their wanton mocking and making mowes at him, may moue his patience, and driue him for the very indignitie of their malapert ſaucineſſe, into a fit of madneſſe; and then ſo ſoone as he hath taſted their bloud he is perfectly wel again: and this is the only help. *Q. Scævola* the ſon of *Publius* was the firſt at Rome that in his Curule Ædileſhip exhibited a fight and combat of many Lions together, to delight the people: but *L. Sylla*, who was afterward Dictator, was the firſt of all others that in his Pretorſhip repreſented a ſhew of 100 lions with maines and collars of haire: and after him, *Pompey* the Great ſhewed 600 of them fighting in the grand Cirque, whereof 315 were male Lions with mane. And *Cæſar* Dictator brought 400 into the ſhew-place. The taking of them in old time was a very hard piece of worke, and that was commonly in pit-falls: but in the Emperor *Claudius* his daies it chanced, that a ſhepheard or heardſman who came out of Gætulia taught the manner of catching them: a thing otherwiſe that would haue beene thought incredible, and altogether vnbeſeeming the name and honour of ſo goodly a beaſt. This Getulian, I ſay, fortuned to incounter a Lion, and when he was violently aſſailed by him, made no more ado but threw his mandilion or caſſocke full vpon his eyes. This feat or caſt of his was ſoone after practiſed in the open Shew-place, in ſuch ſort that a man would hardly haue beleeued but hee that ſaw it, that ſo furious a beaſt ſhould ſo eaſily be quailed, and daunted ſo ſoone as euer hee felt his head couered, were the things neuer ſo light; making no reſiſtance, but ſuffering one to do what hee would with him, euen to binde him faſt, as if in very truth all his vigour and ſpirit reſted in his eies. Leſſe therefore is it to be maruelled at, that *Lyſimachus* ſtrangled a Lion, when as by the commandement of *Alexander* the Great he was ſhut vp alone together with him. The firſt man that euer yoked them a Rome, and made them to draw in a chariot, was *M. Antonius*. And verily it was in

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A the time of ciuill warre, after the battell fought in the plaines of Pharſalia; a ſhrewd and vnhappy preſage of the future euent, and namely for men of an high ſpirit & braue mind in thoſe daies, to whom this prodigious ſight did prognoſticate the yoke of ſubiection: for what ſhould I ſay how *Anthony* rode in that wiſe with the Courteſan *Cytheris* a common Actreſſe in Interludes vpon the ſtage? To ſee ſuch a ſight was a monſtrous ſpectacle, that paſſed all the calamities of that time. It is reported that *Hanno* (one of the nobleſt Carthaginians that euer were) was the firſt man that durſt handle a Lion with his bare hand, and ſhew him gentle and tame, to follow him all the city ouer in a ſlippe like a dog. But this deuice and tricke of his turned to his great damage and vtter vndoing: for the Carthaginians hereupon laid this ground, that *Hanno*, a man of ſuch a gift, ſo witty and inuentiue of all deuiſes, would be able to perſuade the people to whatſoeuer his minde ſtood; and that it was a dangerous and tickliſh point, to put
B the liberty of ſo great a ſtate as Carthage was, into the hands and managing of him who could handle and tame the furious violence of ſo ſauage a beaſt, and thereupon condemned and baniſhed him. Moreouer we find in hiſtories many examples alſo of their clemencie and gentleneſſe, ſeen vpon diuers caſuall occaſions. *Mentor* the Syracuſian fortuned in Syria to meet with a Lion, who after an humble maner in token of obedience and ſubmiſſion, ſeemed to tumble and wallow before him: he aſtonied for feare ſtarted backe and began to fly; but the wild beaſt followed him ſtill, and was ready at euery turne to preſent himſelfe before him, licking the very tracks of his foot-ſteps as he went, in flattering manner, as if he would make loue vnto him. *Mentor* at length was ware that the Lion had a wound in his foot, and that it ſwelled therwith: whereupon he gently plucked out the ſpill of wood that had gotten into it, and ſo eaſed
C the beaſt of his paine. This accident is for a memoriall repreſented in a picture at Syracuſa. Semblably, *Elpis* a Samian being arriued and landed in Africk, chanced to eſpy neer the ſhore a Lion gaping wide, and ſeeming afar off to whet his teeth at him in menacing wiſe: he fled apace to take a tree, calling vpon god *Bacchus* to help him (for then commonly wee fall to our praiers when we ſee little or no hope of other helpe:) but the Lion ſtopt him not in his flight, albeit he could haue croſſed the way well enough, but laying himſelfe downe at the tree root, with that open mouth of his wherewith he had skared the man, made ſignes to moue pitty and compaſſion. Now ſo it was, that the beaſt hauing lately fed greedily, had gotten a ſharp bone within his teeth, that put him to exceeding paine: beſides that, hee was almoſt famiſhed: and
D he looking pittifully vp to the man, ſhewed how he was puniſhed himſelfe among thoſe verie weapons wherewith he was wont to anoy others, and after a ſort with dumb and mute prayers beſought his help. *Elpis* aviſed him well a pretty while; and beſides that hee was not very forward to venture vpon the wilde beaſt, he ſtaied the longer and made the leſſe haſt, while he conſidered rather this ſtrange and miraculous accident, than otherwiſe greatly feared. At laſt he comes downe from the tree and plucks out the bone, whiles the Lion held his mouth handſomly to him, and expoſed himſelfe to his helpfull hand as fitly as he poſſibly could. In requitall of which good turne, it is ſaid, that ſo long as this ſhip of his lay there at anchor, the Lion furniſhed him and his company with good ſtore of veniſon ready killed to his hand. And vpon this occaſion *Elpis* after his return dedicated a temple to *Bacchus*: which vpon this reaſon the
E Greeks called Κιλωνος Διονυσου, *i.* of gaping *Bacchus*; or Σωτηρος Διονυσου, *i.* the chappell of *Bacchus* the Sauiour. Can we maruell any more from henceforth, that wild beaſts ſhould marke and know the footing of a man, ſeeing that in their extremities and neceſſities they haue recourſe to him alone for hope of ſuccour? Why went not they to other creatures? or who taught them that the hand of man was able to cure them? vnleſſe this be the reaſon, that griefe, anguiſh, and extreme perill forceth euen ſauage beaſts to ſeeke all means of help and reliefe.

Chap. XVII.

¶ *Of Panthers.*

F

Demetrius the philoſopher, ſo wel ſeen into the ſpeculation of Natures works, & the cauſes thereof, makes mention of as memorable a caſe as the former, touching a Panther: for as he ſaith there was a Panther deſirous to meet with a man, & therefore lay in the mids of an high-way vntill ſome paſſenger ſhould come by, and ſuddenly was eſpied by the father of

of *Philinus* the Philoſopher, who trauailed that way. The man (for feare) began to retire and go backe againe, but the wild beaſt kept a tumbling and vauting all about him; doubtleſſe and by all apparance after a flattering ſort, as if it would haue had ſomwhat; and ſuch a toſſing and tormenting of it ſelfe ſhe made, ſo piteouſly, that it might ſoone be ſeene in what griefe and pain the Panther was. The poore beaſt had but lately kindled, and her young whelps were falne into a ditch, afarre off: well, the firſt point that the man ſhewed of pitty and commiſeration was, not to be affraid; and the next was, to haue regard and care of her: follow he did the Panther, as ſhe ſeemed to train and draw him by his garment (which with her clawes ſhee tooke hold of daintily) vntill they were come to the pit or ditch aboue-ſaid. So ſoon then as he knew the cauſe of her griefe and ſorrow, and withall what might be the reward of his courteſie, euen as much as his life came to, he drew forth her little ones that were fallen into the ſaid pit: which don, ſhe and her whelps together leaping and ſhewing gambols for ioy, accompanied him, and through the wilderneſſe directed him vntill he was gotten forth. So as it appeared in her, that ſhee was thankfull vnto him, and requited his kindneſſe, albeit there paſſed no couenant nor promiſe between them of any ſuch recompence: a rare example to be found euen among men. This ſtory and ſuch like giue great colour of truth to that which *Democritus* reporteth, namely, that *Thoas* in Arcadia ſaued his life by means of a dragon. This *Thoas* being but a very childe, had loued this dragon when he was but yong, very well, and nouriſhed him: but at laſt, being ſomewhat fearfull of his nature, and not well knowing his qualities, and fearing withall the bignes that now he was growne vnto, had carried him into the mountains and deſarts: wherein it fortuned that he was afterward ſet vpon and inuironed by theeues: whereupon he cried out, and the dragon knowing his voice, came forth and reſcued him. As for babes and infants caſt forth to periſh, and ſuſtained by the milke of wilde beaſts, like as *Romulus* and *Remus* our firſt founders, who were ſuckled by a ſhe wolfe; ſuch things in mine opinion are in all reaſon to be attributed more to fortune and fatall deſtinies, than to the nature of thoſe beaſts. The Panthers and Tygers are in a maner the only beaſts (for the varietie of ſpotted skins and * furres which they yeeld) in great requeſt, and commendable: for other beaſts haue each one a proper colour of their owne, according to their kind: Lions there be all blacke, but they are found in Syria only. The ground of the Panthers skin is white, beſet all ouer with little black ſpots like eies. It is ſaid, that all foure-footed beaſts are wonderfully delighted and enticed by the ſmell of Panthers; but their hideous looke and crabbed countenance, which they bewray by ſhewing their heads, skareth them as much againe: wherefore their maner is to hide their heads, and hauing trained other beaſts within their reach by their ſweet ſauour, they fly vpon them and worrie them. Some report, that they haue one marke on their ſhoulder reſembling the Moone, growing and decreaſing as ſhe doth, ſometime ſhewing a full compaſſe, and otherwhiles hollowed and pointed with tips like hornes. In all this kind and race of wild beaſts now adaies they cal the male * Variæ and Pardi, and great abundance there is of them in Africke and Syria. Some there be againe that make no other difference betweene the Luzernes and Leopards, and theſe Panthers, but only this, that the Panthers are white: and as yet I know no other marks to deſcry them by. There paſſed an old Act and Ordinance of the Senate, forbidding expreſly that any Panthers of Africke ſhould be brought into Italy. Againſt this edict, *Cn. Auſidius* a Tribune of the commons put vp another bill vnto the people; and granted it was, That for the ſolemnitie of the games Circenſes they might be brought ouer. *Scaurus* was the firſt man who in his Ædileſhip exhibited a ſhew vnto the people of 150 Luzernes together. After him *Pompey* the Great brought forth 410. The Emperor *Auguſtus* 420: who alſo in the yere that *Q. Tubero* and *Fabius Maximus* were Conſuls together (vpon the 4 day before the Nones of May, at the dedication of the Theatre of *Marcellus*) was the firſt of all others that ſhewed a tame Tyger within a cage: but the Emperor *Claudius* foure at once.

* i. The Lubernes or Luzernes.

* i. Luzernes or Libards.

Chap. XVIII.

¶ *Of the Tyger and his nature: of Camels, Chamelopardales, and when they were firſt ſeen at Rome.*

TYgers are bred in Hircania and India: this beaſt is moſt dreadfull for incomparable ſwiftneſſe, and moſt of all ſeen it is in the taking of her yong: for her litter (whereof there is a great

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A great number) by the hunters is ſtolne and caried away at once, vpon a moſt ſwift horſe for the purpoſe; lying in wait to eſpy when the dam is abroad: and ſhifteth this booty from one freſh horſe to another, riding away vpon the ſpur as hard as they can. But when the Tygreſſe comes and finds her den & neſt empty (for the male Tygre hath no care nor regard at all of the yong) ſhe runs on end after her yong ones, following thoſe that caried them away, by the ſent of their horſe footing. They perceiuing the Tygreſſe to approch, by the noiſe ſhe maketh, let fall or caſt from them one of her whelps: vp ſhe taketh it in her mouth, and away ſhe runneth toward her den, ſwifter for the burthen that ſhe carrieth. And preſently ſhe ſetteth out again, followeth the queſt after her fawnes, and ouertaketh the Hunter that had them away. Thus runneth ſhe to and fro, vntill ſhe ſee that they be embarqued and gone; and then for very anger that ſhe hath not ſped of her purpoſe, ſhee rageth vpon the ſhore and the ſands for the loſſe of her
B Fawnes.

As for Camels, they are nouriſhed in the Levant or Eaſt parts among other heards of great cattell: two kindes there be of them, the Bactrians and the Arabick: differing herein, that the Bactrians haue two bunches vpon their backs; the other but one apiece there, but they haue another in their breſt, wherupon they reſt and ly. Both ſorts want the vpper row of teeth in their mouthes, like as bulls and kine. In thoſe parts from whence they come they ſerue all to carry packs like labouring horſes, and are put to ſeruice alſo in the wars, and are backed of horſmen: their ſwiftneſſe is comparable to that of horſes; they grow to a iuſt meaſure, and exceed not a certaine ordinary ſtrength. The Camell in his trauelling will not goe a iot farther than his ordinary iourney; nether will hee carry more than his accuſtomed and vſuall load. Naturally they doe hate horſes. They can abide to be foure daies together without drinke: and
C when they drinke or meet with water, they fil their skin full enough to ſerue both for the time paſt and to come: but before they drinke they muſt trample with their feet to raiſe mud and ſand, and ſo trouble the water, otherwiſe they take no pleaſure in drinking. They liue commonly fifty yeares, and ſome of them an hundred. Theſe creatures alſo otherwhile fall to be mad, ſo much as it is. Moreouer, they haue a deuice to ſplay euen the very females, to make them fit for the warres; for if they be not couered they become the ſtronger and more couragious.

Two other kinds of beaſts there be that reſemble in ſome ſort the Camels: the one is called
D of the Æthiopians, the Nabis, necked like an horſe, for leg and hooſe not vnlike the bœufe, headed directly like a Camell, beſet with white ſpots vpon a red ground, whereupon it taketh the name of Camelopardalus: and the firſt time that it was ſeen at Rome, was in the games Circenſes, ſet out by *Cæſar* Dictator. Since which time he comes now and then to Rome, to be looked vpon more for ſight, than for any wild nature that hee hath: whereupon ſome call her the ſauage Sheepe.

Chap. XIX.

¶ *Of the Chaus and Cephus.*

E THe Hinde-wolfe, which ſome call Chaus, and the Gaules were wont to name Rhaphius, reſembling in ſome ſort a Wolfe with Leopards ſpots, were ſhewed firſt in the ſolemnitie of the games and plaies exhibited by *Cn. Pompeius* the Great. He alſo brought out of Æthyopia other beaſts named Cephi, *i.* Semivulpes, whoſe foreſeet were like to mens hands, and the hinde feet and legs like thoſe of a man. He was neuer ſeen afterward at Rome.

Chap. XX.

¶ *Of the Rhinoceros.*

F IN the ſame ſolemnities of *Pompey*, as many times elſe was ſhewed a Rhinoceros, with one horne and no more, and the ſame in his ſnout or muzzle. This is a ſecond enemy by nature the Elephant: hee fileth that horne of his againſt hard ſtones, making it ſharpe againſt he ſhould fight; and in his conflict with the Elephant he layes principally at his belly, knowing it to be more tender than the reſt. He is full as long as he, his legs are much ſhorter, and of the box colour.

Chap. XXI.

¶ *Lynces or Onces, and Marmozets or Apes, called Sphinges: of Crocutes, Monkies, Engliſh bœufes, Leococrutes, Eale: Æthiopian bulls, the Mantichore and Lycornes: of the ſerpents called Catoblepes, and the Baſiliske.*

ONces are common, ſo are Marmozets, with a browne duskiſh haire, hauing dugs in their breſt. Æthiopia breedeth them, like as many other monſtrous beaſts, to wit, horſes with wings, and armed with hornes, which they cal Pegaſi. Alſo the Crocutes [a kind of maſtiue dogs] ingendred betwixt a dog and a Wolfe: theſe are able to craſh with their teeth all they can come by: and a thing is no ſooner downe their ſwallow, and got into their ſtomacke, but preſently they digeſt it. Moreouer, the Cercopitheci, *i.* Monkies with black heads, otherwiſe haired like Aſſes, differing from other Apes in their cry. The Indians haue certain bœufs with one horne, and others with 3. Alſo the Leocrocuta, a moſt ſwift beaſt, as big almoſt as an he Aſſe, legged like an Hart, with a necke, taile, and breſt of a Lion, headed like theſe grayes or Badgers, with a clouen foot in twaine: the ſlit of his mouth reacheth to his eares, in ſtead of teeth an entire whole bone. They report that this beaſt feigneth a mans voice. They haue alſo among them another beaſt named Eale, for bignes equall to the riuer-horſe, tailed like an Elephant, either black or reddiſh tawny of colour: his mandibles or chawes reſemble thoſe of the Bore, he hath hornes aboue a cubit long, which he can ſtir or moue as he liſt: for being in fight he can ſet them both or one of them as he will himſelfe, altering them euery way, one while ſtreight forward to offend, otherwhiles bending byas, as he hath reaſon to nort or puſh toward, or auoid an enemie. But the moſt fell and cruell of all others of that country be the wild buls of the forreſt, greater than our common field buls, moſt ſwift, of colour brended, their eies gray or blewiſh, their haire growing contrary, their mouth wide and reaching to their eares: their hornes likewiſe hard by, moueable; their hide as hard as a flint, checking the dent of any weapon whatſoeuer, and cannot be pierced: all other wilde beaſts they chaſe and hunt, themſelues canot be taken but in pit-falls: in this their wildneſſe and rage they dy, & neuer become tame. *Cteſias* writeth, that in Æthiopia likewiſe there is a beaſt, which he calls Mantichora, hauing three ranks of teeth, which when they meet together, are let in one within another like the teeth of combs, with the face and eares of a man, with red eies, of colour ſanguine, bodied like a Lion, and hauing a taile armed with a ſting like a Scorpion: his voice reſembles the noiſe of a flute and trumpet ſounded together: very ſwift he is, and mans fleſh of all other he chiefly deſireth. In India there be found bœufs whole hoofed, with ſingle hornes; alſo a wilde beaſt named Axis [as ſome thinke a muske cat] with a skin like a fawne or hind-calfe, howbeit marked with more and whiter ſpots. This beaſt is conſecrated to *Bacchus*, and vnder his protection. The Orſians of India hunt Apes, and take a number of them white all ouer. But the moſt fell and furious beaſt of all other is the Licorne or Monoceros: his body reſembles a horſe, his head a ſtag, his feet an Elephant, his taile a bore; he loweth after an hideous manner, one black horne he hath in the mids of his forehead, bearing out two cubits in length: by report, this wild beaſt cannot poſſibly be caught aliue. Among the Heſperian Æthiopians there is a fountain named Nigris, the head (as many haue thought) of the riuer Nilus, and good reaſon there is for it, alledged by vs before: neere which ſpring keepeth a wild beaſt called Catoblepes, little of body otherwiſe, heauy alſo and ſlow in al his limnes beſides, but his head only is ſo great that his body is hardly able to beare it, he alwaies carrieth it downe to the earth, for if hee did not ſo, hee were able to kill all mankind; for there is not one that looketh vpon his eies, but he dies preſently. The like propertie hath the ſerpent called a Baſiliske: bred it is in the prouince Cyrenaica, and is not aboue twelue fingers bredth long: a white ſpot like a ſtarre it carrieth on the head, and ſets it out like a coronet or diadem: if he but hiſſe once, no other ſerpents dare come neere: hee creepeth not winding and crawling byas as other ſerpents doe, with one part of the body driuing, the other forward, but goeth vpright and aloft from the ground with one halfe part of his body: he killeth all trees and ſhrubs not onely that he toucheth, but alſo that hee breatheth vpon: as for graſſe and herbes, thoſe he ſindgeth and burneth vp, yea, and breaketh ſtones in ſunder: ſo venimous and deadly he is. It is receiued for a truth, that one of them on a

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A time was killed with a launce by an horſman from his horſe-back, but the poiſon was ſo ſtrong that went from his body along the ſtaffe, as it killed both horſe and man: and yet a ſilly weazle hath a deadly power to kill this monſtrous ſerpent, as pernicious as it is [for many kings haue been deſirous to ſee the experience thereof, and the manner how he is killed.] See how Nature hath delighted to match euery thing in the world with a concurrent. The manner is, to caſt theſe weazles into the hole and dcranies were they lye, (and eaſie they be to know by the ſtinking ſent of the place about them:) they are not ſo ſoone within, but they ouercome them with their ſtrong ſmell, but they die themſelues withall; and ſo Nature for her pleaſure hath the combat diſpatched.

CHAP. XXII.

B

¶ *Of Wolues.*

IT is commonly thought likewiſe in Italy, that the eye ſight of wolues is hurtful; in ſo much, as if they ſee a man before hee eſpy him, they cauſe him to loſe his voice for the time. They that be bred in Affrick and Ægypt, are but little, and withal nothing liuely, but without ſpirit. In the colder clime, they be more cruell and eger. That men may be transformed into wolues, and reſtored againe to their former ſhape, we muſt confidently beleeue to be a lowd lie, or elſe giue credit to all thoſe tales which we haue for ſo many ages found to be meere fables. But how this opinion grew firſt, & is come to be ſo firmly ſetled, that when we would giue men
C the moſt opprobrious words of defiance that we can, we terme them * *Verſipelles*, I thinke it not much amiſſe in a word to ſhew. *Euanthes* (a writer among the Greekes, of good account and authority) reporteth, that he found among the records of the Arcadians, That in Arcadia there was a certaine houſe and race of the *Antæi*, out of which one euermore muſt needs be transformed into a wolfe: and when they of that family haue caſt lots who it ſhall be, they vſe to accompany the party vpon whom the lot is falne, to a certaine meere or poole in that country: when he is thither come, they turne him naked out of all his clothes, which they hang vpon an oke thereby: then he ſwimmeth ouer the ſaid lake to the other ſide, and being entered into the wilderneſſe, is preſently transfigured and turned into a wolfe, and ſo keepeth company with
D his like of that kind for nine yeeres ſpace: during which time, (if he forbeare all the while to eat mans fleſh) he returneth againe to the ſame poole or pond, and being ſwomme ouer it, receiueth his former ſhape againe of a man, ſaue only that he ſhall look nine yeeres elder than before. *Fabius* addeth one thing more and ſaith, That he findeth againe the ſame apparell that was hung vp in the oake aforeſaid. A wonder it is to ſee, to what paſſe theſe Greekes are come in their credulity: there is not ſo ſhameleſſe a lye, but it findeth one or other of them to vphold and maintaine it. And therefore *Agriopas*, who wrote the Olympionicæ, telleth a tale of one *Dæmænetus Parrhaſius*, That he vpon a time at a certain ſolemne ſacrifice (which the Arcadians celebrated in the honour of *Iupiter Lycæus*) taſted of the inwards of a child that was killed for a ſacrifice, according to the manner of the Arcadians (which euen was to ſhed mans bloud in
E their diuine ſeruice) and ſo was turned into a wolfe: and the ſame man ten yeeres after, became a man againe, was preſent at the exerciſe of publick games, wreſtled, did his deuoir, and went away with victory home againe from Olympia. Ouer and beſides, it is commonly thought and verily beleeued, that in the taile of this beaſt, there is a little ſtring or haire that is effectuall to procure loue, and that when he is taken at any time, he caſteth it away from him, for that it is of no force and vertue vnleſſe it be taken from him whiles he liues. He goeth to rut in the whole yere not aboue twelue dayes. When he is very hungry and can get no other prey, he feedeth vpon the earth. In the caſe of preſages and fore-tokens of things to come, this is obſerued That if men ſee a wolfe abroad, cut his way and turne to their right hand, it is good; but if his mouth be full when he doth ſo, there is not a better ſigne or more lucky in the world againe.
F There be of this kind that are called Hart-wolues, ſuch as we ſaid that *Pompey* ſhewed in the grand Cirque, brought out of Fraunce. This beaſt (they ſay) be he neuer ſo hungry when hee is eating, if he chaunce to look backe, forgetteth his meat, ſlinketh away, and ſeeketh for ſome other prey.

* i Turn coats.

Chap. XXIII.

¶ *Of Serpents.*

AS touching ſerpents we ſee it ordinary, that for the moſt part they are of the colour of the earth, wherein they lie hid: and an infinite number of ſorts there be of them. The ſerpent Ceraſtes hath many times foure ſmall hornes, ſtanding out double; with mouing whereof ſhe amuſeth the birds, and traineth them vnto her for to catch them, hiding all the reſt of her body.

Amphisbæna hath two heads as it were, namely one at the taile; as if ſhe were not hurtfull enough to caſt her poyſon at one mouth only. Some are ſcaled, others ſpotted and painted, but generally the venom of them all is deadly. There be of them that from the boughes of trees ſhoot and launce themſelues: in ſuch manner, as that we are not onely to take heed of ſerpents as they go and glide vpon the ground, but alſo to looke vnto them that fly as a dart or arrow ſent out of an engin. The Aſpides ſwell about the necke when they purpoſe to ſting: and no remedie is there for them that are ſtung and bitten by them, vnleſſe the wounded parts be cut off preſently. This peſtilent creature, as venomous as he is, hath one point yet of vnderſtanding or affection rather; you ſhall not ſee them wandring abroad but two and two together, male and female, as if they were yoked together: and unneth or not at all can they liue alone without their mate; ſo that if one of them be killed, it is incredible how the other ſeeks to be reuenged: it purſueth the murderer, and knoweth him again among a number of people, be they neuer ſo many: him it courſeth, and layeth for his life; notwithſtanding what difficulties ſoeuer, he breaketh through all, be it neuer ſo far thither, and nothing may impeach this reuenging humor, vnleſſe ſome riuer be between to keep it backe, or that the party make ſpeed to eſcape away in great haſte. And I aſſure you, I am not able to ſay, whether Nature hath bin more free and prodigall in ſending among vs ſuch noiſome things, or giuing vs remedies againe for them. For to begin withall, ſhe hath afforded to this creature but a darke ſight, and dim eyes; and thoſe not placed in the forepart of the head, to ſee forward and directly, but ſet in the very temples. And hereof it is, that theſe ſerpents are raiſed oftner by their hearing than ſight.

Chap. XXIV.

¶ *Of the Rat of India called Ichneumon.*

BEſides the foreſaid infirmitie, there is mortall war between them and the Ichneumones or Rats of India. A beaſt this is well knowne to the Aſpis, in this regard eſpecially, that it is bred likewiſe in the ſame Ægypt. The manner of this Ichneumon is, to wallow oft times within the mud, and then to dry it ſelfe againſt the Sun: and when he hath thus armed himſelf as it were with many coats hardned in this manner, he goeth forth to combat with the Aſpis. In fight he ſets vp his taile, and whips about turning his taile to the enemie, and therein latcheth and receiueth all the ſtrokes of the Aſpis, and taketh no harme thereby: and ſo long he maintaineth a defenſiue battell, vntill he eſpy a time, turning his head a to-ſide, that hee may catch the Aſpis by the throat, and throtle it. And not content thus to haue vanquiſhed this enemie, he addreſſeth himſelfe to the conflict with another, as hurtful euery way & dangerous as the former.

Chap. XXV.

¶ *Of the Crocodile, Scinke, and Riuer-Horſe.*

THe riuer Nilus nouriſheth the Crocodile; a venomous creature, foure footed, as dangerous on water as land. This beaſt alone, of all other that keepe the land, hath no vſe of a tongue; he only moueth the vpper jaw or mandible, wherewith he biteth hard: and otherwiſe terrible he is, by reaſon of the courſe and ranke of his teeth, which cloſe one within another, as if two combes grew together. Ordinarily he is aboue eighteene cubits in length. The female layeth egs as big as geeſe do, and ſitteth euer vpon them out of the water: for a certaine naturall foreknowledge ſhe hath, how far the riuer Nilus will that yeare riſe when he is at the higheſt,

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A higheſt and without it will ſhee be ſure to ſit. There is not another creature againe in the world, that of a ſmaller beginning, groweth to a bigger quantity. His feet be armed with claws for offence, and his skin ſo hard, that it will abide any injury whatſoeuer, and not be pierced. All the day time the Crocodile keepeth vpon the land, but he paſſeth the night in the water: and in good regard of the ſeaſon he doth the one and the other. When he hath filled his belly with fiſhes, he lieth to ſleep vpon the ſands in the ſhore: and for that he is a great and greedie deuourer, ſomewhat of the meat ſticketh euermore between his teeth. In regard whereof commeth the wren, a little bird called there Trochilos, and the king of birds in Italy: and ſhee for her victuals ſake, hoppeth firſt about his mouth, falleth to pecking or picking it with her little
B neb or bill, and ſo forward to the teeth, which he cleanſeth; and all to make him gap. Then getteth ſhee within his mouth, which he openeth the wider, by reaſon that he taketh ſo great delight in this her ſcraping and ſcouring of his teeth and chaws. Now when he is lulled as it were faſt aſleep with this pleaſure and contentment of his: the rat of India, or Ichneumon aboueſaid ſpieth his vantage, and ſeeing him lye thus broad gaping, whippeth into his mouth, and ſhooteth himſelfe downe his throat as quicke as an arrow, and then gnaweth his bowels, eateth an hole through his belly, and ſo killeth him.

Within the riuer Nilus there breeds another Serpent called Scincos, like in forme and proportion ſomewhat to the Crocodile, but not all ſo big as the Ichneumon: the fleſh whereof ſerueth for a ſingular Antidote or countre-poiſon; as alſo for to prouoke the heat of luſt in men.

C But to returne againe to the Crocodile: the miſchiefe that he doth is ſo great, that Nature is not content to haue giuen him one mortal enemy & no more; & therefore the dolphins alſo enter the riuer Nilus in deſpight of the Crocodiles, that take themſelues for kings there, as if this riuer were their peculiar kingdome: but ſeeing they be otherwiſe inferiour to the Crocodiles in ſtrength, who alwaies driue them away from preiding or feeding there, they deuiſe to ouermatch him in ſlie craft and ſubtilty, and ſo kill him. And in truth they haue certain fins or wings as it were vpon their backe, as trenchant & keene as kniues, properly made as it were, for this porpoſe. For ſurely all creatures are herein naturally very skilfull and cunning, to know not only their owne good, and what is for them, but alſo what may hurt and annoy their enemies. Ware they be what offenſiue weapons they haue, and of what force they are: they are not ignoD rant of fit occaſions and opportunities to take their vantage, ne yet of the weak parts of their occurrents, by which they may aſſaile and conquer them the ſooner. Thus the Dolphins knowing full well, that the skin of the Crocodiles belly is thin and ſoft, make as though they were afraid of them as he comes, and ſo diue vnder the water, vntill he be gotten vnder his belly, & then punch and cut it with the foreſaid ſharp-pointed finnes. Moreouer, there is a kind of people that cary a deadly hatred to the Crocodile, and they be called Tentyrites, of a certaine Iſle euen within Nilus, which they inhabite. The men are but ſmall of ſtature, but in this quarrell againſt the Crocodiles, they haue hearts of Lions, and it is wondrous to ſee how reſolute and courageous they are in this behalfe. Indeed, this Crocodile is a terrible beaſt to them that flie from him: but contrary, let men purſue him or make head againe, he runnes away moſt cowardly. Now, theſe Iſlanders be the only men that dare encountre him affront. Ouer and beſides,
E they will take the riuer, and ſwim after them, nay they wil mount vpon their backs, and ſet them like horſmen: and as they turne their heads, with their mouth wide open to bite or deuour them they will thruſt a club or great cudgell into it croſſe ouerthwart, and ſo holding hard with both hands each end thereof, the one with the right, and the other with the left, and ruling them perforce (as it were) with a bit and bridle, bring them to land like priſoners: when they haue them there, they will ſo fright them only with their words and ſpeech, that they compel them to caſt vp and vomit thoſe bodies againe to be enterred, which they had ſwallowed but newly before. And therefore it is, that this is the only Iſle which the Crocodiles wil not ſwim to: for the very ſmell and ſent of theſe Tentyrites is able to driue them away, like as the Pſelli with their ſauour put Serpents to flight. By report, this beaſt ſeeth but badly in the water: but be they
F once without, they are moſt quick ſighted. All the 4 winter months they liue in a caue, and eat nothing at all. Some are of opinion, that this creature alone groweth all his life: and ſurely a great time he liueth.

The ſame riuer Nilus bringeth forth another beaſt called Hippopotamus, a Riuer-horſe. Taller he is from the ground than the Crocodile: he hath a clouen foot like a bœufe: the back,

maine and haire of an horſe,and he hath his neying alſo. His muzzle or ſnout turneth vp: his G
taile twineth like the Bores,and his teeth likewiſe are crooked and bending downward as the Bores tusks,but not ſo hurtfull: the skin or hide of his backe vnpenetrable [whereof are made targuets and head-pieces of doubty proof that no weapon wil pierce] vnleſſe it be ſoked in water or ſome liquor. He eateth downe the ſtanding corne in the field: and folke ſay that he ſetteth downe beforehand where he will paſture and feed day by day: and when hee ſets forward to any field for his reliefe hee goeth alwaies backeward, and his tracts are ſeene leading from thence,to the end that againſt his return he ſhould not be forelaid nor followed by his footing

Chap. XXVI.

¶ *Who firſt ſhewed the riuer-Horſe and Crocodiles at Rome. Alſo the medicinable means found out by the ſaid dumbe creatures.* H

MArcus Scaurus was the firſt man,who in his plaies and games that he ſet out in his Ædileſhip,made a ſhew of one water-Horſe and foure Crocodiles, ſwimming in a poole or mote made for the time during thoſe ſolemnities.

The riuer-Horſe hath taught phyſitions one deuice in that part of their profeſſion called Surgerie: for he finding himſelf ouer-groſſe & fat by reaſon of his high feeding ſo continually,gets forth of the water to the ſhore,hauing ſpied afore where the reeds and ruſhes haue bin newly cut: and where he ſeeth the ſharpeſt cane and beſt pointed, hee ſets his body hard vnto it,to pricke a certaine veine in one of his legs, and thus by letting himſelfe bloud maketh euacuation: whereby his body, otherwiſe inclining to diſeaſes and maladies, is well eaſed of the ſuperfluous humor: and hauing thus done, hee ſtoppeth the orifice againe with mud, and ſo ſtancheth the bloud,and healeth the wound. I

Chap. XXVII.

¶ *What phyſicall Herbes certaine creatures haue ſhewed vs,to wit,the harts and ſtags,the Lizards,Swallowes,Torteiſes,the Weaſell,the Storke,the Bore,the Snake,Dragon, Panther,Elephant,Beares,ſtocke-Doues,houſe Doues, Cranes,and Rauens.*

K

THe like deuice to this,namely of cliſters, we learned firſt of a Fowle in the ſame Egypt, called Ibis [or the blacke Storke.] This bird hauing a crooked and hooked bill, vſeth it in ſtead of a ſyringe or pipe to ſquirt water into that part, whereby it is moſt kinde and wholſome to auoid the doung and excrements of meat,and ſo purgeth and clenſeth her body. Neither hath dumbe creatures directed vs to theſe feats onely practiſed by the hand, which might ſerue for our vſe,to the preſeruation of our health,and cure of diſeaſes: for the hart firſt ſhewed vs the vertue of the herbe Dictamnus or Dittanie, to draw arrowes forth of the bodie. Perceiuing themſelues ſhot with a ſhaft, they haue recourſe preſently to that herbe,and with eating thereof it is driuen out again. Moreouer, being ſtung with the Phalangium, a kinde of ſpider,or ſome ſuch venomous vermin, they cure themſelues with eating Crai-fiſhes, or freſh water crabs. L

There is a certain herbe called Calaminth, moſt ſoueraigne and ſingular againſt the biting of ſerpents:wherewith the Lizards,whenſoeuer they haue fought with them,cure their wounds by applying it thereto.

Celendine[the greater]a moſt wholſome herbe for the eie ſight, Swallowes taught vs how to vſe: for with it they helpe their yong ones when their eies be ſore and put them to griefe.

The land Torteiſe by eating of a kinde of Sauorie or Marjerome,called *Cunila bubula*, armes himſelfe againſt poyſon when he ſhould fight with ſerpents.

The Weaſell vſeth Rue as a preſeruatiue when hee purpoſeth to hunt for Rats, in caſe hee ſhould fight with any of them. M

The Storke feeling himſelfe amiſſe, goeth to the herbe Organ for remedy. And the Bore when he is ſicke is his owne phyſition,by eating iuy and crab fiſhes, ſuch eſpecially as the ſea caſteth vp to ſhore.

The Snake by reſtineſſe and lying ſtill all Winter,hath a certain membrane or filme growing

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A ing ouer her whole body;but hauing recourſe to Fennel,with the iuice thereof ſhe caſteth that old coat that cloggeth her,and appeareth freſh,ſlick,and yong again. Now the manner of this her vncaſing,is this;ſhe beginneth firſt at the head,and turneth the skin ouer it, and thus ſhe is a whole day and a night a folding it backward,before the inſide of that membrane can be turned outward,and ſo ſhe is clean rid of it. Moreouer, when by lying ſtil & keeping cloſe all the Winter time,her ſight is become dim and dark,ſhe rubbeth and ſcoureth her ſelf with the ſaid herbe Fennell,and therewith annointeth and comforteth her eies. But if the ſcales that are ouergrowne her skin be hard and ſtiffe, not willing to part and be remoued,ſhe maketh no more adoe,but ſcratcheth them with ſharp juniper pricks.

The Dragon finding a certain lothing of meat,and ouerturning of her ſtomack in the ſpring time,cureth and helps the ſame with the iuice of the wild Lectuce.

B The barbarous people when they hunt the Panthers,rub the gobbets of fleſh,which they lay as a bait for them,with Aconitum(a kind of poiſon-ful herbe.) The beaſts haue no ſooner touched the fleſh,but preſently their throat ſwelleth,and they are ready to be ſtifled and choked: whereupon ſome haue called this venomous herbe Pardalianches,*i.* Libard baine,or choke Libard. But the wilde beaſt hath a remedy againſt this,namely, the ordure and excrements of a man:yea,and at other times alſo,when he is not thus poiſoned, ſo eager he is thereof, that when the ſhepheards for the nonce haue hanged them vp aloft in ſome veſſell aboue their reach, although they leap vp at them,he is ready to faint with mounting on high,& ſtraining to get the ſame,and in the end killeth himſelfe therwith,& lieth dead on the ground. And yet otherwiſe
C he is too vntoward for to be killed,and ſo long it is ere he will die,that when he is panched,and his very guts come forth of his belly,he wil liue ſtil,and fight.

The Elephant if he chance to let the [Lizard] Chameleon go downe his throat amongſt other herbes or leaues(which this Lizard alwaies is like vnto in colour) he goeth ſtraightwaies to the wild Oliue,the only remedy he hath of this poiſon.

Beares,when they haue eaten Mandrage apples,licke vp piſmires to cure themſelues withal.

The Stag and Hind feeling themſelues poiſoned with ſome venomous weed among graſſe where they paſture,go by and by to the Artichoke,and therewith cure themſelues.

The Stock-doues,the Iais,Merles,Blackbirds,Ouſels,recouer their appetite to meat,which once in a yeare they loſe,with eating Bay-leaues that purge their ſtomack. Partridges,Houſe-
D doues,Turtledoues,and all Pullein,as Hens,Cocks,and Capons,do the like with Parietarie of the wall. Ducks,Geeſe,and other water fouls purge with the herb Endiue or Cichory. Cranes and ſuch like help themſelues that way with the Mariſh reed.

The Rauen when he hath killed the Chameleon,and yet perceiuing that he is hurt and poiſoned by him,flieth for remedy to the Laurell,and with it repreſſeth and extinguiſheth the venom that he is infected withall.

Chap. XXVIII.

¶ *The Prognoſtication of weather, taken by the obſeruation of dumbe creatures.*

E MOreouer, the ſame vniuerſall Nature hath giuen a thouſand properties beſides vnto beaſts: and namely,hath endued very many of them with the knowledge and obſeruation of the aire aboue,giuing vs good meanes by them diuers waies,to fore-ſee what weather we ſhall haue,what winds,what raine, what tempeſt will follow:which to decipher in particular,it is not poſſible,no more than to diſcourſe throughly of their other qualities they haue reſpectiue to the ſociety with euery man. For they aduertiſe & warn vs before-hand of dangers to come,not only by their fibres and bowels (about the skill and preſage wherof,the moſt part of the world is amaſed)but alſo by other manner of tokens and ſignifications. When an houſe is readie to tumble downe,the mice goe out of it before: and firſt of all, the ſpiders with their
F webs fall down. As for the flight of birds & their fore-tokening,called Augurie,there is an Art of it, and the knowledge thereof is reduced into a method, in ſo much as at Rome there was a colledge of Augurus inſtituted:by which it may appeare in what account & regard that ſacerdotall dignitie and profeſſion was. In Thracia, which is a cold and frozen countrie, the Fox alſo will not paſſe ouer any riuer or poole that is frozen, before he trie the thickeneſſe of the yce

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by his eare,and otherwiſe it is a beaſt moſt quicke of hearing. And obſerued it is,that men neuer venture thereupon,but when he goes to reliefe,or returneth from thence, and then he layes his eare cloſe to the yce, and gueſſeth thereby how thicke the water is frozen. G

Chap. XXIX.

¶ *What cities and nations haue been vtterly deſtroyed by little beaſts.*

NOthing is more certain and notorious than this,that much hurt and dammage hath been known to come from ſmall contemptible creatures,which otherwiſe are of no reckoning and account. *M. Varro* writes,That there was a towne in Spaine vndermined by Connies: and another likewiſe in Theſſalie,by the Moldwarpes. In France the inhabitants of one citie H were driuen out and forced to leaue it,by Frogs. Alſo in Affrick the people were compelled by Locuſts to void their habitations:and out of Gyaros an Iſland, one of the Cyclades, the Iſlanders were forced by Rats and Mice to flee away. Moreouer, in Italie the citie Amycle was deſtroied by ſerpents. In Æthiopia, on this ſide the Cynamolgi, there is a great country lieth waſt and deſart,by reaſon that it was diſpeopled ſometime by Scorpions, and a kinde of Piſmires called Solpugæ. And if it be true that *Theophraſtus* reporteth, the Treriens were chaſed by certaine wormes called Scolopendres. But now let vs returne to other kinds of wild beaſts.

Chap. XXX.

¶ *Of the Hyæna, Crocuta, Mantichora, Bieuers, and Otters.* I

AS touching Hyænes,it is commonly beleeued,that they haue two natures,and that euery ſecond yeere they change their ſexe,being this yeere males, and the next yeere females. Howbeit, *Ariſtotle* denieth it. Their necke and the mane therewith, together with the backe,are one entire bone without any ioint at all,ſo as they cannot bend their necke without turning the whole body about. Many ſtrange mattes are reported of this beaſt,and aboue all other,that he will counterfeit mans ſpeech,and comming to the ſheepheards cottages, will call one of them forth,whoſe name he hath learned,and when he hath him without,al to worrie and teare him in peeces. Alſo it is ſaid that he will vomit like a man,thereby to train dogs to come vnto him,and then will deuoure them. Alſo,this beaſt alone of all others,will ſearch for mens K bodies within their graues and ſepulchres,and rake them forth. The female is ſeldome taken. He changeth his eies into 1000 diuers colours. Moreouer, if a dog come within his ſhadow,he preſently loſeth his barking and is quite dumbe. Againe by a kind of magicall charme or enchantment,if he goe round about any other liuing creature but three times, it ſhall not haue the power to ſtir a foot and remooue out of the place. The Lioneſſes of Æthiopia, if they be couered with any of this kinde, bring forth another beaſt called Leocrocuta, which likewiſe knowes how to counterfeit the voice both of man,and of other beaſts. He ſees continually with both eies:he hath one entire bone in ſtead of teeth in either iaw (and no gombs at all) wherwith he cuts as with a knife. Now theſe bones,becauſe they ſhould not wax dul and blunt with continuall grating one againſt the other, they are encloſed each of them with.n a caſe or ſheath. L

Iuba reports that the Mantichora alſo in Æthiopia reſembles mens language. Great ſtore of Hyenes be found in Affricke: which alſo yeelds a multitude of wild Aſſes. And one of the males is able to rule and leade a whole flocke of the female aſſes. This beaſt is ſo iealous, that they looke narrowly to the females great with young: for ſo ſoone as they haue foled,they bite off the cods of the little ones that be males,and ſo gueld them. But contrariwiſe,the ſhee aſſes when they be big,ſeeke corners, and keepe out of their way, that they might bring forth their young ſecretly without the knowledge of the Stallons:for deſirous they are to haue many males: ſo lecherous they be,and glad euermore to be couered.

The Bieuers in Pontus gueld themſelues,when they ſee how neer they are driuen,and be in danger of the hunters:as knowing full well,that chaſed they be for their genetoires: and theſe M their ſtones, Phyſitians call Caſtoreum. And otherwiſe, this is a dangerous and terrible beaſt with his teeth. For verily,he will bite down the trees growing by the riuer ſides,as if they were cut with an axe. Looke where he catcheth hold of a man once, he neuer leaues nor lets looſe vntill he haue knapped the bone in ſunder,and heard it cracke againe. Tailed hee is like a fiſh,

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A otherwiſe he reſembleth the Otter. Both theſe beaſts liue in the water altogether, and cary an haire ſofter than any plume or downe of feathers.

Chap. XXXI.

¶ *Of Frogs, Sea-calues, and ſtar-Liſards called Stelliones:*

THe venomous frogs and todes called Rubetæ, which liue both on land, and alſo in the wa-
ter, yeeld many good things medicinable. It is ſaid, that their manner is to let goe & caſt
from them all that is good within them, reſeruing only to themſelues all the poiſon: and
when they haue bin at their food, take the ſame vp againe. The ſea calfe likewiſe liueth both in
B the ſea, and vpon the land: and hath the ſame nature and qualitie that the beiuer is, for hee ca-
ſteth vp his gall, which is good for many medicines: & ſo he doth the runnet in his maw, which
is a ſingular remedy for the falling ſicknes: for wel he is ware, that men ſeek after him for theſe
two things. *Theophraſtus* writeth, That the Liſards called Stelliones, caſt their old coat, like as
Snakes do; but when they haue ſo done, they eat it vp againe, and ſo preuent men of the helpe
thereby for the ſaid falling euill. He reporteth beſides, that their ſtings and bitings in Greece
be venomous and deadly: but in Sicily harmleſſe.

Chap. XXXII.

¶ *Of red and fallow Deere.*

C THe Bucke or Stag, albeit that he be the moſt gentle and mild beaſt in the world, yet is he
as enuious as the reſt, & loth to part with that which is good for others. Howbeit, if he
chance to be ouerlaied with hounds, then gently of himſelfe hee hath recourſe to a man.
Likewiſe, the Hinds when they are to calue, chuſe rather ſome place neere to the pathes and
waies that are beaten with many ſteps, than ſecret corners; for feare of other wilde beaſts. They
begin to goe to rut after the riſing of the ſtar Arcturus, which is much about the 5 of Septem-
ber: they goe 8 months: and otherwhiles bring 2 calues at once. Finding themſelues rhat they
are ſped, they part companie with the Stags. But they againe ſeeing themſelues forſaken, fall
into a kinde of rage for heate of luſt, and dig pits in the ground where they lie hidden. Then
D begin their muzzles to looke blacke, and ſo continue, vntill ſuch time as ſome raine waſh away
that colour. The Hinds before they calue, purge themſelues with the herbe Seſelis or Siler-
monntaine, whereby they haue leſſe paine in their bearing, and more ſpeedy and eaſie deliue-
rance. After they are lightened of their burden, they know where two herbes be, which they
haue preſently recourſe vnto, Wake-Robin, and the foreſaid Siler-mountain. When they haue
eaten well thereof, they return preſently to their yong. And (for what ſecret reaſon in Nature,
God knowes) their firſt milke muſt haue a taſte & talang of thoſe two herbs. Their little ones
they practiſe and exerciſe to vſe their legs from the very beginning ſo ſoon as they be come in-
to the world: teaching them euen then how they ſhould run away and flie. To high and ſteepe
cragged rockes they bring them and there ſhew them how to leape, and withall acquaint them
E with their dens and places of harborough. And now by this time, the ſtags being paſt the heat
of the rut, feed apace. But ſo ſoone as they be growne very fat, they ſeeke lurking places, and
there abide, confeſſing as it were how heauie and vnweldie they be for fatneſſe, aud how vncom-
modious it is vnto them. At other times they vſe in their flight to make ſtaies, and take their
breath, and as they ſtand ſtill, to looke behinde them. But when they eſpie once the hounds
and hunters to be neer vnto them then they fall to running afreſh. And this rhey doe for a pain
that they haue in their guts, which are ſo weak & tender, that with a ſmall blow or ſtripe giuen
vnto them they will burſt within their bellies. When they perceiue the hunt is vp, & heare the
hounds crie, they preſently run but euer downe the winde, to the end that the ſent of their feet
ſhould paſſe away with them. They take much pleaſure & delight in the ſound of ſheepheards
F pipes, and their ſong withall. When they ſet vp their eares, they are moſt quicke of hearing:
when they let them hang downe, they be as deafe. Moreouer, they are very ſimple and fooliſh
creatures: amuſed, yea, and amaſed they will be at euery thing, and keepe a wondring at it, inſo-
much, as if an horſe, a cow, or an haifer approach neere vnto them, they will ſtand gazing at
them, and neuer regard the hunters neere by: or if they happen to ſpie him, they will looke at
his

his very bow, and ſheine of arrows, as at ſtrange and wondrous things. They paſſe the ſeas, ſwimming by flocks and whole heards in a long row, each one reſting his head vpon the buttockes of his fellow next before him: and this they do in courſe, ſo as the foremoſt retireth behinde to the hindmoſt, by turnes one after another: and this is ordinarily obſerued by thoſe ſaylers that paſſe from Cilicia to Cypres. And yet in their ſwimming they deſcry no land by the eye, but only by their ſmelling haue an aime thereat. The males of this kind are horned, and they (aboue all other liuing creatures) caſt them euery yeare once, at a certaine time of the Spring: and to that purpoſe a little before the very day of their mewing, they ſeek the moſt ſecret corners and moſt out of the way, in the whole forreſt. When they are pollards, they keep cloſe hidden, as if they were diſarmed: and all this they do, as if they enuied that men ſhould haue good of any thing that they had. And in very truth, the right horn (they ſay) can neuer be found, as if it had ſome rare and ſingular vertue in Phyſicke. A ſtrange and maruellous thing, conſidering that in the parks they change them euery yere, inſomuch as it is thought verily, that they hide them within the earth. But burne whether of them ye will, the left as well as the right, this is certain, That the ſmell and perfume thereof driueth ſerpents away, and diſcouereth them that are ſubiect to the fits of the falling diſeaſe. A man may alſo know their age by their heads, for euery yeare they haue one knag or branch more in their horns than before, vntill they come to ſix: after which time, they come new euer alike; ſo as their age cannot be diſcerned any more by the head, but the marke is taken by their mouth and teeth; for as they grow in age, they haue few or no teeth at all, ne yet grow the branches out at the root, whereas all the while they were yonger, they vſed to haue them breake forth and ſtanding out at the very forehead. After they be guelded once, neither caſt they their hornes which they had before, neither grow there any if they had none when they were libbed. At the firſt when they breake out againe, like they be to the glandules or kernels of dry skin, that new put forth: then grow they with tender ſtalks, into certain round and long knobs of the reed mace, couered all ouer with a certaine ſoft plume downe like veluet. So long as they be deſtitute of their hornes, and perceiue their heads naked, they go forth to relieſe by night; and as they grow bigger and bigger, they harden them in the hot ſun, eftſoons making proofe of them againſt trees; and when they perceiue once that they be tough and ſtrong enough, then they go abroad boldly. And certainly ſome of them haue been taken with green Iuie ſticking faſt and growing in their hornes, remaining there ſince the time that they ran them (when they were but tender) againſt ſome trees, for triall whether they were good or no, and ſo chanced to race the Iuie from the wood of the tree. You ſhall haue them ſomtime white of colour, and ſuch an one was the hind that *Q. Sertorius* had about, which he perſuaded the people of Spaine to be his Sooth-ſayer, & to tel him of things to come. This kind of Deere maintaine fight with ſerpents, and are their mortall enemies: they will follow them to their very holes, and there (by the ſtrength of drawing and ſnuffing vp their wind at the noſtrils) force them out whether they wil or no: and therfore there is not ſo good a thing again to chaſe away ſerpents, as is the ſmoke and ſmel of an Harts horn burnt. But againſt their ſting or biting, there is a ſingular remedy, with the runnet in the maw of a fawne or Hind-calfe killed in the dams belly. It is generally held and confeſſed, that the Stag or hind liues long: for an hundred yeres after *Alexander* the great, ſome were taken with golden collars about their necks, ouergrowne now with haire and growne within the skin: which collars, the ſaid king had done vpon them. This creature of all diſeaſes is not ſubiect to the feuer, but he is good to cure it. I haue known great ladies and dames of ſtate, vſe euery morning to eat the veniſon of red Deere, and thereby to haue liued a great age and neuer had the ague: but it is thought this is a certain remedy and neuer faileth, in caſe the ſtag be ſtrucken ſtarke dead at once with one wound and no more.

Chap. XXXIII.

¶ *Of the ſhag-haired and bearded Stagge like to a Goat: as alſo of the Chamæleon.*

OF the ſame kind is the Goat hart, and differing only in the beard and long ſhag about the ſhoulders, which they call Tragelaphis: and this breedeth no where but about the riuer Phaſis. Africke in a manner is the onely countrey that breedeth no ſtags and hinds: but contrari-

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A contrariwiſe,it bringeth Chamæleons, although India hath them ordinarily in greater number. In ſhape and quantitie it is made like a Liſard,but that it ſtandeth higher and ſtreighter than the Liſards do,vpon his legs. The ſides,flank,and belly,meet together,as in fiſhes: it hath likewiſe ſharp prickles,bearing out vpon the back as they haue: ſnouted it is, for the bigneſſe not vnlike to a ſwine,with a very long taile thin and pointed at the end, winding round and entangled like to vipers: hooked clawes it hath,and goeth ſlow, as doth the Tortoiſe: his body and skin is rough and ſcaly,as the crocodiles: his eies ſtanding hollow within his head,& thoſe be exceeding great,one neere vnto the other,with a very ſmall portion betweene, of the ſame colour that the reſt of the body is: he is alwaies open eied,and neuer cloſeth them: he looketh about him not by mouing the ball of his eie,but by turning the whole body thereof: he gapes
B euermore aloft into the aire, and is the onely creature aliue that feedeth neither of meat nor drinke,but hath his nouriſhment of aire onely: about wilde fig-trees he is fell and dangerous, otherwiſe harmleſſe. But his colour naturally is very ſtrange and wonderful, for euer and anon he changeth it,as well in his eie,as taile and whole body beſides: and looke what colour he toucheth next,the ſame alwaies he reſembleth,vnleſſe it be red and white. When he is dead, hee looketh pale and wan: very little fleſh he hath in head and chawes, and about the ioint where his taile is graffed to his rump; but in all the body beſides, none at all. All his bloud is in his heart,and about his eies: among other his bowels,he is without a ſpleen. Hidden hee lieth all winter long,as Liſards do.

Chap. XXXIIII.

C ¶ *Of the Buffe,or Tarandus: the Lycaon,and the Thos.*

IN Scythia there is a beaſt called Tarandus,which changeth likewiſe colour as the Chamæleon: and no other creature bearing haire doth the ſame, vnleſſe it be the Lycaon of India, which (by report) hath a maned necke. As for the Thoes (which are a kinde of wolues ſomewhat longer than the other common wolues,and ſhorter legged, quicke and ſwift in leaping, liuing altogether of the veniſon that they hunt & take,without doing any harme at all to men) they may be ſaid not ſo much to change their hew,as their habit and apparell: for all winter time they be ſhag-haired,but in ſummer bare and naked. The Tarandus is as big as an oxe,with an head not vnlike to a ſtags,but that it is greater, namely carrying branched hornes: clouen
D hooſed,and his haire as deep as is the Beares. The hide of his backe is ſo tough and hard, that thereof they make breſt-plates. He taketh the colour of all trees,ſhrubs,plants,floures,and places wherein he lieth when he retireth for feare; and therefore ſeldome is he caught. But when he liſt to looke like himſelfe and be in his owne colour,he reſembleth an Aſſe. To conclude, ſtrange it is that the bare body of a beaſt ſhould alter into ſo many colours: but much more ſtrange it is and wonderfull,that the haire alſo ſhould ſo change.

Chap. XXXV.

¶ *Of the Pork-pen.*

E THe Porkpens come out of India and Africke: a kind of Vrchin or hedge-hog they be: armed with pricks they be both; but the Porkpen hath the longer ſharp pointed quilles,and thoſe,when he ſtretcheth his skin,he ſendeth and ſhooteth from him: when the hounds preſſeth hard vpon him,he flieth from their mouthes, and then takes vantage to launce at them ſomwhat farther off. In the Winter he lieth hidden,as the nature is of many beaſts to doe,and the Beares aboue the reſt.

Chap. XXXVI.

¶ *Of the Beares,and how they breed and bring forth their young.*

F THey ingender in the beginning of winter, not after the common manner of other foure-footed beaſts,but lying both along,claſping and embracing one another: then they goe apart into their dennes and caues, where the ſhe beare thirtie daies after is diſcharged of her burden,and bringeth forth commonly fiue whelps at a time. At the firſt, they ſeem to be a lumpe

lump of white flesh without all form, little bigger than rattons, without eies, & wanting haire: only there is some shew and apparance of claws that put forth. This rude lumpe, with licking they fashion by little & little into some shape; & nothing is more rare to be seen in the world, than a she beare bringing forth her yong: and this is one cause that the male beares are not to be seen in 40 daies, nor the femall for 4 moneths. If they haue no holes and dens for the purpose, they build themselues cabbins of wood, gathering together a deale of boughes & bushes, which they couch and lay artificially together, to beare off any shower, so as no raine is able to enter; and those they strew vpon the floore with as soft leaues as they can meet withall. For the first 14 daies (after they haue taken vp their lodging in this manner) they sleep so soundly, that they cannot possibly be wakened, if a man should lay on and wound them. In this drowsinesse of theirs, they grow wondrous fat. This their grease and fat thus gotten, is it that is so medicineable, and good for those that shed their haire. These 14 days once past, they sit vpon their rump or buttocks, and fall to sucking of their fore-feet, and this is all their food wherof they liue for the time. Their yong whelpes, when they are starke and stiffe for cold, they huggle in their bosom and keep close to their warm breast, much like to birds that sit vpon their egs. A strange and wonderful thing it is to be told, and yet *Theophrastus* beleeueth it, That if a man take bears flesh during those daies, and seeth or bake the same, if it be set vp and kept safe it will grow neuertheless. All this time they dung not, neither doth there appeare any token or excrement of meat that they haue eaten: and very little water or aquositie it found within their belly. As for bloud, some few small drops lie about the heart only, and none at all in the whole body besides Now when spring is come, forth they go out of their den, but by that time the males are exceeding ouergrown with fat: and the reason therof cannot be readily rendred: for as we said before, they had no more but that fortnights sleep to fat them withall. Being now gotten abroad, the first thing that they do, is to deuoure a certain herbe named Aron, *i.* Wake-robin, and that they do to open their guts, which otherwise were clunged and grown together: and for to prepare their mouths and teeth again to eat, they whet and set the edge of them with the yong shoots and tendrons of the briers and brambles. Subiect they are many times to dimnesse of sight: for which cause especially they seek after hony combs, that the bees might settle vpon them, and with their stings make them bleed about the head, and by that means discharge them of that heauinesse which troubleth their eies. The Lions are not so strong in the head, but beares bee as weak and tender there: and therfore when they be chased hard by hunters, & put to a plunge, ready to cast themselues headlong from a rocke, they couer and arme their heads with their fore-feet and pawes, as it were with hands, and so jump downe: yea and many times, when they are baited in the open shew-place, we haue known them laid streaking for dead with one cuffe or box of the eare giuen them with a mans fist. In Spain it is held for certain, that in their brain there is a venomous qualitie; and if it be taken in drinke, drieth men into a kind of madnesse, so as they will rage as if they were bears: in token whereof, whensoeuer any of them be killed with baiting, they make sure work and burn their heads all whole. When they list, they wil go on their two hinder feet vpright; they creep down from trees backward: when they fight with buls, their manner is to hang with all their foure feet, about their head and hornes, and so with the very weight of their bodies wearie them. There is not a liuing creature more craftie and foolish withall, when it doth a shrewd turne. We finde it recorded in the Annales of the Romans, that when *M. Piso* and *M. Messala* were Consuls, *Domitius Ænobarbus* an Ædile Curule, vpon the 14 day before the Calends of October, exhibited 100 Numidian beares to be baited & chased in the great Cirque, and as many Æthiopian hunters. And I maruell much, that the Chronicle nameth Numidian, since it is certain, that no beares come out of Africke.

Chap. XXXVII.

¶ *Of the Rats of Pontus, and the Alps: also of Vrchins and Hedge-hogs.*

THe Rats of Pontus, which be onely white, come not abroad all winter: they haue a most fine and exquisit taste in their feeding; but I wonder how the authours that haue written this, should come to the knowledge of so much. Those of the Alpes likewise, *i.* Marmottanes, which are as bigge as Brocks or Badgers, keepe in, during winter: but they are prouided of

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A of victuals before hand which they gather together and carry into their holes. And ſome ſay, when the male or female is loden with graſſe and herbs, as much as it can comprehend within all the foure legges, it lieth vpon the backe with the ſaid prouiſion vpon their bellies, and then commeth the other, and taketh hold by the taile with the mouth, and draweth the fellow into the earth: thus doe they one by the other in turnes: and hereupon it is, that all that time their backes are bare and the haire worne off. Such like Marmotaines there be in Ægypt; and in the ſame manner thay ſit ordinarily vpon their buttocks, and vpon their two hinder feet they goe, vſing their fore-feet in ſtead of hands.

Hedgehogs alſo make their prouiſion before-hand of meat for winter, in this wiſe. They wallow and roll themſelues vpon apples and ſuch fruit lying vnder foot, and ſo catch them vp with their prickles, & one more beſides they take in their mouth, & ſo carry them into hollow trees.
B By ſtopping one or other of their holes, men know when the wind turneth, and is changed from North to South. When they perceiue one hunting of them, they draw their mouth and feet cloſe together with all their belly part, where the skin hath a thin downe and no pricks at all to do harme, and ſo roll themſelues as round as a foot-ball, that neither dog not man can come by any thing but their ſharpe-pointed prickles. So ſoon as they ſee themſelues paſt all hope to eſcape, they let their water go & piſſe vpon themſelues. Now this vrine of theirs hath a poiſonous qualitie to rot their skin and prickles, for which they know well enough that they be chaſed and taken. And therefore it is a ſecret and ſpeciall policie, not to hunt them before they haue let their vrine go; and then their skin is very good, for which chiefly they are hunted:
C otherwiſe it is nought euer after, and ſo rotten, that it will not hang together, but fall in pieces: al the pricks ſhed off, as being putrified, yea although they ſhould eſcape away from the dogs and liue ſtill: and this is the cauſe that they neuer bepiſſe and drench themſelues with this peſtilent excrement, but in extremitie & vtter deſpaire: for they cannot abide themſelues their owne vrine, of ſo venomous a qualitie it is, & ſo hurtfull to their own body; and do what they can to ſpare themſelues, attending the vtmoſt time of extremitie, inſomuch as they are ready to be taken before they do it. When the Vrchen is caught aliue, the deuiſe to make him open again in length, is to beſprinkle him with hot water; and then by hanging at one of their hinfeet without meat they die with famine: otherwiſe it it not poſſible to kill them and ſaue their caſe or skin. There be writers who baſh not to ſay, That this kinde of beaſt (where not thoſe
D pricks) is good for nothing, and may well be miſſed of men: and that the ſoft fleece of wooll that ſheepe bear, but for theſe prickes were ſuperfluous & to no purpoſe beſtowed vpon mankind: for which the rough skin of theſe Vrchins, are bruſhes & rubbers made to bruſh & make cleane our garments. And in very truth, many haue gotten great gain & profit by this commoditie & merchandiſe, and namely, with their crafty deuiſe of monopolies, that all might paſſe through their hands only: notwithſtanding there hath not bin any one diſorder more repreſſed and reformation ſought by ſundry edicts and acts of the Senate in that behalfe: euery prince hath been continually troubled hereabout with grieuous complaints out of all prouinces.

Or rather inſtead of tazels that ſhare-men vſe.

Chap. XXXVIII.

E ¶ *Of the Leontophone, the Once, Badgers, and Squirrils.*

TWo other kinds there be of beaſts, whoſe vrine worketh ſtrange and wonderfull effects. The one is called Leontophonos, and he breedes in no country but where there be lions: a little creature it is, but ſo venomous, that the lion (king of beaſts, before whom al others tremble) for all his might and puiſſance, dieth preſently if he taſte neuer ſo little thereof. And therfore they that chaſe the lion, get all the Leontophones that they can come by, burne their bodies, and with the powder of them beſtrew & ſeaſon as it were the pieces of other fleſh that they lay for a bait in the forreſt, and thus with the very aſhes (I ſay) of his enemie, kill him: and deadly and pernicious is it to the lion. No marueile therefore if the lion abhor & hate him, for
F ſo ſoon as he eſpieth him, he cruſhes him with his pawes, and ſo killeth him without ſetting tooth to his body. The Leontophone for his part againe, is as ready to bedrench him with his vrine, knowing right well that his piſſe is a very poiſon to the Lion.

In thoſe countries were the Onces breed, their urine (after it is made) congealeth into a certain yeie ſubſtance, & waxes drie, & ſo it comes to be a certain pretious ſtone like a carbuncle,

glittering and ſhining as red as fire,and called it is Lyncurium. And vpon this occaſion many haue written,that Amber is ingendred after the ſame maner. The Onces knowing thus much, for very ſpight and enuie,couer their vrine with mold or earth,and this maketh it ſo much the ſooner to harden and congeale.

The Grayes,Polcats, or Brocks, haue a caſt by themſelues,when they be affraid of hunters: for they will draw in their breath ſo hard,that their skin being ſtretched and puffed vp withall, they will auoid the biting of the hounds tooth,and checke the wounding of the hunter; ſo as neither the one nor the other can take hold of them.

The Squirrils alſo foreſee a tempeſt comming, and where the wind will blow: for looke in what corner the wind is like to ſtand, on that ſide they ſtop vp the mouth of their holes, and make an ouerture on the other ſide againſt it. Moreouer, a goodly broad buſh taile they haue, wherewith they couer their whole body. Thus you ſee how ſome creatures prouide victuals againſt winter,others battle and feed with ſleepe onely.

Chap. XXXIX.

¶ *Of the Viper, Land-winkles or Snailes, and Lizards.*

OF all other ſerpents,it is ſaid,that the Viper alone lies hidden in the ground during winter,whereas the reſt keepe within cranies and clifts of trees,or elſe in the hollow chinkes of ſtones: and otherwiſe they are able to endure hunger a whole yeere, ſo they be kept from extreame cold: All the while during their retreat and lying cloſe within,they ſleepe as if they were dead and depriued of their power to poyſon.

In like manner do Perwinkles and Snailes;but not only in the winter ſeaſon,but in Summer againe they lie ſtill,cleauing ſo hard to rocks & ſtones,that although by force they be plucked off and turned with their bellies vpward, yet they will not out of their ſhell. In the Baleare Iſlands there be a kinde of them called Cauaticæ,which neuer creepe out of their holes within the ground,neither liue they of any graſſe or greene herbe,but hang together like cluſters of grapes. Another ſort there is of them,but not ſo common,hiding themſelues within the couer of their ſhell,ſticking euer faſt vnto them:theſe lie alwaies vnder the ground,and were in times paſt digged vp onely about the Alpes, along the maritime coaſts:but now of late they be diſcouered in Veliternum alſo, where men begin to get them out of the earth. But the beſt of them all and moſt commendable,are thoſe in the Iſland Aſtypelæa.

As touching Liſards (deadly enemies to the Snailes or Winkles aboue-named) men ſay they liue not aboue ſix moneths. In Arabia, the Lizards be a cubit in length:and in the mountain Niſa of India,they be foure and twenty foot long; ſome tawnie,ſome light red,and others blew of colour.

Chap. XL.

¶ *Of Dogges.*

AMong thoſe domeſticall creatures that conuerſe with vs, there be many things worth the knowledge:and namely, as touching dogges (the moſt faithfull and truſtie companions of all others to a man)and alſo horſes. And in very truth, I haue heard it credibly reported,of a dogge, that in defence of his maſter, fought hard againſt theeues robbing by the high way ſide:& albeit he were ſore wounded euen to death,yet would he not abandon the dead body of his maſter,but draue away both wild foule and ſauage beaſt, from ſeizing of his carkaſſe. Alſo of another in Epirus,who in a great aſſembly of people knowing the man that had murdered his Mr. flew vpon him with open mouth, barking and ſnapping at him ſo furiouſly, that he was ready to take him by the throat, vntill he at length confeſſed the fact that ſhould cauſe the dog thus to rage and fome againſt him. There was a king of the Garamants exiled,and recouered his royall ſtate againe by the meanes of 200 dogs that fought for him againſt al thoſe that made reſiſtance,and brought him home maugre his enemies, The Colophonians and Caſtabaleans,maintained certain ſquadrons of maſtiue dogs, for their war ſeruice:and thoſe were put in the vaward to make the head and front of the battell, and were neuer knowne to draw back and refuſe fight. Theſe were their truſtieſt auxiliaries and aid-ſoldiers,and neuer ſo needy as

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A as to call for pay. In a battell when the Cimbrians were defeated and put all to the ſword, their dogges defended the baggage, yea, and their houſes (ſuch as they were) carried ordinarily vpon charriots. *Iaſon* the Lycian had a dogge, who after his maſter was ſlaine, would neuer eat meat, but pined himſelfe to death. *Duris* maketh mention of another dogge, which he named Hircanus, that ſo ſoone as the funerall fire of king *Lyſimachus* his maſter was ſet a burning, leapt into the flame. And ſo did another at the funerals of king *Hiero*. Moreouer, *Phyliſtus* reporteth as ſtrange a ſtory of king *Pyrrhus* his dogge: as alſo of another belonging to the tyrant *Gelo*. The Chronicles report of a dog that *Nicomedes* king of Numidia kept, which flew vpon the queene *Conſingis* his wife, & al to mangled and worried her, for toying and dallying ouerwantonly with the king her husband. And to goe no farther for examples, euen with vs here at Rome, *Volcatius*
B a noble gentleman (who tought *Cecelius* the ciuile law) as he returned home one euening late, riding vpon an hackney from a village neere the citie, was aſſailed by a theefe on the high way, but he had a dog with him that ſaued him out of his hands. *Cælius* likewiſe, a Senator of Rome, lying ſicke at Plaiſance, chanced to be aſſailed by his enemies, well appointed and armed; but they were not able to hurt and wound him, by reaſon of a dog that he had about him, vntill ſuch time as they had killed the ſaid dog. But this paſſeth al, which happened in our time, and ſtandeth vpon record in the publicke regiſters, namely, in the yeere that *Appius Iunius* and *P. Silus* were Conſuls, at what time as *T. Sabinus* and his ſeruants were executed for an outrage committed vpon the perſon of *Nero*, ſonne of *Germanicus*: one of them that died had a dog which could not be kept from the priſon dore, and when his maſter was throwne down the ſtaires (cal-
C led Scalæ Gemoniæ) would not depart from his dead corps, but kept a moſt pitteous howling and lamentation about it, in the ſight of a great multitude of Romanes that ſtood round about to ſee the execution and the manner of it: and when one of the companie threw the dogge a piece of meat, he ſtraightwaies carried to the mouth of his maſter lying dead. Moreouer, when the carkaſſe was thrown into the riuer Tiberis, the ſame dog ſwam after, & made all the means he could to beare it vp aflote that it ſhould not ſink: and to the ſight of this ſpectacle and fidelitie of the poore dogge to his maſter, a number of people ran forth by heapes out of the citie to the water ſide. They be the onely beaſts of all others that know their maſters; and let a ſtranger vnknown be come neuer ſo ſuddenly, they are ware of his comming, and will giue warning.
D They alone know their owne names, and all thoſe of the houſe by their ſpeech. Be the way neuer ſo long, and the place from whence they came neuer ſo farre, they remember it, and can go thither againe. And ſurely, ſetting man aſide, I know not what creature hath a better memorie. As furious and raging as they be otherwhiles, yet appeaſed they will be and quieted, by a man ſitting down vpon the ground. Certes, the longer we liue, the more things we obſerue & marke ſtill in theſe dogges. As for hunting there is not a beaſt ſo ſubtle, ſo quick, & ſo fine of ſent, as is the hound: he hunteth and followeth the beſt by the foot, training the hunter that leads him by the coller and leaſh, to the very place where the beaſt lieth. Hauing once gotten an eie of his game, how ſilent & ſecret are they notwithſtanding? and yet how ſignificant is their diſcouerie of the beaſt vnto the hunter? firſt with wagging their taile, and afterwards with their noſe and ſnout, ſnuffing as they doe. And therefore it is no maruell, if when hounds or beagles be ouer
E old, wearie, and blind, men carry them in their armes to hunt, for to wind the beaſt, and by the verie ſent of the noſe to ſhew and declare where the beaſt is at harbour. The Indians take great pleaſure to haue their ſalt bitches to be lined with tygres: and for this purpoſe, when they goe proud, they couple and tie them together, and ſo leaue them in the woods for the male tygres: howbeit they rere neither the firſt nor ſecond litter of them, ſuppoſing that the dogs thus bred, will be too fierce and eger; but the third they nouriſh and bring vp. Semblably, thus doe the Gaules by their dogges that are ingendred of wolues: and in euerie chace and forreſt there be whole flockes of them thus ingendred, that haue for their guide, leader, and captain, one dogge or other: him they accompanie when they hunt; him they obey and are directed by: for ſurely, they keepe an order among themſelues, of gouernment and maſterſhip. This is knowne for cer-
F taine, that the dogges which be neere vnto Nilus, lap of the riuer, running ſtill and neuer ſtay while they are drinking, becauſe they will giue no vantage at all to be a prey vnto the greedie Crocodiles. In the voiage that *Alexander* the Great made into India, the king of Albania gaue him a dogge of an huge and extraordinarie bigneſſe. And *Alexander* taking great delight and contentment to ſee ſo goodly and ſo faire a dogge, let looſe vnto him firſt Beares, afterwards

wild Bores; and laſt of all, fallow Deere. But this dog making no reckoning of all this game, G
lay ſtill couchant, and neuer ſtirred nor made at them. This great Commander *Alexander*, a
man of mighty ſpirit and high mind, offended at the lazineſſe and cowardiſe of ſo great a bo-
die, commanded that he ſhould be killed, and ſo he was. Newes hereof went preſently to the
king of Albanie. Wherupon he ſent vnto him a ſecond dog, with this meſſage, That he ſhould
not make triall of this too againſt ſuch little beaſts, but either ſet a Lion or an Elephant at
him: ſaying moreouer, that hee had in all but thoſe two of his kinde: and if hee were killed
likewiſe, hee were like to haue no more of that race and breed. *Alexander* made no ſtay, but
preſently put out a Lion, and immediately he ſaw his backe broken and all to rent and torne
by the dog. Afterwards he commanded to bring forth an Elephant, and in no ſight tooke he
greater pleaſure, than in this. For the dog at the firſt with his long rough ſhagged haire, that H
ouerſpread his whole bodie, came with ful mouth thundering (as it were) and barking terribly
againſt the Elephant. Soon after he leapeth and flieth vpon him, riſing and mounting againſt
the great beaſt, now of one ſide, then of another: maintaining combate right artificially, one
while aſſailing, another while auoiding his enemie: and ſo nimbly he beſtirreth him from ſide
to ſide, that with continuall turning about to and fro, the Elephant grew giddie in the head,
inſomuch as he came tumbling downe, and made the ground to ſhake vnder him with his fal.
Bitches breed and beare young euery yeere lightly once: and the due time for them to be with
whelpes is when they are full a yeere old. They goe with young threeſcore daies. Their pup-
pies come blinde into the world: and the more milke they ſucke, the later it is ere they receiue
their ſight: but as it is neuer aboue twenty daies ere they ſee, ſo they open not their eies vnder
ſeuen daies old. Some ſay, that if a bitch bring but one at a litter, it will ſee by nine daies: if I
twaine, it will be ten daies firſt: and the more puppies ſhe hath, the more daies it will be in that
proportion ere they ſee. Moreouer, that the bitch-whelpe that commeth of the firſt litter, ſee
ſtrange bugs and goblins. The beſt of the whole litter is that whelpe that is laſt ere it begin to
ſee: or elſe that which the bitch carries firſt into her kennell. The biting of mad dogs are moſt
dangerous to a man, as we haue ſaid before, eſpecially during the dog-daies, while the dog ſtar
Syrius is ſo hot: for they that are ſo bitten, lightly are affraid of water, which is a deadly ſigne.
To preuent therefore that dogs fall not mad, it is good for thirtie or fortie daies ſpace, to min-
gle hens or pullins dung eſpecially with their meat: againe, if they be growing into that rage,
or tainted already, to giue them Ellebor with their meat. K

Chap. XLI.

¶ *Againſt the biting of a mad Dog.*

THe ſure and ſoueraigne remedy for them that are bitten with a mad dog, was reuealed lately by way of Oracle: to wit, the root of a wild roſe, called the ſweet brier or Eglantine. *Columella* writeth, That when a whelpe is iuſt fortie daies old, if his taile be bitten off at the nethermoſt joint, and the ſinew or ſtring that commeth after, be likewiſe taken away, neither the taile will grow any more, nor the dog fall euer to be mad. I haue my ſelfe obſerued, L
that among the prodigies it is reported, how a dog ſometime ſpake, as alſo that a ſerpent barked, that yeere when *Tarquine* the prowd was depoſed and driuen out of Rome.

Chap. XLII.

¶ *Of Horſes, and their nature.*

THe ſame *Alexander* the Great, of whom ere-while we ſpake, had a very ſtrange and rare horſe, whom men called Bucephalus, either for his crabbed and grim looke, or elſe of the marke or brand of a buls head, which was imprinted vpon his ſhoulder. It is reported, that
Alexander being but a child, ſeeing this faire horſe, was in loue with him, and bought out of M
the breed and race of *Philonicus* the Pharſalian, and for him paied ſixteene talents. He would ſuffer no man to ſit him, nor come vpon his backe, but *Alexander*; and namely, when he had the kings ſaddle on, and was alſo trapped with roiall furniture: for otherwiſe he would admit any whomſoeuer. The ſame horſe was of a paſſing good and memorable ſeruice in the warres: and namely, being wounded vpon a time at the aſſault of Thebes, he would not ſuffer *Alexander* to

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A alight from his back, and mount vpon another, Many other ſtrange and wonderfull things hee did: in regard whereof, when he was dead, the king ſolemnized his funerals moſt ſumptuouſly; erected a tombe for him, and about it built a city that bare his name, Bucephalia. *Cæſar* Dictator likwiſe had another horſe that would ſuffer no man to ride him but his maiſter: & the ſame horſe had his forefeet reſembling thoſe of a man: and in that manner he ſtands pourtraied before the temple of *Venus*, Mother. Moreouer, *Auguſtus Cæſar*, late Emperour of famous memory, made a ſumptuous tombe for an horſe that he had, wherof *Germanicus Cæſar* compiled a poeme. At Agrigentum there be ſeen Pyramides ouer many places were horſes were entombed. *Iuba* reporteth, That queene *Semiramis* loued a great horſe that ſhe had, ſo far forth, that ſhe was content he ſhould doe his kind with her. The Scythians verily take a great pride and glorie much in the goodnes of their horſes and Cauallerie. A king of theirs happened in combat and
B ſingle fight vpon a challenge to be ſlain by his enemie, and when he came to deſpoile him of his armes and roiall habit, the kings horſe came vpon him with ſuch furie, flinging and laying about him with his heeles, and biting withall, that he made an end of the conquerour champion. There was another great horſe hoodwinked becauſe he ſhould couer a mare: but perceiuing after that he was vnhooded that he ſerued as a ſtalion to his own dam that foled him, ran vp to a ſteep rock with a downfall, and there for griefe caſt himſelfe down and died. We find alſo in record, That in the territorie of Reate there was a mare killed & all to rent an horſekeeper vpon the ſame occaſion. For ſurely theſe beaſts know their parentage, & thoſe that are next to them in bloud. And therefore we ſee that the colts will in the flocke more willingly keep company
C and ſort with their ſiſters of the former yere, than with the mare their mother. Horſes are ſo docile, and apt to learne, what we find in hiſtories, how in the army of *Sibaritanes*, the whole troup of horſemen had their horſes vnder them, and vſed to leap and daunce to certaine muſicke that they were wonted and accuſtomed vnto. They haue a fore-knowledge when battell is toward, they will mourne for the loſſe of their maiſters: yea, and other whiles ſhed teares and weep pitiouſly for loue of them. When king *Nicomedes* was ſlaine, the horſe for his owne ſaddle, would neuer eat meat after, but for very anguiſh died with famine. *Philarchus* reporteth, That king *Antiochus* hauing in battaile ſlaine one *Centaretus*, a brave horſman of the Gallogreeks or Galatians, became maiſter of his horſe, and mounted vpon him in triumphant wiſe: But the horſe of him that lay dead in the place, and vpon whom *Antiochus* was mounted, for very anger and in-
D dignation at this indignitie, paſſed neither for bit nor bridle, ſo as he could not be ruled; and ſo ran furiouſly among the cragges and rocks, where both horſe and man came downe headlong, and periſhed both together. *Philiſtus* writeth, That *Dyoniſius* was forced to leaue his horſe ſticking faſt in a quaue-mire, and got away: but the horſe after he had recouered himſelfe, and was gotten forth, followed the tracts of his maſter, with a ſwarm or caſt of bees ſetling in his mane: and this was the firſt preſage of good fortune that induced *Denis* to vſurp the kingdome of Sicilie. Of what perceiuance and vnderſtanding they be, it cannot be expreſt: & that know thoſe light horſmen full well that vſe to launce darts and iauelines from horſeback, by the hard ſeruice that they put their horſes to; which they doe with great dexteritie & reſolution in ſtraining, winding, and turning their bodies nimbly euery way. Nay, ye ſhall haue of them to gather
E vp darts and iauelines from the ground, and reach them againe to the horſman. And commonly we ſee it to be an ordinary matter with them in the great race or ſhew place, when they are ſet in their geirs to draw the chariots, how they ioy when they are encouraged and praiſed; giuing no doubt a great proofe, and confeſſing that they are deſirous of glorie. At the ſecular ſolemnities, exhibited by *Claudius Cæſar*, in the Circenſian games, the horſes with the white liuery (notwithſtanding their driuer and gouernour, the charioter, was caſt and flung to the ground euen within the bars) wan the beſt prize & went away with the honour of that day. For of themſelues they brake and bare down whatſoeuer might impeach them of running the race thoroughout: they did all that euer was to be done againſt their concurrents and aduerſaries of the contrarie ſide, as well as if a moſt expert chariot-man had been ouer their backes to direct and inſtruct
F them. At the ſight wherof, men were aſhamed ta ſee their skill & art to be ouermatched & ſurmounted by horſes. And to conclude, when they had performed their race, as much as by law of the game was required, they ſtood ſtil at the very goale, and would no farther. A greater wonder and preſage was this in old time, that in the Circenſian games exhibited by the people, the horſes after they had flung and caſt their gouernour, ran directly vp to the Capitol, as well as if he had

had ſtood ſtill in his place,and conducted them; and there fetcht three turnes round about the G
temple of *Iupiter*. But the greateſt of all was this which I ſhall now tell,That the horſes of *Ratumenus*,who had woon the price in the horſe-running at Veij,threw their Mr. down;and came from thence,euen out of Tuſcane,as far as to the foreſaid Capitoll,carrying thither the Palme branch and chaplet of *Victory* woon by *Ratumenas* their Mr. of whom the gate Ratumena took afterwards the name at Rome. The Sarmatians minding to take a great iournie,prepare their horſes two daies before,and giue them no meat at all,only a little drinke they allow them, and thus they will ride them gallop 150 miles an end,and neuer draw bridle. Horſes liue many of them 50 yeres,but the mares not ſo long. In fiue yeres they come to their full growth,whereas ſtone horſes grow one yere longer. The making of good horſes indeed, and their beautie, ſuch as a man will chuſe for the beſt,hath bin moſt elegantly and abſolutely deſcribed by the Poet *Virgill*. And ſomewhat alſo haue I written of that argument, in my booke which I lately put H
forth,as touching Tournois and ſhooting from horſebacke: and in thoſe points required,and there ſet downe,I ſee all writers in manner to agree. But for horſes that muſt be trained to run the race,ſome conſiderations are to be had and obſerued,different from horſes of other vſe and ſeruice. For whereas to other affaires and imploiments they may be brought when they are two yeeres old colts,and not vpward; to the Liſts they muſt not be brought to enter into any maſtries there,before they be full fiue yeres of age. The female in this kind go eleuen months compleat with young,and in the twelfth they fole:commonly the ſtalion and the mare are put together,when both of of them are full two yeeres old:and that about the Spring Equinoctiall,that is to ſay,in mid-March:but if they be kept aſunder vntill they are full 3 yeeres of age, they breed ſtronger colts. The Stalion is able to get colts vntil he be three and thirtie yers old. I
for commonly when they haue ſerued in the race,and run ful twenty yeres,they are diſcharged from thence,& let go abroad for to ſerue mares. And men ſay that they will hold to 40 yeeres with a little helpe put to the forepart of his body,that he may be lifted vp handſomly to couer the mare. Few beaſts beſides are leſſe able to ingender and leape the female often, nor ſooner haue enough of them. For which cauſe they be allowed ſome ſpace between euery time that they do their kind. And in one yeere the moſt that the Stallion is able to do that way,is to couer 15 mares,and that is ſomewhat with the ofteneſt. If ye would coole the courage,& quench the luſt of a mare,ſhare and clipher mane. And yet are mares ſufficient to beare euery yeere, vntill they came to fortie. It is reported that an horſe hath liued 75 yeeres. Mares only of all K
other females,are deliuered of their foles, ſtanding on their feet:but loue them more than any other doe their young. Theſe foles verily, by report, haue growing on their forehead, when they be newly come into the world,a little blacke thing of the bigneſſe of a fig,called Hippomanes,& it is thought to haue an effectuall vertue to procure and win loue. The dam hath not ſo ſoon foled,but ſhe bites it off, and eats it her ſelfe: and if it chance that any bodie preuents her of it,and catcheth it from her,ſhe will neuer let the fole ſucke her. The verie ſmell and ſent thereof,if it be ſtollen away,will driue them into a fit of rage and madneſſe. If peraduenture a young fole loſe the damme,the other mares of the common heard that are milch nurſes, giue their teates to this poore orphane, and reare it vp in common. They ſay that for 3 daies after L
they be newly foled,the yong colts canot lay their mouth to the ground,and touch it. Moreouer,the hotter ſtomacked that a horſe is,the deeper he thruſteth his noſe into the water as he drinkes. The Scythians chuſe rather to vſe their mares in war-ſeruice than their ſtone-horſes: the reaſon is this,that their ſtaling is no hinderance to their pace in running their carriere, as it doth the horſe,who muſt needs then ſtand ſtill. In Portugall, along the riuer Tagus,& about Lisbon,certaine it is, that when the weſt-wind blowes, the mares ſet vp their tailes, and turne them full againſt it,and ſo conceiue that genitall aire in ſteed of naturall ſeed: in ſuch ſort, as they become great withall,and quicken in their time,& bring forth foles as ſwift as the wind, but they liue not aboue three yeres. Out of the ſame Spain,from the parts called Gallicia and Aſturia,certaine ambling iennets or nags are bred, which wee call Thieldones: and others of M
leſſe ſtature & proportion euery way,named Aſturcones. Theſe horſes haue a pleaſant pace by themſelues differing from others. For albeit they be put to their full pace,a man ſhall ſe them ſet one foot before another ſo deftly and roundly in order by turnes,that it would do one good to ſee it:and hereupon horſe-breakers(maſters)haue an art by cords to bring a horſe to the like amble. A horſe is ſubiect to the ſame diſeaſes in maner that a man is:& beſides, to the running

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A of the bladder: like as all other beaſts that labour either in draught or cariage.

Chap. XLIII.

¶ *Of Aſſes.*

Varro writes, That *Q. Axius* a Roman Senator bought an Aſſe which bought him 400000 Seſterces, a price in my conceit aboue the worth of any beaſt whatſoeuer: & yet (doubtleſſe) he was able to do wondrous good ſeruice in carrying burdens, plowing of ground, and principally in getting of mules. The chapmen that vſe to buy theſe Aſſes haue a ſpeciall
B regard to the place from whence they come, and where they be bred: for in Achaia or Greece thoſe of Arcadia be in greateſt requeſt: and in Italy thoſe of Reate. This creature of all things can worſt away with cold; which is the cauſe that none of them are bred in Pontus. Neither do they ingender as other ſuch like beaſts, in the Spring Æquinoctiall, *i.* about mid-March, but in mid-Iune, about the time of the Sun-ſtead, when daies be at the longeſt. He Aſſes, the more you ſpare them in their worke, the worſe they are for it. The females are at the leaſt 30 months or two yeares and halfe old before they bring any yong; but 3 yeares is the ordinarie and due time indeed. They go as long as mares, and iuſt ſo many moneths, and after the ſame maner do they fole. But after they be couered, they muſt be forced to run preſently, with beating & laying on them, or elſe they will let go their ſeed again, ſo ſlippery is their wombe, and ſo vnapt to keep that which once it hath conceiued. They are ſeldome ſeene to bring forth two at once.
C The ſhe Aſſe when ſhe is about to fole ſeeketh ſome ſecret blinde corner to hide her ſelfe, that ſhe might not be ſeen of any man. She breeds all her life time, which commonly is vntill ſhee be 30 yeares old. They loue their yong foles exceeding well, but as ill or rather worſe can they abide any water. To their little ones they will go through fire, but if there be the leaſt brooke or rill between, they are ſo afraid of it, that they dare not once dip their feet therein. And verily drinke they will not, but of their accuſtomed fountaines within the paſtures where they vſe to go: but they will be ſure to chuſe their way, and go dry-foot to their drinke, and not wet their hooſe: neither will they go ouer any bridges, where the planks are not ſo cloſe drawn together and ioynted, but that they may ſee the water through vnder their feet; or the railes of each ſide ſo open that the riuer is ſeen. A ſtrange nature they haue by themſelues. Thirſty they are: but
D be they neuer ſo dry, if you change their watering place (as in trauelling vpon the way) they muſt be forced to drinke with cudgels, or elſe vnloden of their burdens. Whereſoeuer they be ſtabled, they loue to lie at large and haue roome enough. For in their ſleep they dream, & haue a thouſand phanſies appearing to them; inſomuch as they fling about them with their heeles euery way: now if they were not at libertie, and had not void ſpace enough, but ſhould beat againſt ſome hard thing in their way, they would ſoone be lame and halt withall. They be very gainfull and profitable to their maſters, yeelding more commoditie than the reuenues of good farme. It is well knowne, that in Celtiberia a ſhe Aſſe ordinarily with very breeding may be worth vnto them 400000 Seſterces. For the foling and bringing forth of the mules, the chief thing to be regarded in the ſhe Aſſe, is the haire about the eares and eie lids. For how ſoeuer
E the whole body beſides be of one and the ſame colour, yet ſhall the mules foled haue as many colours as were there, all ouer the skin. *Mecænas* was the firſt, that at feaſts made a daintie diſh of yong Aſſe foles, and preferred their fleſh in his time before the veniſon of wild Aſſes. But he being dead, they were not thought ſo good meat, nor accepted at all. If an Aſſe be ſeene to die, looke ſoon after that the whole race and kind of them will follow to the very laſt.

Chap. XLIV.

¶ *Of Mules.*

F BEtween the he Aſſe and a Mare is a Mule ingendred, and foled in the 12 moneth; a beaſt of exceeding ſtrength to beare out all labor and trauell. For breeding of ſuch Mules, Mares are choſen that are not vnder foure yeres old, nor aboue ten. Men ſay, that they will driue away one another in both kinds, and not accompany together, vnleſſe they taſted the milk and ſucked the damme when they were yong, of that kinde which they would couer. And for this purpoſe

purpoſe they vſe to ſteale away either the yong Aſſe foles,and ſet them in the dark to the teats G
of the Mare,or els the yong colts to ſuck of the ſhe Aſſe. For there is a kind of Mule alſo that
comes of a ſtone horſe and a female Aſſe: but of all others they be vntoward and vnruly, and
ſo ſlow withall, that it is vnpoſſible to bring them to any good ſeruice: and much more (as all
things elſe) if they be far in age when they ingender. If when a ſhe Aſſe hath taken the horſe
and be ſped,there come an Aſſe and couer her againe, ſhe will caſt her fruit vntimely, and loſe
all: but it is not ſo if an horſe couer her after an Aſſe. It is noted & found by experience,that
ſeuen daies after an Aſſe hath foled, is the beſt time to put the male vnto her, and then ſooneſt
will ſhe be ſped: as alſo,that the he Aſſes being wearie with trauel,wil better couer the femals
than otherwiſe being reſty. That Aſſe is held for barren, which is not couered, nor conceiueth,
before ſhe haue caſt her ſucking or foles teeth,whereby the age is known: as alſo ſhe that ſtan- H
deth not to the firſt couering, but loſeth it. In old time they vſed to call thoſe Hinuli which
were begotten betweene a horſe and an Aſſe: and contrariwiſe Mules, ſuch as were ingendred
of an Aſſe and a Mare. Moreouer this is obſerued, that if two beaſts of diuers kindes ingender,
they bring forth one of a third ſort,and reſembling none of the parents: alſo, that ſuch begot-
ten in this maner,what kind of creatures ſoeuer they be,are themſelues barren and fruitles,vna-
ble either to beare or beget yong. And this is the cauſe that ſhe mules neuer breed. We finde
verily in our Chronicles,that oft times Mules brought forth yong foles,but it was alwaies ta-
ken for a monſtrous and prodigious ſigne. And yet *Theophraſtus* ſaith, that in Cappadocia or-
dinarily they do beare and bring forth foles: but they are a kind by themſelues. Mules are bro-
ken of their flinging and wincing,if they vſe often to drinke wine. It is found written in many I
Greeke authors,that if an he Mule couer a Mare,there is ingendred that which the Latins call
Hinnus,that is to ſay,a little Mule. Between Mares and wild Aſſes made tame,there is ingen-
dred a kind of Mules very ſwift in running,and exceeding hard hoofed,lanke and ſlender of bo-
die,but fierce and couragious,and vnneth or hardly to be broken. But the Mule that comes of
a wild Aſſe and a female tame Aſſe,paſſeth all the reſt. As for wild aſſes,the very beſt & floure
of them be in Phrygia and Lycaonia. In Africke the fleſh of their foles is held for excellent
good meat,and ſuch they cal Laliſiones. It appeares in the Chronicles of Athens,That a mule
liued 80 yeares. And reported thus much there is of it,That when they built the temple within
the citadel thereof,this old Mule being for age able to do nothing els, would yet accompanie
other Mules that laboured and caried ſtones thither, and if any were ready to fall vnder their K
lode,would ſeeme to relieue and hold them vp,and as it were incourage them to his power: in-
ſomuch as the people tooke ſo great delight and pleaſure therein, that they made a decree and
took order,that no corn-maſters that bought and ſold graine ſhould beat this mule from their
ranging ſiues,when they clenſed or winnowed their corne,but that he might eat vnder them.

Chap. XLV.

¶ *Of Buls, Kine, and Oxen.*

THe Bœufs of India are as high by report as Camels,and foure foot broad they are betwixt
the horns. In our part of the world thoſe that come out of Epirus are moſt commended, L
and beare the greateſt price aboue all others,and namely thoſe which they ſay are of the
race & breed of king *Pyrrhus*,who that way was very curious. For this prince becauſe he would
haue a principall good breed,would not ſuffer the Buls to come vnto the kine and ſeaſon them
before they were both foure yeares old. Mighty big they were therefore, and ſo they continue
of that kind vnto this day. Howbeit,now when they be but heifers of one yeare, or two yeres at
the moſt(which is more tolerable)they are let go to the fellow and breed. Buls may wel ingen-
der and ſerue kine when they be 4 yeares old; and one of them is able all the yeare long to goe
with ten kine and ſerue their turne. They ſay moreouer,that a Bull after he hath leapt a Cow,
and done his kind,if he go his way toward the right hand,he hath gotten an oxe calfe,but con-
trariwiſe a cow calfe if he take the left hand. Kine commonly take at their firſt ſeaſoning, but M
if it chance that they miſſe and ſtand not to it,the 20 day after they ſeeke the fellow, and goe a
bulling againe. In the tenth moneth they calue, and whatſoeuer falleth before that terme, ne-
ver proueth nor commeth to good. Some write, That they calue iuſt vpon the laſt day of the
tenth moneth complete. Seldome bring they forth two calues at a time. Their ſeaſoning time
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A commonly continueth 30 daies, namely from the riſing of the Dolphin ſtarre, vnto the day before the Nones of Ianuarie: howbeit ſome there be that go to fellow in Autumne. Certes in thoſe countries where the people liue altogether of milke, they order the matter ſo, that their kine calue at all times, ſo as they are not without their food of freſh milke all the yeare long. Bulls willingly leape not aboue two kine at moſt in one day. Bœufes alone of all liuing Creatures can graſe going backeward, and verily among the Gamarants they neuer feed otherwiſe. Kine liue not aboue 15 yeares at the vtmoſt: bulls and oxen come to 20: they be at their full ſtrength when they are 5 yeres old. It is ſaid that they will grow fat if they be bathed with hot water, or if a man ſlit their hide, and with a reed or pipe blow wind betweene the fleſh and the skin, euen into their intrals. Kine, Buls, and Oxen are not to be deſpiſed as vnkindely, although
B they look but ilfauoredly, and be not ſo faire to the eie; for in the Alpes the leaſt of bodie are the beſt milch kine: and the beſt laboring oxen are they which are yoked by the head, and not the neck. In Syria they haue no dewlaps at all hanging vnder the necke, but bunches ſtanding vp on their backs in ſtead thereof. They of Caria alſo, a country of Aſia, are ilfauored to ſight, hauing betweene their neckes and ſhoulders a tumor or ſwelling hanging ouer; beſides, their horns are looſe, and as it were out of joint; and yet by report they are paſſing good of deed, and labor moſt ſtourly. Furthermore, it is generally held for certain, that the black or white in this kind are ſimply the worſt for work, and condemned. Buls haue leſſer and thinner horns than either Kine or Oxen. The beſt time to bring the Oxe or Bull to the yoke, and make him draw, is at 3 yeres of age; after, it is too late; and before, with the ſooneſt. A yong Stere is ſooneſt trained and taught to draw, if he be coupled in one yoke with another that hath bin wrought al-
C readie, and beaten to his work: for this beaſt is our companion, and labors together with vs, in earing and plowing the ground: and ſo highly regarded was the Oxe in old time of our forefathers, that we find it regiſtred vpon record, That a certain Roman was judicially endited, accuſed, and condemned by the people of Rome, for that (to ſatisfie the minde of a wanton minion and catamite of his, who ſaid he had not eaten any tripes all the while he was in the Countrie) he had killed an Oxe, yea although he was his one; and for this fact was baniſhed, as if he had ſlain his Grangier, or Bailif of his husbandry. Buls are known to be of a good kind & couragious, by their fierce and grim countenance, for they alwaies looke crabbed and frowning; their eares are ouergrowne with ſtiffe haires, and their hornes ſo ſtanding, as if they were euer
D diſpoſed and ready to fight: but all his threatning and menaces appeare in his fore-feet; with them he giues warning, and as he is more and more angry, he beſtirs himſelfe now with the one foot, then with another, in courſe and by turnes, ſtamping and pawing with them againſt the ground, raiſing and flinging the duſt about him aloft into the aire: and of all other beaſts, hee alone after this maner inchafeth himſelfe, and giues an edge vnto his anger. I my ſelf haue ſeen them fight one with another for the maſtrie: I haue ſeen them, being turned and ſwong round about in their fal, caught vp with the horns of others, and yet riſe again & recouer themſelues: I haue ſeene them lying along to be raiſed aloft from the ground; and when they haue run all amain with full pace, gallopping in their chariots, yet ſtaid and ſtood ſtill when they ſhould, as if the charioters had cauſed them to reſt. The Theſſalians were they who deuiſed with praun-
E cing horſe to ride gallop cloſe to the Buls head to take them by the horne, wryth their neckes down, and ſo kil them. The firſt that exhibited this pleaſant ſhew to the people at Rome was *Cæſar* Dictator. The Bull yeeldeth the principal and moſt ſumptuous ſacrifice of all other vnto the gods, and therewith are they beſt pleaſed. This beaſt alone, of all that are long tailed, when it firſt comes into the world, hath not the taile of the full meaſure and perfect length as others, but it growes ſtil, till it reach down to the very heels, and touch the ground. And hereupon it is, that in chuſing calues for ſacrifice, thoſe are allowed for good and ſufficient, whoſe taile reacheth to the joint of the haugh or gambrill: for if it be ſhorter, they will not be receiued & accepted of the gods. This alſo is noted by experience, that calues ſo little, that they be brought on mens ſhoulders to the altars to be killed, lightly are not ſufficient to appeaſe the gods. Nei-
F ther are they pacified & well pleaſed with a beaſt that is lame or maimed; nor with that which is not appropriat vnto them, but to ſome other gods; ne yet with it that recules from the altar, and is loth to come to it. In the prodigies that we reade of antient times, we find very oft, that Kine and Oxen haue ſpoken: vpon report of which ſtrange token, the Senat was euer wont to aſſemble in ſome open place abroad, and not to ſit either in hall or chamber.

CHAP.

Chap. XLVI.

¶ *Of the Bœufe or Oxe named Apis.*

In Ægypt alſo they had an Oxe which the people of that country adored and worſhipped as a god, vnder the name of Apis. This beaſt was marked in this manner; with a white ſpot on his right ſide, like to the horns or tips of the new moon croiſſant; a knot or bunch vnder the tongue, which they called Cantharus: by their religion it was not lawfull to ſuffer him to liue aboue a certain number of yeres, at the end of which term they drown him in a certain Wel or fountain of their prieſts, and ſo ſhorten his life: and then with great ſorrow fall to ſeek another to ſubſtitute in his place; vntil they find him they mourne and waile, and in token of grief and ſorrow, they ſhaue their heads. But long they neuer are before they meet with another, & when they haue him, he is by the prieſts brought to Memphis, where he hath 2 Temples, which they call Thalami, *i.* bed-chambers; out of which all the people of Ægypt, as from an Oracle, are informed truly of things to come. For if this Oxe enter into the one of them it is a good luckie ſigne; but if he go into the other, then it portendeth great miſhap and infortunitie. And theſe be generall preſages to the whole nation. As for priuat perſons, he foretelleth them of things to come by the maner of taking meat at their hands, who come to know what fortune they ſhal haue. He turned away his head from the hand of *Germanicus Cæſar*, and would eat no meat when he offered it him; but he died for it, and that not long after. He is kept ſecret and cloſe for the moſt part: but if at any time he get forth and come abroad to be ſeen of the multitude of people, he goeth with a gard of tip ſtaues to make way for him, and then a company of prety boies go chanting before him canticles and ſongs in his honour and praiſe: for it ſeemeth that he taketh heed to what they ſing, and is well pleaſed and contented thus to be worſhipped. Now theſe Choriſters beforeſaid preſently fall into a kinde of furious rage, and withall are inſpired with the gift of propheſie, and ſo foretell what will enſue. Once a yeare there is preſented vnto him a Cow, which hath marks likewiſe as he hath, but differing from his: and alwaies on what day this cow is found, the ſame day, by report, it dies. At Memphis there is a place within Nilus, which the inhabitants name Phiola, becauſe it is made in faſhion of a pot or boll; & therein duly euery yere the Ægyptians drowne two cups, one of ſiluer, another of gold, during ſeuen daies, dedicated to ſolemniſe the natiuitie of their god *Apis*. And this is one thing to be wondred at, that in that ſeuen-night ſpace there is not one that taketh hurt by Crocodiles: but let the eighth day come once, within ſix houres they returne to their former miſchieuous cruelty

Chap. XLVII.

¶ *The nature of Sheepe, and their breeding.*

Sheepe likewiſe are in great requeſt, both in regard they ſerue as ſacrifices to pacifie the gods; and alſo by reaſon their fleece yeelds ſo profitable an vſe: for euen as men are beholden to the bœufe for their principall food and nouriſhment which they labour for, ſo they muſt acknowledge, that they haue their cloathing and couerture for their bodies from the poore ſheep. The ram and ewe both are fit for generation from two yeres of age vpward, vntill they come to nine, and ſome alſo vntill they be ten yeares old. The lambes they yeane firſt are but little ones. They go all generally to rut about the ſetting of Arcturus, *viz.* vpon the third day before the Ides of May; and their heat laſteth vnto the full of the Ægle ſtarre, namely the tenth day before the Calends of Auguſt. They be with yong 150 daies: if any take the Ram after that time, the fruit they beare comes to no good, but proues weake. And ſuch lambes as fall after that ſeaſon they called in old time *Cordos*, *i.* later lambs. Many men do preferre theſe winter lambes before thoſe that come in ſpring: the reaſon is, becauſe it is much better they ſhould be ſtrong before the heat of ſummer and the long daies, than againſt the cold of winter and the ſhorteſt daies: and they think that this creature only taketh good by being yeaned in the midſt of winter. It is kinde and and naturall for Rams to make no account of young Hogrels, but to loath them: for they had rather follow after old ewes. Himſelfe alſo is better when he is old, and more luſty to leape the Ewes. To make him more milde and gentle they vſe to bore

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A bore his horne about the root neere vnto his eares. If his right cullion orſtone be tied vp, hee getteth ewe lambes; but if the left be taken vp, he getteth ramme lambes. If ewes be alone by themſelues without the flocke when it thundreth, they caſt their lambes. The only remedie is to gather them together, that by company and fellowſhip they may haue help. They ſay, that if the North winds blow when they take the ram, they will bring forth males; but if the South winds be vp, females. Moreouer, great regard there is had in this kind, to the mouthes of the rams: for look what colour the veines be vnder their tongue, of the ſame will the fleece be of the lambes, that is to ſay, of ſundrie colours, in caſe the veines were diuers coloured. Alſo the change of water and drinkes maketh them to alter their hew. In ſumme, two principall kinds there be of ſheep, that is to ſay, the one reared within houſe, and the other abroad in the field:
B the firſt is the tenderer, but the other more pleaſant meat and delicat in taſt; for thoſe within-houſe feed vpon briers and brambles. The clothes and couerings made of the Arabick wooll, are chiefe of all.

Chap. XLVIII.

¶ *Diuers kinds of wooll and clothes.*

THe beſt wooll of all other, is that of Apulia: then, that which in Italy is named the Greek ſheepes wooll, but in other countries is named Italian. In the third ranke, the Mileſian ſheepe and their wooll, carrie the prize. The wooll of Apulia is of a ſhort ſtaple, and ſpecially in requeſt for cloaks and mantles, and nothing elſe. About Tarentum and Canuſium, the
C richeſt of this kind are found: as alſo at Laodicea in Aſia. As for whiteneſſe, there is none better than that which groweth along the Po, namely, about Piemount and Lombardie: and yet neuer to this day, a pound of it hath exceeded the price of an hundred ſeſterces. In all places they vſe not to ſheare ſheepe: for the manner of plucking their fells continueth ſtill in ſome countries. Sundry ſorts of colours there be in wooll, and ſo many, that we are not able to giue ſeuerall names ſo much as to thoſe that we call Natiue, *i.* growing vpon the ſheeps backe. For black fleeces, Spaine is chiefe; Pollentia for white; and Galey, the tract of Piemont neere to the Alpes: Aſia for red hath no fellow, and ſuch kind of wools are called Erythrææ, In Bœtia likewiſe, that is to ſay, in the kingdome of Granade and Andaluſia, the ſame colour is to be found. Neere to Canuſia, the ſheepe be deepe yellow or tawnie: and about Tarentum, they are of a
D browne and duskiſh colour. Generally, all kind of wools newly ſhorne or plucked, vnwaſht and greaſy ſtill, be good and medicinable. About Iſtria and Liburnia, the ſheeps fleece reſembleth haire rather than wooll, nothing at all good for to make frized clothes with a high nap: but ſerueth only for the Artizan or workman in Portugall, whoſe artificial weauing in net or ſcutcheon work with ſquares, commends this wooll. The like wooll is common about Piſſenæ in the prouince Narbonenſis, *i.* Languedoc in Fraunce: and ſuch is found in Ægypt: the cloth made thereof, after it is worne bare, is then died and ſerueth new againe, and will weare ſtill and laſt a mans life. The courſe rough wooll with the round great haire, hath been of ancient time highly commended and accounted of in tapeſtrie worke: for euen *Homer* himſelfe witneſſeth, that they of the old world vſed the ſame much, and tooke great delight therein. But this tapeſtry is
E ſet out with colours in Fraunce, after one ſort, and among the Parthians after another. Moreouer, wooll of it ſelfe driuen together into a felt without ſpinning or weauing, ſerueth to make garments with: and if vinegre be vſed in the working of it, ſuch felts are of good proof to bear off the edge and point of the ſword, yea and more than that, they wil check the force of the fire. And the laſt clenſing and refuſe thereof (when it is taken out of the coppers and leads of thoſe that haue the fulling and dreſſing thereof) ſerues for flock-worke and to ſtuffe mattreſſes: an inuention (as I ſuppoſe) which came firſt out of France: for ſurely theſe flocks and quilted mattreſſes, are at this day diſtinguiſhed and knowne one from another by French names. But I am not able eaſily to ſet downe at what time firſt this workmanſhip began: for certaine it is that in old time men made them pallets and beds of ſtraw, or elſe lay vpon bare mats, like as now adays
F ſouldiers in the camp make ſhift with hairy rugges. As for our mantles, frized deep both without and within, they were inuented & came to vſe firſt, no longer ſince than in my fathers daies: as alſo theſe hairy counterpoints and carpets. For the ſtudded caſſocks that Senatours and noble men of Rome do weare, begin but now for to be wouen after the manner of deep frieze rugges. Wooll that is blacke, will take no other hew, nor be dyed into any colour.

As

As touching the manner how to die other wools, we wil ſpeake in conuenient place, namely, G
when we ſhall treat of the purples and ſea ſhell fiſhes, and of certain hearbs good for that purpoſe. *M. Varro* writeth, That within the temple of *Sangus*, there continued vnto the time that he wrote his booke, the wooll that ladie *Tanaquil*, otherwiſe named *Cata Cæcilia*, ſpun: together with her diſtaffe and ſpindle: as alſo, within the chappell of Fortune, the very roiall robe or mantle of Eſtate, made with her owne hands after the manner of water-chamlot in waue worke, which *Seruius Tullus* vſed to weare. And ſtom hence came the faſhion & cuſtome at Rome, that when maidens were to be wedded, their attended vpon them a diſtaffe, dreſt and trimmed with kembed wool, as alſo a ſpindle and yearn vpon it. The ſaid *Tanaquil* was the firſt that made the coat or caſſock wouen right out all thorough, ſuch as new beginners (namely, young ſouldiers, barriſters, & freſh brides) put on vnder their white plaine gownes, without any guard of purple. H
The waued water Chamelot, was from the beginning eſteemed the richeſt and braueſt wearing. And from thence came the branched damaske in broad workes. *Feneſtella* writeth, That in the latter time of *Auguſtus Cæſar* they began at Rome to vſe their gownes of cloth ſhorne, as alſo with a curled nap. As for thoſe robes which are called Crebræ and Papaueratæ, wrought thick with floure-worke, reſembling poppies; or preſſed euen and ſmooth; they be of greater antiquitie: for euen in the time of *Lucilius* the Poet, *Torquatus* was noted and reproued for wearing them. The long robes embrodered before, called Prætextæ, were deuiſed firſt by the Tuſcanes. The Trabeæ ware roiall robes, and I find that kings & princes only ware them. In *Homers* time alſo they vſed garments embrodered with imagerie and floure worke: & from thence came the triumphant robes. As for embroderie it felfe and needle-work, it was the Phrygians inuention: I
and hereupon embroderers be called in Latine *Phrygiones*. And in the ſame Aſia, king *Attalus* was the firſt that deuiſed cloth of gold: and thence come ſuch clothes to be called Attalica. In Babylon they vſed much to weaue their cloth of diuers colours, and this was a great wearing among them, & clothes ſo wrought were called *Babylonica*. To weaue cloth of tiſſue with twiſted threeds both in woofe and warp, and the ſame of ſundry colours, was the inuention of Alexandria, and ſuch clothes and garments were named Polymita. But France deuiſed the ſcutchion, ſquare, or lozenge damask-worke. *Metellus Scipio*, among other challenges and imputations laid againſt *Capito*, reptoched and accuſed him for this, That his hangings and furniture of his dining chamber, being Babylonian worke or cloth of Arras, were ſold for 800000 ſeſterces: and
ſuch like of late daies ſtood prince *Nero* in 400 hundred thouſand ſeſterces, *i.* 40 millions. The K
embrodered long robes of *Seruius Tullus*, wherewith he couered and arraied all ouer the Image of *Fortune*, by him dedicated, remained whole and ſound vnto the end of *Seianus*. And a wonder it was, that they neither fell from the image, nor were moth-eaten in 560 yeares. I haue my ſelfe ſeen the ſheeps fleeces vpon their backs while they be aliue, died with purple, with ſcarlet in grain, and the violet liquor of the fiſh Murex: by the means of certaine barks of a foot and a halfe long dipped in theſe colors, and ſo imprinted and ſet vpon their fleeces: as if riotous wantonnes and ſuperfluitie ſhould force Natures work, and make wooll to grow of that colour. As for the ſheep it ſelfe, ſhe is knowne to be kindly enough by theſe marks, If ſhe be ſhort legged,
and wel woolled vnder the bellie; for ſuch as were naked there and pilled, they condemned and
held for naught, and thoſe they called Apicæ. In Syria, ſheep haue tailes a cubit long, and they L
beare moſt wooll there. To lib lambs before they be fiue moneths old, it is thought to be with the ſooneſt, and daungerous.

Chap. XLIX.

¶ *Of a beaſt called Muſmon.*

THere is in Spaine, but eſpecially in the Iſle Corſica, a kind of Muſmones, not altogether vnlike to ſheep, hauing a ſhag more like the haire of goats, than a fleece with ſheepes wooll. That kind which is engendred between them and ſheepe, they called in old time
Vmbri. This beaſt hath a moſt tender head, and therefore in his paſture he is forced to feed M
with his taile to the ſunne. Of all liuing creatures, thoſe that bare wooll are moſt fooliſh: for take but one of them by the horne and lead him any whither, all the reſt will follow, though otherwiſe they were afraid to go that way. The longeſt that they liue in thoſe parts, is 9 yeares; howſoeuer in Æthiopia they come to 13. In which country, goats alſo liue 11 yeres, whereas in other

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A other countries of the world, for the moſt part, they paſſe not eight. And both ſorts, as well the one as the other, be ſped within foure leapings.

Chap. L.

¶ *Of Goats, and their breeding.*

GOats bring forth foure kids otherwhiles, but that is very ſeldome. They goe with young fiue months as ewes do. Shee goats waxe barren with fatneſſe. When they be come once to be three yeares old, they are not ſo good to breed: ne yet when they be elder, and namely, being paſt foure yeares of age. They begin at the ſeuenth month, euen whiles they ſucke their dammes. And as well the bucke as the Doe are held the better for breed, if they be nott,
B and haue no hornes. The firſt time that the ſhee goats are leaped, they ſtand not to it: the ſecond leaping ſpeedeth better, and ſo forward. They chuſe willingly to take the buck in the month of Nouember, that they might bring kids in March following, when all ſhrubs put forth and begin to ſprout and bud, for them to brouze. And this is ſometime when they be a yeare old, but they neuer faile at two yeares: yea and when they be full three, they are not vtterly decayed and done, but are good ſtill: for they beare 8 yeares. Subject they be in cold weather, to caſt their young and yeane vntimely. The Doe, when ſhe perceiueth her eies dimme and ouer-caſt either with pin and web or catarract, pricketh them with the ſharp point of ſome bulruſh, and ſo letteth them blood: but the bucke goeth to the brier and doth the like. *Mutianus* reporteth, that
C he had occaſion vpon a time to mark the wit of this creature: It happened, that vpon a narrow thinne plank that lay for a bridge, that one goat met another comming both from diuers parts: now by reaſon that the place was ſo narrow that they could not paſſe by nor turne about, ne yet retire backwards blindly, conſidering how long the plank was & ſo ſlender withall; moreouer, the water that ran vnderneath ran with a ſwift ſtreame, and threatned preſent death if they failed and went beſides: *Mutianus* (I ſay) affirmeth, that he ſaw one of them to lie flat down, and the other to goe ouer his backe. As for the male goats, they are held for the beſt which are moſt camoiſe or ſnout noſed, haue long eares, and the ſame ſlit in, with great ſtore of ſhag haire about their ſhoulders. But the mark to know the kindeſt female is this, they haue two lappets, locks, or plaits as it were of haire, hanging downe along their bodie on either ſide from their
D neck. They haue not al of them hornes, but ſome are nott; but in thoſe which are horned, a man may know their age by the number of the knots therein more or leſſe: and in very truth the nott ſhee goats are more free of milke. *Archelaus* writeth, that they take their breath at the eares, and not at the noſtrils: alſo that they be neuer cleare of the ague. And this haply is the cauſe, that they are hotter mouthed, and haue a ſtronger breath than ſheepe, and more egre in their rut. Men ſay moreouer, that they ſee by night as well as by day: therefore they that when euening is come ſee nothing at all, recouer their perfect ſight again by eating ordinarily the liuer of goats. In Cilicia and about the Syrtes, the people clad themſelues with goats haire, for there they ſhere them as ſheep. Furthermore it is ſaid, that goats toward the Sun-ſetting, cannot in their paſture ſee directly one another, but by turning taile to taile: as for other houres of the day,
E they keep head to head, & range together with the reſt of their fellowes. They haue all of them a tuft of haire like a beard hanging vnder their chin, which they call Aruncus. If a man take one of them by this beard and draw it forth of the ſtock, all the reſt will ſtand ſtill gazing thereat, as if they were aſtonied, and ſo wil they doe if any of them chaunce to bite of a certaine hearb. Their teeth kill trees. As for an oliue tree, if they doe but lick it, they ſpoile it for euer bearing after: and for this cauſe they be not killed in ſacrifice to *Minerua*.

Chap. LI.

¶ *Of Swine, and their natures.*

F SWine goe a brimming from the time that the Weſterne wind Fauonius beginnes to blow, vntill the ſpring Æquinoctiall: and they take the bore when they be eight months old: yea in ſome places at the fourth month of their age, and continue breeding vnto the ſeuenth yeare. They farrow commonly twice a yeare: they be with pig foure months. One ſow may bring at one farrow twenty pigges, but reare ſo many ſhe cannot. *Nigidius* ſaith, that thoſe pigs

which are farrowed ten daies vnder or ten daies ouer the ſhorteſt day in the yeare, when the ſun entreth into Capricorn, haue teeth immediatly. They ſtand lightly to the firſt brimming, but by reaſon that they are ſubject to caſt their pigs, they had need to be brimmed a ſecond time. Howbeit the beſt way to preuent that they doe not ſlip their young, is to keepe the bore from them at their firſt grunting and ſeeking after him, nor to let them be brimmed before their ears hang downe. Bores be not good to brim ſwine after they be three yeres old. Sowes when they be wearie for age that they cannot ſtand, take the bore lying along. That a ſow ſhould eat her own pigs, it is no prodigious wonder. A pig is pure & good for ſacrifice, 5 daies after it is farrowed; a lamb, when it hath been yeaned 8 daies; and a calfe, being 30 daies old. But *Gornucanus* ſaith, That all beaſts for ſacrifice which chew cud, are not pure and right for that purpoſe, vntill they haue teeth. Swine hauing loſt on eie, are not thought to liue long after; otherwiſe they may continue vntill they be fifteen yeares old, yea & ſome to twenty. But they grow to be wood and raging otherwhiles: and beſides are ſubject to many maladies more, & moſt of all to the ſquinancie, and wen or ſwelling of the kernels in the neck. Will ye know when a ſwine is ſick or vnſound, pluck a briſtle from the back and it will be bloudie at the root: alſo he will cary his neck atone ſide, as he goeth, A ſow, if ſhe be ouer-fat, ſoone wanteth milke; and at her firſt farrow bringeth feweſt pigs. All the kind of them loue to wallow in dirt and mire. They wrinkle their taile; wherin this alſo is obſerued, that they be more likely to appeaſe the gods in ſacrifice, that rather writh & turn their tailes to the right hand, than the left. Swine wil be fat and wel larded in ſixtie daies; and the rather, if before you begin to frank them vp, they be kept altogether from meat three daies. Of all other beaſts, they are moſt brutiſh; inſomuch as there goes a pleaſant by-word of them, and fitteth them well, *That their life is giuen them in ſtead of ſalt*. This is known for a truth, that when certaine theeues had ſtolne and driuen away a companie of them, the ſwinheard hauing followed them to the water ſide (for by that time were the theeues imbarged with them) cried aloud vnto the ſwine, as his manner was: whereupon they knowing his voice, learned all to one ſide of the veſſel, turned it ouer and ſunke it, tooke the water, and ſo ſwam againe to land vnto their keeper. Moreouer, the hogs that vſe to lead and goe before the heard, are ſo well trained, that they wil of themſelues goe to the ſwine-market place within the citie, & from thence home againe to their maiſters, without any guid to direct them. The wild bores in this kind, haue the wit to couer their tracks with mire, and for the nones to run ouer mariſh ground where the prints of their footing will not be ſene; yea and to be more light in running, to void their vrine firſt. Sowes alſo are ſplaied as well as camels, but two daies before, they be kept from meat: then hang they by the fore-legs, for to make inciſion into their matrice, and to take forth their ſtones: and by this means they will ſooner grow to be fat. There is an Art alſo in cookerie, to make the liuer of a ſow, as alſo of a gooſe, more daintie (and it was the deuiſe of *M. Apicius*) namely, to feed them with drie figges, and when they haue eaten till they bee full, preſently to giue them mead or honied wine to drink, vntill they die with being ouercharged. There is not the fleſh of any other liuing creature, that yeeldeth more ſtore of diſhes to the maintenance of gluttonie, than this; for fiftie ſundrie ſorts of taſtes it affordeth, whereas other haue but one a peece. From hence came ſo many edicts and proclamations publiſhed by the Cenſors, forbidding and prohibiting to ſerue vp at any feaſt or ſupper, the belly and paps of a ſow, the kernels about the neck, the brizen, the ſtones, the womb, and the fore-part of the bores head: and yet for all that, *Publius* the Poet and maker of wanton ſongs, after that he was come to his freedom, neuer (by report) had ſupper without an hogs belly with the paps: who alſo to that diſh gaue the name, and called it Sumen. Moreouer, the fleſh of wild bores came to be in great requeſt and was much ſet by: in ſuch ſort, as *Cato* the Cenſor in his inuectiue orations, challenged men for brawne. And yet when they made three kinds of meat of the wild bore, the loine was alwaies ſerued vp in the mids. The firſt Romane that brought to the table a whole bore at once was *P. Seruilius Rullus*, father of that *Rullus*, who in the time that *Cicero* was Conſull, publiſhed the law Agraria, as touching the diuiſion of lands. See how little while ago it is ſince theſe ſuperfluities began, which now are taken vp ſo ordinarily euerie day. And yet the thing was noted and recorded in the Annals, as ſtrange and rare; no doubt for this intent, To repreſſe theſe inordinate enormities. One ſupper then or feaſt was taxed and reprooued therein at the beginning: but now, two and three bores at a time are ſerued vp whole and eaten together.

CHAP.

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Chap. LII.

¶ *Of Parks for wild beaſts.*

THe firſt man of the long robe that deuiſed parks as well for theſe bores, as for other deere and ſauage beaſts, was *Fulvius Lippinus*, who in the territorie of *Tarquinij* began to keepe and feed wild beaſts for his game. And long it was not but others followed his ſteps, to wit, *L. Lucullus* and *Q. Hortenſius*. Sowes of the wild kind bring forth pigs but once a yere; and the bores in briming time are exceeding fierce and fel: then they fight one with another, they harden their ſides, rubbing them againſt the bodies of trees, and all to wallow themſelues in the mire, coating their backs with dirt. But they are not ſo raging then, but the ſowes in their farrowing are much worſe, and lightly it is ſo in all other kind of beaſts. Wild bores are not fit for generation before they be a yeare old. The wild bores of India haue two bowing fangs or tusks of a cubit length, growing out of their mouth, and as many out of their foreheads like to calues horns. The briſtly haire of the wild ſort is like to braſſe: but of others black. In Arabia ſwine will not liue.

Chap. LIII.

¶ *Of Beaſts halfe ſauage.*

THere is no creature ingenders ſo ſoon with wild of the kind, as doth ſwine: & verily ſuch hogs in old time they called Hybrides, as a man would ſay, halfe wild; inſomuch as this terme by a tranſlation hath bin attributed to mankind. For ſo was *C. Antonius*, collegue with *Cicero* in the Conſulſhip, nicknamed. And not in ſwine onely, but alſo in all other liuing creatures, looke where there be any tame and domeſtical, you may find alſo wild and ſauage of the ſame kind: ſeeing that euen of wild men there be alſo many ſorts in diuers places, as wee haue before ſaid. As for the goats kind, how many & how ſundry reſemblances are to be found in them of other beaſts? for among them you ſhall haue the roe bucke, the ſhamois, the wilde goat called the Eveck, wonderfull ſwift, albeit his head be loden with huge hornes like ſword ſcabberds: by theſe they hang and poiſe themſelues from rockes, namely, when they minde to leap from one to another, for by ſwinging to and fro they skip and jump the more nimbly, and fetch a jerk out to what place they liſt, as it were forth of an engin. Of this kind be the Origes, the only beaſts, as ſome thinke, of all others, that are ſaid to haue their haire growing contrariwiſe and turning toward the head. To theſe belong the Does, and a kinde of fallow Deere called Pygargi, as alſo thoſe that are named Strepſicerotes, and many other not far vnlike. As for the former ſort they come out of the Alps. Theſe laſt rehearſed are ſent from other parts beyond-ſea.

Chap. LIV.

¶ *Of Apes and Monkies.*

ALl the kinde of theſe Apes approch neereſt of all beaſts to the reſemblance of a mans ſhape: but they differ one from another in the taile. Maruellous crafty and ſubtill they be to beguile themſelues: for by report, as they ſee hunters doe before them, they will imitate them in euery point, euen to beſmeare themſelues with glew & birdlime, & ſhoo their feet within grins and ſnares, and by that means are caught. *Mutianus* ſaith, that he hath ſeene Apes play at cheſſe and table: and that at firſt ſight they could know nuts made of waxe from others. He affirmes alſo, that when the moon is in the wain, the monkies & Marmoſets (which in this kinde haue tailes) are ſad and heauy, but the new moone they adore and ioy at, which they teſtifie by hopping and dancing. As for the eclipſe of Sun or Moone, all other foure footed beaſts alſo do greatly dread and feare. The ſhe Apes of all ſorts are wondrous fond of their little ones: and ſuch as are made tame within houſe will carry them in their armes all about ſo ſoone as they haue brought them into the world, keepe a ſhewing of them to euery bodie, and they take pleaſure to haue them dandled by others, as if thereby they tooke knowledge that folke ioyed for their ſafe deliuerance: but ſuch a culling and hugging of them they keep, that

in the end with very claſping and clipping they kill them many times. Apes that be headed G
and long ſnouted like dogs, and thereof called Cynocephali, are of all other moſt curſt, ſhrewd and vnhappy: like as the Marmozets and Monkies called Sphinges & Satyri, are gentleſt and moſt familiar: as for thoſe called Callitriches, they be clean of another form & ſhape all ouer in a maner; they haue a beard on their viſage, & the forepart of their taile ſpredeth broad. But this creature is ſaid to liue in no other climat but Æthiopia, where it breedeth.

Chap. LV.

¶ *Of Hares and Connies.*

OF Hares alſo there be many ſorts: vpon the Alps & ſuch high mountains they be white H
of colour ſo long as the ſnow lieth; and it is verily thought, that all Winter long they liue with eating of ſnow: for ſurely when it is thawed and melted, all the yere after they be brown and reddiſh as before: and a creature it is otherwiſe bred in extreme and intolerable cold. Of the Hares kind are they alſo which in Spain they call Connies, which are exceeding fruitfull, and of wonderfull increaſe: inſomuch, as hauing deuoured all the corn in the field before harueſt, in the Baleare Iſlands, they brought thereby a famine vpon the people. There is a moſt daintie diſh ſerued vp at the table, made of Leuerets or rabbets, either cut out of the dams bellies, or taken from them when they are ſuckers, without clenſing them at all of the garbage, and ſuch the Latines call Laurices. It is know for certain, that the Iſlanders of Majorca & Minorca made means to the Emperor *Auguſtus Cæſar*, for a power of ſoldiers to deſtroy the infinit increaſe of Connies among them. Ferrets are in great account for chaſing and hunting theſe I
Connies: the manner is to put them into their earths, which within the ground haue many waies and holes like mines, and thereupon theſe creatures are called *Cuniculi*: and when they are within, they ſo courſe the poore Connies out of their earth, that they are ſoon taken aboue ground at the mouth of their holes. *Archelaus* writes, that looke how many receptacles & waies of paſſage the Hare hath for his dung and excrements, ſo many yeares old he is iuſt. And verily ſome haue more than others. The ſame writer is of opinion, that euery hare is both male and female, and that any of them can breed without the bucke. Certes herein Nature hath ſhewed her bounty and goodneſſe, in that ſhe hath giuen this creature (ſo good to eat, and ſo harmleſſe otherwiſe) the gift of fertilitie and fruitfull wombe. The Hare, naturally expoſed to be a prey K
and game for all men, is the only creature, vnles it be the Connie again called Daſipus, which after it be once with yong, conceiueth again vpon it: inſomuch as at one time ſhee hath ſome Leuerets ſucking of her, others in her belly; and thoſe not of the ſame forwardneſſe, for ſome of them are couered with haire, others are naked without any downe; and there be againe of them that as yet are not ſhapen at all, but without all forme. Moreouer, men haue aſſaied to make cloath of Hares and Connies haire: but in the hand they are not ſo ſoft as is the fur vpon the skin or caſe: neither will they laſt, by reaſon that the haire is ſhort and will ſoon ſhed.

Chap. LVI. L

¶ *Of Beaſts halfe tame.*

AS for Hares, ſeldome be they made tame and to come to hand; and yet iuſtly they cannot be ſimply called wild: for many other ſuch creatures there be beſides, that neither are ſauage, nor tame and gentle, but of a middle nature betwixt both: as namely among flying fowles in the aire, the Swallow: likewiſe the Bee: and among fiſhes the Dolphin in the ſea.

Chap. LVII.

¶ *Of Mice and Rats, Dormice, Reer-mice, and Bats.*

M
IN the rank of thoſe that be neither tame nor wild, many haue ranged the Mice and rats that haunt our houſes. A creature this is of no ſmal reckoning for preſaging ſomwhat to a ſtate, by ſome ſtrange and prodigious tokens. By gnawing the ſiluer ſhields & bucklers at Lauinium, they portended and foreſhewed the Marſian war. Vnto *Carbo* the L. Generall, by eating of his hoſe garters and ſhooe-ſtrings at Cluſium they prognoſticated his death. Many ſorts

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A there be of them in the country of Cyrene, ſome with a broad flat forehead, others with a ſharp pointed: and there be of them ſeen to haue ſharp prickles like to vrchins or hedge-hogs. *Theophraſtus* reporteth, That theſe vermin hauing diſpeopled the Iſle Gyaros, and driuen away the inhabitants, gnawed and deuoured euery thing they could meet withal, euen to their very iron. And ſurely it ſeemes that is their nature ſo to doe: for euen amongſt the Chalybes they ſerue them ſo, in eating their iron and ſteele within their very forges: yea, & in gold mines they play the like part: & therefore being caught, their bellies be ript by the pioners in the mine, where they euermore find their ſtollen gold again. See what delight this creature takes in theeuing. We reade in the Chronicles, that whiles *Annibal* lay in ſiege before the towne Caſilinum, a rat was ſold within the town for 200 Seſterces: the man who bought it at that price liued; but the party who ſold it through greedines of mony died for hunger. By the learning of Sooth ſayers
B obſerued it is, that if there be ſtore of white ones bred, it is a good ſigne and preſageth proſperitie. And in truth our ſtories are full of the like examples, and namely, that if rats be heard to cry or ſqueak in the time of ceremoniall taking the Auſpices and ſignes of birds, all is marred, and that buſineſſe clean daſht. *Nigidius* ſaith, that rats lie cloſe hidden all winter, like as Dormice. By the Edicts of the Cenſors, and principally by an Act of *M. Scaurus* in his Conſulſhip, prouided it was, & ſtreight order taken, that no Rats, Mice, or Dormice ſhould be ſerued vp to the table at their great ſuppers and feaſts: like as all ſhell fiſh or fowle fet out of forrein countries far remote. Counted are Dormice betweene tame and wilde: and verily he that firſt deuiſed to keepe wilde bores in parkes, found means alſo to nouriſh and feed theſe creatures in great tuns, pipes, and drifats. In the experiment and triall whereof this hath bin found & obſer-
C ued, That willingly theſe little creatures will not ſort together vnleſſe they were countrimen as it were, and bred in one & the ſame forreſt: and if it chance that there be intermingled among them any ſtrangers, to wit, ſuch as had either ſome riuer or mountain between the places where they were bred, they kil one another with fighting. The yong Dormice are exceeding kind and louing to their ſires that begat them; for when they be old and feeble, full tenderly will they feed and nouriſh them. They renew their age euery yere by ſleeping all winter; for they lie by it cloſe ſnug all the while, and are not to be ſeen: but come the ſommer once they be yong and freſh againe. And thus the field mice likewiſe take their reſt, and do the ſame.

D

Chap. LVIII.

¶ *What Creatures liue not but in certaine places.*

A Wonderfull thing it is to ſee, that Nature hath not only brought forth diuers creatures in ſundrie Countries, but alſo in one region vnder the ſame climate hath denied ſome of them to liue in euery corner thereof. And namely in the forreſt of Mœſia in Italie, theſe Dormice are found but only in one part thereof. And in Lycia, the wild goats, roe-buckes, and Does neuer paſſe the mountaines that confine vpon the Syrians: no more than the wilde Aſſes tranſmount that hil which diuides Cappadocia from Cilicia. Within Helleſpont the Stags
E and Hinds neuer go forth and enter into the marches of other countries: and thoſe about Arginuſſa paſſe not the mountaine Elatus: which may be knowne by this, that all vpon that hill haue their eares marked and ſlit. In the Iſland Poroſelenum the weezels will not croſſe ouer the highway. And about Lebadia in Bœotia, thoſe moldwarpes or wants that are brought thither from other parts, will not abide the very ſoile, but flie from it; which neere-by in Orchomenus, vndermine and hollow all their corn fields: and ſuch ſtore there is of them, that I haue ſeen all the hangings, carpets, counterpoints, and couerlets of chambers made of their skinnes. See how men for no religion and feare of the gods wil be kept from taking their pleaſures and making their delights of theſe creatures, otherwiſe prodigious & portending things to come. The ſtrange Hares that be brought into Ithaca will not liue there, but ſeeking to eſcape, are
F found dead vpon the very banks of the ſea ſide. In the Iſland Ebuſus be no Connies at all: and yet in Spain and the Baleare Iſles there are ſo many, that they peſter the whole country. Frogs were euer in Cyrenæ naturally mute, and would not cry: but brought there were thither out of the continent ſuch as would crie in the water: and that whole kind ſtill remaineth vocal. In the Iſland Seriphos you ſhall not yet heare a Frogge to cry: let the ſame be carried forth to

other places, they will keep a ſinging as well as the reſt. And (by report) the like hapned in a lake of Theſſaly named Sicendus. In Italy the hardy ſhrews are venomous in their biting: but paſſe ouer the Apennine once there are no more ſuch to be found. In what country ſoeuer they be, let them go ouer the tract of a cart wheele they die preſently. In Olympus a mountaine of Macedony there are no wolues, ne yet in the Iſle of Candy: and there verily are to be found no Foxes nor Beares, and in one word, no hurtfull or noiſome beaſt, vnleſſe it be a kinde of ſpider called *Phalangium*, whereof we will ſpeake more in due time and place. And that which is more wonderfull, in the ſame Iſle there are no ſtags or hinds, ſaue only in the region and quarter of the Cydoniates: no wild bores likewiſe, nor the fowle called the Godwit or Attagene, ne yet Vrchins. To conclude, in Africk ye ſhall find no wild bores, no Stags and Hinds, no roe-bucks and Does, ne yet Beares.

Chap. LIX.

¶ *What Creatures are hurtfull to ſtrangers.*

NOw, ſome liuing creatures there be that do no harm at all to the inhabitants of the ſame countries, but kill all ſtrangers. Namely, certain ſerpents in Tirinthe, which are ſuppoſed to breed of themſelues out of the very earth. Semblably, in Syria there be ſnakes, and ſpecially along the banks of Euphrates, that will not touch the Sirians lying along aſleep: nay, if a man that leans vpon them be ſtung or bitten by them, he ſhal find no hurt or miſchief thereby. But to men of all other nations whatſoeuer they are moſt ſpightfully bent, them they will with great greedineſſe eagerly aſſaile and fly vpon, yea, and kill them with extreme paine and anguiſh: and therefore it is that the Sirians deſtroy them not. Contrariwiſe *Ariſtotle* reporteth, That in Latmos (a mountain in Caria) the Scorpions will do no harm to ſtrangers, marie the inhabitants of the ſame country they will ſting to death. Now let vs proceed to other liuing creatures beſides thoſe of the land, and diſcourſe of their ſundry ſorts and kinds.

THE NINTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I.

¶ *The nature of water Creatures.*

I Haue thus ſhewed the nature of thoſe beaſts that liue vpon the land, and therein haue ſome ſocietie & fellowſhip with men. And conſidering, that of all others beſides in the world, they that flie be the leaſt, we will firſt treat of thoſe fiſh that keep in the ſea, not forgetting thoſe alſo either in running freſh riuers or ſtanding lakes.

Chap. II.

¶ *What the reaſon is why the ſea ſhould breed the greateſt liuing creatures.*

THe waters bring forth more ſtore of liuing creatures, and the ſame greater than the land. The cauſe wherof is euident, euen the exceſſiue abundance of moiſture. As for the fouls & birds, who liue hanging, as it were, & houering in the aire, their caſe is otherwiſe. Now

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A in the ſea, being ſo wide, ſo large and open, readie to receiue from heauen aboue the genitall ſeeds and cauſes of generation; being ſo ſoft and pliable, ſo proper & fit to yeeld nouriſhment and encreaſe; aſſiſted alſo by Nature, which is neuer idle, but alwaies framing one new creature or other: no maruell it is if there are found ſo many ſtrange and monſtrous things as there be. For the ſeeds and vniuerſall elements of the world are ſo interlaced ſundry waies, and mingled one within another, partly by the blowing of the winds, and partly with the rolling and agation of the waues, inſomuch as it may truly be ſaid, according to the vulgar opinion, that whatſoeuer is engendred and bred in any part of the world beſides, is to be found in the ſea: and many more things in it, which no where elſe are to be ſeen. For there ſhall ye meet with fiſhes, reſembling not onely the forme and ſhape of land creatures liuing, but alſo the figure and fa-
B ſhion of many things without life: there may one ſee bunches of grapes, ſwords, and ſawes, repreſented; yea, and alſo cowcumbers, which for colour, ſmell, and taſte, reſembleth thoſe growing vpon the earth. And therefore we need the leſſe to wonder, if in ſo little ſhell fiſhes as are cockles, there be ſomewhat ſtanding out like horſe-heads.

Chap. III.

¶ *Of the monſtrous fiſhes in the Indian ſea.*

THe Indian ſea breedeth the moſt and biggeſt fiſhes that are: among which, the Whales and Whirlepooles called Balænæ, take vp in length as much as foure acres or arpens of land: likewiſe the Priſtes are two hundred cubits long: and no maruell, ſince Locuſts are
C there to be found of foure cubits in length: and yeeles within the riuer Ganges of thirtie foot in length. But theſe monſtrous fiſhes in the ſea, are moſt to be ſeen about the middeſt of Summer, & when the daies be at the longeſt with vs. For then by the means of whirlewinds, ſtorms, winds, and bluſtering tempeſts which come with violence down from the mountains and promontories, the ſeas are troubled from the very bottome, and turned vpſide downe: whereupon the ſurging billowes thereof, raiſe theſe monſters out of the deep, and roll them vp to be ſeen. For in that manner ſo great a multitude of Tunnies were diſcouered and aroſe, that the whole armada of king *Alexander* the great, ſeeing them comming like to an armie of enemies in order of battell, was driuen to range & make head againſt them, cloſe vnited together: for otherwiſe, if they had failed ſcattering aſunder, there had bin no way to eſcape, but ouerturned they had
D bin, with ſuch a force and ſway came theſe Tunnies in a skull vpon them. And verily, no voice, crie, hollaing and houting, no nor any blowes and raps affrighted this kind of fiſh, only at ſome cracke or craſhing noiſe they be terrified: and neuer are they troubled and diſquieted ſo much as when they perceiue ſome huge thing ready to fall vpon them.

In the red ſea there lies a great demie Iſland named Cadara, ſo farre out into the ſea, that it maketh a huge gulfe vnder the wind, which king *Ptolomæus* was 12 daies and 12 nights a rowing through: foraſmuch as there is no wind at all vſes to blow there. In this creeke ſo cloſe and quiet, there be fiſh and Whales grow to that bignes, that for their very weight and vnweldines of their bodie, they are not able to ſtirre. The Admirals and other captaines of the fleet of the foreſaid *Alexander* the great, made report, That the Gedroſi, a people dwelling vpon the riuer
E Arbis, vſe to make of ſuch fiſhes chawes, the dores of their houſes; alſo that they lay their bones ouerthwart from one ſide of the houſe to another, in ſtead of beames, joiſts and rafters to beare vp their floores and roufes: and that ſome of them were found to be fortie cubits long.

In thoſe parts there be found in the ſea certaine ſtrange beaſts like ſheep, which goe forth to land, feed vpon the roots of plants and herbes, and then returne againe into the ſea. Others alſo which are headed like Horſes, Aſſes, and Buls: and thoſe many times eat downe the ſtanding corne vpon the ground.

Chap. IIII.

F ¶ *Which be the greateſt fiſhes in any coaſt of the Ocean ſea.*

THe biggeſt and moſt monſtrous creature in the Indiſh Ocean, are the whales called Priſtis & Balæna. In the French Ocean there is diſcouered a mighty fiſh called Phyſeter, [*i.* a Whirlepoole] riſing vp aloft out of the ſea in manner of a columne or pillar, higher than the

the very ſailes of the ſhips: and then he ſpouteth and caſteth forth a mightie deale of water, as it were out of a conduit, enough to drowne and ſinke a ſhip. In the Ocean of Gades, betweene Portugale and Andaluſia, there is a monſtrous fiſh to be ſeen like a mightie great tree, ſpreading abroad with ſo mightie armes, that in regard thereof onely, it is thought verily it neuer entred into the ſtreights or narrow ſea there by of Gibraltar. There ſhew themſelues otherwhiles fiſhes made like two great wheeles, and thereupon ſo they be called: framed diſtinctly with foure armes, repreſenting as many ſpokes: and with their eies they ſeem to couer cloſe the naues from one ſide to the other, wherein the ſaid ſpokes are faſtened. G

Chap. V.

¶ *Of Tritons, Nereides, and ſea-Elephants, and their formes.* H

IN the time that *Tiberius* was Emperour, there came vnto him an Embaſſador from *Vliſſipon*, ſent of purpoſe to make relation, That vpon their ſea-coaſt there was diſcouered within a certain hole, a certain ſea goblin, called Triton, ſounding a ſhell like a trumpet or cornet: and that he was in forme and ſhape like thoſe that are commonly painted for Tritons. And as for the Meremaids called Nereides, it is no fabulous tale that goes of them: for look how painters draw them, ſo they are indeed: onely their bodie is rough & skaled all ouer, euen in thoſe parts wherein they reſemble a woman. For ſuch a Meremaid was ſeen and beheld plainly vpon the ſame coaſt neere to the ſhore: and the inhabitants dwelling neere, heard it a far off when it was a dying, to make pitteous mone, crying & chattering very heauily. Moreouer, a lieutenant or I gouernor vnder *Auguſtus Cæſar* in Gaule, aduertiſed him by his letters, That many of theſe Nereides or Mearmaids were ſeen caſt vpon the ſands, and lying dead. I am able to bring forth for mine authors diuers knights of Rome, right worſhipfull perſons and of good credit, who teſtifie, that in the coaſt of the Spaniſh Ocean neer vnto Gades, they haue ſeen a Mere-man, in euery reſpect reſembling a man as perfectly in all parts of the bodie as might be. And they report moreouer, that in the night ſeaſon he would come out of the ſea abord their ſhips: but look vpon what part ſoeuer he ſetled, he waied the ſame downe, & if he reſted and continued there any long time, he would ſinke it cleane. In the daies of *Tiberius* the Emperor, in a certain Iſland vpon the coaſt of the prouince of Lions, the ſea after an ebbe left vpon the bare ſands 300 ſea-monſters and aboue, at one flote together, of a wonderfull varietie and bigneſſe, differing aſunder. K And there were no fewer found vpon the coaſt of the Santones. And among the reſt there were ſea-Elephants and rams, with teeth ſtanding out; & hornes alſo, like to thoſe of the land, but that they were white like as the fore-ſaid teeth: ouer & beſides, many Meremaids. *Turanius* hath reported, That a monſter was driuen and caſt vpon the coaſt of Gades, betweene the two hindmoſt fins whereof in the taile, were 16 cubits: it had 122 teeth, whereof the biggeſt were a ſpan or nine inches in meaſure, and the leaſt halfe a foot. *M. Scaurus* among other ſtrange and wonderfull ſights that he exhibited to the people of Rome, to doe them peaſure in his Ædileſhip, ſhewed openly the bones of that ſea-monſter, before which ladie *Andromeda* (by report) was caſt to be deuoured: which were brought to Rome from Ioppe, a towne in Iudæa: and they caried in length fortie foot: deeper were the ribs than any Indian Elephant is high, and the L ridge-bone a foot and halfe thicke.

Chap. VI.

¶ *Of the Balænes and Orcæ.*

THeſe monſtrous Whales named Balænæ, otherwhiles come into our ſeas alſo. They ſay that in the coaſt of the Spaniſh Ocean by Gades, they are not ſeen before midwinter when the daies be ſhorteſt: for at their ſet times they lie cloſe in a certain calme deep and large creeke, which they chuſe to caſt their ſpawn in, and their delight aboue all places to breed. The Orcæ, other monſtrous fiſhes, know this full well, and deadly enemies they be vnto the foreſaid M whales. And verily, if I ſhould pourtrait them, I can reſemble them to nothing elſe but a mightie maſſe and lumpe of fleſh withour all faſhion, armed with moſt terrible, ſharpe, and cutting teeth. Well, theſe being ware that the Whales are there, breake into this ſecret by-creek out of the way, ſeeke them out, and if they meet either with the youug ones, or the dammes that haue newly

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A newly ſpawn'd, or yet great with ſpawn, they all to cut & hack them with their trenchant teeth: yea, they run againſt them as it were a foiſt or ſhip of warre armed with ſharp brazen pikes in the beake-head. But contrariwiſe, the Balænes or Whales aforeſaid, that cannot wind and turne aſide for defence, and much leſſe make head and reſiſt, ſo vnweldie as they bee by reaſon of their owne weightie and heauie bodie, (and as then either big bellied, or elſe weakened lately with the paines of trauell and caluing their young ones) haue no other meanes of helpe and ſuccor but to ſhoot into the deepe, and gaine ſea-roome to defend themſelues from the enemie. On the other ſide, the Orcæ labour (to cut them ſhort of their purpoſe) to lie betweene them and home in their very way, and otherwhiles kill them vnawares in the ſtreights, or driue them vpon the ſhelues and ſhallows, or elſe force them againſt the very rocks, & ſo bruiſe them.
B When theſe combats and fights are ſeen, the ſea ſeemes as if it were angry with it ſelfe: for albeit no winds are vp, but all calme in that creek and gulfe, yet ye ſhall haue waues in that place where they encounter (with the blaſts of their breath, and the blowes giuen by the aſſailant) ſo great, as no tempeſtuous whirle windes whatſoeuer are able to raiſe. In the hauen of Oſtia likewiſe there was diſcouered one of theſe Orcæs, and the ſame aſſailed by *Claudius* the Emperour. It chanced to come as he was making the ſaid harbour or pere, drawne and trained thither with the ſweetnes of certaine beaſts hides that were brought out of Gaule, and were caſt away and periſhed by the way. Of them for certaine daies ſhe had fed, and ſtill following them, with the weight of her heauie bodie had made a furrow and channel (as it were) with her bellie in the bottome among the ſhelues: and by reaſon of the flowing of the ſea ſhe was ſo inueſted and compaſſed in with the ſands, that by no means poſſible ſhe could turn about: but ſtil while
C ſhe goes after theſe hides whereof ſhe fed, ſhe was by the billows of the ſea caſt aflote on the ſhore, ſo as her back was to be ſeene a great deale aboue the water, much like to the bottome or keele of a ſhip turned vpſide downe. Then the Emperour commanded to draw great nets and cords with many folds along the mouth of the hauen on euery ſide behind the fiſh, himſelfe accompanied with certaine Pretorian cohorts, for to ſhew a pleaſant ſight vnto the people of Rome, came againſt this monſtrous fiſh, and out of many hoies and barks the ſouldiers launced darts and iauelines thicke. And one of them I ſaw my ſelfe ſunke downe right with the abundance of water that this monſtrous fiſh ſpouted and filled it withall. The Whales called Balenæ haue a certaine mouth or great hole in their forehead, and therefore as they ſwim aflore a-
D loft on the water, they ſend vp on high (as it were) with a mighty ſtrong breath a great quantity of water when they liſt, like ſtormes of raine.

Chap. VII.

¶ *Whether fiſh do breath and ſleep, or no.*

ALl writers are fully reſolued in this, That the Whales aboueſaid, as well the Balænæ as the Orcæ, and ſome few other fiſhes bred & nouriſhed in the ſea, which among other inward bowels haue lights, doe breath. For otherwiſe it were not poſſible, that either they or any other beaſt, without lights or lungs ſhould blow: and they that be of this opinion, ſuppoſe likewiſe, that no fiſhes hauing guils, do draw in and deliuer their wind again to and fro: nor ma-
E ny other kinds beſides, although they want the foreſaid gils. Among others, I ſee that *Ariſtotle* was of that mind, and by many profound and learned reaſons perſuaded & induced many more to hold the ſame. For mine owne part, if I ſhould ſpeake frankely what I think, I profeſſe that I am not of their judgment. For why? Nature if ſhe be ſo diſpoſed, may giue in ſteed of light ſome other organs and inſtruments of breath: to this creature one, to that another: like as many other creatures haue another kind of moiſt humor in lieu of blood. And who would maruel, that this vitall ſpirit ſhould pierce within the waters, conſidering that he ſeeth euidently how it riſeth againe and is deliuered from thence: alſo how the aire entreth euen into the earth, which is the groſeſt & hardeſt of al the elements? As we may perceiue by this good argument, that ſome
F creatures, which albeit they be alwaies couered within the ground, yet liue and breath neuertheleſſe, and namely, the Wants or Mold-warpes. Moreouer, I haue diuers pregnant & effectuall reaſons inducing me to beleeue, that all water creatures breathe each one after their maner, as Nature hath ordained. Firſt and principally, I haue obſerued oftentimes by experience, That fiſhes evidently breath and pant for wind (after a ſort) in the great heat of Summer: as alſo that they

they yawne and gape when the weather is calme & the ſea ſtill. And they themſelues alſo who G
hold the contrarie, confeſſe plainly, that fiſhes doe ſleepe. And if that be true, How, I pray you, can they ſleep if they take not their wind? Moreouer, whence come thoſe bubbles which continually are breathed forth from vnder the water? and what ſhall we ſay to thoſe ſhell fiſhes which wax and decay in ſubſtance of bodie, according to the effect of the Moones encreaſe or decreaſe? But aboue all, fiſhes haue hearing and ſmelling, and no doubt both theſe ſenſes are performed and maintained by the benefit and matter of the aire: for what is ſmell and ſent, but the verie aire, either infected with a bad, or perfumed with a good ſauour? Howbeit I leaue euery man free to his own opinion, as touching theſe points. But to returne againe to our purpoſe: this is certaine, that neither the Whales called Balænæ, nor the Dolphins, haue any guills: and yet do both theſe fiſhes breathe at certaine pipes and conduits, as it were reaching downe into H
their lights: from the forehead, in the Balænes; and in the Dolphins, from the backe. Furthermore, the Sea-calues or Seales, which the Latines call *Phocæ*, doe both breath and ſleepe vpon the drie land. So do the ſea Tortoiſes alſo, whereof we will write more anon.

Chap. VIII.

¶ *Of Dolphins.*

THe ſwifteſt of al other liuing creatures whatſoeuer, & not of ſea-fiſh only, is the Dolphin; quicker than the flying fowle, ſwifter than the arrow ſhot out of a bow. And but that this
fiſh is mouthed far beneath his ſnout, and in manner towards the mids of his belly, there I
were not a fiſh could eſcape from him, ſo light and nimble he is. But nature in great prouidence fore-ſeeing ſo much, hath giuen theſe fiſhes ſome let & hinderance, for vnleſſe they turned vpright much vpon their backe, catch they can no other fiſh: and euen therein appeareth moſt of all their wonderfull ſwiftneſſe and agilitie. For when the Dolphins are driuen for very hunger to courſe and purſue other fiſhes down into the bottom of the ſea, and therby are forced a long while to hold their breath, for to take their wind again, they lance themſelues aloft from vnder the water as if they were ſhot out of a bow; and with ſuch a force rhey ſpring vp again, that many times they mount ouer the very ſailes and maſtes of ſhips. This is to be noted in them, that for the moſt part they ſort themſelues by couples like man and wife. They are with yong nine
moneths, and in the tenth bring forth their little ones, and lightly in Summer time; and other- K
whiles they haue two little dolphins at once. They ſuckle them at their teats, like as the whales or the Balænes do: yea, & ſo long as their little ones are ſo yong that they be feeble, they carry them too and fro about them: nay when they are growne to be good big ones, yet they beare them companie ſtill a long time, ſo kind and louing be they to their young. Young Dolphins come very ſpeedily to their growth, for in ten yeres they are thought to haue their full bignes: but they liue thirtie yeres, as hath bin known by the experience and triall in many of them, that had their taile cut for a marke when they were yong, and let go again. They lie cloſe euery yere for the ſpace of thirty daies, about the riſing of the Dog-ſtarre; but it is ſtrange how they be hidden, for no man knowes how: and in very deed a wonder it were, if they could not breath vnder the water. Their manner is, to breake forth of the ſea and come aland, and why they ſhould L
ſo do, it is not known: for preſently aſſoon as they touch the dry ground, they die: and ſo much the ſooner, for that their pipe or conduit aboue-ſaid incontinently cloſeth vp and is ſtopped. Their tongue ſtirreth within their heads, contrary to the nature of all other creatures liuing in the waters: the ſame is ſhort and broad faſhioned like vnto that of a ſwine. Their voice reſembleth the pittifull groning of a man: they are ſaddle-backed, & their ſnout is camoiſe and flat, turning vp. And this is the cauſe that all of them (after a wonderfull ſort) know the name *Simo*, and take great pleaſure that men ſhould ſo call them. The Dolphin is a creature that carries a louing affection not only vnto man, but alſo to muſicke: delighted he is with harmony in ſong, but eſpecially with the ſound of the water inſtrument, or ſuch kind of pipes. Of a man he is nothing affraid, neither auoides from him as a ſtranger: but of himſelfe meeteth their ſhips, plai- M
eth and diſportes himſelfe, and fetcheth a thouſand friskes and gamboles before them. He will ſwim along by the mariners, as it were for a wager, who ſhould make way moſt ſpeedily, and alwaies outgoeth them, ſaile they with neuer ſo good a fore-wind.

In the daies of *Auguſtus Cæſar* the Emperour, there was a Dolphin entred the gulfe or poole Lucrinus,

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A Lucrinus,which loued wondrous well a certain boy a poore mans ſon: who vſing to goe euery day to ſchoole from Baianum to Puteoli,was woont alſo about noone-tide to ſtay at the water ſide, and to call vnto the Dolphin, *Simo, Simo*, and many times would giue him fragments of bread,which of purpoſe he euer brought with him,and by this meanes allured the Dolphin to come ordinarily vnto him at his call. [I would make ſcruple and baſh to inſert this tale in my ſtorie and to tell it out,but that *Mecenas Fabianus*, *Flauius Alſius*, and many others haue ſet it downe for a truth in their chronicles.] Well in proceſſe of time, at what houre ſoeuer of the day,this boy lured for him & called *Simo*,were the Dolphin neuer ſo cloſe hidden in any ſecret and blind corner, out he would and come abroad, yea and skud amaine to this lad: and taking bread and other victuals at his hand,would gently offer him his back to mount vpon,and then downe went the ſharpe pointed prickles of his fins, which he would put vp as it were within a B ſheath for fear of hurting the boy. Thus when he had him once on his back,he would carry him ouer the broad arme of the ſea as farre as Puteoli to ſchoole; and in like manner conuey him backe again home:and thus he continued for many yeeres together, ſo long as the child liued. But when the boy was fallen ſicke & dead,yet the Dolphin gaue not ouer his haunt,but vſually came to the wonted place,& miſſing the lad,ſeemed to be heauie and mourne againe,vntill for very griefe & ſorrow (as it is doubtles to be preſumed) he alſo was found dead vpon the ſhore.

Another Dolphin there was not many yeeres ſince vpon the coaſt of Affricke, neere to the citie Hippo,called alſo Diarrhytus,which in like manner would take meat at a mans hand,ſuffer himſelfe gently to be handled,play with them that ſwom and bathed in the ſea, and carrie on his backe whoſoeuer would get vpon it. Now it fell out ſo,that *Flauianus* the Proconſull or C lieutenant Generall in Affrick vnder the Romans,perfumed and beſmeered this Dolphin vpon a time with a ſweet ointment:but the fiſh (as it ſhould ſeem) ſmelling this new & ſtrange ſmel fell to be drowſie and ſleepie,and hulled to and fro with the waues, as if it had bin halfe dead: and as though ſome iniurie had bin offered vnto him,went his way and kept alouſe,and would not conuerſe any more for certaine moneths with men, as before-time. Howbeit in the end he came again to Hippo,to the great wonder & aſtoniſhment of all that ſaw him. But the wrongs that ſome great perſons and lords did vnto the citizens of Hippo, ſuch I mean as vſed to come for to ſee this ſight: and namely, the hard meaſure offered to thoſe townesmen, who to their great coſt gaue them entertainement,cauſed the men of Hippo to kill the poore Dolphin.

D The like is reported in the citie Iaſſos, long before this time: for there was ſeene a Dolphin many a day to affect a certaine boy,ſo as he would come vnto him whereſoeuer he chanced to eſpy him. But whiles at one time aboue the reſt he followed egerly after the lad going toward the towne,he ſhot himſelfe vpon the dry ſands before he was aware, and died forthwith. In regard hereof, *Alexander* the Great ordained that the ſaid young boy ſhould afterwards be the chiefe prieſt and ſacrificer to Neptune in Babylon:collecting by the ſingular fancie that this Dolphin caſt vnto him, That it was a great ſigne of the ſpeciall loue of that god of the ſea vnto him, and that he would be good and gracious to men for his ſake.

Egeſidemus writeth,that in the ſame Iaſſus there was another boy named *Hermias*,who hauing vſed likewiſe to ride vpon a Dolphin ouer the ſea,chanced at the laſt in a ſodaine ſtorme to be E ouer-whelmed with waues as he ſat vpon his backe, and ſo died, and was brought backe dead by the Dolphin:who confeſſing as it were that he was the cauſe of his death,would neuer retire againe into the ſea,but launced himſelfe vpon the ſands, and there died on the drie land.

The ſemblable happened at Naupactum,by the report of *Theophraſtus*. But there is no end of examples in this kinde: for the Amphilochians and Tarentines teſtifie as much, as touching Dolphins which haue bin enamoured of little boies: which induceth me the rather to beleeue the tale that goes of *Arion*. This *Arion* being a notable muſition & plaier of the harpe,chanced to fall into the hands of certain mariners in the ſhip where he was,who ſuppoſing that he had good ſtore of mony about him, which he had gotten with his inſtrument, were in hand to kill him and caſt him ouer boord for the ſaid monie, and ſo to intercept all his gaines: he, ſeeing F himſelfe at their deuotion and mercie, beſought them in the beſt manner that he could deuiſe, to ſuffer him yet before he died, to play one fit of mirth with his harpe; which they granted: (at his muſicke and ſound of harpe, a number of Dolphins came flocking about him:) which done,they turned him ouer ſhipbord into the ſea; where one of the Dolphins tooke him vpon his backe,and carried him ſafe to the bay of Tænarus.

To

To conclude and knit vp this matter: In Languedoc within the prouince of Narbon, and in G
the territorie of Næmauſium, there is a ſtanding poole or dead water called Laterra, wherein
men and Dolphins together, vſe to fiſh: for at one certain time of the yeare, an infinite number
of fiſhes called Mullets, taking the vantage of the tide when the water doth ebbe, at certain nar-
row weares and paſſages with great force break forth of the ſaid poole into the ſea: and by rea-
ſon of that violence, no nets can be ſet and pitched againſt them ſtrong enough to abide and
beare their huge weight, and the ſtreame of the water together, if ſo be men were not cunning
and craftie to wait and eſpie their time to lay for them, and to entrap them. In like manner the
Mullets for their part, immediately make ſpeed to recouer the deepe, which they do very ſoon
by reaſon that the channell is neere at hand: and their onely haſt is for this, to eſcape and paſſe
that narrow place which affordeth opportunitie to the fiſhers to ſtretch out and ſpread their H
nets. The fiſher-men being ware thereof, and all the people beſides (for the multitude knowing
when fiſhing time is come, run thither, and the rather for to ſee the pleaſant ſport) crie as lowd
as euer they can to the Dolphins for aid, & call *Simo, Simo*, to help to make an end of this their
game and paſtime of fiſhing. The Dolphins ſoon get the eare of their crie, and know what they
would haue; and the better, if the North-winds blow and carrie the ſound vnto them: for if it be
a Southerne wind, it is later ere the voice be heard, becauſe it is againſt them. Howbeit, be the
wind in what corner ſoeuer, the Dolphins reſort thither flock-meale, ſooner than a man would
thinke, for to aſſiſt them in their fiſhing. And a wondrous pleaſant ſight it is to behold the
ſquadrons as it were of thoſe Dolphins, how quickly they take their places and be araunged in
battell array euen againſt the very mouth of the ſaid poole, where the Mullets vſe to ſhoot in- I
to the ſea: to ſee (I ſay) how from the ſea, they oppoſe themſelues and fight againſt them; and
driue the Mullets (once affrighted and skared) from the deep, vpon the ſhelues. Then come the
fiſhers and beſet them with net and toile, which they beare vp and fortifie with ſtrong forkes:
howbeit for all that, the Mullets are ſo quicke & nimble, that a number of them whip ouer, get
away, and eſcape the nets. But the Dolphins then are readie to receiue them: who contenting
themſelues for the preſent to kill only, make foule worke and hauocke among them; & put off
the time of preying and feeding vpon, vntil they haue ended the battel & atchieued the victo-
rie. And now the skirmiſh is hot, for the Dolphins alſo perceiuing alſo the men at worke, are
the more egre and couragious in fight, taking pleaſure to be encloſed within the nets, and ſo
moſt valiantly charge vpon the Mullets: but for feare leſt the ſame ſhould giue an occaſion K
vnto the enemies & prouoke them to retire and flie backe; between the boats, the nets, and the
men there ſwimming, they glide by ſo gently and eaſily, that it cannot be ſeen where they gat
out. And albeit they take great delight in leaping, & haue the caſt of it, yet none aſſaieth to
get forth, but where the nets lie vnder them: but no ſooner are they out, but preſently a man
ſhall ſee braue paſtime between them, as they ſcuffle & skirmiſh as it were vnder the rampier.
And ſo the conflict being ended, and all the fiſhing ſport done, the Dolphins fal to ſpoile and
eat thoſe which they killed in the firſt ſhock and encounter. But after this ſeruice performed,
the Dolphins retire not preſently into the deep againe, from whence they were called, but ſtay
vntil the morrow, as if they knew very well that they had ſo carried themſelues, as that they de-
ſerued a better reward than one daies refection and victuals: and therefore contented they are L
not and ſatisfied, vnleſſe to their fiſh they haue ſome ſops and crums of bread giuen them ſoa-
ked in wine, & that their bellies ful. *Mutianus* makes mention of the ſemblable maner of fiſhing
in the gulfe of Iaſſos: but herein is the difference, for that the Dolphins come of their own ac-
cord without calling, take their part of the bootie at the fiſhers hands: and euery boat hath a
Dolphin attending vpon it as a companion, although it be in the night ſeaſon & at torch light

Ouer and beſides, the Dolphins haue a kind of common-wealth and publick ſociety among
themſelues: for it chanced vpon a time, that a king of Caria had taken a Dolphin, and kept him
faſt as a priſoner within the harbor: whereupon a mighty multitude of other Dolphins reſorted
thither, and by certain ſignes of ſorrow and mourning that they made, euident to be perceiued
and vnderſtood, ſeemed to craue pardon and mercie for the priſoner: and neuer gaue ouer vntill M
the king had giuen commandement that he ſhould be enlarged and let goe. Alſo the little
ones are euermore accompanied with ſome one of the bigger ſort, as a guide to guard & keep
him. To conlcude, they haue beene ſeene to carry one of their fellowes when he is dead, into
ſome place of ſecuritie, that he ſhould not be deuoured and torne of other ſea-monſters.

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Chap. IX.

¶ *Of Porpuiſſes.*

THe Porpuiſſes,which the Latines cal *Turſiones*,are made like the Dolphins:howbeit they differ, in that they haue a more ſad and heauie countenance: for they are nothing ſo gameſome,playfull,and wanton,as be the Dolphins: but eſpecially they are ſnouted like dogges when they ſnarle,grin,and are readie to doe a ſhewd turne.

Chap. X.

B ¶ *Of ſea Tortoiſes,and how they are taken,*

THere be found Tortoiſes in the Indian ſea ſo great,that one only ſhel of them is ſufficient for the roufe of a dwelling houſe. And among the Iſlands principally in the red ſea, they vſe Tortoiſe ſhells ordinarily for boats and wherries vpon the water.

Many waies the fiſher-men haue to catch them; but eſpecially in this manner: They vſe in the mornings when the weather is calm and ſtill,to flote aloft vpon the water,with their backs to be ſeen all ouer:and then they take ſuch pleaſure in breathing freely & at libertie,that they forget themſelues altogether: inſomuch as their ſhell in this time is ſo hardened and baked with the ſun, that when they would they cannot diue and ſinke vnder the water againe,but are C forced againſt their wills to flote aboue,and by that meanes are expoſed as a prey vnto the fiſhermen. Some ſay that they go forth in the night to land for to feed, where, with eating greedily,they qe wearie; ſo that in the morning,when they are returned again,they fall ſoon aſleep aboue the water,and keepe ſuch a ſnorting and routing in their ſleepe,that they bewray where they be,and ſo are eaſily taken:and yet there muſt be three men about euery one of them: and when they haue ſwom vnto the Tortoiſe,two of them turne him vpon his backe,the third caſts a cord or halter about him, as hee lyeth with his belly vpward, and then is he haled by many more together,to the land. In the Phœnician ſea,they make no great ado to take them;for why, at a certaine time of the yeere they reſort of themſelues by great multitudes in skulls vp into the riuer Eleutherius.

D The Tortoiſe hath no teeth, but the ſides and brimmes of his neb or becke, are ſharpe and keene:whereof the vpper part or chaw ſhutteth cloſe vpon the nether,like to the lid of a boxe. In the ſea they liue of muſcles,cockles,and ſuch ſmall ſhell-fiſhes,for their mouths are ſo hard that they be able to cruſh and break ſtones therewith. Their manner is to goe aland, where among the graſſe they lay egges as bigge as birds egs, to the number commonly of a hundred. When they haue ſo done, they hide them within the earth in ſome little hole or gutter, ſure enough from any place where the water commeth, they couer them with mould, beat it hard downe with their breſt, and ſo pat it ſmooth, and in the night time ſit vpon them: they couie a whole yeare before they hatch. Some ſay,that the looking wiſtly vpon their egs with their eies ſerueth in ſtead of ſitting. The female flieth from the male,and will not abide to en-E gender,vntill ſuch time as he pricke her behind and ſticke ſomewhat in her taile for running away from him ſo faſt.

The Troglodites haue among them certaine Tortoiſes,with broad hornes like the pegs in a Lute or Harpe,and the ſame will wagge and ſtirre ſo,as in ſwimming they helpe themſelues therewith,and are guided and directed by them. And this kind of Tortoiſe is called Celtium: of exceeding great bigneſſe,but rare to be found,and hard to come by: for their exceeding ſharpe prickes like rockes,among which they keepe,fright the Chelonophagi(who delight to feed vpon them)that they dare not ſearch after them. And the Troglodites,vnto whom theſe Tortoiſes vſe to ſwim,adore them as holy and ſacred things.

There be alſo land Tortoiſes(called thereupon in the workes that are made of them in pan-F nell wiſe, Cherſinæ) found in the deſerts and wilderneſſe of Affrick, and principally in that part which is drie and full of ſands:and they are thought to liue on nothing elſe but the moiſt dew. And in very truth, no other liuing creature there breedeth beſides them.

Chap. XI.

¶ *Who first deuiſed the cleauing of Tortoiſe ſhells into thin plates like pannell.*

THe firſt man that inuented the cutting of Tortoiſe ſhells into thin plates, therewith to ſeele beds, tables, cupbords, and preſſes, was *Carbilius Pollio*, a man very ingenious and inuentiue of of ſuch toies, ſeruing to riot and ſuperfluous expenſe.

Chap. XII.

¶ *A diuiſion of water beaſts into their ſeuerall kindes.*

THe creatures that breed and liue in the water, be not all couered and clad alike: for ſome haue a skin ouer them, and the ſame hairie, as the Seales and Water horſes. Others haue but a bare skin, as the Dolphins. There be again that haue a ſhell like a barke, as the Tortoiſes: and in others, the ſhell is as hard as the flint, and ſuch be the oyſters, muſcles, cockles, and winkles. Some be couered ouer with cruſts or hard pills, as the locuſts: others haue beſides them, ſharpe prickles, as the vrchins. Some be ſcaled, as fiſhes: others are rough coated, as the Soles, and with their skins folke vſe to poliſh and ſmooth wood and yuorie. Some haue a tender and ſoft skin, as Lampreys: others none at all, as the Pourcuttle or Pourcontrell.

Chap. XIII.

¶ *Of the Sea-calfe or Seale.*

THe great Whales, called Priſtis and Balæna, bring forth their young aliue, and perfect liuing creatures: likewiſe all thoſe that are couered with haire, as the Sea-calfe or Seale. She calueth on the drie land as other cattell, and whenſoeuer ſhe calues, ſhe gleans afterwards as kine do. The female is tied and lined to the male, like as bitches to dogges: ſhe neuer bringeth more than two at once, and ſhe giueth milke at her dugs and paps, to her young. Shee bringeth them to the ſea not before they be twelue daies old, and then ſhe traines and acquainteth them to ſwim and keepe the water ordinarily. Theſe Seales be hardly killed, vnleſſe a man daſh out their braines. In their ſleepe, they ſeeme to low or blea, and thereupon they be called Sea-calues. Docible they be & apt to learn whatſoeuer is taught them. They will ſalute folke with a kind of countenance and regard: alſo with a voice ſuch as it is, reſembling a certain rude and rumbling noiſe. If a man cal them by their name, they wil turn again, and in their language anſwere. There is no liuing creature ſleepeth more ſoundly than they. The fins which they vſe to ſwim withall in the ſea, ſerue their turnes in ſtead of feet to go vpon, when they be on land. Their skins, after they be flaied from their bodies, retaine ſtill a proprietie and nature of the ſeas; for euer as the water doth ebbe, they are more rugged, and the haires or briſtles ſtand vp. Moreouer, their right finnes or legs are thought to haue a power and vertue to prouoke ſleep, if they be laid vnder ones beds head.

Chap. XIIII.

¶ *Of fiſhes that be without haire, how they breed, and how many, ſorts there be of them.*

OF ſuch creatures as want haire, two only there be that bring forth their young with life: and namely, the Dolphin and the Viper. Of fiſhes, properly ſo called, there be 74 kinds: beſides thoſe that haue rough cruſtie skins, which I count not; wherof there be 30 ſorts. Of euery one of them in particular, we will ſpeake elſe-where, and at another time: for now we are to treat of the natures of the chiefe and principall.

Chap. XV.

¶ *Of the names and natures of many fiſhes.*

THe Tunies are exceeding great fiſhes: we haue ſeene ſome of them to weigh 15 talents. and the taile to be 2 cubits broad and a ſpan. In ſome freſh riuers alſo, there be fiſh found full

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A full as bigge: and namely, the riuer-Whale called Silurus, in Nilus; the Lax, in the Rhene; the Attilus, in the Po. This fiſh growes ſo fat with eaſe & lying ſtill, that otherwhiles it weigheth 1000 pounds, and being taken with a great hooke faſtened and linked to a chaine, cannot be drawne forth of the riuer but with certaine yokes of oxen. And yet as big as he is, there is one little fiſh in compariſon of him called Clupea, that killeth him: for vpon a maruellous deſire that he hath to a certain vein that he hath within his iawes, he bites it in ſunder with his teeth, and ſo diſpatcheth the forenamed great fiſh Attilus.

As for the Silurus, a cut-throat he is where ſoeuer he goeth, a great deuourer, and maketh foule worke: for no liuing creatures come amiſſe vnto him; he ſetteth vp all indifferently. The very horſes oftentimes as they ſwim, he deuoures, and ſpecially in Mœnus, a riuer of Germany
B neere to Lisboa or Erlisbornis.

Moreouer, in the riuer Donow, there is taken the Mario, a fiſh much like to a ruffe or Porpuis, Alſo in the riuer Boryſthenes, there is found a fiſh by report, exceeding great, with no chine nor bone at all betweene; and yet the meat thereof is paſſing ſweet and pleaſant.

Within Ganges a riuer of India, there be fiſhes ſnouted and tailed as Dolphins, 15 cubits long, which they call Plataniſtæ. And *Statius Sebosus* reports as ſtrange a thing beſides, namely, that in the ſaid riuer there be certain wormes or ſerpents with two finnes of a ſide, ſixtie cubits long, of color blew, and of that hew take their name [and be called Cyonoeides.] He ſaith moreouer, that they be ſo ſtrong, that when the Elephants come into the riuer for drinke, they catch faſt hold with their teeth by their trunks or muzzles, and mauger their hearts force them
C downe vnder the water; of ſuch power and force they are.

The male Tunies haue no finnes vnder their bellies. In the ſpring time they goe out of the great [Mediterranean] ſea, and by whole flotes and troupes enter into Pontus; for in no other ſea doe they bring forth their young. Their young frie, which accompanie their dams (when they are lightened of their burden) into the ſea againe in the autumne, are called Cordylæ. Afterwards, they begin to call them Pelamides, and in Latine *Limoſæ*, of the mud wherein they are kept: and when they be aboue one yere old, then they be Tunies indeed, & ſo called. Theſe Tunies are cut into pieces, whereof the nape of the necke, the belly, and the fleſh about the canell bone of the throat, are moſt commendable for meat, but theſe parcels only when they be freſh and new killed, and yet then will they riſe in a mans ſtomacke, and make him belch ſower. The
D other parts being full of good meat and oleous withall, are laid in ſalt, and ſo put vp in barrels and kept. And theſe pieces of the Tunie thus conduit and powdred, are called Melandrya, cut in ſlices like to oke ſhingles for all the world. The worſt pieces of all others, be thoſe that are next the taile, becauſe they are not fat: but the beſt is that which is toward the throat: how ſoeuer in other fiſhes the taile-peece is in greateſt requeſt, as being moſt ſtirred & exerciſed. As for the yong Tunies called Pelamides, they are diuided & cut into parcels, that be named Apoleæti: but when they be cut peece-meale into certain ſquares, thoſe pieces are named Cybia.

All kind of fiſhes grow exceeding ſoon to their bigneſſe, and eſpecially in the ſea Pontus: the reaſon is, becauſe a number of riuers bring freſh water into it, & in ſome ſort make it ſweet: and namely in it, there is one called Amia, which grows ſo faſt & ſo euidently, that a man may
E perceiue how it waxeth from day to day. Theſe fiſhes, together with the old Tunies and the young, called Pelamides, enter into great flotes & skuls into the ſea Pontus, for the ſweet food that they there find: and euery companie of them hath their ſeuerall leaders and captaines: and before them al, the Maquerels lead the way; which, while they be in the water, haue a colour of brimſtone; but without, like they be to the reſt. The Maquerels ſerue the market well in Spaine, and furniſh the fiſh ſhambles: namely, when as the Tunies repaire not into their ſeas. As for the ſea Pontus, there enter into it few or no rauenours that haunt and deuoure fiſhes, vnleſſe it be the Seales & little Dolphins. The old Tunies, when they come into it, chuſe the right ſide (vpon the coaſt of Aſia) but go forth at the left. And this is the reaſon therof, as it is thought, For that they ſee better with their right eie; & yet the ſight of either of them is very good. With-
F in the channell of the Thracian Boſphorus, by which Propontis ioyneth to the ſea Euxinus, in the very ſtreight of the Firth that diuides Aſia from Europe, neer to Chalcedon vpon the coaſt of Aſia, there ſtandeth a rocke, exceeding white and bright withall, which is ſo tranſparent and ſhining from the verie bottome of the ſea to the top of the water, that the Tunies (affrighted at the ſodaine ſight thereof) to auoid it, goe alwaies amaine in whole flotes, toward the cape

ouer againſt Bizantium, which cape therupon beareth the name of Auricorum. And therefore it is, that the Bizantines make great gaine by fiſhing for them: whereas the Chalcedonians haue a great miſſe of that commoditie, and yet the arme of the ſea or frith betweene them, is not paſt halfe a mile, or a mile at the moſt, ouer. Noſt they euer wait for the North wind, that (together with the tide) they might with more eaſe paſſe out of Pontus. Howbeit, the onely taking of them at Bizantium, is when they return again into Pontus. In Winter the Tunnies ſtirre not nor raunge abroad: but looke, whereſoeuer they are then found to be, there they take vp their Winter herbour, and make their abode vntill the ſpring Æquinoctiall about mid-March. Many times they will accompanie the ſhips that ſaile thereby with full winde, and it is a wonderfull pleaſant ſight for the ſailers to ſee them from the ſterne, how for certaine houres together, and for the ſpace of ſome miles, they will follow and attend vpon the poupe, be the wind neuer ſo good, nay, although they ſtrike at them with the trout-ſpear ſundry times, or lance at them ſome three-tined inſtrumenr, yet will they not be chaſed away, nor skared. Theſe Tunnies that thus wait vpon the ſhips vnder ſaile, ſome cal Pompili. Many of them paſſe the Summer-time in Propontis, and neuer enter into Pontus. Soles likewiſe vſe the ſame manner, and yet yee ſhall haue many Turbots there. Neither ſhall a man finde the Cuttil there, although there be good ſtore of Sea-cuts or Calamaries. Moreouer, of ſtone fiſhes, ſuch as liue among rocks, the ſea Thruſh, the ſea Merle, and the purple ſhel-fiſhes are not to be found, where Oyſters notwithſtanding are in great abundance. For all ſuch Winter in the Ægæan ſea, called now Archipelago. Of them that enter into the ſea Pontus, there is none ſtaies there, but goes forth again, ſaue only the ſhell fiſh called the Saredane, or Trichia: for I thinke it good, in ſuch diuerſitie of fiſhes names, ſeeing that one and the ſelf ſame fiſh is in many countries called diuerſly, to vſe the Greeke name for the moſt of them. Theſe fiſh, I ſay, alone go vp the riuer Iſter, and out of it they paſſe againe by certain iſſues and conduits vnder the ground, and ſo deſcend into the Adriatick ſea: and euermore a man ſhall ſee this kind of fiſh comming down thither, but neuer mounting vp again out of that ſea. The right fiſhing for the Tunnies, & the only taking of them is from the riſing of the ſtar* Vergiliæ, to the ſetting of Arcturus. All the winter time beſides they lie hidden in the deep, at the bottom of pits and gulfes within the ſea, vnleſſe they come forth to take their pleaſure in ſome warme ſeaſon, or otherwhiles when the Moon is at the full. They grow ſometime ſo fat, that their skins will not hold, but they are ready to cleaue and burſt withall. The longeſt time that they liue is 2 yeres and not aboue. Moreouer, there is a little creature or vermine, made ſomwhat like a Scorpion, & as big as a ſpider, which vſually will ſet her ſharpe ſting vnder the finne, both of the Tunnie and alſo of the ſword-fiſh (which many times is bigger than the Dolphin) and put them to ſuch pain, that to auoid them they oftentimes are driuen to lance themſelues, and skip into the very ſhips. Which propertie they haue alſo at other times, for feare of the violence of other fiſhes: & moſt of all, the Mullets haue this caſt with them; and this they doe with ſuch exceeding ſwiftneſſe and agilitie, that they will fling themſelues otherwhiles croſſe ouer the ſhips.

* 1. In the beginning of May.

Chap. XVI.

¶ *Of preſages and foretokenings by fiſhes, and of their diuerſitie.*

NAture willing to endue this Element alſo of the water with ſome Auguries, hath giuen to fiſhes likewiſe a kind of preſcience and foreknowledge of things ro come. And verily during the Sicilian war, as *Auguſtus Cæſar* walked along the ſhore vpon the ſands, there was a certain fiſh leapt forth of the ſea, and light at his very feet. The Soothſaiers and wiſards vpon this occurrent, being ſought vnto, gaue this conſtruction thereof, and preſaged thereby, That they who at that time were lords of the ſea, and held it in ſubiection, ſhould be ranged vnder the obedience of *Cæſar*, and at his deuotion. And yet at that preſent it is thought and ſaid, That god *Neptune* had adopted *Sex. Pompeius* for his ſon, ſo fortunate he was, and ſuch exploits had he atchieued vpon the ſea.

The female kind of fiſhes are commonly bigger than the males. And there are ſome ſorts of them, whereof there be no males at all, but all females, as the Erythini and the Chani. For they be taken alwaies ſpawners, and full of egs.

Fiſhes that be skaled, for the moſt part ſwim in troups, and ſort together. The beſt fiſhing is before the ſun be vp: for then fiſhes ſee leaſt or not at all. For if the nights be cleere and Moon-

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A ſhine, they ſee as well by night as day. Moreouer, they ſay that it is good fiſhing twiſe in one and the ſame hole: for commonly vpon the ſecond caſt, the draught is better than the firſt. Fiſhes loue paſſing well to taſt oile; they ioy alſo and like well in ſoft & gentle ſhewers, & therewith they wil feed and grow fat. And good reaſon there is of it: for why? we ſee by experience that canes & reeds, although they breed in meers and ſtanding waters, yet they grow not to the purpoſe without rain. Moreouer, it is obſerued, that fiſh keeping euermore in one dead poole and neuer remoued, wil die whereſoeuer it be, vnleſſe there fall rain water to refreſh them. All fiſhes feele the cold of a ſharpe and hard winter, but thoſe eſpecially, who are thought to haue a ſtone in their head, as the Pikes, the Chromes, Scienæ, & Pagri. If it be a bitter ſeaſon in winter, many of them are taken vp blind. And therefore during thoſe cold moneths, they lurk hid-
B den in holes, and within rocks, like as we haue ſaid, certain land creatures doe. But aboue all o-
H thers the Lobſtars called Hippuri, and the Coracini, cannot abide extremity of cold, & therefore be neuer caught in winter, vnles it be at certain times when they come forth of their holes, which they keep duly, and neuer ſtir but then. In like ſort, the Lamproie, the Orphe, the Conger, Perches, and all Stone-fiſhes that loue rocks and grauell. Men ſay verily, that the crampe-fiſh, the Plaice, and the Sole lie hidden all winter in the ground, that is to ſay, in certain creuiſes and chinks which they make in the bottome of the ſea. Contrariwiſe, ſome again be as impatient of heat, and can as ill away with hot weather; and therefore about Mid-ſummer for 60 daies they lie hidden and are not to be ſeen: as the fiſh Glaucus, the Cod, and the Gilthead. Of
C riuer fiſhes, the Silurus or Sturgeon in the beginning of the dog-daies is blaſted and ſtricken with a planet: at other times alſo in a thunder & lightening he is ſmitten, ſo as therewith he is
I aſtonied and lieth for dead. And ſome thinke that the like accident befalleth to the ſea Bream Cyprinus. And verily, all quarters of the ſea throughout, feele the riſing of the dog-ſtarre: but moſt of all the influence and power thereof is to be ſeen in the ſtreight of Boſphorus: for then may a man perceiue ordinarily the reits of the ſea, and the fiſhes flote aloft, and the ſea ſo troubled, that euery thing is caſt vp from the bottome to the vpper part of the water.

Chap. XVII.

¶ *Of the Mullet and other fiſhes: and that the ſame in all places are not of like requeſt.*

D

THe Mullets haue a naturall ridiculous qualitie by themſelues, to be laughed at: for when they be afraid to be caught, they wil hide their head, and then they think they be ſure enough, weening that all their body is likewiſe hidden. Theſe Mullets neuertheleſſe are ſo lecherous, that in the ſeaſon when they vſe to ingender, in the coaſts of Phœnice & Languedock, if they take a milter out of their ſtews or pooles where they vſe to keep them, and draw a long ſtring or line through the mouth and gils, and ſo tie it faſt, and then put him into the ſea, holding the other end of the line ſtill in their hands, if they pul him again vnto them, they ſhal haue a number of ſpawners or femals follow him hard at taile to the bank ſide. Semblably, if a man do the ſame with a female in ſpawning time, hee ſhall haue as many milters follow after
E her. And in this manner they take an infinit number of Mullets.

In old time our anceſtors ſet more ſtore by the Sturgeon, & it carried the name aboue all other fiſhes. He is the only fiſh that hath the ſcales growing ouer the head: hee ſwims againſt the ſtreame. But now adaies there is no ſuch reckoning & account made of him: wherat I maruell much, conſidering he is ſo hard and ſeldome to be found. Some call him Elops: afterwards *Cornelius Nepos*, and *Laberius* the Poet and maker of mery rimes haue written, that the ſea Pikes and the cods got away all the credit from the Sturgeon, & were of greateſt requeſt. As for the Pikes aforeſaid, the beſt and moſt commendable of all others be they which are called Lanati, as a man would ſay cotton Pikes, for the whiteneſſe & tenderneſſe of their fleſh. Of cods there be two ſorts, Callariæ, or Haddocks, which be the leſſe: and Bacchi, which are neuer taken but
M F in the deep, and therfore they are preferred before the former. But the Pikes that are caught in the riuer be better than all others. The fiſh called Scarus now carrieth the price & praiſe of all others, & this fiſh alone is ſaid to chew cud, to liue of graſſe and weeds, and not to prey vpon other fiſhes. In the Carpathian ſea great ſtore of them is found: & by their good will they neuer paſſe the cape or promontorie Lectos in Troas. In the daies of *Tiberius Claudius* the Emperor,

Optatius his freed man (who sometime had bin a slaue of his) and then Admiral and Lieutenant generall of a fleet vnder him, brought them first out of that sea, and with them stored the whole coast of our seas betweene Ostia and Campania. Order was taken by straight inhibitions for the first fiue yeares, to kill none that were put into those seas, but if any were taken, that they should be cast in againe. In processe of time many of them came to be found and taken vp all along the coast of Italy, whereas before, they were not to be had in those parts. See how gluttonie, and the desire to please a dainty tooth, hath deuised means forsooth to sow fish, & to transplant them as it were, so to store the sea with strange breed: so that now we need no more maruell, that forraine birds and foules, fet out of far countries, haue their airies at Rome, and breed there. Next to those fishes aboue named, the table is serued with a kinde of Lamprels or Elepouts like to sea Lampreis, which are bred in certain lakes about the Alps, and namely, in that of Rhœtia called Brigantinus: & a strange thing it is, that they should be so like in proportion to those of the sea. Of all other fishes of any good account, the Barbell is next, both in request, and also in plenty. Great in quantity they are not: for hardly shall you find any of them weigh aboue two pound, neither wil they feed & grow in stews and ponds. They are bred only in the Northern sea: and neuer shall you see them in the coast of the West Ocean. Moreouer, of this Fish there be sundry sorts. And they liue all of Reits and Seawds, of Oysters, of the fat mud, & of the flesh of other Fishes. They haue all of them 2 beards, as it were, hanging down euidently from their nether jaw. The worst of all this kind, is that which is called Lutarius: & this fish hath another named Sargus, that willingly euermore beareth him company: for whiles hee is rooting into the mud (wherof he taketh his name) then commeth the Sargus, and deuoures the food that is raised therewith. Neither are the Barbels much accepted that keep neere the shore and in the riuer within land. But the best simply are those that taste like vnto the shel-fish Conchylium: *Fenestella* gaue them the name Mulli, of certaine moyles or fine shooes, which in colour they do resemble. They cast spawn thrice in one yere at the least: for so often their young Fry is seen. Our great belligods say, that a Barbell when he is dying, changeth his hue, and turneth into an hundred colours: the proofe and experience whereof may be seen if he be put into a glasse: for through it, it is a prety sport to see how he altereth and changeth his skales beeing ready to die, one way into a pale and wan colour, otherwhiles into a reddish hue, one after another for many times together. *M. Apicius* (who was a man of all others most inuentiue and wonderful for his witty deuises to maintain riot and excesse) thought it was a singular way to stride and kill these Barbels in a certain pickle, called the Roman Allies sauce (see how euen such a thing as that, hath found a syrname forsooth & a proper addition.) And he also went about to prouoke men to deuise a certain manger or broth made of their liuers, like to that dripping or grauie called Alec, that commeth of Fishes when they pine and corrupt. For surely it is more easie for me to say who set men a work that way first, than set down who woon the best game in the end, and was the greatest glutton. *Asturius Celer*, a man of great calling and high place, who sometime had bin Consull, shewed his prodigalitie in this Fish, & it was when *C. Caligula* was Emperor: for he gaue for one Barbell eight thousand Sesterces. Certes, the consideration hereof rauisheth my mind, and carrieth it away to behold & wonder at those, who in their reproofs of gluttonie and gourmandise, complained that a cooke carried a greater price in the market than a good horse of seruice. For now adaies a cooke will cost as much as the charge of a triumph: and one Fish as deare as a cook. And to conclude, no man is better esteemed and regarded more, than he that hath the most cunning cast to wast the goods, & consume the substance of his lord and master.

Chap. XVIII.

¶ *Of the Barbil, the fish Coracinus, Stock-fish, and Salmon.*

Licinius Mutianus reporteth, That in the red sea there was taken a Barbell that weighed 80 pounds. Oh, what a price would he haue borne among our gluttons here with vs! What would he haue cost our prodigall spendthrifts, if hee had bin taken vpon our coasts neere Rome? Moreouer, this is the nature of fish, that some are chiefe in one place, and some in another. As for example, the Coracinus in Egypt carieth the name for the best fish. At Gades in Spain, the Doree or Gold fish, called Zeus and Faber. About the Isle Ebusus, the Stock-fish is much

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A much called for; whereas in other places it is counted but a baſe muddy and filthy fiſh; and which no where elſe they know how to ſeeth perfectly, vnleſſe it be firſt well beaten with cudgels. In the country of Aquitaine or Guienne in France, the riuer Salmon paſſeth all other ſea Salmons whatſoeuer.

Of fiſh, ſome haue many folds of guils, ſome ſingle, others double. At theſe guils they deliuer again and put forth the water that they take in at the mouth. You may know when fiſh be old by their hard ſcales: and yet all fiſhes are not ſcaled alike. There be two lakes in Italy at the foot of the Alps, named Larius and Verbanus, wherein fiſhes are to be ſeen euery yeare at the riſing of the ſtar Vergiliæ, thicke of ſcales, and the ſame ſharp pointed like to the tongues of buckles, wherwith horſemen or men at arms do faſten their greiues: and neuer els but about that moneth do they appeare.

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CHAP. XIX.

¶ *Of the fiſh Exocœtus.*

THe Arcadians make wonderous great account of their Exocœtus; ſo called, for that hee goeth abroad and taketh vp his lodging on the dry land to ſleep. This fiſh (by report) about the coaſt Clitorius hath a kind of voice, and yet is without guils. And of ſome he is named Adonis. But beſides him, the ſea Tortoiſes alſo, (called Mures Marini) the Polypes & Lampreies vſe to go forth to land. Moreouer, in the riuers of India there is one certaine fiſh doth ſo, but it leaps back again into the water: for whereas many other fiſhes paſſe out of the
C ſea into riuers and lakes, there is great and euident reaſon thereof, namely, for that they are in more ſafetie there, both to caſt their ſpawn vnder the wind where the water is not ſo rough, and full of waues: and alſo to bring forth their little ones, becauſe there be no great fiſhes to deuour them. That theſe dumb creatures ſhould haue the ſence herof, thus to know theſe cauſes, and obſerue duly their times, is very ſtrange and wonderfull, if a man would ſound the depth thereof: but more he would maruell to conſider, how few men there be that know which is the beſt ſeaſon for fiſhing, while the Sun paſſeth through the ſigne Piſces.

CHAP. XX.

D ### ¶ *A diuiſion of fiſhes according to the forme and ſhape of their bodies.*

OF ſea fiſhes ſome be plain and flat, as Byrts or Turbots, Solds, Plaice, & Flounders. And theſe differ from the Turbots onely in the making of their body: for in a Turbot the right ſide turns vpward, and in a Plaice the left. Others again be long and round, as the Lamprey and Congre. And hereupon it is that they haue a difference in their fins, which Nature hath giuen to fiſh in ſtead of feet. None haue aboue foure, ſome two, ſome three, others none at all. Only in the lake Fucinus there is a fiſh which in ſwimming vſeth 8 fins. All that be long and ſlipperie, as Eeles and Congres, haue ordinarily two in all, and no more. Lampries haue none to ſwim with, ne yet perfect guils: all of this kind winde and wriggle with their bodies within the water, and ſo erche forward like as ſerpents doe vpon the earth. They creepe alſo when they are vpon dry land, and therefore ſuch liue longer than the reſt out of the water. Alſo of the foreſaid flat fiſhes ſome haue no finnes, as the puffin or fork-fiſh: for their bredth ſerueth them ſufficiently to beare them vp, and to ſwim. And amongſt thoſe that are counted ſoft, the Pourcuttell hath no fins, for his feet ſtandeth him in ſtead of fins to ſwim with.

CHAP. XXI.

¶ *Of Yeeles.*

F YEeles liue 8 yeares. And if the North wind blow, they abide aliue without water 6 daies, but not ſo long in a Southern wind. But yet in Winter time they may not endure to be in a little water, nor if it be thick and muddy: wherupon, about the riſing of the ſtar Virgiliæ they be commonly taken, for that the riuers about that time vſe to be troubled. Their feeding moſt commonly is in the night. Of all fiſh, they alone, if they be dead, flote not aboue the water.

CHAP.

Chap. XXII.

¶ *The manner of taking them in the lake Benacus.*

There is a lake in Italy called Benacus, within the territorie of Verona, through which the riuer Mincius runs: at the iſſue whereof euerie yere about the moneth of October, when the Autumne ſtar Arcturus ariſeth, whereby (as it euidently appeareth) the lake is troubled as it were with a winter ſtorme and tempeſt, a man ſhall ſee rolling amongſt the waues a wonderfull number of theſe Yeels wound & tangled one within another: inſomuch as in the leapweeles and weernets deuiſed for the nonce to catch them in this riuer, there be found ſometime a thouſand of them wrapped together in one ball.

Chap. XXIII.

¶ *Of the Lamprey.*

The Lamprey ſpawneth at all times of the yeare, whereas all other fiſhes are deliuered of their yong at one certain ſeaſon or other. The egs or ſpawne grow to a great paſſe exceeding ſoon. If they chance to ſlip out of the water to dry land, the common ſort is of opinion that they ingender with ſerpents. The male or milter of this kinde *Ariſtotle* calls Myrus. And herein is the difference, that the ſpawner, properly called Muræna, is of ſundry colors, and withall but weake: but the Mylter or Myrus is of one hue, & withall very ſtrong, hauing teeth ſtanding without his mouth. In the North parts of France all the Lampreis haue in their right jaw ſeuen ſpots, reſembling the ſeuen ſtars about the North pole, called *Charlemaines* Waine. They be of a yellow colour, and glitter like gold ſo long as the Lampreies be aliue; but with their life they vaniſh away, and be no more ſeene after they be dead. *Vedius Pollio*, a gentleman of Rome by calling, and one of the great fauorits and followers of *Auguſtus Caſar*, deuiſed experiments of cruelty by means of this creature: for hee cauſed certain ſlaues condemned to die, to be put into the ſtewes where theſe Lampreies or Murænes were kept, to be eaten and deuoured by them: not for that there were not wilde beaſts ynow vpon the land for this feat, but becauſe he tooke pleaſure to behold a man torne and pluckt in pieces all at once: which pleaſant ſight he could not ſee by any other beaſt vpon the land. It is ſaid, if they taſte vineger, of all things, they become inraged and mad. They haue a very thin and tender skinne: contrariwiſe, Yeels haue as thick & tough. And *Verrius* writeth, that boyes vnder 17 yeres of age were wont to be ſwinged and whipped with Yeeles skinnes, and therefore they were freed from all other mulct and puniſhment.

Chap. XXIV.

¶ *Of flat and broad Fiſhes.*

Of flat and broad fiſhes there is another ſort, which in lieu of a chine or backe bone haue a griſtle. As the Ray or Skait, the Puffin like vnto it, the Maids or Thornbacke, and the Crampfiſh: moreouer, thoſe which the Greekes haue termed by the names of their ſea Cow, their Dog-fiſh, their Ægle and Frog of the ſea. In this rank are to be ranged the Squali alſo, albeit they are not ſo flat and broad. All this kind in general *Ariſtotle* hath called in Greek Selache, and he was the firſt that gaue them that name: we in Latine cannot diſtinguiſh them, vnleſſe we call them all Cartilaginea, that is to ſay, Griſtly fiſh. But all the ſort of them that deuoure fleſh are ſuch: and their manner is to feed lying backward, like as we obſerued in the dolphins. And wheras other fiſhes caſt ſpawn which reſemble knots of egs; theſe griſtly fiſhes only, as alſo thoſe great ones which we call Cete, *i.* Whales, bring forth their yong aliue. And yet I muſt except one kind of them which they call Rana, *i.* ſea Frogs.

Chap. XXV.

¶ *Of Echeneis* [i. *the Stay-ſhip.*]

There is a very little fiſh keeping vſually about rocks, named Echeneis: it is thought, that if it ſettle and ſtick to the keele of a ſhip vnder water, it goeth the ſlower by that means: whereupon

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A whereupon it was ſo called: and for that cauſe alſo it hath but a bad name in matters of loue, for inchanting as it were both men and women, and bereauing them of their heat and affection that way: as alſo in law caſes, for delay of iſſues and iudicial trials. But both theſe imputations and ſlanders it recompenſeth again with one good vertue and commendable quality that it hath: for in great bellied women if it be applied outwardly it ſtayeth the dangerous flux of the womb, and holds the child vnto the full time of birth: howbeit it is not allowed for meat to be eaten. *Ariſtotle* thinketh, that it hath a number of feet, the fins ſtand ſo thick one by another.

As for the ſhell fiſh Murex, *Mutianus* ſaith it is broader than the Purple, hauing a mouth neither rough nor round, ne yet with a beck pointed cornered-wiſe, but plain and euen, hauing
B a ſhell on both ſides winding and turning inward. Theſe fiſhes chanced vpon a time to cleaue faſt vnto a ſhip, bringing meſſengers from *Periander*, with commiſſion to gueld all the Noblemens ſonnes in Gnidos, and ſtayed it a long time, notwithſtanding it was vnder ſaile, and had a ſtrong gale of a fore-winde at the poupe. And hereupon it is, that theſe Shell fiſhes for that good ſeruice are honoured with great reuerence in the Temple of *Venus* among the Gnidians.

But to returne again vnto our Stay-Ship Echeneis, *Trebius Niger* ſaith it is a foot long, and fiue fingers thicke, and that oftentimes it ſtayeth a ſhip. And moreouer, as he ſaith, it hath this vertue being kept in ſalt, to draw vp gold that is fallen into a pit or well being neuer ſo deep, if it be let downe and come to touch it.

CHAP. XXVI.

C

¶ *The changeable nature of Fiſhes.*

THe Cackarels change their colour: for theſe fiſhes being white all Winter, wax blacke when Summer comes. Likewiſe the Mole or Lepo called Phycis, doth alter her hue: for howſoeuer all the yeare beſides it be white, in the Spring it is ſpeckled. This is the only fiſh that builds vpon the reites and moſſe of the ſea, and layes her egs or ſpawneth in her neſt. The ſea Swallow flieth, and it reſembleth in all points the bird ſo called. The ſea Kite doth the ſame.

CHAP. XXVII.

D

¶ *Of the fiſh called the Lanterne, and the ſea Dragon.*

THere is a fiſh comes ordinarily aboue the water, called Lucerna, for the reſemblance that it hath of a light or lantern: for it lilleth forth the tongue out of the mouth, which ſeemeth to flame and burne like fire, and in calme and ſtill nights giues light and ſhineth. There is another fiſh that puts forth hornes aboue the water in the ſea, almoſt a foot and halfe long, which thereupon tooke the name Cornuta. Againe, the ſea Dragon if he be caught and let go vpon the ſand, worketh himſelfe an hollow trough with his ſnout incontinently, with wonderfull celeritie.

E

CHAP. XXVIII.

¶ *Of bloudleſſe fiſhes.*

SOme fiſhes there be which want bloud, whereof wee now will ſpeake. Of them are three ſorts: firſt, thoſe which be called Soft: ſecondly, ſuch as be couered within cruſts: & in the laſt place, they that are incloſed within hard ſhels. Of the firſt ſort, counted ſoft, be reckoned the ſea Cut or Calamarie, the Cuttle, the Polype, and the reſt of that ſort. Theſe haue their head betweene their feet and the belly, and euery one of them haue 8 feet. As for the Cuttil and Calamarie, they haue two feet apiece longer than the reſt, and the ſame rough,
F wherewith they conuey and reach meat to their mouths: and with thoſe they ſtay themſelues as it were with anchor hold againſt the ſurging waues: the reſt of their feet be ſmal like hairs, and with them they hunt and catch their prey.

CHAP.

Chap. XXIX.

¶ *Of the Calamaries, Cuttles, Polypes, and Boat-fiſhes called Nautili.*

ALſo the Calamarie lanceth himſelfe out of the water, as if he were an arrow; and euen ſo doth little Scalops. The male of the Cuttles kind are ſpotted with ſundry colors more dark and blackiſh, yea and more firme and ſteady than the female. If the female be ſmitten with a Trout-ſpeare, or ſuch like three-forked weapon, they wil come to aid & ſuccor her: but ſhe again is not ſo kind to them, for if the male be ſtricken ſhe will not ſtand to it, but runs away. But both of them, the one as wel as the other, if they perceiue that they be taken in ſuch ſtreights that they cannot eſcape, ſhed from them a certain black humor like to ink, and when the water therewith is troubled and made duskiſh, therein they hide themſelues and are no more ſeen.

Of Polypes or Pourcontrels there be ſundry kinds. They that keep neere the ſhore are bigger than thoſe that haunt the deep. All of them help themſelues with their fins and armes, like as we do with feet and hands: as for their taile, which is ſharp and two forked, it ſerueth them in the act of generation. Theſe Pourcontrels haue a pipe in their back, by the help wherof they ſwim all ouer the ſeas; and it they can ſhift one while to the right ſide, & another while to the left. They ſwim awry or ſidelong with their head aboue, which is very hard and as it were puſt vp ſo long as they be aliue. Moreouer, they haue certain hollow concauities diſperſed within their clawes or arms like to ventoſes or cupping glaſſes, whereby they will ſtick to, and cleaue faſt as it were by ſucking, to any thing, which they claſp & hold ſo faſt, lying vpward with their bellies, that it cannot be plucked from them. They neuer ſettle ſo low as the bottom of the water, and the greater that they be, the leſſe ſtrong they are to claſp or hold any thing. Of all ſoft fiſhes they only go out of the water to dry land, eſpecially into ſome rough place, for they cannot abide thoſe that are plaine and euen. They liue vpon Shell-fiſhes, and with their haires or ſtrings that they haue they will twine about their ſhels and crack them in pieces: wherefore a man may know where they lie and make their abode, by a number of ſhels that lie before their neſt. And albeit otherwiſe it be a very brutiſh and ſenſleſſe creature, ſo fooliſh withall, that it will ſwim and come to a mans hand; yet it ſeems after a ſort to be witty and wiſe, keeping of houſe and maintaining a familie: for all that they can take they carry home to their neſt. When they haue eaten the meat of the fiſhes, they throw the empty ſhels out of dores, and lie as it were in ambuſcado behind, to watch and catch fiſhes that ſwimme thither. They change their colour eftſoons, and reſemble the place where they be, & eſpecially when they be afraid. That they gnaw and eat their own clees and arms, is a meere tale; for they be the congres that do them that ſhrewd turn: but true it is that they will grow againe, like as the taile of ſnakes, adders, & lizards. But among the greateſt wonders of nature, is that fiſh which of ſome is called Nautilos, of others Pompilos. This fiſh, for to come aloft aboue the water turnes vpon his back, and raiſeth or heaueth himſelf vp by little and little: and to the end he might ſwim with more eaſe, as disburdened of a ſinke, hee diſchargeth all the water within him at a pipe. After this, turning vp his two foremoſt clawes or armes, he diſplaieth and ſtretcheth out betweene them a membrane or skin of a wonderfull thinneſſe: this ſerueth him in ſtead of a ſaile in the aire aboue water: with the reſt of his arms or claws he roweth and laboreth vnder water, & with his taile in the mids he directs his courſe, and ſteereth as it were with an helme. Thus holds he on and maketh way in the ſea, with a faire ſhew of a foiſt or gally vnder ſaile. Now if he be afraid of any thing in the way, he makes no more ado but drawes in water to ballace his body, and ſo plungeth himſelfe down, and ſinketh to the bottom.

Chap. XXX.

Of the many-foot fiſh called Ozæna, of the Nauplius, and Locuſts of the ſea, or Lobſter.

OF the Polypus or Pourcontrell kind with many feet, is the Ozæna, ſo called of the ſtrong ſauor of their heads, for which cauſe eſpecially, the Lampreys follow in chaſe after him.

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A As for the Many-feet or Pourcuttels, they lie hidden for two months together: and aboue two yeares they liue not. They die alwaies of a conſumption or Phthyſicke: the female ſooner than the males, and ordinarily after that they haue brought forth their yong frie. I cannot ouerpaſſe but record the reports of *Trebius Niger*, one of the traine and retinue of *L. Lucullus* Proconſull in Bœtica, which he vpon his knowledge deliuered as touching theſe Many-feet fiſhes called Polypi, namely, That they are moſt deſirous and greedie of cockles, muſcles, and ſuch like ſhell-fiſhes: and they againe on the contrarie ſide, ſo ſoone as they feele themſelues touched of the Polypes, ſhut their ſhels hard, and therwith cut aſunder their clawes or armes, that were gotten within: and thus fall they to feed vpon thoſe, who ſought to make a prey of them. [Now in very truth theſe ſhel-fiſhes, all of them ſee not at all, neither haue they any other ſenſe, but taſting of their meat, & feeling of their drinke.] Theſe Polypi foreſeeing all this, lie in wait to ſpie when
B the ſaid cockles, &c. gape wide open, and put in a little ſtone between the ſhels, but yet beſide the fleſh & bodie of the fiſh, for feare leſt if it touched and felt it, ſhe would caſt it forth againe: thus they theeue, and without all daunger and in ſecuritie get out the fleſhie ſubſtance of the meat to deuoure it: the poore cockles draw their ſhels together for to claſp them between (as is aboue-ſaid) but all in vaine, for by reaſon of a wedg between, they will not meet cloſe nor come neere together. See how ſubtle and craftie in this point theſe creatures be, which otherwiſe are moſt ſottiſh and ſenſeleſſe. Moreouer, the ſaid *Trebius Niger* affirmeth, that there is not any o-ther beaſt nor fiſh in the ſea more daungerous to doe a man a miſchiefe within the water, than is this Pourcuttle or Many-feet Polypus: for if he chance to light on any of theſe diuers vnder
C the water, or any that haue ſuffered ſhipwracke and are caſt away, he aſſailes them in this manner: He catcheth faſt hold of them with his clawes or armes, as if he would wreſtle with them, and with the hollow concauities and noukes between, keepeth a ſucking of them; and ſo long he ſuckes and ſokes their bloud (as it were cupping-glaſſes ſet to their bodies in diuers places) that in the end he draweth them drie. But the only remedie is this, to turne them vpon their backe, and then they are ſoone done and their ſtrength gone: for let them lie ſo, they ſtretch out themſelues abroad, and haue not the power to claſp or comprehend any thing. And verily all li-uing creatures in the ſea loue the ſmell of them exceeding well, which is the cauſe that fiſhers beſmare and anoint their nets with them, to draw and allure fiſhes thither.

The reſt which mine author hath related as touching this fiſh, may ſeem rather monſtrous
D lies and incredible, than otherwiſe: for he affirmed, that at Carteia there was one of theſe Polypi, which vſed commonly to go forth of the ſea, and enter into ſome of their open ceſterns and vauts among their ponds and ſtewes, wherein they keep great ſea-fiſhes, and otherwhiles would rob them of their ſalt-fiſh, and ſo go his waies againe: which he practiſed ſo long, that in the end he gat himſelfe the anger and diſpleaſure of the maiſters and keepers of the ſaid ponds and ceſterns, with his continuall & immeaſurable filching: whereupon they ſtaked vp the place and empalled it round about, to ſtop all paſſage thither. But this thief gaue not ouer his acuſtomed haunt for all that, but made meanes by a certaine tree to clamber ouer and get to the fore-ſaid ſalt fiſh; and neuer could he be taken in the manner, nor diſcouered, but that the dogges by their quick ſent found him out and baied at him: for as he returned one night toward the ſea, they
E aſſailed and ſet vpon him on all ſides, and therwith raiſed the foreſaid keepers, who were afright-ted at this ſo ſudden an alarm, but more at the ſtrange ſight which they ſaw. For firſt and fore-moſt this Polype fiſh was of an vnmeaſurable and incredible bigneſſe: and beſides, he was be-ſmeared & beraied all ouer with the brine and pickle of the foreſaid ſalt-fiſh, which made him both hideous to ſee to, and to ſtinke withall moſt ſtrongly. Who would euer haue looked for a Polipe there, or taken knowledge of him by ſuch marks as theſe? Surely they thought no other, but that they had to deale and encounter with ſome monſter: for with his terrible blowing and breathing that he kept, he draue away the dogs, and otherwhiles with the end of his long ſtrin-ged winding feet, he would laſh and whip them; ſomtimes with his ſtronger clawes like armes he rapped and knoked them well and ſurely, as it were with clubs. In ſumme, he made ſuch good
F ſhift for himſelfe, that hardly and with much adoe they could kill him, albeit he receiued many a wound by trout-ſpears which they launced at him. Wel, in the end his head was brought and ſhewed to *Lucullus* for a wonder, & as big it was a as good round hogſhead or barrel that would take and containe 15 Amphores: and his beards (for ſo *Trebius* tearmed his clawes and long-ſtringed feet) carried ſuch a thickneſſe and bulke with them, that hardly a man could fathome

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one of them about with both his armes, ſuch knockers they were knobbed and knotted like clubs, and withall 30 foot long. The concauities within them, and hollow veſſels like great baſons, would hold 4 or 5 gallons apeece: and his teeth were anſwerable in proportion to the bignes of his bodie. The reſt was ſaued for a wonder to be ſeene, and weighed 700 pound weight. This author of mine *Trchius* affirmeth, that Cuttels alſo and Calamaries haue been caſt vpon that ſhore, ful as big. Indeed in our ſea there be Calamaries taken of 5 cubits long, and Cuttels of twaine, in length: and theſe liue not aboue two yeares G

Mutianus reporteth, that himſelfe ſaw in Propontis another kind of fiſh carying as it were a ſhip of his owne, and making ſaile with it like to ſome galley: and a ſhel-fiſh it was faſhioned with a keele like to a barge or barke, with a poupe embowed and turned vp: yea and armed as it were in the proe with a three-forked pike. Within which lay hidden (as he ſaith) another liuing creature called Nauplius, reſembling a Cuttle fiſh; and for no other reaſon in the world, but to make ſport and play with it for companie. Now the manner of this paſtime and ſailing was in two ſorts: for if it were a calme ſea and the winds downe, the Nauplius afore-ſaid that went as a paſſenger in this ſhell, would put downe his feet into the water like ores, and row therewith; but if a gale of wind were aloft, he would ſtretch the ſame a length & make them ſerue in ſtead of an helme to ſteere withall; and then the Coquil or ſhel-fiſh would ſpread and diſplay it ſelfe like ſailes, to gather wind: ſo as the one of them tooke a pleaſure to carrie, in manner of the veſſell; the other had his delight to labour as a mariner, and to direct withall like a pilot. Thus theſe two fiſhes (otherwiſe ſenſeleſſe & blockiſh) take their pleaſure together, vnles peraduenture it fall out vnhappily (for certain it is that ſuch a ſight as this preſages no good to ſailers) that men marre their ſport, and either part them aſunder, or force them to ſinke vnder water. H I

The Lobſters (beeing of that kinde which wanteth bloud) haue a tender and brittle cruſt to couer and defend them. For fiue months they lie hidden. The Crabs likewiſe, who at the ſame time keep cloſe & ſecret: and both of them in the beginning of euery ſpring caſt their old coats or ſhels as ſnakes do their skins, & take them that be new & freſh. Al others of this kind ſwim within the water: but the Lobſters flote aloft, and creepe as it were vpon the water. So long as they are ſecure of any feare and danger, they go directly ſtraight, letting downe their hornes at length along their ſides, which naturally by themſelues haue a round point or bob at the end: but if they be in any feare, go vp thoſe hornes ſtraight, and then they creepe byas and goe ſidelong. With theſe horns they oftentimes maintaine battaile one with another. Of all creatures, this only hath a tender and ſhort kind of fleſh, which in the ſeething will not hang togerher, vnleſſe it be ſodden aliue in ſcalding water, and then it will be ſtiffe and callous as brawne. K

Chap. XXXI.

Of Sea-crabs, Vrchins of the ſea, and great Vrchins called Echinometra.

AS for the Lobſters, they loue rocks and ſtonie places: but Crabs delight in ſoft and delicate places. In winter, they ſeeke after the warme or ſun-ſhine ſhore: but when ſummer is come, they retire into the coole and deepe holes in the ſhade. All the ſort of them take harme and paire by winter: in autumne and ſpring, they battle and wax fat; and eſpecially when the moon is at the full: becauſe that planet is comfortable in the night time, & with her warme light mitigateth the cold of the night. Of theſe Crab-fiſhes, there be many kinds: to wit, Lobſters, Creyfiſhes of the ſea, crabs of Barbarie called Maiæ, Grampels, Grits or Pungiers, Crabs of Heraclea, yellow riuer Creyfiſhes, and diuers others of more baſe account. As for the Lobſters, they differ from the reſt in taile. In Phœnicia, there is a kind of Crabs called Hippœe, or rather Hippeis (that is to ſay, Horſes or Horſmen) which are ſo ſwift, that it is impoſſible to ouertake them. Crabs liue long: eight clees or feet they haue apeece, all crooked and hooked: the female hath the fore clee double, the male but ſingle. Moreouer, two of the legs or arms are forked and toothed like pincers. The vpper part of theſe foreclawes doth ſtir: the nether part moueth not. The right leg in them al is bigger than the left. When they come in skuls all together (as ſomtimes they doe) they are not able to paſſe one by another the ſtreights of the ſea Pontus about Conſtantinople, whereupon they are forced to returne back againe and fetch a compaſſe about, and the beaten way with their tracks may be ſeene. The leaſt of all theſe kind of Crabs, is L M called

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A called Pinnnotheres [or Pinnoteres] and for his ſmalneſſe moſt ſubiect and expoſed to iniurie. But as ſubtill and crafty he is as he is little; for his maner is to ſhroud and hide himſelf within the ſhels of empty oiſters, and euer as he growes bigger and bigger, to go into thoſe that be wider. Crabs when they be afraid will recule backward as faſt as they went forward. They will fight one with another, and then ye ſhall ſee them jur and butt with their horns like rams. Singular good they are againſt the bitings and ſtingings of ſerpents. It is reported, that while the Sun is in the ſigne Cancer, the bodies within of dead crabs that lie without the water vpon drie land, wil turne to be ſcorpions. Of the ſame ſort that the crabs be are the vrchins of the ſea called Echini; and theſe in ſtead of feet haue certain pointed prickles. Their maner of going is to roll themſelues and tumble round; and therefore many times ſhall yee finde them with their
B pricks worne. And of this ſort be they that are called Echinometræ. The longeſt prickles they haue of all others, and the leaſt ſhels or caſes wherein they are. Neither are they all of the ſame colour of glaſſe; for about Torone they are found to be white, hauing ſmall pricks. They haue all of them fiue egs when they lay, but they are bitter. Their mouths ſtand in the mids of their bodies, bending down toward the earth. It is ſaid they haue a fore-knowledge of a ſea tempeſt: for by reaſon that they are ſo round, and therefore ſoone whirled and caried here and there, they fall then to labor and gather ſtones, wherewith they charge and peiſe their bodies as with ballaſt, that they may abide more ſtedfaſt, for that they are not willing to weate their pricks with rolling and turning ouer and ouer: which when the mariners and ſailers perceiue once, they preſently caſt many anchors and ſtay their ſhips.

C

Chap. XXXII.

¶ *Of Winckles and ſea Snailes.*

IN the ſame ranke are to be reckoned the Winkles as well of land as water. When they put themſelues out of their ſhels they thruſt out two hornes that they haue, and wil pluck them in again when they liſt. Eyes they haue none to ſee withall, and therefore theſe little hornes ſerue them in good ſtead to ſound, as it were, and try the way as they go.

Chap. XXXIII.

D ¶ *Of Scallops: of the greateſt Winkle called Murex, and other kinds of ſhell-fiſhes.*

THe great Scallops in the ſea are counted for the ſame race which lie hid alſo in the time as well of great heat as cold. They haue certaine nailes as it were ſhining like fire in the night ſeaſon; yea in their very mouthes that eat them. As for the Pourcelanes or Murices, they haue a ſtronger skaled ſhell; as alſo all the kind of Winkles great and ſmall. Wherin a man may ſee the wonderfull varietie of Nature in this play and paſtime of hers, giuing them ſo many and ſundry colours, with ſuch diuerſitie of formes and figures; for of them yee ſhall haue flat and plain, hollow, long, horned like the moon croiſſant, full round, halfe round, & cut as it were iuſt through the mids, bow-backt, and riſing vp, ſmooth, rough, toothed and indented
E like a ſaw, ridged and chamfered between, wrinkling and winding vpward to the top like Caltropes, bearing out ſharpe points in the edges, without-forth broad and ſpread at large, within rolled in pleits. Moreouer, there be other diſtinct ſhapes beſides all theſe: ſome be ſtriped and raied with long ſtreaks, others creſted and blaſing with a buſh of long haire: ſome againe criſped and curled, others made like an hollow gutter or pipe: ſome faſhioned as it were a comb, others waving with plaits one aboue another tile-wiſe, others framed in the manner of a net or lattiſe: ſome are wrought crooked and byas, others ſpred out directly in length. A man ſhall ſee of them thoſe that are made thick and moſſie thruſt together and compact, others ſtretcht forth at large: ye ſhall haue of them wrapt and lapt one within another: and to conclude, yee ſhall find them run round into a ſhort faſt knot, and all their ſides vnited together in one: ſome
F flat and plain good to giue a clap, others turning inward crooked like a cornet, made as it were to ſound and wind withall. Of all theſe ſorts, the Pourcelanes or Venus-Winkles ſwim aboue the water, and with their concauitie or hollow part which they ſet into the weather, help themſelues in ſtead of ſailes, and ſo gathering wind, ſaile as it were aloft vpon the ſea. The manner

of the Scalops is to skip, and otherwhiles they will leap forth of the water. They alſo can find the means to make a boat of themſelues, and ſo flote aboue and ſaile handſomly. G

Chap. XXXIV.

¶ *The riches of the ſea.*

BVt what meane I all this while to ſtand vpon theſe ſmall trifling matters, when as in very truth the ouerthrow of all honeſtie, the ruin of good maners, and in lieu thereof all riot and ſuperfluity proceeds from theſe ſhel-fiſhes, and from nothing ſo much? for now the world is grown to this paſſe, that there is nothing in it whatſoeuer ſo chargeable to mankind, nothing ſo hurtfull and dangerous as is the very ſea, and that ſo many waies; namely, in furniſhing the table with ſuch varietie of diſhes, in pleaſing and contenting the taſte with ſo many dainty and delicate fiſhes; and thoſe carry the higheſt price that be gotten with greateſt hazard and danger of thoſe that take them, otherwiſe they be of no regard and value to ſpeake of. H

Chap. XXXV.

¶ *Of Pearles, how and where they be found.*

HOwbett al that before named is nothing in compariſon of the Purples, pretious Coquils and Pearls that come from thence. It was not ſufficient belike to bring the ſeas into the kitchen, to let them down the throat into the belly, vnleſſe men and women both caried them about in their hands and eares, upon their head, and all ouer their body. And yet what ſocietie and affinitie is there betwixt the ſea and apparell? what proportion betwixt the waues and ſurging billowes thereof, and wooll? for ſurely this element naturally receiues vs not into her boſom vnleſſe we be ſtark naked: and ſet the caſe there were ſo great good fellowſhip with it and our bellies; how comes our backe and ſides to be acquainted with it? But wee were not contented to feed with the peril of ſo many men, vnleſſe we be clad and araied alſo therewith. O, the folly of vs men! ſee how there is nothing that goeth to the pampering and trimming of this our carcaſſe, of ſo great price and account, that is not bought with the vtmoſt haſard, and coſteth not the venture of a mans life! But now to the purpoſe. The richeſt merchandiſe of all, and the moſt ſoueraigne commoditie throughout the whole world are theſe Pearles. The Indian ocean is chief for ſending them: and yet to come by them, we muſt go and ſearch among thoſe huge & terrible monſters of the ſea, which we haue ſpoken of before: we muſt paſſe ouer ſo many ſeas, and ſaile into far countries ſo remote, and come into thoſe parts where the heate of the ſun is ſo exceſſiue and extreme; and when all is done we may perhaps miſſe of them: for euen the Indians themſelues are glad to ſeeke among the Iſlands for them, & when they haue done all they can, meet with very few. The greateſt plenty of them is to be found in the coaſt of Taprobane and Toidis, as hath bin ſaid before in our Coſmographie and deſcription of the world: and likewiſe about Perimula a promontorie and city of India. But the moſt perfect and exquiſite of all others be they that are gotten about Arabia, within the Perſian gulfe. This ſhell-fiſh which is the mother of Pearle, differs not much in the maner of breeding and generation from the Oyſters: for when the ſeaſon of the yeare requireth that they ſhould engender, they ſeeme to yawne and gape, and ſo do open wide; and then (by report) they conceiue a certaine moiſt dew as ſeed, wherewith they ſwell and grow big, and when time commeth labor to be deliuered hereof: and the fruit of theſe ſhell fiſhes are the Peares, better or worſe, great or ſmall, according to the qualitie and quantitie of the dew which they receiued. For if the dew were pure and cleare which went into them, then are the Pearles white, faire, and Orient: but if groſſe and troubled, the Pearles likewiſe are dimme, foule, and duskiſh; pale (I ſay) they are, if the weather were cloſe, darke, and threatning raine in the time of their conception. Whereby (no doubt) it is apparant and plaine, that they participate more of the aire and ſky, than of the water and the ſea; for according as the morning is faire, ſo are they cleere: but otherwiſe, if it were miſty and cloudy, they alſo will be thicke and muddy in colour. If they may haue their full time and ſeaſon to feed, the Pearles likewiſe will thriue and grow bigge; but if in the time it doth chance to lighten, then they cloſe their ſhells together, and for want of nouriſhment I M

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A riſhment are kept hungrie and faſting, and ſo the pearles keepe at a ſtay and proſper not accordingly. But if it thunder withall, then ſuddenly they ſhut hard at once, and breed only thoſe excreſcences which be called Phyſemata, like vnto bladders putt vp and hooued with wind, & no corporal ſubſtance at all: and theſe are the abortiue & vntimely fruits of theſe ſhel fiſhes. Now thoſe that haue their ful perfection, and be ſound and good indeed, haue many folds and skins wherein they be lapt, not vnproperly as it may be thought, a thicke, hard, and callous rind of the body, which they that be skilfull do pill and cleanſe from them. Certes, I cannot chuſe but wonder how they ſhould ſo greatly be affected with the aire, and joy ſo much therein: for with the ſame they wax red, and loſe their natiue whiteneſſe and beauty, exen as the bodie of a man or woman that is caught and burnt with the ſun. And therefore thoſe ſhels that keep in the maine
B ſea, and lie deeper than that the ſun-beames can pierce vnto them, keep the fineſt and moſt delicate pearles. And yet they, as orient as they be, waxe yellow with age, become riueled, and looke dead without any liuely vigor: ſo as that commendable orient luſtre (ſo much ſought for of our great lords and coſtly dames) continueth but in their youth, and decaieth with yeares. When they be old, they will proue thicke and groſſe in the very ſhels, and ſticke faſt vnto their ſides, ſo as they cannot be parted from them, vnleſſe they be filed aſunder. Theſe haue no more but one faire face, and on that ſide are round, for the backe part is flat and plaine; and hereupon ſuch are called Tympania, as one would ſay, Bell bearles. We ſee daily of theſe ſhells which ſerue as boxes to carrie ſweet perfumes and precious ointments, and moſt commendable they are for this gift, that in them there be pearls of this ſort naturally growing together like twins. The pearle is ſoft and tender ſo long as it is in the water, take it forth once and preſently it har-
C deneth. As touching the ſhell that is the mother of Pearle, aſſoon as it perceiueth and feeleth a mans hand within it, by and by ſhe ſhutteth, and b that means hideth and couereth her riches within: for well woteth ſhe that therefore ſhe is ſought for. But let the fiſher looke well to his fingers, for if ſhe catch his hand between, off it goeth: ſo trenchant and ſharp an edge ſhe carrieth, that is able to cut it quite a two. And verily this is a juſt puniſhment for the theefe, and none more: albeit ſhe be furniſhed and armed with other means of reuenge. For they keep for the moſt part about craggie rocks, and are there found: and if they be in the deepe, accompanied lightly they are with curſt Sea-dogs. And yet all this will not ſerue to skar men away from fiſhing after them: for why? our dames and gentlewomen muſt haue their eares behanged with them, there is no remedie. Some ſay, that theſe mother-pearles haue their kings and captaines,
D as Bees haue: that as they haue their ſwarmes led by a maſter Bee, ſo euery troup and companie of theſe, haue one ſpeciall great and old one to conduct it; and ſuch commonly haue a ſingular dexteritie and wonderfull gift to preuent and auoid all daungers. Theſe they be that the dyvers after pearles are moſt carefull to come by: for if they be once caught, the reſt ſcatter aſunder and be ſoone taken vp within the nets. When they be thus gotten, it is ſaid that they be put vp into earthen pots and well couered with ſalt: and when the ſalt hath eaten and conſumed all the fleſh within, then certaine kernels that were within their bodies (and thoſe be the very pearles) fall down and ſettle to the bottome of thoſe pots. There is no doubt but with much vſe
L they will weare, yea and change colour thorough negligence, if they be not well looked vnto. Their chief reputation conſiſteth in theſe fiue properties, namely, if they be orient white, great,
E round, ſmooth, and weightie. Qualities I may tell you, not eaſily to be found all in one: inſomuch as it is impoſſible to find out two perfitly ſorted together in all theſe points. And hereupon it is, that our dainties and delicates here at Rome, haue deuiſed this name for them, and call them Vnions; as a man would ſay, Singular, and by themſelues alone. For ſurely the Greeks haue no ſuch tearmes for them, neither know they how to cal them: nor yet the Barbarians, who found them firſt out, otherwiſe than Margarit e. In the very whiteneſſe it ſelfe, there is a great difference among them. That which is found in the red ſea, is the clearer and more orient. As
M for the Indian pearle, it reſembleth the skales and plates of the ſtone called Specularis; howſoeuer otherwiſe it paſſeth all others in greatneſſe. The moſt commendation that they haue is
F in their colour, namely, if they may be truly called Exaluminati, i orient and cleare as Alume. They that be goodly great ones, are commendable in their degree. As for thoſe that are long and pointed vpward, growing downeward broader and broader like a peare, or after the manner of Alabaſter boxes, full and round in the bottome, they be called Elenchi. Our dames take a great pride in a braueric, to haue theſe not only hang dangling at their fingers, but alſo two or

three of them together pendant at their eares. And names they haue forſooth newly deuiſed G
for them, when they ſerue their turne in this their wanton exceſſe and ſuperfluitie of roiot: for
when they knocke one againſt another as they hang at their eares or fingers, they call them
Crotalia, *i.* Cymbals: as if they tooke delight to heare the ſound of their pearles ratling to-
gether. Now adayes alſo it is growne to this paſſe, that meane women and poore mens wiues af-
fect to weare them, becauſe they would be thought rich: and a by-word it is amongſt them,
That a faire pearle at a womans eare is as good in the ſtreet where ſhe goeth as an huiſher to
make way, for that euery one will giue ſuch the place. Nay, our gentlewomen are come now to
weare them vpon their feet, and not at their ſhoo latchets only, but alſo vpon their ſtartops and
fine buskins, which they garniſh all ouer with pearle. For it wil not ſuffice nor ſerue their turne
to carie pearles about them, but they muſt tread vpon pearles, goe among pearles, and walke as H
it were on a pauement of pearles.

Pearles were wont to be found in our ſeas of Italie, but they were ſmall & ruddie, in certain
little ſhell fiſhes which they call Myæ: but more plenty of ſuch were taken vp in the ſtreights
of Boſphorus neere Conſtantinople. Howbeit, in Acarnania there is a little Cochle called
Pinna, [*i.* a Nacre,] which engendreth ſuch. Whereby it may appeare, that there be more than
one ſort of Mother-pearles. For king *Iuba* likewiſe hath left in writing, that in Arabia there is
a kind of ſhell fiſh like vnto a Scallop, ſaue that it is not chamfered, but thick and rough like a
ſea Vrcheon, which beares Pearles within the very fleſh of the fiſh, like vnto haile ſtones. But
now adaies there be no ſuch mother-pearles come to our coaſts. Neither be there found in A-
carnania any of value and reputation. For why they are all in manner without proportion, nei-
ther round nor weighty, and of a marble colour. They rather about the cape of Actium are I
better, and yet they be but little ones: like as they alſo which are taken in the coaſts of Mauri-
tania. *Alexander Polyhiſtor*, and *Sudines*, are of opinion that they will age, and in the end loſe
their colour. That they bee ſollid and not hollow within, is euident by this, that with no fall
they will breake. But they be not alwaies found in the middeſt of the fleſh within the mother-
pearles, but here & there, ſomtime in one place, and ſomtime in another. Verily I haue ſeene of
them about the brim and edges of the ſhell, as if they were readie to goe forth: and in ſome 4,
in others fiue together. Vnto this day few of them haue been knowne to weigh aboue halfe an
*England. ounce and one ſcriptule. In * Brittaine it is certain that ſome do grow; but they be ſmall, dim
of colour, and nothing orient. For *Iulius Cæſar* (late Emperour of famous memorie) doth not K
diſſimule, that the cuirace or breaſt-plate which he dedicated to *Venus* mother within her tem-
ple, was made of Engliſh pearles.

Imy ſelfe haue ſeen *Lollia Paulina* (late wife, and after widdow, to *Caius Caligula* the emperor)
when ſhe was dreſſed and ſet out, not in ſtately wiſe, nor of purpoſe for ſome great ſolemnity,
but only when ſhe was to go to a wedding ſupper, or rather vnto a feaſt when the aſſurance was
made, & great perſons they were not that made the ſaid feaſt: I haue ſeen her, I ſay, ſo beſet and
bedeckt all ouer with hemeraulds and pearles, diſpoſed in rewes, ranks, and courſes one by ano-
ther: round about the attire of her head, her cawle, her borders, her peruk of hair, her bondgrace
and chaplet; at her ears pendant, about her neck in a carcanet, vpon her wreſt in bracelets, & on L
her fingers in rings; that ſhe glittered & ſhon again like the ſun as ſhe went. The value of theſe
*40 millions. ornaments, ſhe eſteemed and rated at * 400 hundred thouſand Seſtertij: and offered openly to
proue it out of hand by her bookes of accounts of reckonings. Yet were not theſe jewels the
gifts and preſents of the prodigall prince her husband, but the goo[illegible] and ornaments from her
owne houſe, fallen to her by way of inheritance from her grandfather, which he had gotten to-
gether euen by the robbing and ſpoiling of whole prouinces. See what the iſſue and end was of
thoſe extortions and outrageous exactions of his: this was it, That *M. Lollius* ſlandered and de-
famed for receiuing bribes & preſents of the kings in the Eaſt; and being out of fauor with *C.*
Cæſar, ſonne of *Auguſtus*, and hauing loſt his amitie, dranke a cup of poiſon, and preuented his iu-
diciall triall: that forſooth his neece *Lollia*, all to be hanged with jewels of 400 hundred thou- M
ſand Seſtertij, ſhould be ſeene glittering, and looked at of euery man by candle-light all a ſup-
per time.

If a man would now of the one ſide reckon what great treaſure either *Curius* or *Fabricius* car-
ried in the pompe of their triumphs; let him caſt a proffer and imagine what their ſhews were,
what their ſeruice at the table was: and on the other ſide, make an eſtimate of *Lollia*, one only
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A man,the dowager of an Emperor, in what glory ſhe ſitteth at the bourd,would not he wiſh rather,that they had been pulled out of their chariots,and neuer triumphed,than that by their victories the ſtate of Rome ſhould haue grown to this waſtfull exceſſe & intollerable pride? And yet this is not the greateſt example that can be produced of an exceſſiue riot and prodigalitie.

Two only pearles there were together,the faireſt and richeſt that euer haue beene knowne in the world:and thoſe poſſeſſed at one time by *Cleopatra* the laſt queen of Ægypt;which came into her hands by means of the great kings of the Eaſt,and were left vnto her by deſcent. This princeſſe,when *M. Antonius* had ſtrained himſelfe to doe her all the pleaſure he poſſibly could, & had feaſted her day by day moſt ſumptuouſly, & ſpared for no coſt:in the hight of her pride and wanton brauerie (as being a noble curtezan,and a queene withall) began to debaſe the expence and prouiſion of *Antonie*, and made no reckoning of all his coſtly fare. When he thereat
B demanded againe how it was poſſible to goe beyond this magnificence of his, ſhe anſwered againe,that ſhe would ſpend vpon him at one ſupper * 100 hundred thouſand Seſtertij. *Antonie*, who would needs know how that might bee (for he thought it was impoſſible) laid a great wager with her about it, and ſhee bound it againe, and made it good. The morrow after, when this was to be tried,and the wager either to be won or loſt, *Cleopatra* made *Antonie* a ſupper (becauſe ſhe would not make default,and let the day appointed to paſſe)which was ſumptuous and roial ynough:howbeit,there was no extraordinarie ſeruice ſeene vpon the board: whereat *Antonius* laughed her to ſcorne,and by way of mockerie required to ſee a bill with the account of the particulars. She again ſaid, that whatſoeuer had been ſerued vp alreadie, was but the ouerplus aboue the rate & proportion in queſtion,affirming ſtill that ſhe would yet in that ſupper make,
C vp the full ſumme that ſhe was ſeazed at:yea, her ſelfe alone would eat aboue that reckoning, and her owne ſupper ſhould coſt * 600 hundred thouſand Seſtertij, and with that commanded the ſecond ſeruice to be brought in. The ſeruitors that waited at her trencher (as they had in charge before) ſet before her one only crewet of ſharpe vineger,the ſtrength whereof is able to reſolue pearles. Now ſhe had at her eares hanging theſe two moſt precious pearles,the ſingular and only jewels of the world, and euen Natures wonder. As *Antonie* looked wiſtly vpon her, and expected what ſhee would doe, ſhee tooke one of them from her eare,ſteeped it in the vineger, and ſo ſoon as it was liquified,dranke it off. And as ſhee was about to doe the like to the other, *L. Plancius* the iudge of that wager,laid faſt hold vpon it with his hand,and pronounced withal,
D That *Antonie* had loſt the wager. Whereat the man fell into a paſſion of anger. There was an end of one pearle:but the fame of the fellow thereof may goe with it:for after that this braue queen the winner of ſo great a wager, was taken priſoner and depriued of her roiall eſtate, that other pearle was cut in twaine,that in memoriall of that one halfe ſupper of theirs,it ſhould remaine vnto poſteritie,hanging at both the eares of *Venus* at Rome, in the temple of Pantheon. And yet as prodigall as theſe were,they ſhall not go away with the prize in this kinde,bnt ſhall loſe the name of the chiefe and principall, in ſuperfluitie of expence. For long before their time, *Clodius* the ſonne of *Aeſope* the Tragedian Poet, the only heire of his father, who died exceeding wealthie, practiſed the ſemblable in two pearles of great price: ſo that *Antonie* needeth not to be ouer proud of his Triumuirate, ſeeing that he hath to match him in all his magnificence, one little better than a ſtage-plaier: who vpon no wager at all laid, (and that was more
E princely,and done like a king) but only in a brauerie,and to know what taſt pearles had,mortified them in venegre, and drunke them vp. And finding them to content his pallat wondrous well, becauſe he would not haue all the pleaſure by himſelfe,and know the goodneſſe thereof alone, he gaue to euery gueſt at his table one pearle apeece to drinke in like manner.

Feneſtella writeth, that after Alexandria was conquered and brought vnder obedience to the Romans,Pearles were rife at Rome,and commonly vſed of euery man:alſo,that about the troubleſome time of *Sylla* they began firſt to be in requeſt: and thoſe were but ſmall ones,and of no price. Howbeit, he is groſſely deceiued, and in a great error. For *Ælius Stilo* doth report in his Chronicle, that in the time of warre againſt *Iugurtha*, the faire and goodly great pearles began
F to be named Vniones.

Theſe Pearles (to ſay a truth) are of the nature (in a manner) of an inheritance to deſcend by perpetuitie. They follow commonly in right the next heires. When they paſſe in ſaile,they go with warrantize,in as ſolemne manner as a good lordſhip.

As for the rich Purples, and the precious Conchyles, euery coaſt is full of them. And yet to

that exceſſe and prodigalitie we are now growne, and out wanton roiot (the mother of all inordinate and waſtfull expence) hath made them well neere as deere as Pearles. G

Chap. XXXVI.

¶ *The nature of purple fiſhes, and the Murex or Burret.*

PVrples liue ordinarily ſeuen yeers. They lie hidden for 30 daies ſpace about the dogdaies, like as the Murices or Burrets do. They meet together by troupes in the ſpring, and with rubbing one againſt another, they gather and yeeld a certaine clammie ſubſtance and moiſture in manner of waxe. The Muribes doe the like. But that beautifull colour, ſo much in requeſt for dying of fine cloth, the Purples haue in the midſt of the neck and jawes. And nothing elſe it is, but a little thin liquor within a white veine: & that is it which maketh that rich, freſh, and bright colour of deepe red purple roſes. As for all the reſt of this fiſh, it yeeldeth nothing. Fiſhers ſtriue to get them aliue, for when they die, they caſt vp and ſhed that precious teinture and juice, together with their life. Now the Tyrians, when they light vpon any great Purples, they take the fleſh out of their ſhels, for to get the bloud out of the ſaid vein: but the leſſer, they preſſe and grind in certain milles, and ſo gather that rich humor which iſſueth from them. The beſt purple colour in Aſia is this, thus gotten at Tyros. But in Africke, within the Iſland Meninx, and the coaſt of the Ocean by Getulia. And in Europe, that of Laconica. This is that glorious colour, ſo full of ſtate and maieſtie, that the Roman Lictors with their rods, halbards, and axes make way for: this is it that graceth and ſetteth out the children of princes and noblemen: this maketh the diſtinction between a knight and a counſellor of ſtate: this is called for & put on when they offer ſacrifice to pacifie the gods: this giueth a luſtre to all ſorts of garments: to conclude, our great Generals of the field, and victorious captaines in their triumphs weare this purple in their mantels, enterlaced and embrodered with gold among. No maruell therefore if Purples be ſo much ſought for: and men are to be held excuſed, if they run a madding after Purples. But how ſhould the other ſhell-fiſhes called Conchylia, be ſo deere and high priſed, conſidering the teincture of them carries ſo ſtrong and ſtinking a ſauor, ſo ſullen and melancholie a colour, enclining to a blew or watchet, and reſembling rather the angrie and raging ſea in a tempeſt? But to come to the particular deſcription. The Purple hath a tongue of a finger long, pointed in the end ſo ſharpe, and hard withall, that it is able to bore an hole and pierce into other ſhell-fiſhes, and thereby ſhee feeds and gets her liuing. In freſh water they will die all, or if they be plunged and throwne in any riuer: otherwiſe, after they be taken, they will continue aliue 50 daies, euen with that viſcous and ſlimie humor of their owne. All ſhel-fiſh in general grow apace in a very ſmall time: but Purples ſooneſt of all others: for in one yere they wil come to their full bigneſſe. Now, if I ſhould lay a ſtraw here, and proceed no further in this diſcourſe of Purples and ſuch like, ſurely our luxurious and riotous ſpendthrifts would thinke they had great wrong, and were defrauded of their right: they might I ſay complaine of me, & condemne me of idleneſſe, and negligence. Therefore I care not much to put my head within the diers ſhops and work-houſes: that like as euery man for the neceſſity of this life, knows how the price of corne goes; euen ſo our fine folke and braue dainties, who take ſuch pleaſure and delight in theſe colors, may be perfect what is the reaſon of this their only life. In the firſt place, theſe ſhel-fiſhes that ſerue either for purple colors, or other lighter dies of the Conchylia, are all one in matter: the difference only is in temperature more or leſſe. And indeed, reduced they may all be into two principall ſorts. For the leſſe ſhell called Buccinum, faſhioned like vnto that horn or cornet, wherewith they vſe to wind and ſound, whereupon in tooke that name, hath a round back, and is cut like a ſaw in the edges. The other is named Purpura, ſhooteth out a long backe like a guttur, and within the one ſide it doth writhe and turne hollow in forme of a pipe, out of which the fiſh puts forth a tongue. Moreouer, this Purple is beſtudded (as it were) euen as far as to the ſharpe top or turbant thereof round about with ſharpe knobs pointed, lightly ſeuen in number: which the ſea-cornet Buccinum hath not. But this is common to both, that looke how many roundles they haue like tendrils claſping about them, ſo many yeares old they bee. As for the Cornet Buccinum, it ſticketh alwaies to great ſtones and rockes, and therefore is euer found and gathered about them. H I K L M

CHAP.

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Chap. XXXVII.

¶ *How many ſorts there be of Purples.*

PVrples haue another name, and be called Pelagiæ, as one would ſay, Fiſhes of the deep ſea. But in truth there be many ſorts of them, & thoſe diffring either in place where they keep, or in food wherof they liue. The firſt Lutenſe, *i.* muddy, becauſe it is nouriſhed of the corrupt and rotten mud: the ſecond Algenſe (the worſt of all) feeding vpon reits or ſea weeds named Alga: the third, Tænienſe (better than the former twaine) for that it is gathered and taken vp about the brims & borders of the ſea, called for the reſemblance of fillets or liſts in a cloth, Tæniæ. And yet this kind ye eldeth but a light colour, and nothing deep: there be of them alſo, which they terme Calculoſæ, of the ſea grauell, which is wondrous good for all theſe kinde of wilkes and ſhell fiſhes. And laſt of all, which ſimply be the very beſt, the Purples Dialetæ, that is to ſay, wandring too and fro, changing their paſture, and feeding in ſundry ſoils of the ſea (the muddy, the weedie, and the grauelly.) Now theſe Purples are taken with ſmall nets, and thinne wrought, caſt into the deep. Within which, for a bait to bite at, there muſt be certain winckles and cockles, that will ſhut and open, & be ready to ſnap, ſuch as we ſee theſe limpins be, called Mituli. Halfe dead they ſhould be firſt, that being new put into the ſea again, & deſirous to reviue and liue, they might gape for water: and then the Purples make at them with their pointed tongue, which they thruſt out to annoy them: but the other feeling themſelues pricked therewith, preſently ſhut their ſhels together, & bite hard. Thus the Purples for their greedineſſe are caught and taken vp, hanging by their tongues.

Chap. XXXVIII.

¶ *The fiſhing time for Purples.*

THe beſt time to take Purples, is after the dog ſtar is riſen, & before the Spring: for, when they haue made that viſcous muſcilage in manner of wax, their iuice and humour for colour is ouer liquid, thin, & wateriſh. And yet the purple diers know not ſo much, nor take heed thereof, whereas indeed the skill thereof is a ſpeciall point of their art, and wherein lieth all in all. Well, when they are caught, as is aboueſaid, they take forth that vein before mentioned; and they lay it in ſalt, or elſe they do not well: with this proportion ordinarily, namely, to euery hundred weight of the Purple liquor, a Seſtier or pint and halfe of ſalt. Full three dayes and no more it muſt thus lie ſoking in powder. For the freſher that the colour is, ſo much is it counted richer and better. This don, they ſeeth it in leads, & to euery Amphore, (*i.* which containeth about eight wine gallons) they put one hundred pound and a halfe juſt, of the colour ſo prepared. Boile it ought with a ſoft and gentle fire, and therfore the tunnel or mouth of the furnace muſt be a good way off from the lead and caudron. During which time, the workemen that tend the lead, muſt eſtſoones skim off and clenſe away the fleſhie ſubſtance, which cannot chuſe but ſtick to the veines which containeth the iuice or liquour of purple beforeſaid. And thus they continue 10 daies, by which time ordinarily the lead or veſſell wil ſhew the liquour cleere, as if it were ſufficiently boiled. And to make a triall thereof, they dip into it a fleece of wool wel renſed & waſht out of one water into another: & till ſuch time, that they ſee it giue a perfect die, they ſtil ply the fire, & giue it a higher ſeething. That which ſtaineth red, is nothing ſo rich as that which giueth the deep & ſad blackiſh color. When it is come to the perfection, they let the wooll lie to take the liquor 5 houres: then they haue it forth, touſe and card it, and put it in againe, vntil it hath drunke vp all the colour, as much as it will. Now this is to be obſerued, that the ſea cornet Buccinum makes no good colour of it ſelfe: for their dye wil ſhed & loſe the luſtre. And therfore vſually they ioine to it the ſea Purple Pelagium, which maketh too deep and brown a colour: vnto which it giueth a freſh & liuely teinture, as it were in grain, and ſo maketh that ſad purple which they deſire. Thus by mixing & medling the force of both together, they mend one another, while the lightneſſe or ſadneſſe of the one doth quicken and raiſe, or els dorr and take downe the colour of the other. To the dying of a pound of wooll, they vſe this proportion of two hundred Buccina or ſea Cornets, ioined with a hundred and eleuen Pelagian Purples: & ſo commeth that rich Amethyſt or purple violet colour, ſo highly commended

mended aboue all other. But the Tyrians make their deep red purple, by dipping their wool firſt G
in the liquor of the Pelagian purples only, whiles it is not throughly boiled to the heigth, but as it were green yet and vnripe; and therof they let it take what it can drinke. Soone after they change it into another caudron or lead, where the colour of the ſea Cornets alone is boiled. And then it is thought to haue a moſt commendable and excellent dye, when it is as deep a red as bloud that is cold and ſetled, blackiſh at the firſt ſight, but looke between you and the light, it carieth a bright and ſhining luſtre. And hereupon it is, that *Homer* calleth bloud, Purple.

Chap. XXXIX.

¶ *When they began at Rome to weare Purple firſt.* H

I Find in Chronicles, that Purple hath bin vſed in Rome time out of mind. Howbeit, K. *Romulus* neuer ware it but in his roial habit or mantle of eſtate, called *Trabea*. And wel known it is, that *Tullus Hoſtilius* was the firſt Roman king, who after he had ſubdued the Tuſcanes, put on the long purple robe named *Pretexta*, and the caſſock broched & ſtudded with ſcarlet in broad guards. *Nepos Cornelius* who died in the daies of *Auguſtus Cæſar* the Emperor, When (quoth he) I was a yong man, the light violet purple was rife and in great requeſt, & a pound of it was ſold
*3 lib. 2 ſhil. 6. d. ſterl. for a * 100 deniers: and not long after the Tarentine red purple or skarlet was much called for, and of the ſame price. But after it, came the fine double died purple of Tyros, called Dibapha:
*31 lib. 5. ſhil. and a man could not buy a pound of it for a * 1000 deniers, which was the price of ten pound of the other. *P. Lentulus Spinther* in his Ædileſhip of the chaire, firſt ware a long robe embroi- I
dered with it, and was checked and blamed therefore. But now adaies (quoth *Nepos*) what is he that will not hang his parlour and dining chamber therewith, and haue carpets, cuſhins, & cupbord clothes thereof. And it is no longer ago when *Spinther* was Ædile, than in the ſeuen hundreth yeare after the foundation of Rome, euen when *Cicero* was Conſull. This purple in thoſe daies was called Dibapha, *i.* twice died: & that was counted a matter of great coſt, & very ſtately withall and magnificent. But now ye ſhall haue no purple cloths at all of any reckoning, but they haue their double die. As for the cloth died with the purple of the ſhel-fiſh Conchylia, the maner of making the colour, and dying in all reſpects is the ſame, ſaue that there be no ſea Cornets vſed thereto. Moreouer, the iuice or liquor for that colour, is tempered with water in K
ſtead of the filthy piſſe and vrine of a man, altogether vſed in the other: and therein is ſodden but the halfe proportion of colours to the foreſaid tinctures. And thus is made that light pale ſtammel ſo highly commended, for being ſhort of the deep rich colour: and the leſſe while that the wooll is ſuffered to drinke the fill, the more bright and freſh it ſeemeth.

Chap. XL.

¶ *The prices of wooll died with theſe colours.*

AS for theſe colours, they are valued dearer or cheaper, according to the coaſts where theſe fiſhes are gotten more or leſſe. Howbe it, it was neuer known that in any place, a pound of the right purple wooll, died with the Pelagian colour, or of the colour it ſelfe, was more L
*3 lib. 18 ſhil. 1. d. ob. worth than * 500 Seſterces: nor a pound of the Cornets purple coſt aboue one hundred. I would they knew ſo much that pay ſo deare for theſe wares by retaile here at home, and cannot haue them, but at an exceſſiue rate. But here is not all, neither is this an end of expence that way, for one ſtill draweth on another: and men haue a delight to ſpend and lay on ſtill one thing after another: to make mixtures and mixtures again, and ſo to ſophiſticate the ſophiſtications of Nature: as namely to paint and die their ſeelings, euen the very embowed roofs and arches in building: to mix and temper gold and ſiluer together, therewith to make an artificiall metall Electrum: and by adding braſſe or copper thereto, to haue another metall, counterfeiting the Corinthian veſſels.

Chap. XLI. M

¶ *The manner of dying the Amethyſt, Violet, or Purple, the Chrymſon and Scarlet in grain, and the light Stammell or Luſtie-gallant.*

It would not ſuffice our prodigal ſpendthrifts to rob the precious ſtone Amethyſt of his name, and to apply it to a colour; but when they had a perfect Amethyſt die, they muſt haue it to be drunken

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A drunken againe with the Tyrean purple, that they might haue a ſuperfluous and double name compounded of both (Tyriamethiſtus) correſpondent to their two-fold coſt and duple ſuperfluitie. Moreouer, after they haue accompliſhed fully the colour of the Conchylium, they are not content vntill they haue a ſecond die in the Tyrian purple lead. It ſhould ſeeme, that theſe double dies and compounded colours, came firſt from the errour and repentance of the workeman when his hand miſſed: and ſo was forced to change and alter that which he had done before, and vtterly miſliked. And hereof forſooth is come now a pretty cunning and art thereof: and the monſtrous ſpirits of our waſtfull perſons are grown to wiſh and deſire that, which was a fault amended firſt: and ſeeing the two-fold way of a double charge and expence troden before them by the diers, haue found the meanes to lay colour vpon colour, and to ouercaſt and ſtrike
B a rich die with a weaker, ſo that it might be called a more pleaſant and delicate colour. Nay it will not ſerue their turn to mingle the aboue-ſaid tinctures of ſea fiſhes, but they muſt alſo do the like by the die of land-colours: for when a wooll or cloth hath taken a crimſon or skarlet in graine, it muſt be died againe in the Tyrian purple, to make (I would not elſe) the light, red, and freſh Luſtie-gallant.

Alluding to the word Amethyſt, which reſiſts drunkenneſſe.

As touching the Graine, ſeruing to this tincture, it is red, and commeth out of Galatia, (as we ſhall ſhew in our ſtory of earthly plants) or elſe about Emerita in Portugall, and that of all other is of moſt account. But to knit vp in one word theſe noble colours, note this, That when this Graine is but of one yeres age, it maketh but a weake tincture; but after foure yeeres, the ſtrength thereof is gone. So that neither young nor old it is of any great vertue. Thus I haue ſufficiently and at large treated of thoſe means which men and women both, ſo highly eſteem,
C and thinke to make moſt for their ſtate and honourable port, and ſetting out of themſelues in the beſt manner.

CHAP. XLII.

¶ *Of the Nacre, or his guide and keeper, Pinnoter: and the peregrinuance of fiſhes.*

THe Nacre alſo called Pinnæ, is of the kind of ſhell-fiſhes. It is alwaies found and caught in muddie places, but neuer without a companion, which they cal Pinnoter, or Pinnophylax. And it is no other but a little ſhrimpe, or in ſome places, the ſmalleſt crab; which beareth the Nacre companie, and waites vpon him for to get ſome victuals. The nature of the Nacre is to gape wide, and ſheweth vnto the little fiſhes her ſeelie body, without any eie at all. They come leaping by and by cloſe vnto her: and ſeeing they haue good leaue, grow ſo hardie and bold, as to skip into her ſhel & fill it ful. The ſhrimp lying in ſpiall, ſeeing this good time and opportunitie, giueth token thereof to the Nacre, ſecretly with a little pinch. She hath no ſooner this ſignall, but ſhe ſhuts her mouth, and what ſoeuer was within, cruſhes and kils it preſently: and then ſhe deuides the bootie with the little crab or ſhrimp, her ſentinell and companion. I maruell therefore ſo much the more at them who are of opinion, that fiſhes and beaſts in the water haue no ſence. Why, the very Cramp-fiſh Torpedo, knowes her own force & power, and being her ſelfe not benummed, is able to aſtoniſh others. She lieth hid ouer head and
E eares within the mud vnſeen, ready to catch thoſe fiſhes, which as they ſwim ouer her, be taken with a nummedneſſe, as if they were dead. There is no meat in delicate tenderneſſe, preferred before the liuer of this fiſh. Alſo the fiſh called the * ſea-Frog, (and of others the ſea-Fiſher) is as crafty euery whit as the other: It puddereth in the mud, and troubleth the water, that it might not be ſeen: and when the little ſeely fiſhes come skipping about her, then ſhe puts out her little hornes or Barbils which ſhe hath bearing forth vnder her eies, and by little and little tilleth and tolleth them ſo neere, that ſhe can eaſily ſeaze vpon them. In like manner the Skate and the Turbot lie ſecret vnder the mud, putting out their finnes, which ſtir and crawle as if it were ſome little wormes; and all to draw them neer, that ſhe might entrap them. Euen ſo doth the Ray-fiſh or Thorn-back. As for the Puffen or Fork-fiſh, he lieth in await like a theeſe in a
F corner, ready to ſtrike the fiſhes that paſſe by with a ſharpe rod or pricke that he hath, which is his weapon. In concluſion, that this fiſh is very ſubtill and crafty, this is a good proofe, That being of all others moſt heauie and ſlow, they are found to haue in their bellie the Mullets, which of all others be the ſwifteſt in ſwimming.

* *Diable de Mer.*

CHAP.

Chap. XLIII.

¶ *Of the Scolopendres, the ſea-Foxes, and the Glanis.*

THeſe Scolopendres of the ſea, are like to thoſe long earewigs of the land, which they call Centipedes, or many-feet. The maner of this fiſh is this, when ſhe hath ſwallowed an hook to caſt vp all her guts within, vntill ſhe hath diſcharged her ſelf of the ſaid hook, and then ſhe ſups them in againe. But the ſea-Foxes in the like danger haue this caſt with them, namely to gather in and let it go downe into the throat more and more ſtill of the line, vntill he come to the weakeſt part thereof, which he may eaſily fret and gnaw aſunder. The Glanis is more ſlie and warie than they both: for his propertie is to bite at the backe of the hooke, and not to goble it vp whole, but nibble away all the bait, and leaue the hooke bare.

Chap. XLIIII.

¶ *Of the Ram-fiſh.*

THis fiſh is a very ſtrong theef at ſea, and makes foule work where he comes: for one while he ſquats cloſe vnder the ſhade of big ſhips that ride at anker in the bay, where he lies in ambuſh to wait when any man for his pleaſure would ſwim and bath himſelfe, that ſo he might ſurpriſe them: otherwhiles he puts out his noſe aboue the water, to ſpie any ſmall fiſher boats comming, and then he ſwimmeth cloſe to them, ouerturneth and ſinketh them.

Chap. XLV.

¶ *Of thoſe that haue a third or middle nature, and are neither liuing creatures nor yet Plants: alſo of the ſea-Nettle-fiſhes, and Spunges.*

I Verily for my part am of opinion, that thoſe which properly are neither beaſts nor plants, but of a third nature between or compounded of both (the ſea-Nettles I mean, and Sponges) haue yet a kinde of ſenſe with them. As for thoſe Nettles, there be of them that in the night raunge too and fro, and likewiſe change their colour. Leaues they carry of a fleſhie ſubſtance, and of fleſh they feed. Their qualitie is to raiſe an itching ſmart, like for all the world to the weed on the land ſo called. His manner is, when he would prey, to gather in his body as cloſe, ſtreight and ſtiffe as poſſibly may be. He ſpieth not ſo ſoon a ſilly little fiſh ſwimming before him, but he ſpratdeth and diſplaieth thoſe leaues of his like wings; with them he claſpeth the poore fiſh, and ſo deuoures it. At other times, he lies as if he had no life at all in him, ſuffering himſelfe to be toſſed and caſt too and fro among the weeds, with the waues of the ſea: and look what fiſh ſoeuer he toucheth as he is thus floting, hee ſets a ſmart itch vpon them, and whiles they ſcratch and rub themſelues againſt the rockes for this itch, hee ſets vpon them and eates them. In the night ſeaſon he lieth for ſea-Vrchens and Scalops. When he feeleth ones hand to touch him, he changeth colour, and draweth himſelfe in cloſe together on a heape: and no ſooner toucheth he one, but the place will itch, ſting, and be ready to bliſter: make not good haſt to catch him quickly, he is hidden out of hand and gone. It is thought verily, that his mouth lyeth in his root, and that he voideth his excrements at a ſmall pipe or iſſue aboue, where thoſe fleſhie leaues are.

Of Spunges, we find three ſorts: the firſt thicke, exceeding hard, and rough; and this is called Tragos: a ſecond, not all ſo thicke, and ſomewhat ſofter; and that is named Manon: the third is fine and yet compact, wherewith they make ſponges to cleanſe and ſcourewithall, and this is tearmed Achilleum. They grow al vpon rocks: and are fed with wilkes or ſhel-fiſh, with naked fiſh and mud. That they are not ſenſleſſe, appeares hereby, for that when they feele that one would pluck them away, they draw in and retire back hard, ſo as with greater difficulty they are pulled from the rocke. The like doe they when they be beaten vpon with waues. That they liue vpon ſome food, it is manifeſt by the little coquill & muſcle ſhels that be found within them. And ſome ſay, that about Torone they continue ſtill aliue after they be pulcked frow the rocks: and that of the roots which are left behind, they grow againe. Moreouer, vpon thoſe rocks from whence they be pulled, there is to be ſeen as it were ſome bloud ſticking; & eſpecially in thoſe of Africke, which breed among the Syrtes. The Manæ, which otherwiſe be the leaſt, become very great & moſt ſoft withall, about Lycia. But they be more delicate which are nouriſhed in the

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A the deep gulfes,where leaſt wind or none is ſtirring. The rough kind are in Helleſpont: and the fine and maſſie,about the cape Malea. In ſun-ſhine places they will corrupt and putrifie; and therefore the beſt are in the deep gulfs and creeks,not expoſed to the Sun. They be of the ſame dusk and blackiſh colour when they liue,as they are afterwards being ſoked & full of moiſture. They cleaue to rocks neither by any one part,nor yet entire and whole all ouer: for there are between,certain void pipes 4 or 5 commonly,by which they are ſuppoſed to receiue their food and nouriſhment. There be more of theſe pipes and concauities, but aboue they are grown together hard and not hollow. A certain pellicle or thin skin a man may perceiue them to haue at their roots. For certain it is knowne,that they liue long. The worſt kind of them all,be thoſe that are called Aplyſiæ,becauſe vnneth they may bee ſeparated, nor clenſed and made cleane, they are ſo foule,for great pipes they haue;thicke they are beſides throughout,and very maſſie.

B

Chap. XLVI.

¶ *Of Hound-fiſhes or Sea-dogs.*

THe dyuers that vſe to plunge into the ſea, are annoied very much with a number of Sea-hounds that come about them,and put them in great jeopardie. And they ſay, that theſe fiſhes haue a certain dim cloud or thin web, growing & hanging ouer their heads, reſembling broad,flat,and griſtly fiſhes,which clingeth them hard,and hindreth them from retiring backe and giuing way. For which cauſe the ſaid dyuers (as themſelues ſay) carry downe with them certaine ſharp pricks or goads faſtened to long poles: for vnleſſe they be proked at and
C pricked with them,they will not turn their backe;by reaſon(as I ſuppoſe)of a miſt before their eies,or rather of ſome feare & amazedneſſe that they be in. For I neuer heard of any man that found the like cloud or miſt(for this termthey giue vnto that vnhappie thing what-euer it be) in the range of liuing creatures. But yet much ado they haue and hard hold with theſe Hound-fiſhes notwithſtanding;for they lay at their bellies and groines,at their heeles, and ſnap at euery part of their bodies that they can perceiue to be white. The onely way and remedy is to make head directly affront them,and to begin with them firſt,and ſo to terrifie them: for they are not ſo terrible to a man,but they are as fraid of him againe. Thus within the deepe they are indifferently euen matched:but when the dyuers mount vp and riſe againe aboue water, then
D there is ſome odds betweene,and the man hath the diſaduantage,and is in more danger; by reaſon that whiles he laboureth to get out of the water,he faileth of means to encounter with the beaſt,againſt the ſtreame and ſourges of the water. And therefore his only recourſe is, to haue help and aid from his fellowes in the ſhip; for hauing a cord tied at one end about his ſhoulders,he ſhaketh it with his left hand,to giue ſigne what danger hee is, whiles hee maintaineth fight with the right,by taking into it the puncheon with the ſharpe point beforeſaid;and ſo at the other end they draw him to them: and they need otherwiſe to pull and hale him but ſoftly: mary when he is neere once to the ſhip,vnleſſe they giue him a ſudden jerke and ſnatch him vp quickly,they may be ſure to ſee him worried and deuoured before their face; yea and when they are at the point to be plucked vp, and euen now ready to go aboord, they are many times
E caught away out of their fellows hands,if they beſtir not themſelues the better, and put their owne good will to the help of them within the ſhip;namely, by plucking vp their legs and gathering their bodies nimbly together round as it were in a ball. Well may ſome from ſhipboord proke at the dogs aforeſaid with forks;others thruſt at them with Trout ſpeares & ſuch like weapons,and all neuer the neere, ſo craftie and cautelous is this foule beaſt, to get vnder the very belly of the barke,and ſo maintain combat in ſafety. And therefore all the care that theſe fiſhers haue,is to prouide for this miſchiefe,and to lie in wait for to entrap theſe fell,vnhappie,and ſhrewd monſters.

Chap. XLVII.

F ¶ *Of thoſe fiſhes that lie within a ſtonie and hard flintie ſhell: alſo of thoſe that haue no ſence: and of other naſtie and filthie creatures.*

THe greateſt ſecuritie that fiſhers and dyuers haue of ſafety, is when they ſee the broad flat griſtly fiſhes;for certain it is,that they be neuer in any place where hurtfull and noiſome

beaſts

beasts do haunt: which is the cause that these dyuers which ducke and plunge for sponges, call G
those fishes Sacred.

We must needs confesse, that fishes within stone shels, haue small or no sense, as namely oisters. Many are of the nature of very Plants, to wit, those that they cal Holothuria: also Pulmones, resembling the lungs of a beast: and Star-fishes, made in forme of stars (such stars I meane as it pleaseth the Painter to draw.) In sum, what is there not bred within the sea? Euen the very fleas that skip so merily in summer time within victualling houses and Ins, and bite so shroudly: as also lice that loue best to lie close vnder the haire of our heads, are there engendred & to be found: for many a time the fishers twitch vp their hooks, and see a number of these skippers and creepers setled thicke about their baits which they laied for fishes. And this vermine is thought to trouble the poore fishes in their sleep by night within the sea, as well as vs on the H
land. Last of all, some fishes there be, which of themselues are giuen to breed fleas and lice, among which the Chalcis, a kind of Turbot, is one.

Chap. XLVIII.

¶ *Of venomous Sea-fishes.*

MOreouer, the sea is not without her deadly poisons: for the Sea-hare, which keepeth in the Indish sea, is so venomous, that the very touching of him is pestiferous; & presently causeth vomiting and ouerturning of the stomacke, not without great danger. They which be found in our sea, seeme to be a peece or lump of flesh without all forme or fashion, in I
colour only resembling the land Hare. But with the Indians they be full as big, and resemble their Hare, only it is more stiffe and hard. And verily they cannot possibly be taken there aliue. The dragon or spider of the sea, is as dangerous & mischieuous a creature as the other: and with the pricks that stick forth of his chine and back-bone, hee doth much hurt. But in no place is there any more detestable and pernicious, than is the pike that standeth out vpon the taile of Trigonius, which we in Latine call *Pastinaca*, the Puffin or Forkfish of the sea; the which pike is fiue inches long. So venomous it is, that if it be strucke into the root of a tree, it killeth it: it is able to pierce a good cuirace or iacke of buffe, or such like, as if it were an arrow shot or a dart lanced: but besides the force and power that it hath that way answerable to yron & steele, K
the wound that it maketh is therewith poisoned.

Chap. XLIX.

¶ *Of Fishes diseases.*

WE do not heare or reade, that all sorts of fishes in generall be subiect to maladies and diseases, as other beasts, and euen those that are wilde and sauage. But that this or that fish in euery kinde may be sicke, it appeareth euidently, that some of them mislike and come to be carrion leane; whereas others of the same sort, be taken, not only in good plight, but exceeding fat. L

Chap. L.

¶ *The wonderfull manner of their generation.*

IN what sort fishes do engender, if I should not in this place shew, but put it off farther, I should do great wrong to mankind, who desire to know it, as much as they wonder how it should be. In one word, fishes ingender by the friction and rubbing of their bellies one against another: which they performe with such celeritie, that no eye is so quicke as to note and obserue it. Dolphins, and other great whales, haue no other way but that, mary they are longer somewhat about their businesse. The spawner, when the time serueth for generation, followeth M
after the male, and neuer linneth pecking and iobbing at his belly with her muzzle. Semblably a little before spawning time, the milters follow after the female, only for that they would eat their spawn when they haue cast it. But this is to be noted moreouer, that the foresaid mixture & ingendring of theirs is not sufficient to accomplish generation, vnlesse when their egs be laid or spawne cast, both male and female take it betweene them and keepe a turning of it, thereby

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A to breath a liuely ſpirit into it,and as it were beſprinkle it with a vitall dew, as it floteth vpon the water. But turne they it and toſſe it,breath they vpon it as much as they will, yet all thoſe little egs of their ſpawne do not hit and come to proofe:for if they did,all ſeas and lakes,and al riuers and pools would be ſo peſtered ful with fiſhes,that a man would ſee nothing els:for there is not one of theſe females,but at once conceiueth an infinite number in her belly.

Chap. LI.

¶ *More as touching the generation of fiſhes,and which they be that do ſpawne in manner of egges.*

B THe ſpawne or egs of Fiſhes in the ſea,do grow vnto perfection,ſome of them exceeding ſcon,as that of the Lampreies:others are later ere they do ſo. All flat and broad Fiſhes, ſuch namely as haue no tails and ſharp pricks to hinder(as haue the Thorn-backe, Skate, and Tortoiſes)when they engender, leap one another. The many foot Pour-cuttles in this action faſten one of their winding clawes to the noſe of the female. The Cuttels and Calamaries do the feat with their tongues or pipes rather thruſt into their mouthes, claſping one another with their arms,and ſwimming one contrary to the other:and as they conceiue at the mouth,ſo they deliuer their fruit again at the mouth. This onely is the difference,that the ſhe Calamaries in this buſines,beare their heads downward to the earth. As for thoſe that are ſoft cruſted, they do it backward as dogs. Thus the Lobſters & Shrimpes ingender. Crabs at the mouth. Frogs leap one another:the male with the fore-feet claſps the arm-pits of the female, and with
C the hind-feet the hanches. That which is ingendred and brought forth,is as it were ſome little mites of blackiſh fleſh,which they call Tadpoles or Polwigs, ſhewing no good form, but that they haue ſome ſhew of eies only,and a taile. Some few daies after,their feet are framed,& then parts their taile in twain,which ſerueth for their feet behind. And a ſtrange thing it is of them: after they haue liued ſome 6 months,they reſolue into a ſlime or mud,no man ſeeth how:& afterward with the firſt rains in the Spring,returne again to their former ſtate, as they were firſt ſhapen,no man knows after what ſort,by a ſecret and vnknown way incomprehenſible:notwithſtanding it fals out ordinarily ſo euery yere. As for the Limpins, Muskles,and Scallops, they breed of themſelues in the mud and ſands of the ſea. Thoſe which are of an harder coat, as the
D Pourcelanes and Purples,of a certain viſcous and ſlimy ſubſtance like a muſcilage. As for that little fry,reſembling ſmall gnats and flies of the ſea, they come of a certaine putrifaction and ſowerneſſe of the water:as the Apuæ,which are the groundlings and Smies, of the ſome of the ſea ſet in an heat & chafed after ſome good ſhewer. They that are couered with a ſtony ſhell,as Oiſters,breed of the rotten and putrified ſlime & mud of the ſea:or of the ſome that hath ſtood long about ſhips or ſtakes and poſts ſet faſt in the water, and eſpecially if they bee of Holme wood. Howbeit,it hath bin found of late in Oiſter pits,that there paſſeth from them in ſtead of Sperm a certain whitiſh humor like milk. As for Yeels they rub themſelues againſt rocks and ſtones,and thoſe ſcrapings(as it were)which are fretted from them, in time come to take life and proue ſnigs, and no other generation haue they. Fiſhes of diuers kinds engender not one
E with another, vnleſſe it be the Skate and the Raifiſh:and of them there commeth a fiſh, which in the forepart reſembleth a Ray,& in Greek hath a name compounded of both[Rhinobatos.] Other fiſhes there be that breed indifferently on land and ſea, according to the warme ſeaſon of the yeare. In Spring time Scallops,Snailes, and Horſleeches do engender, and by the ſame warmth quicken and come to life;but in Autumne they turn to nothing. The Pike & Sardane breed twice a yere, like as al ſtone fiſh : the Barbels thrice,as alſo a kind of Turbit called Chalcis[*i.*the Shad:]the Carp 6 times:the Scorpenes and Sargi twice,namely, in Spring and Autumne. Of flat broad Fiſhes,the Skate only twice in the yere,to wit,in Autumne,and at the ſetting or occultation of the ſtar *Vergiliæ*. The greateſt number of Fiſhes ingender for 3 moneths,
F April,May,& Iune. The Cods or Stockfiſhes in Autumne. The Sargi,Crampfiſhes,& Squali about the equinoctiall. Soft skinned Fiſhes in the ſpring:and the Cuttel in euery month. The ſpawn of this Fiſh,which hangeth together like a cluſter of grapes,by the means of a certaine blacke glew or viſcoſitie like inke, the Milter doth blow and breath vpon before it can bee good,for otherwiſe it commeth to no proofe. The Pour-cuttles engender in Winter, and in the Spring, and then bring forth a ſpawne criſped and curled (as it were) like the wreathing

branches and tendrils of a vine branch; and that in ſuch plenty, that when they are killed they G
are not able to receiue and containe the multitude of their egs in the concauitie or ventricle of
their head and belly, which they bare when they were great. They hatch them in fifty daies,
but many of them proue addle and neuer come to good, there is ſuch a number of them. The
Lobſters and the reſt with thin ſhels, lay egge after egge, and ſit vpon them in that manner. The
female Pourcuttle, one while ſitteth ouer her egs, another while ſhe couereth the cranie or gut-
ter where ſhe hath laid them, with her clawes and arms enfolded croſſe one ouer another lattiſe
wiſe. The Cuttle laieth alſo vpon the dry land among the reeds, or els whereſoeuer ſhe can find
any ſea-weeds or reits to grow, & by the 15 day hatcheth. The Calamaries lay egs in the deep,
which hang cloſe and thick together, as the Cuttles do. The Purples, Burrets, and ſuch like, do
lay in the Spring. The ſea Vrchins are with egge euery full moone in the winter time: and the H
winkles or cocles are bred in the winter likewiſe. The Crampfiſh is found to haue 80 young at
once within her, and hatcheth her tender and ſoft egs within her bodie, ſhifting them from one
place of the wombe to another. In like manner do all they which are called Cartilagineus, or
griſtly. By which it commeth to paſſe, that fiſh alone both conceiue with egge, and yet bring
forth a liuing creature. The male ſheath-fiſh or riuer whale Silurus, of al others only is ſo kind
as to keep and looke to the egs of the female after they be laid, many times for fifty daies after,
for feare they ſhould be deuoured of others. Other females hatch in three daies, if the male
touch them. The Horne-beaks or Needle-fiſhes Belonæ, are the only fiſhes which haue within
them ſo great egs that their wombe cleaueth and openeth when they ſhould lay them: but af-
ter that they be diſcharged of them, it groweth together and vniteth againe. A thing vſuall (as I
they ſay) in Blind-wormes. The fiſh called Mus-Marinus, diggeth a gutter or ditch within
the ground, and there laieth her egs, and the ſame ſhe couereth ouer with earth, and ſo lets them
alone for 30 daies, then ſhe commeth and openeth the place again, findeth her egs hatched, and
leadeth her little ones to the water.

Chap. LII.

¶ *Of fiſhes wombes.*

THe ſhel-fiſhes Erythini & Chanæ, haue their wombs or matrices. As for that fiſh which
in Greeke is called Trochos [*i.* the top] is thought to get it ſelfe with yong. The frie of all K
water creatures, at the firſt ſee not.

Chap. LIII.

Of the exceeding long life of fiſhes.

IT is not long ſince that we heard of one fiſhes memorable example, which proued the long
life of fiſhes. There is a faire houſe of retreat and pleaſure called Pauſilupum, in Campaine
not far from Naples; where (as *Anneus Seneca* writeth) there died a fiſh in the fiſh-pooles of
Cæſar, 60 yeres after that it had bin put in by *Pollio Vedius*: and there remained two more of that L
age and of the ſame kind, which liued ſtill. And ſince wee are come to make mention of fiſh-
ponds, me thinks I ſhould do well to write ſomwhat more thereof, before I giue ouer this diſ-
courſe of fiſhes and water creatures.

Chap. LIV.

¶ *Of Oyſter pits, and who firſt deuiſed them.*

THe firſt that inuented ſtewes and pits to keep oyſters in, was *Sergius Orata*, who made ſuch
about his houſe in Baianum, in the daies of *L. Craſſus* that famous oratour, before the Mar-
ſians war. And this the man did not for his belly and to maintain gourmandiſe, but of a M
couetous mind for very gain. And by this and ſuch wittie deuiſes, he gathered great reuenues:
for he it was that inuented the hanging baines and pooles to bathe in aloft vpon the top of an
houſe: and thus when he had ſet out his manour houſe for the better ſale, he would make good
merchandiſe of them, and ſell them againe for commoditie and gaine. He was the firſt man that
brought the Lucrine Oyſters into name and credit for their excellent taſte. For ſo it is,

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A that the ſame kinds of fiſhes, in one place are better than in another. As the Pikes in the riuer Tiberis, which are taken between the two bridges: the Turbot of Rauenna: the Lamprey in Sicilie: the Elops at Rhodes, and ſo forth of other ſorts of fiſhes: for I do not meane here to make a bill of all the dainty fiſh to ſerue the kitchin. There was no talk then of Engliſh oiſters, when *Orata* brought thoſe of the Lucrine lake into requeſt, for as yet the Brittiſh coaſts were not ours; which indeed haue the beſt oiſters of all other. But afterwards it was thought it would quit the coſt and pay for the pains, to fetch oiſters from the furtheſt part of Italy, euen as far as Brundiſium. And becauſe there ſhould grow no quarrell, nor controuerſie ariſe, whether theſe or the former had the more delicate and pleaſant taſte, it was of late deuiſed that the hungrie oiſters (which in the long cariage from Brundiſe were almoſt famiſhed) ſhould be fed with the
B reſt in the Lucrine Lake, and ſo taſte alike. In thoſe very daies, but ſomwhat before *Orata*, *Licinius Murena* deuiſed pools and ſtews for to keep and feed other fiſhes: whoſe example noblemen followed and did the like after them; namely, *Philip* and *Hortenſius*. *Lucullus* cut through a mountain neere vnto Naples for this purpoſe, namely, to let in an arm of the ſea into his fiſh pooles: the doing whereof coſt him more mony, than the houſe it ſelfe which he there had built. Hereupon *Pompey* the great gaue him the name of Roman *Xerxes*, in his long robe. The fiſhes of that poole of his, after his death, were ſold for thirty hundred thouſand Seſterces, *i*. three milions of Seſterces.

Chap. LV.

¶ *Who inuented the ſtewes for Lampreyes.*

C *Caius Hirtius* was the man by himſelfe, that before all others deuiſed a pond to keep Lampreys in. He it was that lent *Cæſar* Dictator for to furniſh his feaſts and great ſuppers during the time of his triumph, 600 Lampreys, to be paied againe by weight and tale in the ſame kind: for ſel them he would not right out for any mony, nor exchange them for other commodities. A houſe he had for his pleaſure in the country, and but a very little one, yet the ponds and fiſhes about it ſold the houſe for foure milions of Seſterces. In proceſſe of time folk grew to haue a loue and caſt a fancy to ſome one ſeuerall fiſh aboue the reſt. For the excellent Orator *Hortenſius* had an houſe at Bauli, vpon the ſide that lieth to Baiæ, & a fiſh-pond to it belonging: and he took ſuch an affection to one Lamprey in that poole, that when it was dead (by re-
D port) he could not hold but weep for loue of it. Within the ſame poole belonging to the ſaid houſe, *Antonia* the wife of *Druſus* (vnto whom they fell by inheritance) had ſo great a liking to another Lamprey, that ſhe could find in heart to decke it, and to hang a paire of golden earings about the guils thereof. And ſurely for the nouelty of this ſtrange ſight, and the name that went thereof, many folke had a deſire to ſee Bauli, and for nothing els.

Chap. LVI.

¶ *The ſtewes of Winkles, and who firſt was the deuiſer.*

E *Vlvius Hirpinus* was the firſt inuentor of warrens as it were for Winkles, which he cauſed to be made within the territory of *Tarquinij*, a little before the ciuil war with *Pompey* the great. And thoſe had their diſtinct partitions, for ſundry ſorts of them: that the white, which came from the parts about Reate, ſhould be kept apart by themſelues: the Illyrian (and thoſe were chiefe for greatneſſe) alone by their ſelues: the Africans (which were moſt fruitfull) in one ſeuerall: and the Solitanes (ſimply the beſt of all the reſt) in another. Nay more than that, he had a deuiſe in his head to feed them fat, namely, with a certain paſte made of cuit & wheat meale, and many other ſuch like: to the end forſooth, that the gluttons table might be ſerued plentifully with home-fed & franked great Winkles alſo. And in time, men grew to take ſuch a pride and glory in this artificial feat, and namely, in ſtriuing who ſhould haue the biggeſt, that in the end one of their ſhels ordinarily would containe * 80 meaſures called Quadrants, if *M. Varro* F ſay true, who is mine Author.

* 3 wine gallons and three quarts: for Quadrans is 3 Cyathi, *i*. the 4 part of Sextarius, & Sextarius is a wine pint & a halfe, or 18 ounces.

Chap. LVII.

¶ *Of Land-fiſhes.*

Theophraſtus alſo telleth ſtrange wonders of certain kinds of fiſhes, which are about Babylon, where there be many places ſubiect to the inundations of Euphrates and other riuers, and wherein the water ſtandeth, after that the riuers are returned within their bankes: in which the fiſh remain in certain holes & caues. Some of them, ſaith he, vſe to iſſue forth a land for food and releefe, going vpon their fins in lieu of feet, and wagging their tailes euer as they go. And if any chaſe them, or come to take them, they will retire back into their ditches aforeſaid, and there make head and ſtand againſt them. They are headed like to the * ſea Frog, made in other parts as Gudgeons, and guilled in manner of other fiſhes. Moreouer, that about Heraclea and Cromna, and namely neere the riuer Lycus, & in many other quarters of the kingdom of Pontus, there is one kind aboue the reſt that euer haunteth riuers ſides, and the vtmoſt edges of the water: making her ſelfe holes vnder the banks, and within the land wherin ſhe liueth, yea, euen when the banks are drie, and the riuers gathered into narrow channels. By reaſon whereof they are digged forth of the earth: and as they ſay that find them, aliue they be, as may appeare by mouing and ſtirring of their bodies. Neere vnto the aboueſaid Heraclea & the riuer Lycus, when it is falne and the water ebbe, there be fiſhes breed of the egges and ſpawne left vpon the mud and ſand, who in ſeeking for their food, do ſtir and pant with their little guils: which they vſe to do when they want no water, but euen then when as the riuer is full. Which is the reaſon alſo that yeeles liue a long time after they be taken forth of the water. He affirmeth moreouer, that the egs of fiſhes lying vpon the dry land, will come to their maturity and perfection, and namely thoſe of the Tortoiſes. Alſo, that in the ſame country of Pontus, there be taken fiſhes vpon the yce, and gudgeons eſpecially, which ſhew not that they be aliue, but by their ſtirring and leaping when they come to be ſodden in hot caudrons. Hereof may ſome reaſon yet be rendred, although the thing be ſtrange and wonderful. The ſame author auoucheth, that in Paphlagonia there be digged out of the ground certaine land fiſhes that be excellent good meat, and moſt delicate: but they be found in dry places remote from the riuer, & whither no waters flow, wherby they are forced to make the deeper trenches for to come by them. Himſelf maruelleth how they ſhould engender without the help of moiſture. Howbeit, hee ſuppoſeth that there is a certain minerall and naturall force therin, ſuch as we ſee to ſweat out in pits; foraſmuch as diuers of them haue fiſhes found within them. Whatſoeuer it is, ſurely leſſe wonderfull this is, conſidering how the Moldwarps liue (a creature naturally keeping vnder the ground) vnleſſe haply we would ſay that fiſhes were of the ſame nature that earth wormes be of.

* Or the ſea diuell.

Chap. LVIII.

¶ *Of the mice of Nilus:*

BVt the inundation of Nilus cleareth all theſe matters: the ouerflowing whereof is ſo admirable, and ſo far paſſeth all other wonders, that we may well beleeue theſe things. For when as this riuer falleth and returneth againe into his channell, a man may find vpon the mud yong Mice halfe made, proceeding from the generatiue vertue of water and earth together: hauing one part of their body liuing already, but the reſt as yet miſhapen, and no better than the very earth.

Chap. LIX.

¶ *Of the fiſh Anthias, and how he is taken.*

I Thinke it not meet to conceale that, which I perceiue many do beleeue & hold, as touching the fiſh Anthias. We haue in our Coſmographie made mention of the Iſles Cheldoniæ in Aſia, ſcituate in a ſea full of rocks vnder the promontory of Taurus; among which are found great ſtore of theſe fiſhes: and much fiſhing there is for them, but they are ſuddenly taken, and euer after one ſort. For when the time ſerueth, there goeth forth a fiſher in a ſmal boat or barge for certain daies together, a pretty way into the ſea, clad alwaies in apparel of one and the ſame colour, at one houre, and to the ſame place ſtil, where he caſteth forth a bait for the fiſh: but the fiſh

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A fiſh Anthias is ſo craftie and warie, that whatſoeuer is thrown forth, he ſuſpecteth it euermore, that it is a means to ſurpriſe him. He feareth therefore and diſtruſteth: and as he feareth, ſo is he as warie: vntill at length, after much practiſe & often vſing this deuiſe of flinging meat into one place, one aboue the reſt groweth ſo hardy and bold, as to bite at it, for now by this time he is grown acquainted with the maner thereof, and ſecure. The fiſher takes good mark of this one fiſh, making ſure reckoning that he wil bring more thither, and be the means that he ſhall ſpeed his hand in the end. And that is no hard matter for him to do, becauſe for certain daies together, that fiſh, & none but he, dare aduenture to come alone vnto the bait. At length this hardy captaine meets with ſome other companions, and by little & little he commeth euery day better accompanied than other, vntil in the end he brings with him infinite troups and ſquadrons together, ſo as now the eldeſt of them all (as crafty as they be) be ſo well vſed to know the fi-
B ſher, that they will ſnatch meat out of his hands. Then hee eſpying his time putteth forth an hook with the bait, ſomwhat beyond his fingers ends, flieth and ſeizeth vpon them more truly, then catcheth them, and ſpeedily with a quick & nimble hand whippes them out of the water within the ſhadow of the ſhip, for feare leaſt the reſt ſhould perceiue, & giueth them one after another to his companion within; who euer as they be ſnatcht vp, latcheth them in a courſe twillie or couering, & keeps them ſure enough from ſtrugling or ſqueaking, that they ſhould not driue the reſt away. The ſpeciall thing that helpeth this game and pretty ſport, is to know the captain from the reſt, who brought his fellows to this feaſt, & to take heed in any hand that he be not twitcht vp and caught. And therfore the fiſher ſpareth him, that he may flie and goe
C to ſome other flock for to train them to the like banket. Thus you ſee the maner of fiſhing for theſe Anthæ. Now it is reported moreouer, that one fiſher vpon a time (of ſpightfull minde to do his fellow a ſhrewd turn) laid wait for the ſaid captain fiſh, the leader of the reſt (for he was very wel known from all others) and ſo caught him: but when the foreſaid fiſher eſpied him in the market to be ſold, and knew it was he: taking himſelf miſuſed & wronged, brought his action of the caſe againſt the other, and ſued him for the dammage, and in the end condemned him. *Mutianus* ſaith moreouer, That the plaintife was awarded to haue for recompence, 10 pounds of the defendant. The ſame fiſhes, if they chance to ſee one of their fellows caught with an hook, by report, with their ſharp fins which they haue vpon their backe like ſawes, cut the line in two: for he that hangeth at it, will of purpoſe ſtretch it out ſtreight, that it may be cut aſunder more
D eaſily. But the Sargots haue another trick for that: for he that finds himſelfe taken, fretteth the line in twaine, whereto the hooke hangeth, againſt a hard rocke.

Chap. LX.

¶ *Of the Sea fiſhes called Starres.*

OVer and beſides all theſe, I ſee that ſome deep clerks and great Philoſphers haue made a wonder at the Star in the ſea. And verily it is no other than a very little fiſh, made like a ſtar (as we ſee it painted.) A ſoft fleſh it hath within: but without forth an hard brawnie skin. Men ſay it is ſo fierie hot, that whatſoeuer it toucheth in the ſea, it burneth: and look what meat it receiueth, it makes a hand with it, & digeſteth it preſently. What proofe there is her-
E of, and how men ſhould come to the knowledge and experience of thus much, I cannot readily ſet downe. I would thinke that rather more memorable and worthy to be recorded, whereof we haue daily experience.

Chap. XLI.

¶ *Of the Dactyli, and their wonderfull qualities.*

OF the ſhell fiſh kind are the Dactyli, ſo called of the likeneſſe of mens nailes, which they reſemble. The nature of this fiſh is to ſhine by themſelues in the darke night, when all o-
F ther light is taken away. The more moiſture they haue within them, the more light they giue: inſomuch as they ſhine in mens mouths as they be chawing of them: they ſhine in their hands: vpon the floore on their garments, if any drops of their fattie liquor chance to fall by: ſo as it appeareth, that doubtleſſe it is the very iuice & humor of the fiſh which is of that nature, which we do ſo wonder at in the whole body.

Chap. LXII.

¶ *Of the enmitie and amitie which is between fiſhes and other water beaſts.*

SVch concord there is in ſome, and ſuch diſcord in others, as is wonderfull. The Mullet and the ſea-Pike hate one another, and be euer at deadly war: likewiſe the Congre & the Lamprey: inſomuch as they gnaw off one anothers taile. The Lobſter is ſo afraid of the Polype or Pourcuttell, that if he ſpie him neere, he euermore dieth for very woe. The Lobſters are ready to ſcratch and teare the * Congre: the Congres again do as much for the Polype. *Nigidius* writeth, That the ſea-Pike biteth off the Mullets taile: and yet the ſame fiſhes in certaine ſet moneths are good friends, and agree well enough. He ſaith moreouer, that thoſe Mullets liue all, notwithſtanding their tails be ſo curtold. On the other ſide, there be examples of friendſhip among fiſhes, beſides thoſe, of whoſe ſocietie and fellowſhip I haue already written: and namely, between the great whale Balæna, and the little Muſculus. For whereas the Whale aforeſaid hath no vſe of his eies (by reaſon of the heauy weight of his eie-browes that couer them) the other ſwimmeth before him, ſerueth him in ſtead of eies and lights, to ſhew when he is neere the ſhelues and ſhallowes, wherein he may be ſoone grounded, ſo big and huge he is.

* *Locuſtæ Congrum, ex* Ariſt. *lib. 8. c. 2. biſtor. animal.*

Thus much of fiſh. Hence forward will we write of Foules.

THE TENTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I.

¶ *The nature of Birds and Foules.*

IT followeth now that we ſhould diſcourſe of the nature of Foules. And firſt to begin with Oſtriches. They are the greateſt of all other foules, and in manner of the nature of feure footed beaſts: (namely, thoſe in Africke and Æthiopia) for higher they be than a man ſitting on horſebacke is from the ground: and as they be taller than the man, ſo are they ſwifter on foot than the very horſe: for to this end only hath Nature giuen them wings, euen to help and ſet them forward in their running: for otherwiſe, neither flie they in the aire, ne yet ſo much as riſe & mount from the ground. Clouen houfs they haue like red deere, and with them they fight; for good they be to catch vp ſtones withall, & with their legs they whurle them back as they run away, againſt thoſe that chaſe them. A wonder this is in their nature, that whatſoeuer they eat (and great deuourers they be of all things, without difference and choiſe) they concoct and digeſt it. But the verieſt fooles they be of all others. For as high as the reſt of their body is, yet if they thruſt their head and necke once into any ſhrub or buſh, and get it hidden, they thinke then they are ſafe enough, and that no man ſeeth them. Now two things they doe affoord, in recompence of mens pains that they take in hunting and chaſing them: to wit, their egs, which are ſo big, that ſome vſe them for veſſels in the houſe: and their feathers ſo faire, that they ſerue for pennaches to adorne and ſet out their creſts and morions of ſouldiers in the wars.

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Chap. II.

¶ *Of the Phœnix.*

THe birds of Æthiopia and India, are for the moſt parr of diuerſe colours, and ſuch as a man is hardly able to decipher and deſcribe, But the Phœnix of Arabia paſſes all others. Howbeit, I cannot tell what to make of him: and firſt of all, whether it be a tale or no, that that there is neuer but one of them in all the world, & the ſame not commonly ſeen. By report he is as big as an Ægle: for colour, as yellow and bright as gold, (namely all about the necke;) the reſt of the bodie a deep red purple: the taile azure blew, intermingled with feathers among of roſe carnation color: and the head brauely adorned with a creſt and penach finely wrought; hauing a tuft and plume thereupon, right faire and goodly to be ſeen. *Manilius*, the noble Romane Senatour, right excellently ſeene in the beſt kind of learning and litterature, and yet neuer taught by any, was the firſt man of the long Robe, who wrot of this bird at large, & moſt exquiſitely He reporteth, that neuer man was known to ſee him feeding: that in Arabia he is held a ſacred bird, dedicated vnto the Sun: that he liueth 660 yeares: and when he groweth old, and begins to decay, he builds himſelfe with the twigs and branches of the Canell or Cinamon, and Frankincenſe trees: and when he hath filled it with all ſort of ſweet Aromaticall ſpices, yeeldeth vp his life thereupon. He ſaith moreouer, that of his bones and marrow there breedes at firſt as it were a little worme: which afterwards prooueth to be a prettie bird. And the firſt thing that this yong new Phœnix doth, is to perform the obſequies of the former Phœnix late de ceaſed: to tranſlate and cary away his whole neſt into the citie of the Sun neere Panchea, and to beſtow it full deuoutly there vpon the altar. The ſame *Manilius* affirmeth, that the reuolution of the great yeare ſo much ſpoken of, agreeth juſt with the life of this bird: in which yeare the ſtars returne againe to their firſt points, and giue ſignifications of times and ſeaſons, as at the beginning and withall, that this yeare ſhould begin at high noone that very day when the Sun entreth the ſigne *Aries*. And by his ſaying, the yeare of that reuolution was by him ſhewed, when *P. Licinius* and *M. Cornelius* were conſuls, *Cornelius Valerianus* writeth, That whiles *Q. Plautius* and *Sex. Papinius* were Conſuls, the Phœnix flew into Ægypt. Brought he was hither alſo to Rome in the time that *Claudius Cæſar* was Cenſor, to wit, in the eight hundreth yeare from the foundation of Rome: and ſhewed openly to be ſeen in a full hall and generall aſſembly of the people, as appeareth vpon the publick records: howbeit, no man euer made any doubt, but he was a counterfeit Phœnix, and no better.

Chap. III.

¶ *Of Ægles.*

OF all the birds which we know, the Ægles carie the price both for honor & ſtrength. Six kinds there be of them. The firſt named of the Greeks * *Melænaetos*, and in Latin, *Valeria*: the leaſt it is of all others, and ſtrongeſt withall, blacke alſo of colour: In all the whole race of the Ægles, ſhe alone nouriſheth her yong birds: for the reſt (as we ſhall hereafter declare) doe beat them away: ſhe only crieth not, nor keepeth a grumbling and huzzing as others doe: and euermore converſeth vpon the mountaines. Of the ſecond ſort is * *Pygargus*. It keepes about townes and plaines, and hath a whitiſh taile. The third is *Morphnos*, which *Homer* cals alſo *Percnos*: ſome name it *Plancus* and * *Anataria*: and ſhe is for bigneſſe and ſtrength, of a ſecond degree: louing to liue about lakes and meeres. Ladie *Phœnonæ*, who was ſuppoſed & ſaid to be the daughter of *Apollo*, hath reported, that rhis Ægle is toothed: otherwiſe mute, as not hauing any tongue: alſo, that of all other ſhe is the blackeſt, and hath the longeſt tail. With her accordeth *Boethus* likewiſe. Subtle ſhe is and wittie: for when ſhe hath ſeazed vpon Tortoiſes and caught them vp with her tallons, ſhe throweth them downe from aloft to breake their ſhells. And it was the fortune of the Poet *Æſchylus* to die by ſuch a meanes. For when he was foretold by wizards out of their learning, that it was his deſtinie to die on ſuch a day by ſome thing falling on his head: he thinking to preuent that, got him forth that day into a great open plain, far from houſe or tree, preſuming vpon the ſecuritie of the cleare and open skie. Howbeit, an Ægle let fall a Tortoiſe, which light on his head, daſht out his braines, and laid him aſleep for euer.

* The Saker as ſome thinke.

* A kinde of Faulcon.

For killing of Dunkes and Mallards.

Of

*The mountaine Storke.

Of the fourth knid is *Percnopterus*, the ſame that * *Oripelargus*, faſhioned like to a Geire or Vulture: it hath leaſt wings, a bodie bigger than the reſt: but a very coward, fearfull & of a baſtard and crauen kind, for a rauen will beat her. Beſides, ſhe hath a greedie and hungrie worm alwaies in her georg and craw, and neuer is content, but whining and grumbling. Of all Ægles ſhe only carrieth away with her the dead prey, & feedes thereupon in the aire: wheras others haue no ſooner killed, but they prey ouer them in the place. This baſtard buzzard kind maketh that the fifth, (which is the roiall Ægle) & is called in Greek *Gneſios*, as one wonld ſay, true and kindly, as deſcended from the gentle and right airie of Ægles. This Ægle roial, is of a middle bigneſſe and of a reddiſh colour, a rare bird to be ſeene. There remaineth now the ſixt and laſt ſort, and that is * *Haliartos*. This Ægle hath the quickeſt and cleareſt eie of all other, ſoaring & mounting on high: when ſhe ſpieth a fiſh in the ſea, downe ſhe comes with a power, plungeth into the water, and breaking the force thereof with her breſt, quickly ſhe catcheth vp the fiſh, and is gone. That Ægle which we named in the third place, haunting lakes, fens, and ſtanding waters for to prey vpon water-foule, who, to ſhift from her, are driuen otherwhile to diue vnder the water: but ſhe preſſeth ſo hard vpon them, that they be wearied and aſtonied in the end, and then ſhe catcheth them vp and carieth them away. A worthy ſport it is to ſee the maner of their ſcuffling: whiles the ſilly riuer bird makes means to gain the bank ſide for refuge (eſpecially if it be well grown with reeds) and the Ægle for her part driues her from thence with the clap and ſtroke of the wing, whiles, I ſay, as the Egle ſtriketh, and therewith plungeth her ſelfe down into the water, the poore fowle that ſwims vnderneath, ſeeing the ſhadow of the Egle houering about the bank ſide, riſeth vp again in another place far enough off from the Egle, and where ſhee imagined ſhe ſhould be leaſt looked for. Which is the cauſe that theſe wild fowle in the water commonly ſwim in flockes. For when they are many together they are not much troubled and annoied, by reaſon that with fluttering their pinnions, with daſhing and flapping the water with their wings, they dazle the ſight of their enemie. Oftentimes alſo the very Egles, not able to weld the prey that they haue ſeiſed on, are together with it drawne vnder the water, & ſo drowned. Now as touching the *Haliartos*, or the Oſprey, ſhe only before her little ones be feathered, will beat and ſtrike them with her wings, and thereby force them to looke full againſt the ſun beames: now if ſhe ſee any one of them to winke, or their eies to water at the raies of the Sun, ſhe turns it with the head forward out of the neſt, as a baſtard, and not right, nor none of hers; but bringeth vp and cheriſheth that whoſe eye will abide the light of the Sun, as ſhe looks directly vpon him. Moreouer, theſe Orfraies or Oſpreies are not thought to be a ſeuerall kind of Egles by themſelues, but to be mungrels, and ingendred of diuers ſorts. And their young Oſpraies be counted a kind of Oſſifragi: from them come the leſſer Geires; they again breed the greater, which ingender not at all. Some reckon yet another kind of Egle, which they cal Barbatæ; and the Tuſcanes, Oſſifrage.

*Some take it for the Oſpray

*The pretious ſtone Ætites.

But of the ſix kinds before rehearſed, the 3 firſt, and the fift, haue in their neſt a ſtone found named * Ætites, which ſome call Gagates, and it is therein ingendred. This ſtone is medicinable, and ſingular good for many diſeaſes, and if it be put into the fire it wil neuer a whit conſume. Now this ſtone, as they ſay, is alſo with child: for if a man ſhake it, he ſhall heare another to rattle and ſound within, as it were in the belly or wombe of it. But that vertue medicinable aboueſaid is not in theſe ſtones, if they be not ſtollen out of the very neſt from the airie. Build they do and make their neſts vpon rocks and trees. Three egs commonly they lay, whereof two only they vſe to hatch: howbeit ſomtimes they haue bin ſeen to haue 3 yong ones. But lightly one of them they turn out of the neſt, becauſe they would not be troubled with feeding & nouriſhing it. And verily Nature hath wel prouided, that at ſuch a time the old Egles ſhould not be able to purney ſufficient for meat: for otherwiſe, if they ſhould reare their birds, they were enough to deſtroy the yong breed of deere & wild beaſts in a whole country, that there ſhould be no veniſon nor game at all for gentlemen. Moreouer, by the ſame prouidence of Nature, all that while their tallons or clees hooke and turne inward very much: alſo for very hunger their feathers wax gray & white, ſo as they haue good cauſe not to abide their yong. But when they haue caſt them off, the Oſſifrages which are neere of kin vnto them, are ready to take them and bring them vp with their own birds. But the old Ægles their dammes not content therewith, perſecute them ſtill when they are growne to be bigge ones, beating and chaſing them away farre off, as their very concurrents, and who would intercommune with them, and rob them of

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A their prey. And were it not ſo, certainly one airie of Egles needs the reach of a whole country to furniſh them with veniſon ſufficient to their full. They haue therefore their ſeuerall coaſts and walks, and without thoſe limits and vſuall haunts they rauen not. When they haue ſeiſed of any prey, they carry it not away preſently, but firſt lay it downe, peruſe and peiſe the weight of it, and then away they fly therewith amaine, but not before. They die not for age, nor vpon any ſickneſſe, but of very famine, by reaſon that the vpper beake of their bil is ſo far ouergrown and turns inward ſo much, that they are not able to open it to feed themſelues. Their maner is ordinarily to go to their buſines (namely to fly and ſeek their prey) after noon: for all the fore-noon they are perched vp, doing nothing, waiting the time when men be not ſtirring abroad, but about their markets within the cities and townes, or otherwiſe buſie in their ciuil affaires. The quils or feathers of Egles laid among thoſe of other foules, will deuour & conſume them.

B Men ſay, that of all flying Fowle the Egle onely is not ſmitten nor killed with lightening: whereupon folke are wont to ſay, that ſhee ſerues *Iupiter* in place of his ſquire or armor-bearer.

Chap. IV.

¶ *When Egles began to be the Enſignes and ſtandards of the Roman legions: and what fowles they be that war with Egles.*

Caius Marius in his ſecond Conſulſhip ordained, that the legions of Romane ſoldiers only ſhould haue the Egle for their ſtandard, and no other enſigne: for before-time the Egle marched formoſt indeed, but in a ranke of foure others, to wit, of * Wolues, Minotaures,

C Horſes, and Bores, which were borne each one before their own ſeuerall ſquadrons and companies. Not many yeares paſt, the ſtandard of the Egle alone began to be aduanced into the field to battell, and the reſt of the enſignes were left behind in the campe: but *Marius* reiected them altogether, and had no vſe of them at all. And euer ſince this is obſerued ordinarily, that there was no ſtanding campe or leaguer wintered at any time without a paire of Egle ſtandards.

* Names of Enſignes.

Of Egles, the firſt and ſecond kind prey not only vpon the leſſe foure footed beaſts, but alſo maintain battell with the red Deere, euen the ſtag and the hind. The maner of the Egle is, after ſhe hath wallowed in the duſt, and gathered a deale thereof among her feathers, to ſettle vpon the horns of the Deere aforeſaid, to ſhake the ſame off into his eies, to flap and beat him about

D the face with his wings, vntill ſhe driue him among the rocks, and there force him to fall down from thence headlong, and ſo to breake his neck. Moreouer, the Egle hath not enough of this one enemie, but ſhe muſt war with the dragon alſo; howbeit the fight betweene them is more ſharp and eager, yea, and putteth her to much more danger, albeit otherwhiles they combat in the aire. The Dragon of a naturall ſpight and greedy deſire to do miſchiefe to the Eagle, watcheth euermore where the airie is, for to deſtroy the egs, and ſo the race of the Egles. The Eagle again whereſoeuer ſhe can ſet an eye vpon him, catcheth him vp and carieth him away: but the ſerpent with his taile windeth about his wings, and ſo intangleth and tieth them faſt, that downe they fall both of them together.

Chap. V.

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¶ *A ſtrange and wonderfull accident of an Egle.*

THere hapned a maruellous example about the city Seſtos, of an Egle: for which in thoſe parts there goes a great name of an Egle, and highly is ſhe honored there. A yong maid had brought vp a yong Egle by hand: the Egle again to requite her kindnes, would firſt when ſhee was but little, flie abroad a birding, and euer bring part of that ſhee had gotten vnto her ſaid nurſe. In proceſſe of time, being grown bigger and ſtronger, would ſet vpon wild beaſts alſo in the forreſt, and furniſh her yong miſtreſſe continually with ſtore of veniſon. At length it fortuned that the damoſell died: and when her funerall fire was ſet a burning, the Egle flew

F into the mids of it, and there was conſumed into aſhes with the corps of the ſaid virgin. For which cauſe and in memoriall thereof, the inhabitants of Seſtos and the parts there adioyning, erected in that very place a ſtately monument, ſuch as they cal Heroum, dedicated in the name of *Iupiter* and the virgin, for that the Egle is a bird conſecrated vnto that god.

CHAP.

Chap. VI.

¶ *Of Vultures or Geires.*

THe blacke Vultures are the beſt of that kind. No man euer could meet with their neſts: whereupon ſome haue thought, but vntruly, that they fly vnto vs out of another world, euen from the Antipodes, who are oppoſite vnto vs. But the very truth is, they build in the higheſt rocks they can find, and their yong ones haue many times bin ſeene, two together, and no more. *Vmbricius*, who was counted the moſt skilfull Aruſpex of our age, ſaith, they vſually lay three egs, whereof they take one of them to ſacre and bleſſe (as it were) the other eggs and the neſt, and then ſoon after they caſt it away. Alſo that the maner of the Geires is to foreſee a carnage, and to fly two or three daies before vnto the place where there wil be any carions or dead carkaſſes.

Chap. VII.

¶ *Of the Sangualis and Immuſſulus.*

AS touching the Sangualis and the Immuſſulus, our Augurs at Rome are in a great doubt and make much queſtion, what they ſhould be. Some are of opinion, that the Immuſſulus is the chicke of the Vulture; and the Sangualis likewiſe the yong Oſſifraga. *Maſſurius* ſaith, that the Sangualis and Oſſifraga be both one: and as for the Immuſſulus, it is the yong bird of the Egle before it come to haue a white taile. Some haue affirmed confidently, that after the death of *Mutius* the Augure there was neuer any of them ſeen at Rome. But I rather am of this mind (and me thinkes it ſounds more like a truth) ſuch is the ſupine negligence and careleſneſſe of men in all things elſe, that no maruell it is if they know them not although they ſee them.

Chap. VIII.

¶ *Of Hawkes.*

WE find in Faulconrie 16 kinds of Hawks or Fowles that prey. Of which the Circos (which is lame and limpeth of one leg) was held in antient time for the luckieſt Augurie in caſe of weddings and of cattell. Alſo the Hawke called Triorches (of three ſtones or cullions that it hath) is reputed a bird of good preſage: and in Augurie, lady *Phemonoe* hath giuen vnto it the honor of the beſt ſimply and moſt fortunate. The Romans call it Buteo, *i.* a Buzzard; and there is a worſhipfull houſe and family in Rome of that ſyrname, by occaſion that a Buzzard ſetled and perched himſelfe vpon the Admirall ſhip where *Fabius* himſelfe, one of that houſe, was, preſaging a boone-voyage and happy ſucceſſe, according as it fell out indeed. As for the Hauk which the Greeks name Æſalo, *i.* the Merlin, ſhe alone is euer ſeen at all times of the yeare, whereas the reſt are gon when winter commeth. In generall, Hawks are diuided into ſundry and diſtinct kinds, by their greedineſſe more or leſſe, and their manner in chaſe and preying: for ſome there be that neuer ſeiſe on a foule but vpon the ground: others againe neuer aſſaile any birds, but when they ſpy them flying about ſome tree. There be alſo, that take a bird perching and ſitting on high: and ye ſhal haue of them that ouertake them as they fly in the wide and open aire. The doues therefore and pigeons, knowing the danger of flying aloft, ſo ſoon as they eſpy them, either light vpon the ground and ſettle, or elſe fly neere the earth, and thus help themſelues by taking a contrarie courſe to the Hawks nature, to auoid their talons. There is in the ocean of Africke an Iſland called Cerne, wherein all the hawks of the coaſts of the Maſſeſyli, build vpon the very ground, and there breed, and be ſo accuſtomed to thoſe countries, you ſhall not find an airie of them elſewhere. In a part of Thrace, ſomewhat higher in the country beyond Amphipolis, men and hawks ioyn in fellowſhip and catch birds together; for the men driue the woods, beat the buſhes and reeds to ſpring the fowle; then the hawks flying ouer their heads, ſeiſe vpon them, and either ſtrike or beat them to the ground fit for their hands. On the other ſide, the hawkers and fowlers when they haue caught the Fowle, diuide the booty with the hawks; and by report they let ſuch birds fly againe at libertie aloft

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A into the aire,and then are the hawkes ready to catch them for themſelues. Moreouer,when the time is of hawking,they will by their manner of crie and flying together,giue ſigne to the faulconers that there is good game abroad, and ſo draw them forth to hawking for to take the opportunitie. It is ſaid,that the wolues doe the like,about the lake Mœotis: for vnleſſe they may haue their part with the fiſhers, they will rend and teare their nets, when they find them ſtretched forth. Faulcons or Hawkes willingly eat not the heart of any bird. There is an hawke called Cymindis,which preyeth in the night: ſeldome is ſhe ſeene in the woods,and by day-light ſeeth little or nothing. There is deadly war between it and the Ægle; and oftentimes they be both taken, entangled one with another.

B

Chap. IX.

¶ *Of the Cuckow, which vſually is killed by birds of her owne kind.*

AS touching the Cuckow, it ſeemes that he comes of ſome hawke changed into his ſhape at one certaine time of the yeare: for then thoſe other hawkes are not to be ſeene, vnleſſe ſome very few daies. He ſheweth himſelfe alſo but for a ſmall ſeaſon in ſummer time, and afterwards appeareth no more. It is the only hawke that hath no talons hooked downward, neither is he headed as other hawkes,nor like vnto them,but in colour: and for bill, he reſembleth rather the doue. Nay more than that, the hawke will prey vpon him and deuoure him, if haply they be ſeen both together:and it is the only bird of all other that is killed by thoſe of the own kind. He altereth his voice alſo. In the ſpring,he commeth abroad,and by the beginning of the
C dog-daies,hides himſelfe. Theſe lay alwaies in other birds neaſts,and moſt of all in the Stock-doues,commonly one egge and no more (which no other bird doth beſides)and ſeldom twain. The reaſon why they would haue other birds to ſit vpon their eggs and hatch them, is becauſe they know how all birds hate them: for euen the very little birds are readie to war with them: for feare therefore that the whole race of them ſhould be vtterly be deſtroied by the furie of others of the ſame kind, they make no neſt of their owne (being otherwiſe timorous and fearefull naturally of themſelues) and ſo are forced by this craftie ſhift to auoid the danger. The Titling therefore that ſitteth,being thus deceiued, hatcheth the egge & bringeth vp the chick of another bird. And this yong Cuckow being greedy by kind,beguiling the other yong birds and intercepting the meat from them,groweth hereby fat and faire-liking: whereby it comes
D into ſpeciall grace and fauour with the dam of the reſt, and nource to it. She joieth to ſee ſo goodly a bird toward:and wonders at her ſelfe that ſhe hath hatched & reared ſo trim a chick. The reſt, which are her owne indeed, ſhe ſets no ſtore by, as if they werr changelings:but in regard of that one,counteth them all baſtards and misbegotten: yea,and ſuffereth them to be eaten and deuoured of the other euen before her face: and this ſhe doth ſo long, vntill the yong cuckow being once fledge & readie to flie abroad,is ſo bold as to ſeize on the old Titling,and to eat her vp that hatched her. And by that time there is not another bird againe for goodneſſe and ſweetneſſe of meat,comparable to the yong Cuckow.

Chap. X.

E

¶ *Of Gleedes, Kites, or Puttocks.*

THe Kites or Gleeds are of the ſame kind of Hawkes or birds of prey, only they be greater. This hath been noted & obſerued in them: that being a moſt rauenous bird, & euermore hungrie,yet were they neuer knowne to ſnatch any viands ordained at funerall feaſts for the dead,out of the platters;ne yet the fleſh of beaſts ſlaine in ſacrifice,from off the altar of *Iupiter* in Olympia. Nay,it was neuer ſeen that a Puttocke would catch fleſh out of their hands that ſerued at ſuch feaſts:but if it did,a great preſage it was of ſome dolefull & heauie misfortune which ſhould fall vpon the whole town,that made theſe ſolemne ſacrifices. Theſe Gleeds or Puttocks,ſeem by the winding and turning of their tails to & fro as they flie,to haue taught
F pilots the skil of ſteering,and vſe of the helme. See how Nature hath ſhewed that in the aire aboue,which is ſo neceſſary in the deep ſea beneath! Kites likewiſe are not often ſeen abroad in the dead time of winter:yet go they not away for altogether before the Swallows. Moreouer, it is ſaid,that after the Sunſteds,alway in ſummer,they be troubled with the gout in their feet.

CHAP.

G

Chap. XI.

¶ *A generall diuiſion of Foules.*

THe firſt & principall difference and diſtinction in birds, is taken from their feet: for they haue either hooked tallons, as Hawkes; or round long clawes, as Hennes; or elſe they be broad, flat, and whole-footed, as Geeſe and all the ſort in manner of water-foule. Thoſe that haue hooked tallons, for the moſt part feed vpon fleſh and nothing elſe.

Chap. XII.

H

¶ *Of vnluckie birds, and namely, the Crow, Rauen, and Scritch-owle.*

THe Crow liueth not altogether of carion, for the Rooke eateth of other food. The Crows and Rookes haue a caſt by themſelues: for when they meet with an hard nut which they be not able to cracke, nor breake their ſhales with their bills, they will flie aloft and fling it againſt ſome rock or tile houſe once or twice, yea & many times together, till it be ſo cruſhed and bruiſed, that they may eaſily breake it quite, and then they eat vp the kernell. Theſe birds all of them keep much pratling and are full of chat; which moſt men take for an vnluckie ſign and preſage of ill fortune: although ſome there be who think otherwiſe, that it is a good bird, and highly eſteem of her. Obſerued it is, that from the going down or occultation of the ſtarre Arcturus, vnto the comming of the Swallow, the Crow is not to be ſeene elſe-where but about the groues and temples of *Minerua* (and that is but very ſeldome) and namely, neere to Athens. Moreouer, this bird only feedeth her yong cadowes for a good while after they are able to flie. She is moſt vnluckie at breeding time and coouing, that is to ſay, after the Sunſted in ſummer. All other birds, which be as it were of the ſame race, driue their yong ones out of the neſt when they be once fledge, and put them to it, forcing them to flie abroad: like as the Rauens alſo, who likewiſe feed not on fleſh only: and they likewiſe when they perceiue their yong, once to be ſtrong, chaſe and driue them away farre off. Therefore about little villages and hamlets, there commonly be not aboue two paire of them at once. And about Cranon verily in Theſſalie, yee ſhall neuer ſee aboue one paire of them: for the old ones giue place to the yong, and fly away. There are ſome diuers and different properties in this bird, and that before-named: for the Rauens engender before the Sunſted, and fot ſixtie daies are ſomwhat ill at eaſe, and troubled with a kind of drought or thirſtines eſpecially, till ſuch time as the figges be ripe in Autumne: and then from that time forward, the Crow beginneth to be diſeaſed and ſick. Rauens for the moſt part lay fiue egges: and the common ſort are of opinion, that they conceiue and engender at the bill, or lay their egges by it: and therefore if women great with child chance to eat a Rauens egge, they ſhall be deliuered of their children at the mouth: and generally ſhall haue hard labour. if ſuch an egge be but brought into the houſe where ſuch a great bellied woman be. *Ariſtotle* denies this, and ſaith, that the Rauens conceiue by the mouth, no more than the Ægyptian Ibis: and he affirmeth, that it is nothing elſe but a wantonneſſe which they haue in billing and kiſſing one another, which we ſee them to doe oftentimes; like as the Doues and Pigeons alſo. The Rauens of all other foules, ſeeme to haue a knowledge of their owne ſignifications in preſages and fore-tokens: for when the mercinarie hired ſouldiers of Media were all maſſacred vnder a colour of entertainment and hoſpitalitie, the Rauens flew all away out of Peloponneſus and the region of Attica. The worſt token of ill lucke that they giue, is when in their crying they ſeeme to ſwallow in their voice as though they were choked.

I

K

L

The night birds haue alſo crooked tallons, as the Owles, Scritch-Owle, & Howlets. All theſe ſee but badly in the day time. The Scritch-Owle alwaies betokeneth ſome heauie newes and is moſt execrable and accurſed, and namely, in the preſages of publick affaires: he keepeth euer in deſarts: and loueth not only ſuch vnpeopled places, but alſo that are horrible and hard of acceſſe. In ſumme, he is the very monſter of the night, neither crying nor ſinging out cleare, but vttering a certaine heauy groane of dolefull mourning. And therefore if he be ſeen to fly either within cities, or otherwiſe abroad in any place, it is not for good, but prognoſticates ſome fearfull misfortune. Howbeit I my ſelfe know, that he hath ſitten vpon many houſes of priuat men,

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A and yet no deadly accident followed thereupon. He neuer flieth directly at eaſe, as hee would himſelfe, but euermore ſidelong or byas, as if he were carried away with the wind or ſomewhat elſe. There fortuned one of them to enter the very ſecret ſanctuarie within the Capitoll at Rome, in that yeare when *Sex. Papellio Iſter*, and *L. Pedanius* were Conſuls: whereupon at the Nones of March, the city of Rome that yeare made generall proceſſions to appeaſe the wrath of the gods, and was ſolemnly purged by ſacrifices.

Chap. XIII.

¶ *Of the bird Incendiaria.*

B THis fire-bird Incendiaria is likewiſe vnlucky, and as our Chronicles and Annals doe witneſſe, in regard of her the city of Rome many a time hath made ſolemne ſupplications to pacifie the gods, and to auert their diſpleaſure by her portended. As for example, when *L. Caſſius* and *C. Marius* were Conſuls: in that very yeare when by occaſion of a Scritch-Owle ſeene, the city likewiſe was purged by ſacrifice, as is aboue ſaid, and the people fell to their prayers & deuotions. But what bird this ſhould be, neither do I know, nor yet finde in any writer. Some giue this interpretation of *Incendiaria*, to be any bird whatſoeuer, which hath beene ſeene carying fire either from altar or chappell of the gods. Others call this bird Spinturnix. But hitherto I haue not found any man that would ſay directly, That hee knew what bird this ſhould be.

Chap. XIV.

C ### ¶ *Of the bird Cliuina or Cluina.*

LIkewiſe the bird named in old time Clivina, or Cluina, which ſome call Clamatoria, and which *Labeo* deſcribeth by the name of Prohibitoria, I ſee is as little known as the other. *Nigidius* alſo maketh mention of a bird called Subis, which vſeth to ſquaſh Egles egs.

Chap. XV.

¶ *Of other vnknowne Birds.*

D IN the Augures bookes which the Tuſcanes haue compoſed, there be many birds deſcribed and ſet out in their colours, which haue not been ſeene ſome hundreds of yeares paſt. And I muſe and maruell much, that they ſhould be now extinct, and the race of them cleane gone, conſidering that the kind of thoſe fowles is not loſt, but continueth ſtill in great aboundance, which men eat daily at their tables, and conſume ſo ordinarily.

Chap. XVI.

¶ *Of night-flying Birds.*

OF ſtrangers and forrein writers, *Hylas* is thought to haue written beſt and moſt learnedly as touching Auguries and the nature of birds. He reports in his book, that the Howlet,
E Scritch-owle, the Spight that pecketh holes in trees, the Trogone, and the Chough or Crow, when they be hatched come forth of their ſhels with their taile firſt: and that by reaſon of their heads ſo heauy, the egs are turned with the wrong end downward, & ſo the hinder part of the body lieth next vnder the henne or the dam, to ſit vpon and cheriſh with the heat of her body.

Chap. XVII.

¶ *Of Owles or Howlets.*

F IT is a pretty ſight to ſee the wit and dexteritie of theſe Howlets when they fight with other birds: for when they are ouerlaid and beſet with a multitude of them, they lie vpon their backs, and with their feet make ſhift to reſiſt them: for gathering themſelues into a narrow compaſſe, there is nothing in a maner to be ſeen of them, ſaue only their bill and talons, which couer the whole body. The Faulcon, by a ſecret inſtinct and ſocietie of nature, ſeeing the poore Howlet thus diſtreſſed, commeth to ſuccor and taketh equal part with him, and ſo endeth the

fray. *Nigidius* writeth, that Howlets for ſixty daies in winter, keepe cloſe and remain in couert, G
and that they change their voice into nine tunes.

Chap. XVIII.

¶ *Of the Spight or Woodpecker.*

SOme little birds there are alſo that haue hooked clees, as the Spights, which are known by the ſirname of Martius, and be therefore called Pici Martij. Theſe are of great account in Auſpices and preſage good. They that job and pecke holes in trees, and will climbe vpright like cats, are of this race. As for them, they will rampe vp with their bellies to the tree, bending backward, & when they peck with their bils againſt the bark, they know by the ſound H
thereof, that there be worms within for them to feed vpon. Theſe birds alone of all others feed and nouriſh their yong ones in crannies and chinks of trees. And if it chance that a ſhepheard or ſome ſuch do pin or wedge vp their holes, it is thought commonly that they will vnſtop the ſame again by meanes of a certaine herbe, which no ſooner they touch the ſtopple with but it will out. *Trebius* writeth, that let a man driue a ſpike or great naile, or elſe a wedge or pinne of wood, as hard as euer he will, into that tree wherein this bird hath a neſt, incontinently as ſhee percheth and ſetleth vpon the tree, it will preſently fly out with ſuch a force, that the tree will giue a crack again therewith. Throughout all Latium theſe birds beare the name for effectual ſignification of good or bad fortune, by reaſon of that king or prince [i. *Picus*] who gaue them
that name. And one preſage of theirs aboue the reſt I cannot paſſe ouer: It fortuned that one of I
them light vpon the head of *L. Tubero* L. chiefe Iuſtice of the city of Rome, as hee was ſitting vpon the judgement ſeat in the open face of the Court miniſtring juſtice, and there reſted ſo gently, that it ſuffered him to take it with his hand. The Soothſayer being asked his aduice in this caſe, anſwered by booke, That if the bird were let go, it would portend the ruine and ouerthrow of the whole ſtate and empire: but if it were killed, it denounced the death of the ſayd Pretor or L. chiefe Iuſtice then in place. But the Pretor *Tubero* immediatly vpon this anſwer, plucked the bird in pieces. It was not long after but the preſage of this bird took effect indeed, and was fulfilled in his perſon. Moreouer there be of this kind many that feed on maſt, acorns, nuts, apples, and ſuch like fruits; but they be ſuch as liue in maner vpon fleſh onely. And yet I K
muſt except the Kite, for that propertie in him is noted to be in all Augurie an vnlucky ſigne, and preſage of ſome heauy and deadly misfortune.

Chap. XIX.

¶ *Of Birds that haue hooked talons and round long clawes like fingers.*

WHat fowles ſoeuer haue crooked clawes ſort not together in flocks, but prey each one apart for it ſelf; and lightly all ſuch fly aloft, vnleſſe it be the night birds aforeſaid: and the greater ſort eſpecially. They are all of them great winged, little bodied, and heauy in their gate vpon the ground. Seldom or neuer they ſit and perch vpon a rock: for why, L
their nails bowing and hooking inward will not giue them leaue. It remains now that we ſpeak of the ſecond kind or ranke of birds, which alſo is diuided into two ſorts; to wit, Oſcines that ſing, and Alites that fly only: for the ſinging of the one and the bignes of the other makes the difference and diſtinction between them. Theſe therefore that be greater bodied we wil by order treat firſt of.

Chap. XX.

¶ *Of Peacocks, and who was the firſt that killed them for the table.*

THe Peacock far ſurpaſſes all the reſt of this kind, as well for beauty, as alſo for the wit and M
vnderſtanding that he hath; but principally for the pride and glory he takes in himſelf. For perceiuing at any time that he is praiſed and well liked, he ſpreadeth his taile round, ſhewing and ſetting out his colours to the moſt, which ſhine againe like precious ſtones: and namely when he turnes them againſt the Sun, as his manner is; for ſo he giueth them a more radiant and glittering luſtre. And for the ſame purpoſe alſo with his taile, repreſenting fiſh

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A ſhels,he giues a certain ſhadow to the reſt of his feathers,which ſeeme the brighter when they be a little ſhadowed: and withall,he ſets all thoſe eyes of his feathers together in a ranke, and gathererh them round,knowing full well that hee is the more looked on for them; and therein he taketh no ſmall ioy and pleaſure. On the other ſide,when he hath loſt this taile, which vſually he moulteth euery yere when trees ſhed their leaues,vntil ſuch time as trees bloſſom new; and his taile be grown again,he hath no delight to come abroad,but as if he were aſhamed,or mourned,ſeeketh corners to hide himſelfe in. The Peacocke ordinarily liueth 25 yeares. At 3 yeres of age he begins to put forth that varietie of colours in his feathers. Authors who haue written of him ſay,that he is not only a proud and vainglorious creature, but alſo as malicious and ſpightfull,as the Gooſe is baſhfull and modeſt: for ſo haue ſome of them obſerued theſe
B properties and qualities in theſe birds. But I for my part like not to make ſuch ſimilitudes.

The firſt that killed Peacocks to be ſerued vp as a diſh at the table,was *Hortenſius* that great Orator,in that ſolemne feaſt which he made when he was conſecrated high prieſt: and *M. Aufidius Lurco* deuiſed firſt to feed them fat:by which inuention of his,he might diſpend by yerely reuenue,60000 Seſterces. And this was about the time of the laſt Pirats war. 468 li. 15. ſh.

Chap. XXI.

¶ *Of Cocks,how they be cut and made Capons: alſo of a dunghill Cocke that ſpake.*

C NExt to Peacocks,theſe birds about our houſes which are our ſentinels by night,& whom Nature hath created to breake men of their ſleepe, to awaken and call them vp to their work,haue alſo a ſence and vnderſtanding of glory; they loue (I ſay) to be praiſed, and are proud in their kind. Moreouer,they are Aſtronomers,and know the courſe of the ſtars,they diuide the day by their crowing, from 3 houres to 3 houres: when the Sun goeth to reſt, they go to rooſt: and like ſentinels they keepe the reliefe of the fourth watch in the camp:they cal men vp to their carefull labour and trauell: they will not ſuffer the Sun to riſe and ſteale vpon vs,but they giue vs warning of it: by their crowing they tell vs that the day is comming, and they foretell their crowing likewiſe,by clapping their ſides with their wings. They are Commanders and rulers of their own kind,be they Hens or other Cocks; and in what houſe ſoeuer they be they will be maſters and kings ouer them. This ſoueraignty is gootten by plain fight one with another,as if they knew,that naturally they had ſpurs, as weapons, giuen them about
D their heeles,to try the quarrell: and many times the combat is ſo ſharp and hot,that they kill one another ere they giue ouer. But if one of them happen to be conqueror, preſently vpon victorie he croweth,and himſelfe ſoundeth the triumph. He that is beaten makes no words, nor croweth at all, but hideth his head in ſilence; and yet neuertheleſſe it goeth againſt his ſtomack to yeeld the gantlet and giue the bucklers. Hardly can he brook to be vnder another:and not only theſe cocks of game,but the very common ſort of the dunghill are as proud and high minded: ye ſhal ſee them to march ſtately, carying their neck bolt vpright, with a combe on their head like the creſt of a ſoldiers helmet. And there is not a bird beſides himſelf that ſo oft looketh aloft to the Sun and ſky; and then vp goeth the taile and all, which he beares on high, turning backward again on the top like a hook. And hereupon it is,that marching thus proud-
E ly as they do, the very Lions (which of all wilde beaſts be moſt couragious) ſtand in feare and awe of them,and will not abide the ſight of them.

Now of theſe Cocks,ſome of them are made for nothing els but war and fighting,and neuer are they well but in quarrels,brawles,and fraies; and theſe be cocks of kind: and the countries from whence they come are grown into name,being much renowned for their breed: as namely Rhodus and Tenagra in the firſt and higheſt degree. In a ſecond ranke and place be thoſe of Melos and Chalcis. Vnto theſe birds (for their worth & dignity) the purple robe at Rome,and all magiſtrats of ſtate diſdain not to giue honor. Theſe be they, that by their *tripudium ſoliſtimum* [*i.* hearty feeding] obſerued by the pullitiers, ſhew good ſucceſſe. Theſe rule our great ru-
F lers euery day: and there is not a mighty Lord or ſtate of Rome,that dare open or ſhut the dore of his houſe,before he knowes the good pleaſure of theſe fowles: and that which more is, the ſoueraigne magiſtrate in his majeſtie of the Roman empire, with the regall enſignes of rods and axes caried before him, neither ſets forward nor reculeth backe without direction from theſe birds: they giue order to whole armies to aduance forth to battel, & again command them to

ſtay and keep within the camp. Theſe were they that gaue the ſignall, and foretold the iſſue of all thoſe famous foughten fields, whereby we haue atchieued all our victories throughout the whole world: and in one word, theſe birds command thoſe great Commanders of all nations vpon the earth; as acceptable to the gods in ſacrifice with their ſmal fibres & filaments of their inwards, as the greateſt and fatteſt oxen that are killed for ſacrifice. Moreouer, their crowing out of order, too ſoon before their houre, or too late, and namely in the euening, portendeth alſo and preſageth ſomwhat by it ſelfe. For well known it is, that by their crowing at one time all night long, they fore-ſignified to the Bœotians that noble victorie of theirs atchieued ouer the Lacedæmonians. For this interpretation and coniecture was giuen thereupon of a fortunat day, becauſe that bird neuer croweth if he be beaten or ouercome. If they be once carued and made capons they crow no more. And this feat is practiſed vpon them two manner of waye; namely, either by burning their loines toward their kidnies with a red hot yron, or elſe by cauteriſing their legs beneath, and their ſpurs, and then preſently applying a plaiſter vnto the exulcerate and bliſtered place, made of potters white clay or chalky earth: and being thus ſerued they will ſooner feed and be fat. At Pergamus euery yeare there is a ſolemne ſhew exhibited openly to the people, of Cocke-fighting, as if ſword-fencers were brought within the liſts to fight at outterance. We finde in record among our Annales, that within the territorie of Ariminum, in that yeare when *Marcus Lepidus* and *Quintus Catulus* were Conſuls, there was a dunghill cocke did ſpeake: and it was about a ferme-houſe in the countrey belonging to one *Galerius*. But this hapned neuer but once, for ought that I could euer heare or learne.

Chap. XXII.

¶ *Of Geeſe, and who firſt eat the Gooſe liuer. Alſo of the leafe of a Gooſe of Comagena.*

THe Gooſe likewiſe is very vigilant and watchfull: witneſſe the Capitoll of Rome, which by the meanes of Geeſe was defended and ſaued: whereas at the ſame time, through the default of dogs (which ſhould haue giuen warning) all had like to haue bin loſt. Wherefore the firſt thing that the Cenſors do by vertue of their office, is to take order for the Geeſe of the Capitol, and to appoint ſome one man of purpoſe to ſee vnto them that they haue meat enough. Moreouer, they are ſaid to be giuen much to loue: for at Argos there was a Gooſe that was wonderouſly inamoured of a faire boy named *Olenus*: as alſo of a damoſel whoſe name was *Glauce*, who vſed to play on the lute before king *Ptolomæus*: and by report at the ſame time a Ram made court vnto the ſaid wench, and was in loue with her. It may be credibly thought alſo, that this creature hath ſome ſparks (as it were) of reaſon, vnderſtanding, and learning, for *Lacydes* the Philoſopher had one of them about him, which would neuer leaue him night nor day, neither in the open ſtreet abroad, nor in priuat houſe at home; but would follow him euen to his cloſe and ſecret baines where he vſed to bathe. But our countrimen and citiſens of Rome (beleeue me) are wiſer now adaies, who know, forſooth, how to make a dainty diſh of their Liuer. For in thoſe Geeſe that are kept vp and cram'd fat in coup, the liuer grows to be exceeding great; and when it is taken forth of the belly, it waxeth bigger ſtill, if it be ſteeped in milk and ſweet mede together. Good cauſe therefore it is, that there be ſome queſtion and controuerſie about the firſt inuentor of this great good and ſingular commoditie to mankind: whether it were *Scipio Metellus*, a man who lately was called to be Conſul: or *M. Seſtius*, who in thoſe daies was by his birth a gentleman of Rome. But to leaue that ſtil vndecided, this is certainly known that *Meſſalinus Cotta*, ſon to that *Meſſala* the Orator, found out the ſecret to broile & fry the flat broad feet of Geeſe, and together with cocks combs, to make a ſauory diſh of meat thereof between two platters. For ſurely I for my part will giue euery man his due and right, and will not defraud them of their ſingular praiſe and honour who haue bin benefactors to the kitchen, and proceeded maſters in cookerie. A maruellous thing of theſe birds that a flock of them ſhould come all the way bare foot, from * Terwin and Torney in France, as far as to Rome. Their order was who had the conduct of them in this large voyage, to bring thoſe forward that were weary and lagged behind, into the vaward & forefront: and ſo the reſt by a certain thick vnited ſquadron (which naturally they make going together) driue the others before them. A ſecond commo-

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A commoditie that Geeſe yeeld, (eſpecially thoſe that be white) is their plume and downe. For in ſome places their ſoft feathers are pluckt twice a yeare: and yet they cary feathers again, and be as well couered with plume as before: and euermore the neerer to the skin and fleſh, the ſofter is the downe. But of all other, the fineſt and beſt is that which is brought out of Germanie. The Geeſe there, be all white; but leſſe of bodie than from other parts: and there they be called Ganzæ. And truly, a pound of ſuch feathers be worth * 5 deniers. Hereupon it is, that ſo many complaints are made of Colonels and Captaines ouer companies of auxiliarie ſouldiers for their diſorders. For wheras they ſhould keep them together in a ſtanding *corps de gard*, to watch and ward night and day: they licenſe many times whole bands to ſtraggle abroad, to hunt and chaſe Geeſe for their feathers and downe. And now forſooth the world is growne to be ſo delicate and daintie, that not only our fine ſmooth dames, but alſo our men, cannot take their re-
B poſe and ſleep without this ware; but complaine of a paine in their necks and heads, vnleſſe they may lay them vpon bolſters and pillowes of gooſe feathers, and their ſoft downe. * 3 *lb. i. Lob.*

Now, to that part of Syria called Comagena, we are beholden for another proper inuention of theirs. They take me the leaſe and greaſe of Geeſe and Cinnamon together, which they put into a brazen pot, and couer it all ouer with good ſtore of ſnow, wherein they let it lie in ſteepe; well infuſed in this cold humor, to vſe in that notable compoſition and ſweet ointment, which of that countrey is called Comagenum.

Of the Geeſe kind are the Bitganders named Chelanopeces: and (than which there is not a daintier diſh knowne in England) the Chenerotes, leſſe than wild Geeſe.

C As for the pheſant Buſtards, they haue a trim ſhining brightneſſe that becommeth and graceth them exceeding well in their perfect and abſolute black hew: and their eie-browes painted red as it were with deep Scarlet.

Another kind there is of them, bigger than Vultures, but in feather and colour much reſembling them. And there is not a Foule (ſetting the Oſtrich aſide) that poiſeth & weigheth more heauy than they: for they grow to that bignes, that a man can hardly lift them from the ground. Theſe breed in the Alpes and the North countries. If they be mued vp and kept in a pen, they loſe their pleaſant taſte, and are no good meat: nay, they grow ſo ſullen and ſelf-willed, that they will die with holding their breath. Next to theſe are thoſe which in Spaine they cal the Slow-birds, and in Greece Otides: but their meat is naught: for the marow in their bones, if it be let
D run out, hath ſuch a ſtinking ſmell, that a man cannot abide it, but ſhall be readie to vomite.

Chap. XXIII.

¶ *Of Cranes, Storkes, Swans, Quailes, the Glotis, and ſtrange birds of other countries.*

THe nation of the prettie Pigmies enjoy a truce and ceſſation from armes, euery yeare (as we haue ſaid before) when the Cranes, who vſe to wage war with them, be once departed & come into our countries. And verily, if a man conſider well how far it is from hence to the Leuant ſea, it is a mightie great journey that they take, & their flight exceeding long. They put not themſelues in their journey, nor ſet forward without a counſell called before, and a generall
E conſent. They flie aloft, becauſe they would haue a better proſpect to ſee before them: and for this purpoſe a captain they chuſe to guide them, whom the reſt follow. In the rereward behind there be certaine of them ſet and diſpoſed to giue ſignall by their manner of crie, for to raunge orderly in rankes, and keep cloſe together in array: and this they doe by turnes each one in his courſe. They maintaine a ſet watch all the night long, and haue their ſentinels. Theſe ſtand on one foot, and hold a little ſtone within the other, which by falling from it, if they ſhould chance to ſleepe, might awaken them, and reproue them for their negligence. Whiles theſe watch, all the reſt ſleep, couching their heads vnder their wings: and one while they reſt on the one foot, and otherwhiles they ſhift to the other. The captaine beareth vp his head aloft into the aire, and
F giueth ſignall to the reſt what is to be done. Theſe Cranes if they be made tame and gentle, are very playfull and wanton birds: and they will one by one dance (as it were) and run the round with their long ſhankes ſtalking ful vntowardly. This is ſurely known, that when they mind to take a flight ouer the ſea Pontus, they will fly directly at the firſt to the narrow ſtreights of the ſayd ſea, lying between the two capes Criu-Metophon and Carambis, and then preſently they ballaiſe

ballaiſe themſelues with ſtones in their feet, and ſand in their throats, that they flie more ſteadie and endure the wind. When they be halfe way ouer, down they fling theſe ſtones: but when they are come to the continent, the ſand alſo they diſgorge out of their craw. G

Cornelius Nepos, who died in the daies of *Auguſtus Cæſar* Emperor, in that chapter where he wrote, That a little before his time men began to feed and cram Blackbirds and Thruſhes in coupes, ſaith moreouer, That in his daies Storks were holden for a better diſh at the bourd than Cranes. And yet ſee, how in our age now, no man will touch a Storke if it be ſet before him vpon the bourd: but euery one is readie to reach vnto the Crane, and no diſh is in more requeſt. From whence theſe Storks ſhould come, or whither they go againe, is not yet known. No doubt from far remote countries they viſite vs, and in the ſame manner as the Cranes do: only this is the difference, that the cranes are our gueſts in Winter, and the Storks in Summer. When they be minded to part out of our coaſts, they aſſemble all together in one certain place appointed: there is not one left out nor abſent of their owne kind, vnleſſe it be ſome that are not at libertie, but captiue or in bondage. Thus (as if it had been publiſhed before by proclamation) they riſe all in one entire companie, and away they flie. And albeit well knowne it might be afore, that they were vpon their remoue and departure, yet was there neuer any man (watched he neuer ſo well) that could perceiue them in their flight: neither do we at any time ſee when they are comming to vs, before we know that they be alreadie come. The reaſon is, becauſe they doe the one and the other alwaies by night. And notwithſtanding that they flie too and fro from place to place, and make but one flight of it, yet be they ſuppoſed neuer to haue ariued at any coaſt but in the night. There is a place in the open plaines and champion countrey of Aſia, called Pithonos-Come: where (by report) they aſſemble all together, and being met, keepe a jangling one with another: but in the end, look which of them lagged behind and came tardie, him they reare in peeces, and then they depart. This alſo hath been noted, that after the Ides of Auguſt they be not lightly ſeene there. H I

Some affirme conſtantly, that Storkes haue no tongues. But ſo highly regarded they are for ſlaying of Serpents, that in Theſſalie it is accounted a capitall crime to kill a Storke, and by law he is puniſhed as a Fellon in the caſe of manſlaughter.

After the ſame maner wild Geeſe and Swans do ſort together, when they be paſſengers from countrey to countrey: but all theſe are ſeen when they flie. They make way forcibly in a pointed ſquadron, like as it were the ſtem of a foiſt at ſea, armed with a ſharp beakehead (for by this meanes they breake and cut the aire better, than if they draue it before with a ſtreight, euen, and ſquare front.) And thus wedg-wiſe by little and little they ſpread broader and broader behind, and beare a great length beſides with them: by which meanes alſo they gather more wind to heaue them vp and ſet them forward. In this their flight they reſt their heads vpon the former: and euer as one that leadeah the way is wearie with bearing his head, he retires behind to eaſe himſelf vpon him that flieth next before. Storks keep one neſt ſtil from yeare to yeare, and neuer chang: and of this kind nature they are, that the yong will keep and feed their parents when they be old, as they themſelues were by them nouriſhed in the beginning, K

Some ſay that the Swans ſing lamentably a little before their death, but vntruly, I ſuppoſe: for experience in many hath ſhewed the contrarie. Howbeit, theſe foules vſe to eat and deuour one another. L

But ſince we are entred into this diſcourſe of thoſe foules that make voiages by whole flocks ouer ſea and land to ſee ſtrange countries, I canot put off to ſpeak of leſſer birds alſo, which are of the like nature. For thoſe beforenamed may ſeeme in ſome ſort to be induced to ſuch great trauell, ſo bigge they are of bodie, and ſo ſtrong withall. As touching Quailes therefore, they alwaies come before the Cranes depart. A little bird it is, and whiles ſhe is among vs here, mounteth not aloft in the aire, but rather flieth below neere the ground. The manner of their flying is like the former, in troupes: but not without ſome danger of the ſailers when they approch neer to land. For oftentimes they ſettle in great number on their ſailes, and there perch, which they doe euermore in the night, and with their poiſe beare downe barkes and ſmall veſſels, and finally ſinke them. Theſe Quailes haue their ſet gifts, to wit, ordinarie reſting and baiting places. When the Southwind blowes, they neuer flie: for why? it is a moiſt, heauy, and cloggie wind, & that they know well ynough. And yet they willingly chuſe a gale whenſoeuer they flie, by reaſon that their bodies are too weightie (in compariſon of their wings) to beare M

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A them vp:and beſides,their ſtrength is but ſmall. And hereupon it is, that as they flie,they ſeem by their manner of crie to complaine,as though they flew with paine. Commonly therefore they chuſe a Northerne wind to flie with:and they haue one mighty great Quaile called Ortygometra,to lead the way and conduct them,as their captain. The formoſt of them, as he approcheth neere to land,paieth toll for the reſt vnto the Hauke,who preſently for his welcome preieth vpon him. Whenſoeuer at any time they are vpon their remooue and departure out of theſe parts,they perſuade other birds to beare them company:and by their inducements, there go in their train the Glottis,* Otis,and the Cychramus. As for the Glottis, he putteth forth a long tongue,wherupon he hath that name. This bird is very forward at the firſt ſetting out(as B being deſirous to be a traueller,to ſee far countries,and to change the aire:) and the firſt daies iourny he vndertaketh with pleaſure:but ſoone finding the tediouſneſſe and paines in flying,he repents that euer he enterpriſed the voiage. To go backe again without company, hee is aſhamed:and to come lag behind he is as loth:howbeit,for that day he holdeth out ſo ſo, and neuer goeth farther; for at the next reſting place that they come vnto, hee faire leaueth the company and ſtaieth there;where lightly he meeteth with ſuch another as himſelfe, who the yere before was left behind. And thus they do from time to time,yere by yere. As for the Cychramus, he is more ſtaid and reſolute to indure the trauel:he maketh haſt and hath an earneſt longing to come into thoſe parts which he ſo much deſires:& therfore in the night ſeaſon he is as good as a trumpet to awake the reſt,& put them in mind of their iourny. The Otis is a bird leſſe than C the Like-Owle,bigger than the Howlet,hauing two plumed ears ſtanding vp aloft, whereupon he took that name Otis in Greek. But in Latine ſome haue called him Aſio. This bird beſides hath certain qualities by her ſelf,& is skilful to counterfeit and make geſtures like a flattering paraſite:ſhe can foot it,turn and trip,mount and capre,as if ſhe were a profeſſed dauncer: eaſie ſhe is to be taken like as the Howlet,for whiles ſhe is amuſed and looking wiſtly vpon one that goeth about her,another commeth behind and ſoon catcheth her. But to return to our Quailes aforeſaid. If a contrarie wind ſhould chance to ariſe and begin to driue againſt them, and hinder their flight:to preuent this inconuenience,they be well prouided. For they flie well ballaiſed either with ſmall weightie ſtones within their feet,or els with ſand ſtuffed in their craw:the ſeed or grain of the white Elebore(a very poiſon)they loue paſſing wel, & it is their beſt meat. D But hereupon it is,that they are not ſerued vp as a diſh to the table. Moreouer,they are wont to ſome and ſlauer at the mouth,by reaſon of the falling ſickneſſe, vnto which they onely of all other creatures,but man, again,are ſubiect.

* The Biſtard or Horn-owle

Chap. XXIV.

Of Swallowes,Ouſles,or Merles,Thruſhes,Stares or Sterlings,Turkies,and Stockedoues.

THe Swallowslikewiſe(the birds alone of all thoſe that haue not crooked claws,which feed vpon fleſh)are gone from vs all Winter time. Howbeit,they depart not far off, but ſeeke E only the Sun-ſhine noukes,betweene hils neere at hand, and follow the warmth. Where many times they are found naked,and without feathers altogether,as if they had moulted. It is ſaid,that they wil neuer build their neſts vnder any houſe in Thebes:becauſe that city had bin many times forced and taken by the enemy. Neither in Bizia,a city of Thrace,by reaſon of the deteſtable parts practiſed by *Tereus* there. *Cecina* of Volaterræ, a Gentleman of Rome by calling (gouernour and maſter of the coaches and coach-horſes that vſed to runne for the priſe and beſt game)was wont to bring with him into the city,a number of theſe Swallowes, which he had gotten in diuers places where he came,out of his friends houſes wherin they were bred. And when the horſes which hee had in charge obtained at any time victorie in the race, hee would take the birds,and paint them with that colour which betokened victorie, and ſo with F that liuerie (as it were) let them flie to his friends, for to carry tidings vnto them of the good ſucceſſe which hee had obtained: knowing right well,that euery one would home to the ſame neſt from whence they came. And thus in ſmall ſpace could hee enforme his conſorts and well-willers of his good ſpeed. Alſo *Fabius Pictor* reporteth in his Annales, That when a fort (which the Roman garriſon held) was beſieged by the Liguſtines; there was a ſhee Swallow newly taken out of her neſt within that fort, from her little ones as ſhee ſat ouer them, and brought

brought to him with this watchword, That by a linnen thred tied to her foot in ſtead of a letter,he ſhould aduertiſe them within the fort, by ſo many knots tied in the ſaid thred, as there would daies paſſe before aid could come from him vnto them, to the end that they alſo might be ready vpon that day to ſallie forth. G

Ouſles, Throſtles, Blackbirds, and Stares, after the ſame manner depart aſide from vs, but go not far. Howbeit, theſe caſt not their feathers, nor lie altogether hidden: but are ſeen oftentimes in places, from whence they fetch meat to ſerue them in the Winter. And therefore it is, that Blackbirds are common in Germany, and ſpecially in Winter time.

The Turtle more properly and truly is ſaid to hide her ſelf, and to ſhed her plume & moult.

Stockdoues likewiſe depart from vs, but whether they go no man knoweth.

As touching Sterlings, it is the property of the whole kind of them to flie by troups, and in their flight to gather round into a ring or bal, whiles euery one of them hath a deſire to be in the middeſt. H

Of all birds, the Swallow alone flieth bias, and windeth in and out in his flight: he is moſt ſwift of wing, and flieth with eaſe: and therefore not ſo ready to be ſurpriſed and taken by other birds. To conclude, he neuer feedeth but flying, and ſo doth no other bird beſides.

Chap. XXV.

¶ *What birds continue with vs all the yeare long: which be halfe yeares birds, and which be but for three moneths.*

GReat difference there is in the ſeaſons and times of birds. Some abide the whole yeare, as houſe-doues: others halfe the yere, as Swallows: and ſome again but a quarter, as blackbirds and Turtle-doues. And there be againe that are gone ſo ſoone as they haue hatched and trained their young abroad into the open aire. Such be the Hu-holes, and Houpes [or Lapwings as ſome thinke.] I

Chap. XXVI.

¶ *Strange ſtories of birds.*

WRiters there be who affirme, That euery yeare certain birds come flying out of Ethyopia to Ilium, and there, about the tombe or ſepulchre of *Memnon*, skirmiſh and fight a battell. For which cauſe men call them Memnonides. And *Cremutius* auoucheth vpon his owne knowledge, That euery fifth yere the ſame birds do the like in Æthyopia, euen before the roiall palace ſomtime of the ſaid king *Memnon*. K

Semblably, the birds named Maleagrides, do fight a field in Bœotia. Now are theſe Meleagrides a kind of Turky-cocks, and hens of Africk, hauing a bunch on their back, and beſpotted with feathers of ſundry colours. Of all ſtrange birds, comming out of forreine parts, theſe are laſt receiued and admitted to ſerue the table, by reaſon of a certain harſh and vnpleaſant ſtrong taſte that they haue. But it is the monument and tombe of *Meleager* which hath giuen them that name and credit which they haue. L

Chap. XXVII.

¶ *Of birds ſyrnamed Seleucides.*

THe birds called Seleucides, come to ſuccour the inhabitants of the mountaine Caſius, againſt the Locuſts. For when they make great waſte in their corne and other fruits, *Iupiter* at the inſtant praiers and ſupplications of the people, ſendeth theſe fouls among them to deſtroy the ſaid Locuſts. But from whence they come, or whether they go again, no man knoweth: for neuer are they ſeene but vpon this occaſion, namely, when there is ſuch need of their helpe. M

Chap. XXVIII.

¶ *Of the bird Ibis.*

THe Ægyptians likewiſe haue recourſe in their prayers & inuocations to their birds named Ibis, what time as they be troubled and annoied with ſerpents comming among them: and

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A in like caſe the Eleans ſeeke vnto their god *Myiagros*, for to be rid of a multitude of flies which peſter them ſo, that they breed a peſtilence among them. But looke vpon what day they find that Idoll appeaſed and pacified by their ſacrifice, all the flies die forth-with.

Chap. XXIX.

¶ *What birds they be, which will not abide ſome places: alſo which be they that change colour and voice: and then of the Nightingale.*

B BVt that which wee ſhould haue ſaid when wee wrote of the departure and going aſide of birds: the Howlets alſo are reported to lie hidden ſome few daies. Moreouer, this is known for a truth, That in the Iſland Candy there be none at all of them: and in caſe that any one be thither brought, it will die there. A wonderful thing, that nature ſhould make difference of birds and other creatures in that reſpect. But ſure it is, ſhe hath not brought forth all creatures in al places, but hath priuiledged this country more than that: & denied that to one which ſhe hath giuen vnto another. And thus hath ſhee dealt not onely by fruits of the earth, trees, and plants, but alſo by liuing creatures. That in ſome parts this or that ſhould not grow or breed, is a thing commonly ſeen & known: but, that thoſe things ſhould die ſo ſoon as they are brought thither, is very ſtrange & wonderfull. What ſhould that be, which is ſo contrary vnto one kind and no more, as that it will not ſuffer it to liue? What enuie is this of Nature, thus to hinder C the breeding or life of any creature? or why ſhould birds be reſtrained within any limits and bounds in the whole earth? And yet ſee! In all the Iſland of Rhodes a man ſhall not find one Airie of Ægles. In that tract of Italy beyond the Po, and neere vnto the Alpes, there is a lake which they call there Larius; the place about it is right pleaſant and delectable, enriched with goodly trees that beare fruit, and faire fields for paſturage: and yet a man ſhall neuer ſee any Stork to come thither, no nor within 8 miles of it. And yet in the neighbor quarters of the* Inſubrians neer adioyning, ye ſhall haue infinite and innumerable flocks and flights of choughes and jack-dawes: the verieſt theeues, nay the only theeues of all other birds, eſpecially for ſiluer and gold, that it is a wonder to ſee what meanes they will make to ſteale and filtch it. Men ſay that in the territory of Tarentum there be no wood-pecks or tree-jobbers. It is but of late daies D ſince that from the mountaine Apennine toward the city of Rome there haue been ſeen Pyannets with long tailes, party coloured and flacked, wherupon they be called Variæ: and yet ſuch are not common, but very geaſon to be ſound. Their property is to be bald euery yeare, what time as men ſow rapes or nauewes. The Patridges in the territory of Attica, flie not ouer into the marches of Bœotia. And there is not a bird within the compaſſe of the ſea Pontus, & namely, in the Iſland wherein *Achilles* was buried, that will paſſe beyond the temple conſecrated vnto him. In the territory of Fidenæ neer to Rome, Storkes build no neſts, neither ſhall a man find a yong Storke there. But into the parts about Volaterræ, there is not a yeare but one ſhall ſee a world of Stockdoues flying from beyond ſea. At Rome ye ſhall not haue a fly or dog that will enter into the chappell of *Hercules* ſtanding in the beaſt market. In a word, I could alledge ma- E ny ſuch like examples, which of purpoſe I paſſe ouer, becauſe I would not be tedious in my diſcourſes: ſeeing that *Theophraſtus* reports, how all the Doues, Peacocks, and Rauens, which are in Aſia, hane been brought thither from other parts: like as all the Frogs in Cyrenaica, which do crie, whereas their owne be mute all.

* Lumbardie

As for ſinging birds, this is another ſtrange and wondrous thing obſerued in them. For at certain times of the yere they change their colour in feathers, and alter their voice in ſinging: and that in ſuch ſort, as of a ſuddaine a man would ſay they were other birds. A thing that happeneth not to the great foules aboue-ſaid, ſaue only vnto Cranes: for they with age wax black. And to begin with the Merle or black-bird, which naturally is blacke, he turnes to be reddiſh. In Summer he ſingeth cleare and tunably, in winter he ſtutteth and ſtammereth: but about the F ſun-ſtead in December he is mute and dumbe altogether. After they be once a yere old, I mean the cockes or males onely of that kinde, their bils turne to be white like yuorie. The Throſtles or Mauiſſes all Summer be painted about the necke with ſundry colours, but in Winter they be all of a colour.

The Nightingale for fifteene daies and nights together, neuer giueth ouer but chaunteth continually, namely, at that time as the trees begin to put out their leaues thicke. And ſurely this

this bird is not to be ſet in the laſt place of thoſe that deſerue admiration: for is it not a wonder G
that ſo loud and cleare a voice ſhould come from ſo little a body? Is it not as ſtrange that ſhee
ſhould hold her wind ſo long, and continue with it as ſhe doth? Moreouer, ſhe alone in her ſong
keepeth time and meaſure truly; ſhe riſeth and falleth in her note juſt with the rules of Muſick
and perfect harmony; for one while, in one entire breath ſhe drawes out her tune at length trea-
table; another while ſhe quauereth, and goeth away as faſt in her running points: ſometime ſhe
maketh ſtops and ſhort cuts in her notes, another time ſhe gathereth in her winde and ſingeth
deſcant between the plain ſong: ſhe fetcheth her breath againe, and then you ſhall haue her in
her catches and diuiſions: anon all on a ſudden, before a man would thinke it, ſhe drowneth
her voice, that one can ſcarce heare her: now and then ſhe ſeemeth to record to her ſelfe; and
then ſhe breaketh out to ſing voluntarie. In ſum, ſhe varieth and altereth her voice to all keies: H
one while, ful of her largs, longs, briefs, ſemibriefs, and minims; another while in her crotchets,
quauers, ſemiquauers, and double ſemiquauers: for at one time you ſhall heare her voice ful of
loud, another time as low; and anon ſhrill and on high: thick and ſhort when ſhe liſt; drawn out
at leiſure againe when ſhe is diſpoſed: and then (if ſhe be ſo pleaſed) ſhee riſeth and mounteth
vp aloft, as it were with a wind-organ. Thus ſhe altereth from one to another, & ſings all parts,
the Treble, the Mean, and the Baſe. To conclude, there is not a pipe or inſtrument againe in the
world (deuiſed with all the art and cunning of man ſo exquiſitely as poſſibly might be) that can
affoord more muſick than this pretty bird doth out of that little throat of hers. So as no doubt
there was fore-ſignified moſt excellent and melodious muſicke, by an excellent preſage of a
nightingale which ſetled vpon the mouth of *Steſichorus* the Poet, and there ſung full ſweetly:
who afterwards proued to be one of the moſt rare and admirable muſitians that euer was. And I
that no man ſhould make a doubt that there is great Art and cunning herein, do but marke, how
there is not one Nightingale but hath many notes and tunes. Againe, all of them haue not the
ſame, but euery one a ſpeciall kind of Muſick by her ſelfe: nay, they ſtriue who can do beſt, and
one laboreth to excell another in varietie of ſong and long continuance: yea, and euident it is,
that they contend in good earneſt with all their will and power: for oftentimes ſhee that hath
the worſe and is not able to hold out with another, dieth for it, and ſooner giueth ſhe vp her vi-
tall breath, than giueth ouer her ſong. Ye ſhall haue the yong Nightingales ſtudie and medi-
tate how to ſing, by themſelues; ye ſhal haue them liſten attentiuely to the old birds when they
ſing, and to take out leſſons as it were from them, whom they would ſeeme to imitate ſtaffe by K
ſtaffe. The ſcholler when ſhe hath giuen good eare vnto her miſtreſſe, preſently rehearſeth what
ſhe hath heard; and both of them keep ſilence for a time in their turns. A man ſhall euidently
perceiue when the yong bird hath learned well, & when again it muſt be taught how to correct
and amend wherein it did amiſſe; yea, and how the teacher will ſeeme to reproue and finde a
fault; no maruell therfore if one of theſe Nightingales carrie the price (in the market) of a bond-
ſlaue; yea and a higher too, than a man might in old time haue bought a good page & harneſſe-
bearer. I my ſelfe haue knowne one of them (mary it was white, which was a rare thing and not
commonly ſeen) to haue bin ſold for 6000 Seſterces, for to be giuen as a Preſent vnto the Em-
preſſe *Agrippina*, wife of *Claudius Cæſar* late Emperor of Rome. And now of late we haue known L
many of them taught to begin to ſing, only when a man would haue them: and keepe their re-
ſponds in courſe after others, in good conſent and harmony. As alſo there haue bin found men,
who by a deuiſe of a reed or cane had out of the water, put croſſe ouerthwart their mouth, and
by putting their tongue into an hole made of purpoſe in it, and blowing withal, could counter-
feit the Nightingale ſo perfectly, that one might not diſcern and diſtinguiſh the one from the
other. Well, theſe little Nightingales, ſo great chanters as they be, ſo cunning and full of their
conceits, after 15 daies begin to abate and ſlack their muſick; yet ſo, as a man cannot ſay, they
were either wearie, or ſatisfied with ſinging: for ſoone after, when the weather groweth hotter,
their voice is clean altered: for neither are they muſicall and tuneable in their meaſures with
varietie as before, but only ſing plain ſong and keep them to one tune. And more than ſo, they M
change their colour in proceſſe of time: and laſt of all, when winter comes, be no more ſeene.
Tongued they are not like other birds, with a thin tip before. They begin to breed with the firſt
in the prime of the Spring, and commonly lay ſix egs.

The Gnatſnapper, Ficedula, a bird ſomwhat like vnto the Nightingale, doth otherwiſe: for
at one time it changeth both colour, form, and ſong. They haue not that name Ficedulæ pro-

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A perly but in the Autumne,as one would ſay,fig-feeders:for when that ſeaſon is once paſt, they be called Melancoryphi,*i*. Black-heads.

In like ſort,the bird which is named Erithacus(*i*.Robin,or Redbreſt)in winter ; the ſame is Phœnicurus[*i*.Red-taile]all ſummer long.

The Houpe or Vpupa(as *Æſchilus* the Poet ſaith)changeth alſo her hew, voice, and ſhape. This is a * naſty and filthy bird otherwiſe,both in the manner of feeding, and alſo in neſtling: but a goodly faire creſt or comb it hath,that will eaſily fold and be plaited:for one while ſhee will draw it in,another while ſet it ſtiffe vpright along the head. * For as *Ariſt.* reporteth, it neſtleth in mans doung.

As for the bird Oenanthe,it alſo for certain daies lieth cloſe and vnſeen; & namely, when the Dog-ſtar ariſeth,it is hidden:but after the occultation therof, commeth abroad & ſheweth her ſelfe:a ſtrange thing,that in thoſe daies it ſhould do both. Laſt of all,the * Witwall or Lariot, * Chlorion.
B which is all ouer yellow,being not ſeen all winter time,appeareth about the Sun-ſteads.

Chap. XXX.

¶ *Of the Merles.*

ABout Cyllene in Arcadia,and no where els,ye ſhall find white Merles or Ouſles. And Ibis, about Peluſium only in Egypt,is blacke; in all places elſe of Ægypt,white.

Chap. XXXI.

¶ *The kind of birds breeding and hatching.*

C ALl ſinging birds,ſaue only thoſe that are excepted before,lightly breed not nor lay their egs before the ſpring Æquinoctiall in mid-March, or after the Autumnall, in mid-September. And thoſe that they hatch before the Summer Sunſtead (*i*, Mid-Iune) hardly come to any perfection:but after that time,they do well enough and liue.

Chap. XXXII.

¶ *Of the Halcyones,or Kings-fiſhers : and the daies good for nauigation which they ſhew. Of the Sea-guls and Cormorants.*

D AND in this regard eſpecially,namely for breeding after the ſummer Sunſtead, the Halcyones are of great name and much marked. The very ſeas, and they that ſaile thereupon, know well when they ſit and breed. This very bird ſo notable,is little bigger than a ſparrow:for the more part of her pennage,blew,intermingled yet among with white and purple feathers,hauing a thin ſmal neck and long withall. There is a ſecond kind of them breeding about the ſea ſide,differing both in quantitie and alſo in voice ; for it ſingeth not as the former doe which are leſſer;for they haunt riuers, & ſing among the flags & reeds. It is a very great chance to ſee one of theſe Halcyones,& neuer are they ſeen but about the ſetting of the ſtar Virgiliæ, [*i*. the Brood-hen:] or els neere Mid-ſummer or Mid-winter : for otherwhiles they will flie about a ſhip, but ſoone are they gone againe and hidden. They lay and ſit about Mid-winter when daies be ſhorteſt:& the time whiles they are broody,is called the Halcyon daies: for du-
E ring that ſeaſon,the ſea is calme and nauigable,eſpecially in the coaſt of Sicilie. In other ports alſo the ſea is not ſo boiſterous,but more quiet than at other times : but ſurely the Sicilian ſea is very gentle,both in the Streights and alſo in the open Ocean. Now about ſeuen daies before Mid-winter,that is to ſay,in the beginning of December,they build; and within as many after they haue hatched. Their neſts are wonderouſly made,in faſhion of a round ball : the mouth or entrie thereof ſtandeth ſomwhat out,and is very narrow, much like vnto great ſpunges. A man cannot cut and pierce their neſt, with ſword or hatchet ; but breake they wil with ſome ſtrong knock, like as the dry ſome of the ſea:and no man could euer find of what they be made. Some thinke they are framed of the ſharpe pointed prickes of ſome fiſhes,for of fiſh theſe birds liue.
F They come vp alſo into freſh riuers within-land : and there do lay ordinarily fiue egges.

As touching the Guls or Sea-cobs,they build in rocks:and the Cormorants both in them, and alſo in trees. They vſually lay foure egs apiece. The Guls in ſummer time,but the Cormorants in the beginning of the ſpring.

CHAP.

Chap. XXXIII.

¶ *The industrie and wit of birds in building their nests. Of the Swallow, the Argatilis, Cinnamologi, and Partridges.*

THe Architecture and building of the Halcyones nest, hath put me in mind of other birds dexteritie in that behalfe: and surely in no one thing is the wit of silly birds more admirable. The swallows frame their nests of clay & earth, but they strengthen and make them fast with straw. In case at any time they cannot meet with soft and tough clay, for want thereof they drench and wet their feathers with good store of water, and then bestrew them ouer with dust. Now when they haue made and trimmed their bare nest, they floore it in the bottom within, and dresse it all ouer with downe feathers or fine flox, as well to keep their egs warm, as also that their yong birds should lie soft. In feeding of their little ones, they keepe a very good order and euen hand, giuing them their pittance and allowance by course one after another. Notable is their care in keeping them neat and cleane; for euer as they meut, they turne the excrements out of the nest: but be they once growne to any strength and bigneſſe, they teach them to turne about and lay their tailes without.

Another kinde there is of Swallowes, that keep in the country villages and the fields, which seldom nestle vnder mens houses: and they likewise build of the same matter as the former do, namely, of clay and straw, but after another fashion: for their nests are made turning all vpward, with the hole or mouth that leadeth vnto it, stretched out in length streight and narrow, but the capacitie within is very large, in such sort, as it is a wonder to see how prouident & skilful they should be to frame them in this manner, so handsome & conuenient to couer their yong ones; so soft again for their couch and bed. In the mouth of Nilus neere Heraclea in Ægypt, there is a mightie banke or causey raised only of a continuall ranke and course of Swallows nests, piled one vpon and by another thicke, for the length almost of halfe a quarter of a mile; which is so firme and strong, that being opposed against the inundations of Nilus, it is able to breake the force of that riuer when it swelleth, and is it selfe inexpugnable: a piece of work that no man is able to turne his hand vnto. In the same Egypt neere vnto the towne Coptos, there is an Island consecrated vnto the goddesse *Isis*, which euery yere these Swallows do rampier and fortifie, for feare lest the same Nilus should eat the banks thereof and break ouer into it. In the beginning of the Spring, for three nights together, they bring to the cape of that Island, straw, chaffe, and such like stuffe, to strengthen the front therof: and for the time, they ply their businesse so hard, that for certaine it is knowne, many of them haue died with taking such paines and moiling about this worke. And verily euery yeare they go as daily to this taske againe, as the Spring is sure to come about; and they faile not, no more than souldiers that by vertue of their militarie oath and obligation, go forth to seruice and warfare.

A third sort there is of these Swallows and Martinets, which hollow the banks of riuers, and so nestle within between. The yong birds of these Martins, if they be burnt into ashes, are a singular and soueraigne remedy for the deadly squinancy, and helpe many other diseases of mans body. These build not at all, but if they perceiue that the riuer Nilus when it swelleth, will rise as high as their holes, they are gone many daies before.

There be certaine birds of the kind of Parræ, which of drie mosse make a nest, resembling so perfectly a round ball, that vnneth or hardly a man can see which way they should goe in. And another there is called Argatilis, which contriueth her nest after the same forme, but it is of hurds and flaxe.

There is a kind of Woodpecker, maketh a nest in manner of a cup or goblet, and hangeth it at a twig vpon the vppermost boughs and branches of a tree, that no foure footed beast should reach it. And as for the birds called Galguli, men say for a truth, that they take their sleep hanging all by their legges to some branch, thinking by that means they are in more safety. True it is indeed and commonly known, that all these birds in great forecast & prouidence, chuse some crosse boughes in stead of rafters, to suphort and beare vp their nests; and then to saue them from the raine, either vaut them ouer with an arched roofe, or else couer them close and thicke with leaues.

A bird there is in Arabia called Cinnamologus, which with the twigs and branches of the

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A Cinamon tree buildeth her neſt. The inhabitants of that country being ware thereof, ſhake the ſame downe by ſhooting arrowes headed with lead, for to make a commoditie therby. In Scythia, there is a bird of the bigneſſe of an Otis, which commonly laieth two egs, and when they are lapped within a hares skin, alwaies hangeth them vpon the top of tree boughes. The Pyannets, when they perceiue (by a watching eie that they haue) that a man hath ſpied their neſt, preſently build in another place, and remoue their egs thither. Now for thoſe birds which haue no hooked nailes, how they ſhould tranſlate their egs from one place to another, conſidering their feet are not made to claſpe them, it is a wonderful thing, and reported after a ſtrange maner; for they lay a ſtick ouer two egs, and ſouder it faſt to them with a certain viſcoſitie which
B commeth forth of their own guts when they meut: which done, they put their neckes vnder the ſticke between both egs, which hanging equally poiſed of either ſide, they carry eaſily whither they would.

No leſſe induſtrious are they that make their neſts in the ground, as being not able to fly into the aire by reaſon of their weightie bodies. Among which there is one called Merops, that vſeth to feed her parents, lying hidden within the earth. The inſide of her feathers in the wing is pale, the outſide blew; and yet thoſe aboue about their neck, are ſomwhat red. She makes her neſt in an hole ſix foot deep within the ground. Again, the Partridges do ſo fortifie and impale their neſts with thornes and twigs of ſhrubs and buſhes, that they be ſufficiently fenced againſt the inuaſion of wilde beaſts. They couer their egs with a ſoft carpet or hilling as it were of fine
C duſt: neither do they ſit where they laid them firſt, nor yet in a place which they ſuſpect to bee much frequented with reſort of paſſengers, but conuey them to ſome other place. The hennes verily of this kind, hide themſelues from their males the cocks; for ſo lecherous they be and giuen to intemperate luſt, that they would ſquaſh their egs, becauſe they ſhould not be amuſed and occupied about ſitting. Then, for want of the females, the males go together by the eares: and (as they ſay) he that is ouercome, ſuffereth himſelfe to be troden like an hen. *Trogus* verily reporteth the very ſame of the Quailes, yea and of dounghill cocks otherwhiles. He ſaith moreouer, that tame Partridges vſe to tread the wild: alſo that thoſe which are new taken or beaten, be troden of others indifferently one with another. This libidinous heat of theirs is ſuch, and maketh them ſo quarrelſome, that oftentimes they are taken by that meanes. For when the fou-
D ler commeth with his pipe or call (reſembling the female) to allure and traine them forth, out goeth the captain of the whole flocke directly againſt him: and when he is caught, another followeth after, and ſo the reſt one after another, one by one. In like manner, they vſe to take the females, at what time as they ſeeke the male to tread them: for then, forth they goe againſt the foulers chantetell or watch which calleth them out, that with their quarrelling and brawling which they make, they might chace and driue it away. In ſum, there is not to be found in any other liuing creature, the like againe for luſt and leacherie in the act of generation. If the hens do but ſtand directly ouer againſt the cocks, the very wind and aire that paſſeth from them, will cauſe them to conceiue as wel as if they were troden. For ſo hot they be in that ſeaſon, that they gape again for aire, and hang the tongue out of their heads. And if the males do but flie ouer
E them, with the very breath and aire that commeth from them, they will be ready to conceiue: yea and many times, if they do but heare their call. And that which more is, ſo lecherous they are, that ſetting aſide their naturall affection and loue to their yong couie, when they are brooody (and in which regard they ſteale from the cocke, and ſit apart in ſome ſecret and blind corner) yet if they heare once the Foulers chanterell comming toward the male, and that he doth call, preſently they will leaue the neſt and ſuffer the egs to chil, and for very iealouſie cry again and call backe the males, and offer themſelues to be troden, for feare they would goe to others. Nay more than that, their fury and rage that way many times is ſuch, that otherwhiles in this blind fit and fearfull luſt, not knowing where they are nor what they do, they will light and ſettle vpon the very head of the fouler. Alſo, if he chance to approch the neſt of the brood-hen, ſhe
F will run forth and be about his feet, ſhe wil counterfeit that ſhe is very heauy and cannot ſcarſe go, that ſhe is weake and enfeebliſhed: and either in her running, or ſhort flight that ſhe taketh, ſhe wil catch a fall, and make ſemblance as if ſhe had broken a leg or a wing: then will ſhe run out againe another way, and when he is ready to take her vp, yet will ſhe ſhift away and eſcape, and ſo put him beſides his hope. And all this doth ſhee to amuſe the Fouler after her, vntill ſhe haue trained him a contrary way from the couey. Now by that time that ſhee is paſt that

feare,and freed of the motherly care ſhe had of her yong ones,then will ſhe get into the furrow of ſome land,lie along on her back,catch a clot of earth vp with her feet, and therewith hide her whole body,and ſo ſaue both her ſelfe and her couey. To conclude,Partridges (by report) liue 16 yeres.

Chap. XXXIV.

¶ *Of Houſe-doues.*

NExt after Partridges,the nature of Doues would be conſidered, ſince that they haue in a manner the ſame qualities in that reſpect: howbeit, they be paſſing chaſte, and neither male nor female change their mate,but keep together one true vnto the other. They liue (I ſay)as coupled by the bond of mariage:neuer play they falſe one by the other,but keep home ſtill,and neuer viſit the holes of others. They abandon not their owne neſts, vnleſſe they bee in ſtate of ſingle life or widdowhead by the death of their fellow. The females are very meek and patient;they wil indure and abide their emperious males,notwithſtanding otherwhiles they be very churliſh vnto them,offering them wrong and hard meaſure;ſo jealous be they of the hens, and ſuſpicious,though without any cauſe and occaſion giuen: for paſſing chaſte and continent by nature they are. Then ſhall ye heare the cocks grumble in the throat,quarrell and complain, and all to rate the hens:then ſhall ye ſee them peck and job at them cruelly with their beakes; and yet ſoone after,by way of ſatisfaction,and to make amends again for their curſt vſage,they will fall to billing and kiſſing them louingly, they will make court vnto them and wooe them kindly,they will turne round about many times together by way of flatterie, and as it were by praiers ſeeke vnto them for their loue. As well the male as the female be careful of their yong pigeons,and loue them alike;nay ye ſhall haue the cocke oftentimes to rebuke,yea chaſtiſe the hen,if ſhe keep not the neſt well;or hauing bin abroad,for comming no ſooner home againe to her yong. And yet,kind they be to them,when they are about to build,lay,and ſit. A man ſhall ſee how ready they be,to helpe,to comfort and miniſter vnto them in this caſe. So ſoon as the egs be hatched,ye ſhall ſee them at the very firſt,ſpit into the mouths of the yong pigeons ſalt brackiſh earth,which they haue gathered in their throat, thereby to prepare their appetite to meat,and to ſeaſon their ſtomacks againſt the time that they ſhould eat. Doues and Turtles haue this property,in their drinking not to hold vp their bils between-whiles, and draw their necks backe,but to take a large draught at once,as horſes and kine do.

Chap. XXXV.

¶ *Of Stockedoues.*

SOme authors we haue,who affirme that Stockdoues liue ordinarily 30 yeres, and ſome vntill they be 40 yeares old. In which time they find no infirmitie nor diſcommodity at all but only this,That their clawes be ouergrowne,which is a ſigne of their age: howbeit they may be pared without danger. They haue all of them one and the ſame manner of tune in their ſinging;and commonly they make three reſts in their ſong, beſides the ſa-burden in the end, which is a kind of grone. All winter they be ſilent:in ſpring they are loud enough,& the woods reſound with them. *Nigidius* is of opinion,that if a man call vnto a Stockdoue within-houſe as ſhe is ſitting vpon her egs,ſhe will leaue her neſt,and come at the call. They doe lay after Midſommer. Theſe doues and Turtles liue eight yeres.

Chap. XXXVI.

¶ *Of Sparrowes.*

COntrariwiſe,the Sparrow is but ſhort liued, howbeit as lecherous as the beſt. The cocke Sparrow (by report) liueth but one yeare;the reaſon why men ſo thinke, is, becauſe in the ſpring there is not one of them found with a blacke bill,and yet in ſummer before, it began to be blacke. The hens liue ſomwhat longer. But to come againe to Doues, it is generally held,that they haue a certaine ſenſe and feeling of glory: and a man would verily thinke, that they haue a knowledge of their gay feathers,and how they are changeably coloured as a man looketh

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looketh vpon them & as they ſtand. Moreouer, they ſeem to take a pride in their flying, whiles they keep a clapping of their wings and cutting of the aire euery way, as if they had a pleaſure to be flying abroad. In which brauerie of theirs, whiles they flap with their wings and keepe a glorious noiſe (which cannot be without the beating of their very pinions together) they are expoſed to the Faulcon and other hauks, as priſoners faſt bound and tied: for otherwiſe if they would flie at liberty and eaſe, without keeping ſuch ado with their clapping, they were much more ſwift of wing, than the very hawks that prey vpon them. But the haiwke like a very theefe, lieth hidden among the boughes and branches of trees, marketh the Doue how he fetcheth his flight and taketh his pleaſure in the aire, and when he ſeeth his time (in all this glory of his and the mids of his brauery) ſeizeth vpon him and carieth him away.

Chap. XXXVII.

¶ *Of the Keſtrell.*

TO preuent this danger therefore, the Doues need to haue with them the bird which is called Tinnunculus, *i.* a Keſtrill, or Stannell: for ſhe defendeth them, and (by a certaine naturall power that ſhe hath) skareth and terrifieth all other haukes: inſomuch, as they cannot abide either to ſee her, or to heare her cry. Wherupon Doues aboue all others, loue theſe birds. And (as men ſay) pigeons wil not leaue their own douecoat to flie to another, if in the foure corners thereof there be enterred foure Keſtrils aboueſaid, in foure new earthen pots well nealed, and neuer vſed before. But others haue vſed means to keep pigeons in their douehouſe (for otherwiſe they be birds that loue to be ranging and wandring abroad) namely, by ſlitting and cutting the ioints of their wings with ſome thin ſharp piece of gold: for if you do not ſo, their wounds will feſter and be dangerous. And in very truth, theſe birds be ſoon ſeduced and trained away from their owne homes: and they haue a caſt with them to flatter and entiſe one another: they take a great delight to inueagle others, and to ſteale away ſome pigeons from their owne flocks, and euermore to come home better accompanied than they went forth. Moreouer, Doues haue ſerued for poſts and courriers between, and bin imploied in great affairs: and namely, at the ſiege of Modenna, *Decimus Brutus* ſent out of the town letters tyed to their feet, as far as to the camp where the Conſuls lay, and thereby acquainted them with newes, and in what eſtate they were within. What good then did the rampier and trench which *Antonius* caſt before the towne? To what purpoſe ſerued the ſtreight ſiege, the narrow watch and ward that he kept? wherefore ſerued the riuer Po betweene, where all paſſages are ſtopped vp as it were with net and toile, ſo long as *Brutus* had his poſts to flie in the aire ouer all their heads? To be ſhort, many men are growne now to caſt a ſpeciall affection and loue to theſe birds: they build Turrets aboue the tops of their houſes for doue-coats. Nay they are come to this paſſe, that they can reckon vp their pedigree and race, yea they can tel the very places from whence this or that pigeon firſt came. And indeed one old example they follow of *L. Axius* a Gentleman ſometime of Rome, who before the ciuill war with *Pompey*, ſold euery paire of pigeons for * 400 deniers, as *M. Varro* doth report. True it is, that there goeth a great name of certaine countries where ſome of theſe pigeons are bred: for Campanie is voiced to yeeld the greateſt and faireſt bodied of all other places. To conclude, their manner of flying inuiteth and traineth me to thinke and write of the flight of other foules.

* 12. lib. 19 ſb.

Chap. XXXVIII.

¶ *Of the gate and flight of birds.*

ALl other liuing creatures haue one certaine manner of marching and going, according to their ſeuerall kind, vnto which they keep and alter not. Birds only vary their courſe, whether they go vpon the ground or flie in the aire. Some walke their ſtations, as Crowes and Choughs; others hop and skip, as Sparrows and Ouſels: ſome run, as Partridges, Woodcocks, and Snites: others again caſt out their feet before them, ſtaulk and jet as they go, as Storks and cranes: now for flying, ſome ſpread their wings abroad, ſtirring or ſhaking them but now & then,

hanging and houering with them all the while[as Kites:]others again ply them as faſt;but the ends only of their wings,or the vtmoſt feathers are ſeen to moue [as the Chaffinch.] Yee ſhall haue ſome birds to ſtretch out their whole wings & ſides,mouing them as they flie[as Rauens] and others a man ſhal ſee in their flight to keep them in,for the moſt part cloſe [as the Woodpeckers.] Some of them are known to giue one or two claps with their wings at firſt, and then glide ſmoothly away,as if they were carried and born vp with the aire [as Linnets:] and others are ſeen(as if they kept ſtil the aire within their wings)to ſhoot vp aloft & mount on high, to flie ſtreight forward; & to fal down again flat[as Swallows.] Ye would think and ſay that ſome were hurled out of a mans hand with violence [as the Partridge:] and others again to fal down plumbe from on high [as Larks,]or els to leap & jump[as the Quailes.]Ducks,Mallards,and ſuch like,ſpring preſently from the ground vp aloft,and ſuddenly mount vp into the skie, euen out of the very water:which is the cauſe,that if any chance to fall into thoſe pits wherein wee take wild beaſts,they alone wil make good ſhift to get forth and eſcape.The Geirs or Vulturs, and for the moſt part all weightie and heauy foules,cannot take their flight & flie,vnleſſe they fetch their run and biere before,or els riſe from ſome ſteepe place with the vantage. And ſuch are directed in the aire by their tails.Some looke about them euery way,others bend and turne their necks in flying:and ſome fly with their prey within their talons,& eat it as they fly.Moſt birds cry and ſing as they flie,yet ſome there be contrariwiſe,that in their flight are euer ſilent. In one word,ſome flying carry their breſts and bellies halfe vpright:others again beare them as much downward. Some flie ſide-long and bias:others directly forward, and follow their bills: and laſt of all there be that bend backward as they flie,or els bolt vpright.In ſuch ſort, that if a man ſaw them all together, he would take them not to be one kind of creature,ſo diuers & different are they in their motions.

Chap. XXXIX.

¶ *Of Martinets.*

MArtinets,which the Greeks call Apodes(becauſe they haue little or no vſe of their feet) and others,Cypſeli;are very good of wing,and flie moſt of all others without reſt. And in very truth,a kind of Swallows they be.They build in rocks & ſtony cliffes.And theſe be they and no other,that are ſeen euermore in the ſea: for be the ſhips neuer ſo remote from the land,ſaile they neuer ſo faſt and far off, ye ſhall haue theſe Martinets alwaies flying about them.All kinds els of Swallowes and other birds,do ſomtime light,ſettle,and perch: theſe neuer reſt,but when they be in their neſt.For either they ſeem to hang,or els lie along:and a number of ſhifts and deuiſes by themſelues they haue beſides, and namely when they feed.

Chap. XL.

¶ *Of the bird Caprimulgus,and the Shouelar.*

THe Caprimulgi(ſo called of milking goats)are like the bigger kind of Owſels.They bee night-theeues;for all the day long they ſee not.Their manner is to come into the ſheep-heards coats and goat-pens,and to the goats vdders preſently they go, and ſuck the milke at their teats.And looke what vdder is ſo milked,it giueth no more milke, but miſliketh and falleth away afterwards,and the goats become blind withall.

There be other birds named Plateæ,*i*.Shouelars.Their manner is to flie at thoſe foule that vſe to diue vnder the water for fiſh: and ſo long will they peck and bite them by the heads, vntil they let go their hold of the fiſh they haue gotten,and ſo they wring it perforce from them. This bird when his belly is full of ſhell fiſhes that he hath greedily deuoured, and hath by the naturall heat of his craw and gorge in ſome ſort concocted them,caſteth vp all vp again:and at leaſure picketh out the meat,and eateth it again,leauing the ſhels behind.

Chap. XLI.

¶ *The naturall wit of ſome birds.*

THe Hens of country houſes haue a certaine ceremonious religion. When they haue laied an egge,they fall a trembling & quaking,and all to ſhake themſelues. They turne about alſo

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A alſo,as in proceſſion,to be purified,& with ſome feſtue or ſuch like thing,they keep a ceremonie of hallowing,as well themſelues as their egs.

Chap. XLII.

¶ *Of the Linnet,Poppinjay or Parrat,and other birds that can ſpeake.*

THe Linnets be in manner the leaſt birds of all others: howbeit they be very docible. Doe they will whatſoeuer they are taught & bidden,not only in their voice,but alſo with their feet and bils,as if they were hands. In the territorie about Arelate, there is a bird called Taurus(becauſe it loweth like a bull or cow,for otherwiſe a ſmall bird it is.) There is another
B alſo named Anthus,which likewiſe reſembleth the neighing of horſes:and if haply by the approch of horſes they be driuen from their graſſe wherof they feed,they will ſeem to neigh; and flying vnto them,chaſe them away,and ſo be reuenged of them again. But aboue all other birds of the aire,the Parrats paſſe,for counterfeiting a mans voice: inſomuch, as they will ſeeme to parle and prate our very ſpeech. This foule commeth out of the Indies, where they call it Sittace. It is all the body ouer greene, onely it hath a collar about the necke of vermilion red,different from the reſt of her feathers. The Parrat can skil to ſalute Emperors,and bid †good mor- † vel.
row: yea,and to pronounce what words ſhe heareth. She loueth wine well, and when ſhee hath drunk freely,is very pleaſant,plaifull,and wanton. She hath an head as hard as is her beak: when ſhe learns to ſpeak,ſhe muſt be beaten about the head with a rod of yron: for otherwiſe ſhe careth for no blowes. When ſhe taketh her flight down from any place,ſhe lighteth vpon her bil,
C and reſteth therupon,and by that means fauoreth her feet, which by nature are but weake and feeble,and ſo carrieth her owne weight more lightly.

There is a certain Pie,of nothing ſo great reckoning and account as the Parrat,becauſe ſhee is not far fet,but here-by neere at hand: howbeit,ſhe pronounces that which is taught her more plainly and diſtinctly than the other. Theſe take a loue to the words that they ſpeak: for they not only learn them as a leſſon,but they learn them with a delight and pleaſure. Inſomuch that a man ſhall find them ſtudying thereupon, and conning the ſaid leſſon: and by their carefull thinking vpon that which they learn,they ſhew plainly how mindfull and intentiue they be thereto. It is for certain knowne that they haue died for very anger and griefe that they could not learn to pronounce ſome hard words: as alſo,vnleſſe they heare the ſame words repeated of-
D ten vnto them,their memory is ſo ſhittle,they will ſoone forget the ſame againe. If they miſſe a word,and haue loſt it,they wil ſeeke to call it againe to remembrance; and if they fortune to heare the ſame word in the mean time,they will wonderfully ioy thereat. As for their beautie, it is not ordinary,although it be not very louely. But ſurely amiable enough they are in this, that they can ſo well reſemble mans ſpeech. It is ſaid,that none of their kinde are good to bee made ſcholers,but ſuch only as feed vpon maſt: and among them, thoſe that haue fiue toes to their feet. But euen theſe alſo are not fit for that purpoſe,after the firſt two yeares of their age. And their tongue is broader than ordinarie: like as they be all that counterfeit mans voice,each one in their kind; although it be in maner general to all birds whatſoeuer to be broad tongued.
Agrippina the Empreſſe,wife to *Claudius Cæſar*,had a Black-bird or a Throſtle, at what time as I
E compiled this boook,which could counterfeit mans ſpeech; a thing neuer ſeen nor knowne before. The two *Cæſars* alſo,the yong princes(to wit,*Germanicus* & *Druſus*) had one Stare,& ſundry Nightingales,taught to parle Greeke and Latine. Moreouer,they would ſtudie vpon their leſſons,and meditate all day long: and from day to day come out with new words ſtill,yea,and were able to continue a long ſpeech & diſcourſe. Now for to teach them the better,theſe birds muſt be in a ſecret place apart by themſelues,where they can heare no other voice: and one is to ſit ouer them,who muſt repeat often that which he would haue them to learn; yea, and pleaſe them alſo with giuing them ſuch meat as they beſt loue.

Chap. XLIII.

F ¶ *The vnderſtanding and wit that Rauens haue.*

LEt vs not defraud the Rauens alſo of their due praiſe in this behalfe, conſidering,that the whole people of Rome hath teſtified the ſame not only by taking knowledge,but alſo by a publick reuenge & exemplarie puniſhment. And thus ſtood the caſe. In the daies of *Tiberius*

berius the emperor, there was a yong Rauen hatched in a neſt vpon the church of *Caſtor & Pollux*; G
which, to make a triall how he could flie, took his firſt flight into a ſhoomakers ſhop juſt ouer-
againſt the ſaid church. The maſter of the ſhop was well enough content to receiue this bird,
as commended to him from ſo ſacred a place, and in that regard ſet great ſtore by it. This Ra-
uen in ſhort time being acquainted to mans ſpeech, began to ſpeak, & euery morning would fly
vp to the top of the Roſtra or publick pulpit for Orations, where, turning to the open Forum &
market place, he would ſalute and bid good morrow to *Tiberius Cæſar*, and after him, to *Germa-
nicus* and *Druſus* the yong princes, both *Cæſars*, euery one by their names: and anon the people
of Rome alſo that paſſed by. And when he had ſo don, afterwards would flie again to the ſhoo-
makers ſhop aforeſaid. This duty practiſed, yea and continued for many yeres together, to the
great wonder and admiration of all men. Now it fell out ſo, that another ſhoomaker who had H
taken the next coruiners ſhop vnto him, either vpon a malicious enuie that he occupied ſo neer
him, or ſome ſudden ſpleene and paſſion of choler (as he would ſeeme to plead for his excuſe)
for that the Rauen chanced to meut a little, and ſet ſome ſpot vpon a paire of his ſhooes, killed
the ſaid Rauen. Whereat the people tooke ſuch indignation, that they riſing in an vptore, firſt
droue him out of that ſtreet, and made that quarter of the city too hot for him: and not long af-
ter murdered him for it. But contrariwiſe the carkaſſe of the dead Rauen was ſolemnly enter-
red, and the funerals performed with all ceremoniall obſequies that could be deuiſed. For the
corps of this bird was beſtowed in a coffin, couch or bed, and the ſame bedecked with chaplets
and garlands of freſh floures of all ſorts, carried vpon the ſhoulders of two blacke-Mores, with
minſtrels before, ſounding the Haut-boies, and playing on the Fife, as far as to the Funeral fire; I
which was piled and made in the right hand of the cauſey Appia, two miles without the city in
a certain plain or open field called Rediculi. So highly reputed the people of Rome that ready
wit and apt diſpoſition in a bird, as they thought it a ſufficient cauſe to ordaine a ſumptuous
buriall therefore: yea, and to reuenge the death thereof, by murdering a citizen of Rome in that
city, wherein many a braue man and noble perſon died, and no man euer ſolemnized their fune-
rals: in that city I ſay which affoorded not one man to reuenge the vnworthy death of that re-
nowned *Scipio Æmylianus*, after he had woon both Carthage and Numantia. This happened the
fifth day before the Calends of Aprill, in the yeare when *M. Seruilius*, and *C. Ceſtius* were Con-
ſuls of Rome. Moreouer, euen at this very preſent, when I wrote this hiſtorie, I ſaw my ſelfe a K
Crow belonging to a certain knight of Rome, who brought him out of the realm of Grenado
in Spaine, which was a very ſtrange and admirable bird, not only for the exceeding blacke co-
lour of his feathers, but alſo for that he could pronounce and expreſſe ſo perfectly many words
and ſentences together, and learned ſtill new leſſons euery day more than other. It is not long
ſince that there went a great bruit and fame of a notable hunter in Erizena a countrey of Aſia,
whoſe name was *Craterus Monoceros:* that vſed to hunt by the meanes and helpe of Rauens. His
manner was to carry with him theſe Rauens into the Forreſt, perching vpon his ſhoulders & his
hunting hornes: and theſe would ſeeke out and put vp other wilde ones, and bring them to him.
Thus by cuſtom & vſe he brought his hunting to this good paſſe, that when he returned home-
ward out of the foreſt, the wild as well as the tame would accompany him. Some haue thought L
it worth the ſetting downe vpon record, how there was a Rauen ſeene in time of great drought
when water was hard to come by, for to caſt ſtones into the bucket belonging to a ſepulchre,
wherein there was ſome rain water remaining toward the bottome, but ſo deepe, that he could
not reach vnto it: and being afraid to go downe into it, by heaping vp many ſtones, hee brought
the water to riſe ſo high, as he might drinke ſufficient with eaſe.

Chap. XLIV.

¶ *Of Diomedes his birds.*

NEither will I ouerpaſſe the birds called Diomedeæ, which K. *Iuba* nameth Cataractæ. M
Toothed they are, as he ſaith; and they haue eies as red and bright as the fire: otherwiſe
their feathers be all white. Who alſo affirmes, that they euermore haue two captains, the
one for to lead the vaward, and the other for the reregard. With their bils they dig little tren-
ches & gutters in the ground: ouer which from ſide to ſide they lay ſticks, acroſſe like hurdles,
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A artificially, and then couer the ſame ouer with the earth they caſt forth before, vnder which they breed. Euery of theſe trenches hath two dores, the one regarding the Eaſt, at which they go forth to their meat: and the other looking toward the Weſt, by which they come in againe after their returne. Whenſoeuer theſe birds would meut, they flie euer full into the winde, becauſe they would not file themſelues. Found they be in one place of the world, and but in one, namely in a certaine Iſland, inmobled, as we haue written before, for the tombe and Temple of *Diomedes*, and it lieth vpon the coaſt of Apulia. Theſe birds are like vnto the white ſea Mewes with a blacke cop. Their manner is to cry with open mouth vnceſſantly at any ſtrangers that come aland, ſaue only Grecians, vpon whom they wil ſeem to fawn and make ſignes of loue and amitie in all flattering wiſe. A wonderfull thing that they ſhould diſcerne one from another, and giue ſuch friendly welcome to them, as diſcended from the race of *Diomedes*. Their manner
B is euery day to charge their throat and wings full of water, and all to drench therewith the ſaid temple of *Diomedes*, in token of purification. Whereupon aroſe the fable, That the companions of *Diomedes* were turned into theſe birds.

Chap. XLV.

¶ *What Birds are not apt to learne, and will not be taught.*

AND now that we are in this diſcourſe of wit and capacitie, I muſt not omit to note, That of birds the Swallow; and of land beaſts the Mouſe and the Rat, are very vntoward, and
C cannot be brought to learn. Whereas we ſee great Elephants ready to do whateuer they are commanded: the furious Lions brought to draw vnder the yoke: the Seals within the ſea, and ſo many ſorts of fiſhes grow to be tame and gentle.

Chap. XLVI.

¶ *The manner of Birds in their drinking.*

BIrds drinke ſucking, and thoſe that haue long necks make ſtayes betweene, and euery while hold vp their bil from the water, as if they would poure the water down their throat. The bird Porphyrio alone ſeems to bite the water as he drinketh. And this bird hath this pro-
D pertie by himſelfe, to dip and wet all his meat euer and anon in water, and then with his foot in lieu of an hand to reach it vnto his bil. The beſt of this kind are in Comagene. Their bils and long ſhanks that they haue be red.

Chap. XLVII.

¶ *Of the Foule Himantipus, the Onocrotali, and other ſtrange fowles.*

LIke in that reſpect vnto the Porphyrio, is the Himantipus, a bird far leſſe in body, but full as long legged, and ſtalking as high. They are bred in Ægypt, and go vpon three toes to a foot. Their moſt feeding is vpon flies. In Italy they liue not many daies. All great & hea-
E uie birds liue on ſeeds and corn: they that fly on high prey vpon fleſh. Among water fouls the Cormorants vſe to deuoure that which other birds either diſgorge or meute. The Onocrotali much reſemble ſwans, and ſurely they might be thought the very ſame and no other, but that they haue within their throat another kind of gizzar beſides their craw, in which, theſe fowles being vnſatiable, beſtow all that euer they can get; whereby it is of a wonderfull great capacitie, and will receiue very much. Now when they haue done the rauening, and filled this poke, ſoon after they conuey it from thence by little and little into their mouth, and there chew the cud, vntill after it be well prepared, they ſwallow it downe into the very craw and belly indeed. Theſe fowles are to be found in the parts of Picardie and Normandy in France, lying vpon the North Ocean. In Hircinia, a forreſt of Germanie, we haue heard that there be ſtrange kinds of
F birds, with feathers ſhining like fire in the night ſeaſon. In other reſpects I haue nothing to ſay of them worth the writing, ſaue only they are of ſome name for being far fetched.

CHAP.

Chap. XLVIII.

¶ *The names and natures of many Birds.*

OF water fowls, the Phalerides are thought in Seleucia of the Parthians, and alſo in Aſia, to be the daintieſt. Likewiſe the Feſant hens of Colchis, which haue two ears as it were conſiſting of feathers, which they will ſet vp and lay down as they liſt. The Ginnie or Turkey hens in a part of Africke called Numidia, be in great requeſt, as alſo throughout all Italy now adaies. *Apicius*, the moſt riotous glutton and belly-god of his time, taught men firſt, that the tongue of Phœnicopterus was a moſt ſweet and delicat piece of meat. The Moore-hen of Ionia is much commended and highly eſteemed. This bird ſo ſoon as ſhe is taken priſoner, loſeth her voice and is mute; for otherwiſe ſhe is vocal and loud enough, and in old time was reputed a rare and ſingular bird. But now there be caught of them in Fraunce and Spain, yea and among the Alps: where alſo the Plungeons or bald Rauens be, which heretofore were thought proper and peculiar to the Baleare Iſlands: like as the Pyrrhocorax [*i.* the red Rauen] with the yellow bill, was ſuppoſed to breed onely among the Alps: and with it the Lagopus, a daintie bird, and moſt pleaſant in the diſh. And this name it took in Greek, becauſe it is rough footed and haired like the haires foot: otherwiſe all ouer white, and as big as a pigeon. Haue her out of the ground, vnder which ſhe breedeth, you ſhall hardly get her to feed, neither will ſhee be made tame, liue ſhe neuer ſo long: kill her once, the body preſently wil rot and putrifie. There is another beſides of that name, and differeth from Quailes onely in bigneſſe, for it is greater than the Quaile; and with a yellow ſauce of ſaffron it is a moſt delicate piece of meat. *M. Egnatius Calvinus* gouernor of the parts about the Alps, reporteth, that he hath ſeen there the Ibis a bird proper to the land of Ægypt.

Chap. XLIX.

¶ *Of new Birds, and ſuch as are holden for fabulous.*

DVring the ciuil wars between *Otho* and *Vitellius*, and namely about the time of the journy or battell of Bebriacum beyond the Po, there were theſe new birds (for ſo they be called ſtill at this day) brought into Italy. Like they be to Thruſhes or Maviſſes, ſomewhat leſſe than houſe doues, pleaſant in the eating. The Baleare Iſles ſend vs another Porphyrio, better than that before named, *cap.* 46. Where the Buzards alſo a kind of Hawk are held for excellent meat, and ſerued vp at the table. Likewiſe the Vipio, for ſo they call the leſſer Crane. As for the fowles called Pegaſi, headed like horſes; and the Griffons, which are ſuppoſed to haue long eares and a hooked bill, I take them to be meere fables: and yet they ſay that the Pegaſi ſhould be in Scythia, and the Griffons in Ethyopia. Moreouer, I thinke the ſame of the Tragopanades, which many men affirm to be greater than the Egle, hauing crooked horns like a ram on either ſide of the head, of the colour of iron, and the head only red. As touching the Birds Syrenes, I wil neuer beleeue there be any ſuch, let *Dino* the father of *Clitarchus* that renowmed writer ſay what he wil: who auoucheth for a truth, that they be in India, and that with their ſinging they wil bring folk aſleep, and then fly vpon them and teare them in pieces. He that will giue credit to theſe fables, may euen as well beleeue, that dragons forſooth taught *Melampus* by licking his eares, how to vnderſtand the language of birds when they chaunt and ſing vpon trees, or cry and chirp in the aire. Likewiſe the tales that *Democritus* telleth, who nameth certain birds, of whoſe bloud mingled together and ſuffered to corrupt, there is ingendred a Serpent, which whoſoeuer eateth ſhall know what birds ſay one to another in their ſpeech: and namely the ſtrange things he telleth of the Lark aboue the reſt. For verily without theſe fabulous lies, mens heads be occupied enough, and too much to, about the Auguries onely and preſages of birds, that they haue no need to buſie & trouble their brains about thoſe toies. *Homer* makes mention of certain birds called Scopes: but I canot conceiue thoſe ſatyrical geſticulations of theirs like Antikes when they are perched, which ſo many men talke of, neither doe I think otherwiſe, but that theſe birds are out of knowledge now a daies. And therefore far better it is to write of thoſe we know.

CHAP.

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Chap. L.

¶ *Who firſt deuiſed to cram Hens. Who inuented Mues and Coupes to keepe foule in.*

THey of the Iſland Delos began the cramming of Hens and Pullein firſt. And from them aroſe that deteſtable gourmandiſe and glutronie to eat Hens and Capons ſo fat & enterlarded with their owne greaſe. Among the old ſtatutes ordained for to repreſſe inordinate feaſts, I find in one act made by *C. Fannius*, a Conſul of Rome, eleuen yeres before the third Punick war, an expreſſe prohibition and reſtraint, That no man ſhould haue his table ſerued with any foule, vnleſſe it were one hen, and no more, and the ſame a runner only, and not fed vp and crammed fat. The branch of this one ſtatute was afterwards taken forth and inſerted in al other acts prouided in that behalfe, & went currant thorough all. Howbeit, for all the law ſo well ſet down, there was a ſtarting hole found to delude and eſcape the meaning therof, namely, to feed Cocks & Capons alſo with a paſt ſoked in milk & mead togither, for to make their fleſh more tender, delicate, and of ſweeter taſt: for that the letter of the ſtatute reached no farther than to Hens or Pullets. As for the Hens, they only be thought good and well ynough cramm'd, which are fat about the neck, and haue their skin plumpe and ſoft there. Howbeit, afterwards our fine cookes began to looke to their hind-parts about the rumpe, and chuſe them thereby. And that they ſhould make a greater ſhew in the platter, they ſlit them along the chine: and lay their legs out at large, that they might take vp the whole dreſſer bourd. The Parthians alſo haue taught our cooks their own faſhions. And yet for all this fine dreſſing and ſetting out of meat, there is nothing that pleaſeth and contenteth the tooth of man in all reſpects; while one loues nothing but the leg, another likes and praiſes the white brawne alone, about the breaſt bone. The firſt that deuiſed a Barton & Mue to keepe foule in, was *M. Lenius Strabo*, a gentleman of Rome, who made ſuch an one at Brindis, where he had encloſed birds of all kinds. And by his example we began to keepe foules within narrow coups and cages as priſoners, to which creatures Nature had allowed the wide aire for their ſcope and habitation.

Chap. LI.

¶ *Of Æſopes proud platter.*

BVt in the relation and report of this argument, notorious aboue all the reſt in our memorie is that platter of *Clodius Æſopus*, the plaier of Tragedies, which was eſteemed worth * ſix hundred Seſtertia. In this one charger he ſerued vp at the table all kind of birds that either could ſing or ſay after a man; and they coſt him ſix hundred Seſterces apeece. And ſurely it was no delight & pleaſure that he ſought herein to content the tooth, but only that he would haue the name to eat the reſemblers of mans voice: without any conſideration & regard that he had of all that great riches and reuenues of his owne, which himſelfe had gotten by his tongue, and by counterfeiting the ſpeech of others. A father verily worthie ſuch a ſonne, who as we ſaid before, deuoured thoſe precious pearles. And to ſpeake a truth, it is hard to judge whether of them twaine plaied the beaſt more, the father or the ſonne. But that it ſeemeth leſſe pride and prodigalitie to ſwallow down the throat the greateſt riches of Nature, than to chew and eat at a ſupper mens tongues, that is to ſay, thoſe birds that could pronounce our language.

* i. 600000 Seſtertij, 15000 dg. nieris.

Chap. LII.

¶ *The engendring of birds: and what foure-footed beaſts lay egges as well as they.*

THe generation of birds ſeemes alwaies to be after one & the ſame manner. And yet therein is to be found ſome ſtrange & extraordinarie worke. Like as there be four footed beaſts known alſo to haue eggs, namely, the Chamæleons, Lizards, and ſuch as we named among Serpents. Of foules, thoſe that haue hooked clawes and tallons, are but barren that way, and lay few eggs. Only the Keſtrell laieth foure at a time. And verily Nature hath well prouided in all the kind of foules, That the mightier ſhould be leſſe fruitfull than the weaker and thoſe that flie from the other. The Oſtriches, Hens, Partridges, and Linnets, are great laiers. As touching the

the manner of their engendring, it is performed two waies: for either the female couche th G
downe, as doe our hens; or elſe ſtand vpon their feet, as doe the cranes. Of eggs, ſome be white,
as thoſe of Doues and Partridges; others, be pale and yellowiſh, as thoſe of water-foule: ſome
be ſpotted, as thoſe of the Turkie-hens: others againe red; and ſuch egs Feaſants lay, and Ke-
ſtrils.

All birds egges within the ſhell, are of two colours. In water-foules, the yolke is more than
the white, and the ſame is more wan and duskiſh than in others. The egges of fiſhes are of one
colour, and therein is no white at all. Birds eggs are brittle ſhelled, by reaſon of their heat. Ser-
pents eggs are more tough becauſe of cold: but they of fiſhes are more ſoft and tender, for that
they be ſo liquid. Thoſe of fiſhes and ſuch creatures as liue in water, haue round eggs ordinari-
ly: others be long and pointed at one end in the top. Birds lay their egges with the rounder end H
comming forward: their ſhell is ſoft whiles they be warm and a laying, but preſently they har-
den by piecemeale as they come forth. *Horatius Flaccus* is of opinion, that the longer the egge
is, the better taſt it hath. The rounder egge prooues to be the hen commonly, the reſt will be
cockes. There is found in the * top or ſharper end of an egge within the ſhell, a certaine round
knot reſembling a drop or a nauil, riſing aboue the reſt, which they call a Kinning.

* Or rather in the crown and broader end, as our Wiues ſay.

CHAP. LIII.

¶ *The engendring of egges: the ſitting of birds: and their manner of generation.* I

SOme birds there be, that tread all times of the yeare; and lay egs but only two moneths in
mid winter: and of thoſe, pullets lay more than old hens, but they be leſſe, eſpecially the firſt
and laſt of one laiter. So fruitfull they be, that ſome of them wil lay threeſcore egs ere they
giue ouer: ſome euerie day; others, twice in one day: and ſome will ouer-lay, vntill they be ſo
weary and feeble withall, that they will neuer lay more, but die withall. The little ſhort legged
grig hens, called Hadrianæ (that came from Hadria) are counted beſt. Doues lay & conuey ten
times in the yeare, ſome of them eleuen: and in Ægypt there are found that giue not ouer in the
twelue months, euen at mid-winter in December. Swallowes, Ouſels, Quoiſts or Ringdoues and
Turtles, lay and ſit twice in the yeare: other birds ordinarily but once. Thruſhes and Blackbirds K
build their neſts of mud and clay, in trees and buſhes one by another, ſo neere as if they were
linked together: and lightly they engender in ſome corner out of the way. After the hen is tro-
den, within ten daies the egs commonly knit within her bellie, are come to perfection & readie
to be laid. Howbeit if hens haue ſome wrong done vnto them, or if a man chance to pluck a fea-
ther or quill from a pigeon at that time, or do them ſome ſuch iniurie, it will be longer ere they
lay.

All egs haue within them in the mids of the yolk, a certaine drop as it were of bloud, which
ſome thinke to be the heart of the chicken, imagining that, to be the firſt that in euerie bodie
is formed and made: and certainly a man ſhall ſee it within the verie egge to pant and leape. As
for the chick, it taketh the corporall ſubſtance, and the bodie of it is made of the white wateriſh
liquor in the egge, the yellow yolke ſerues for nouriſhment: whiles the chick is vnhatched and L
within the egge, the head is bigger than all the bodie beſides: and the eies that be compact and
thruſt together, be more than the verie head. As the chick within growes bigger, the white tur-
neth into the middeſt, and is encloſed within the yolke. By the 20 day (if the eggs be ſtirred) ye
ſhall heare the chick to peepe within the verie ſhell: from that time forward, it beginneth to
plume and gather feathers: and in this manner lies it within the ſhell, the head reſting on the
right foot, and the ſame head vnder the right wing, and ſo the yolke by little and little decrea-
ſeth and faileth. All birds are hatched with the feet forward, contrarie to other creatures. Some
hens there be, that lay all their egs with two yolkes; and of them be hatched two chickens o-
therwhiles, as *Cornelius Celſus* writeth, but the one of them is bigger than the other. Howbeit, o- M
thers ſay, it is impoſſible that one egge ſhould come to two chickens. Moreouer, it is held for a
rule, that there ſhould not be put vnder a brood-hen aboue 25 egs at one time to ſit vpon. Af-
ter the mid-winter, hens begin to lay and ſit. The beſt brood is before the ſpring Æquinoctiall.
Thoſe that be hatched after mid-ſummer, neuer come to their full and kind bigneſſe: and euer-
more the later the leſſer.

CHAP.

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Chap. LIV.

¶ *The infirmities and impediments incident to brood hens, and the remedies.*

THe beſt egs that can be put vnder hens when they ſit, are they that were laid ten daies before at the vtmoſt; for neither old eggs, nor yet very new laid are good for that purpoſe. After that a hen hath ſitten 4 daies, take an eg from vnder her, hold it in one hand by the narrow end, and look between you and the light, with the other ouer it; if it be cleare through and of one colour, it is ſuppoſed to be naught, and will neuer proue a chicke, and therefore put another in place thereof. Another experiment there is by water: the addle egg wil flote aboue
B as empty, the ſound and good will ſinke to the bottom: and ſuch therefore being full are to be ſet vnder the hen. We ye would try whether an egg be good or bad in this caſe, our countrey wiues ſay, you muſt not ſhake them in any hand, for if the vital veins & parts be broken & blended together, they will neuer proue. Moreouer, this is alwaies to be looked vnto, that ye begin to ſet an hen after the change of the moon, for if you ſet her in the wain, the eggs will be addle, and neuer come to be chickens. The warmer the weather is, the ſooner will ſhe hatch, & therefore it falleth out, that in ſummer ye ſhal haue her abroad with her brood vpon the nineteenth day; in winter many times it will be 25 daies firſt. If it thunder while ſhe is broody the eggs will be addle; yea and if the hen chance but to heare an hawke cry they will be marred. The remedie againſt thunder, is to put an iron nail vnder the ſtraw of the hens neſt, or els ſome earth
C newly turned vp with the plow. Ouer and beſides, there be ſome egs that will come to be birds without ſitting of the hen, euen by the worke of Nature only, as a man may ſee the experience in the dunghills of Egypt. There goeth a pretty jeaſt of a notable drunkard of Syracuſa, whoſe manner was when hee went into the Tauerne to drinke, to lay certaine egges in the earth, and couer them with mould, and he would not riſe nor giue ouer bibbing vntill they were hatched. To conclude, a man or woman may hatch eggs with the very heate only of their body.

Chap. LV.

D ¶ *The Auguries and preſages of Egges.*

LIuia Auguſta the Empreſſe, wife ſomtime of *Nero*, when ſhe was conceiued by him, & went with that child [who afterwards proued to be *Tiberius Caſar*] being very deſirous (like a yong fine lady as ſhe was) to haue a jolly boy, practiſed this girliſh experiment to foreknow what ſhe ſhould haue in the end: ſhe tooke an egge, and euer carried it about her in her warme boſome; and if at any time ſhe had occaſion to lay it away, ſhe would conuey it cloſely out of her owne warme lap into her nurſes, for feare it ſhould chill. And verily this preſage proued true, the egge became a cocke chicken, and ſhe was deliuered of a ſonne. And hereof it may well became the deuice of late, to lay egges in ſome warme place, and to make a ſoft fire
E vnderneath of ſmall ſtraw or light chaffe to giue a kinde of moderate heate: but euermore the eggs muſt be turned with a mans or womans hand, both night and day; and ſo at the ſet time they looked for chickens and had them. It is reported beſides of a certaine Poulter, who had a ſecret by himſelfe, whereby he could tell ſurely and neuer miſſe, which egge would be a cocke chicke, which a hen: alſo of many hennes that he kept, which was euery hens egge, if hee did but ſee it. We haue heard moreouer, that when a brood hen chanced to die, the cocks that vſed to tread her, were ſeen to go about with the chickens one after another by turnes, and to do euerie thing like to the very hen indeed that hatched them: and all that while to forbeare once to crow. But aboue all it is ſport alone to ſee the maner of an hen that hath ſitten vpon ducks egs and hatched them, how at the firſt ſhe will wonder to haue a teem of ducklings about her, and
F not acknowledge them for her owne; but ſoone after ſhee will clucke and call this doubtfull brood to her very carefully and diligently: but at the laſt, when ſhe perceiues them, according to their kind, to take the water and ſwim, how ſhe will mourn and lament about the fiſh-poole, that it would pitty ones heart to ſee them what moane they will make.

CHAP.

Chap. LVI.

¶ *Which be the beſt hens.*

A Man ſhall know a good and kindly hen by her comb, when it is ſtrait and vpright: otherwhiles alſo double creſted: alſo by the pinion feathers blacke, the vpper plume reddiſh. Such a hen will be red alſo about her head and bill, and haue an odde toe to her feet, yea and ſomtime that od one to lie croſſe ouerthwart the other foure. In caſe of ſacrifices and religious vſe they are not thought good nor allowable that haue beck and feet yellow. For diuine ſeruice and ſecret myſteries celebrated in couert to the goddeſſe *Ops*, the black are allowed for good. There is alſo a dwarfiſh kind of hens, [*i.* grig hens] that are extraordinarie little, and yet fruitful, a thing not ſeen in any other kind of fowle: they lay and miſſe not, but ſeldom ſit they on any egs, and if they do it is hurtfull for them.

Chap. LVII.

¶ *The maladies that hens be ſubiect vnto, and the remedies.*

THat which troubleth all the kind of them is a certain diſtillation of a phlegmaticke humor, which cauſeth the pip, the moſt of all between harueſt time and vintage. The cure is, to keep them hungry & long faſting: alſo to let them lie or perch in a ſmoky place, eſpecially where the fume is made of Bay leaues and the herb Sauin. It is good moreouer, to draw a little quill or feather through their noſthrils acroſſe, and to remoue or ſhift it euery day. As for their meat, let it be ſome cloues of garlicke ſhred among their corne, or elſe let their meat be well infuſed or ſteeped in water, wherein an owle hath waſhed and bathed her ſelfe; or elſe ſodden with the ſeed of Bryonie or the wilde white Vine: beſides ſnch other medicines as are daily in vſe.

Chap. LVIII.

¶ *The manner how fowles do conceiue, and what number of yong ones commonly they hatch.*

DOues haue this propertie by themſelues, to bill one another and kiſſe before they tread. They lay for the moſt part two egs. Thus Nature hath diſpoſed, that ſome ſhould breed often and few: others ſhould hatch many together at once. The Ringdoues or Quoiſts, and Turtles, ordinarily lay three egs; and lightly they ſit and hatch but twice a yere: and that is, if their firſt brood come not to perfection, but miſcarried and was not reared vp. And albeit they lay three egs, yet they neuer hatch but twain: the third that is addle, they call in Latine *Vrinum*. The female Ringdoue ſits euer from noon vntil the next morning; the male makes vp the reſt of the day. Houſe-doues breed euermore one cock pigeon, and another hen. The male is hatched to day, and the female tomorrow. In that kind they ſit both, the cock all day, and the hen by night: and vſually vpon the 20 day they hatch. They lay within fiue daies after they be troden, and in ſummer time verily you ſhall haue them in the ſpace of two months bring three paire of pigeons; for then they vſe to hatch by the 18 day: and preſently they conceiue again. So that a man ſhall oftentimes find new laid egs euen amongſt the young pigeons: and otherwhiles it is ſeen, that whiles ſome are ready to fly, others peep newly out of their ſhel: and theſe yong birds within fiue moneths will lay themſelues. Now the nature of theſe hen doues is (if they want a cock) to tread one another, and hereof they come to lay barren egs, wherof nothing will be ingendred: and ſuch the Greeks call Hypenemia, *i.* wind-egs.

Chap. LIX.

¶ *Of the Peacocke and Geeſe.*

THe Pea-hen falls to lay and breed after ſhe is 3 yeres old. In the firſt yere ſhe begins with one or two egs: the yeare following ſhe riſeth to foure or fiue: in the reſt ſhee reacheth to twelue and no more. When ſhe layeth, her manner is to reſt two or three dayes betweene euery egge. And thrice a yeare ſhe keepeth this order, namely, if her egges be taken from

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A from her, and put vnder hens to be ſitten vpon: for why, the Peacocks wil breake them if they can meet with them, becauſe they canot miſſe and ſpare the Peahens company while they are broody and ſitting: which is the cauſe they are wont to lay by night, or in ſome ſecret corner out of the way, and that from an high place where they perch: and then, vnleſſe there be good heed taken that the eggs be latched in ſome ſoft bed vnderneath, they are ſoone broken. One Peacock is ſufficient to go with fiue wiues: for when there is but twain [the villaine is ſo lecherous] with ouermuch treading he hindereth their laying, and marreth the knot of eggs ingendred within them. The Peahen hatcheth in 28 daies, or in thirty at the fartheſt.

Ganders and Geeſe ingender together in the very water. Geeſe lay ordinarily in the ſpring:
B or if they were troden about mid-winter, then ye ſhall haue them lay after the Winter Sunneſtead ſome forty daies or very neere. They haue vſually two laiters in the yeare, namely, if hens hatched their former egs. The moſt that they hatch at one ſitting is ſixteene, and the feweſt ſeuen. If a man ſteale their egs from them they lay ſtill, and neuer giue ouer till they be readie to burſt with laying. No birds egs but their own will they hatch. The moſt profitable way, is to ſet them vpon nine or eleuen. The females only ſit, and that for the ſpace of 30 daies, vnleſſe it be warme weather, and then they will haue done by 25. If one of their Goſlings be ſtung neuer ſo little with a nettle, it will die of it. Their owne greedy feeding alſo is their bane, for one while they will eat vntill they burſt again; another whiles kill themſelues with ſtraining their own ſelues: for if they chance to catch hold of a root with their bill, they will bite and pul ſtil hard for to haue it, that many times they breake their owne neckes withall, before they leaue their hold. Againſt the ſtinging of nettles the remedie is, that ſo ſoone as they be hathed there be ſome nettle roots laid vnder their neſt of ſtraw.

Chap. LX.

¶ *Of Herons and Bittours, and the beſt way to keepe egs long.*

D OF Herons be three ſorts, * Leucon, * Aſterias, * and Pellon: theſe laſt ingender with much paine and difficultie; as for the males verily they cry againe for anguiſh, and the bloud ſtarts out of their eies in the act of treading. And with as much ado and trouble do the females lay, after they be knit with eg. The Egle and the moſt part of the greater fouls ſit 30 daies, whereas the leſſe continue but 20, as the Kite and the Hawk. The Kite vſually hatcheth but one at a time, and neuer aboue three: but that kind called Ægolios ſomtimes foure. The Rauen alſo now and then fiue: and thoſe cooue as many daies. While the female crow ſits the male feeds her. The Piot ordinarily brings forth nine Piannets. the fig-pecker Melancoryphus aboue 20, but euermore an od one: and there is not a bird that goeth therein aboue her. Lo how Nature is willing to multiply the race of little birds! The yong Swallowes are at the firſt blind, and ſo are all ſuch as are hatched many in number. Wind-egs, which we call Hypenemia, come either by the mutuall treading of hens one another, by an imaginarie conceit of
E the male, or elſe by duſt. And ſuch egs not only Doues doe bring, but houſe Hens alſo, Partridges, Peahens, Geeſe, and Brants, or the female Barganders. Now theſe egs are barren as it were, and neuer proue birds, leſſe than others, not ſo pleaſant in taſte, and beſides more moiſt. Some are of opinion that the wind will ingender them, for which cauſe alſo they are called Zephyria [*i.* Weſt-wind egs.] And verily ſuch egs are ſeen only in the ſpring, when that wind blows. Addle egs, which ſome called Cynoſura, are they that chill vpon the reſt, when the hen is gone and giueth ouer ſitting. Egs ſteeped in ſtrong vineger will come to be ſo ſoft, that they will paſſe and be drawn through the ring of a mans finger. The beſt way to keep egges is in beane meale or floure; and during winter in chaffe, but for ſummer time in bran. It is thought if they
F lie in ſalt their ſubſtance will waſte and conſume to nothing within the ſhell.

* A Criell, or dwarfe Heron.
* Bittor.
* A Carion Heron

Chap. LXI.

¶ *What Bird alone bringeth forth a liuing creature, and feedeth it with milke.*

THe Rere-mouſe or Bat alone of all creatures that fly, bringeth forth yong aliue, and none but ſhe of that kind hath wings made of pannicles or thin skins. She is the only bird that

ſuckleth her little ones with her paps,and giues them milk: and thoſe ſhe wil carry about her two at once,embracing them as ſhe flieth. It is ſaid alſo that ſhe hath no more but one ioynt of the hanch,without any in the knee or feet: and that they take greateſt delight to feed vpon gnats. G

Chap. LXII.

¶ *Of Vipers: their manner of generation and bringing forth yong: and what land beaſts do lay egges.*

MOreouer,among creatures of the land,ſerpents lay egs: whereof as yet we haue not written. As they ingender together they clip and embrace,and ſo intangled they be and inwrapped one about the other, that a man who ſaw them would think they were one ſerpent with two heads. In the very act of generation the male Viper thruſteth his head into the mouth of the female; which ſhe (for the pleaſure and delectation that ſhe hath) gnaweth and biteth off. No land creature els but ſhe hath egs within her belly,of one colour and ſoft,like as fiſhes haue. Now after three daies they be quicke,and then come forth as they be hatched,but no more than one at once euery day: and ſo commonly ſhe hath. When ſhe is deliuered of the firſt,the reſt(impatient of ſo long delay)eat through their dams ſides,and kil her. As for other ſerpents they lay their egs linked and chained together,and ſo ſit vpon them on the land: but they hatch them not vntill the yeare following. Crocodiles ſit by turnes, the male as well as the female. But I thinke it good to treat alſo of the generation of other land creatures. H I

Chap. LXIII.

¶ *The generation of liuing creatures vpon the land.*

OF all liuing creatures two footed,a woman onely bringeth forth her yong quicke. Men and women both,and none but they,repent at firſt the loſſe of their maidenhead. A very preſage(no doubt) of a life to enſue full of trouble and miſerie, that thus ſhould begin with repentance. All other creatures haue their ſet times and certain ſeaſons in the yeare when they ingender,as hath bin ſhewed before: but all is one with vs, and no houre of day or night comes amiſſe. Other creatures know when they haue enough,and reſt ſatisfied: we only are inſatiable that way,and cannot ſee to make an end. The Empreſſe *Meſſalina*, wife of *Claudius Ceſar*,thinking it the only victorie for a lady and queen to excell in this feat,choſe the moſt gallant curtiſan and commonneſt ſtrumpet in all Rome,to try maſteries and to contend with for the beſt game: and in very truth ſhe won the prize; for in the ſpace of 24 houres ſhe out-went her [a beaſtly thing to be written]no fewer than 25 times. As for men,they haue deuiſed in the practiſe of this filthy act,euen to abuſe ſome parts againſt kind: and women (vnnatural as they be)haue the caſt to deſtroy within them the vnripe and vntimely fruit of their own body. Certes in this behalfe how much worſe are we than the wild and ſauage beaſts of the field. *Heſiod* writeth,that men are more giuen to luſt in winter than in ſummer,and women contrariwiſe. Elephants,Camels,Tigers,Onces,Rhinoceros, Lions, Hares, Connies, and generally all beaſts which haue their genitall parts from-ward,turn taile to taile to the female in the act of generation. As for Camels,they go into the deſart,or at leſtwiſe ſeeke ſome corner when they would ingender; and dangerous it is for one to take them in the maner. They continue in this action one whole day together,and ſo do none els that are whole hoofed. In foure footed beaſts the males are ſet into the heat of luſt by ſenting and ſmelling. Dogs and Bitches,Seales & wolues likewiſe turn away,and in the mids of the action be tied one to another euen againſt their wils, and cannot help it. The females of moſt of theſe before named begin to ride the males firſt,for to prouoke their luſt: but of the reſt,the males leap the females at the firſt. Beares(as we ſayd before) lie along both as man and woman. Hedge-hogs ſtand both vpright,and claſpe one another when they ingender. The he Cat ſtandeth on his feet,and the ſhe lieth vnder him. Foxes ly vpon their ſides, and ſo the Bitch embraceth the male Fox. Kine and Hindes cannot well endure the violence of the Bulls and the Stagges in this buſineſſe, and therefore they are euer going when they doe engender. Stagges goe from one Hinde to another, and then come againe to the firſt; and this doe they in courſe. Lizards, as all other creeping creatures that haue no feet, wind one about another as they ingender. The greater that any beaſts be,the leſſe K L M

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A fruitfull they are of their bodie. Elephants, Camels, and Horſes, get but one at once, neither do the females beare any more at a time: whereas the Goldfinch or Linnet, a verie little bird, bringeth forth a dozen commonly at once. Such as bring moſt, are leaſt while in breeding. The greater that any creature is, the longer time it requireth to be formed in the mothers wombe. And ſuch as liue long, be longer alſo ere they haue their perfection and come abroad into the world. The growing age is not meet for generation. Beaſts that are whole hoofed, neuer bring but one at a time: ſuch as be clouen footed in twaine, may alſo haue twins. But as many as haue their feet parted and deuided into many toes, are fit to beare many at ones. And wheras all the former rehearſed, bring forth perfect creatures with all parts, ſome haue their young ones imperfect and but halfe made: in which number Lioneſſes, ſhe Beares, bitch Foxes, are to bee rec-
B koned: but eſpecially the ſhee Beares, whoſe whelpes are more vnſhapen than the reſt: and a rare thing it is to ſee them a whelping. Howbeit ſuch females when they be deliuered of them, with their licking do chafe and heat them, and ſo by little and little bring them to ſome forme and faſhion by this meanes. Such for the moſt part beare foure whelpes. As for bitches, Wolues, Panthers, and Thoes, kindle their young before they can ſee.

Of Dogges and Bitches there be many kinds. They of * Laconia, as well the male as the female, be apt to engender after they be eight months old. They be with whelp threeſcore daies and three ordinarily. As for other Bitches, they goe proud at ſixe moneths, and may be lined. They be all the ſort of them, ſped at the firſt lining, Bitches that go aſſaut and take the dog before the full time, namely when they be verie young, ſuch bring a litter that will be longer ere they ſee: neither goe they: but all the whelps will not be blind ſo many daies. Dogs commonly
C when they be halfe yeare old, are thought to lift vp their leg when they piſſe; and that is a ſigne they are come to their full ſtrength and perfection: but bitches all that time piſſe ſitting vpon their buttocks. They haue twelue whelps when they bring moſt, but ye ſhall ſee them commonly with a litter of ſix or fiue: and ſomtime they come with juſt one, but that it is thought to be a prodigious ſigne; as alſo if the whelpes be all Dogges or all Bitches. The firſt vſually that they whelpe, be Dogs; for the reſt, they be one with another, a Dog and a Bitch: namely, if they were lined in the due ſeaſon, and at the juſt moneth. And commonly they goe proud ſix moneths after their former litter. The Bitches of Laconia ordinarily bring eight at a time. The Dogs of this race haue a propertie with them, that the more they be trauailed, the more luſtie and freſh they are, yea and the hotter after ſalt-bitches. They liue ten yeares, and the Bitches twelue. Of
D other kinds, ye ſhall haue them continue fifteen yeares, yea and otherwhiles twentie: but they engender not ſo long, but giue ouer commonly at twelue.

* Reſembling our Engliſh maſtiues.

Cats and Rats of Inde, called Ichneumones, in all other reſpects follow the Nature of Dogs, ſaue that they liue but ſix yeares. Conies kindle euery moneth: and albeit they be bagged, yet will they take the bucke againe, and conceiue vpon it; like as the Hares alſo will doe the ſame: for as ſoon as euer they haue kindled, they go to bucke and are preſently ſped: and ſay that the Leuerets or Rabbets lie ſucking at them yet wil they be with yong. When they be new kindled, they cannot ſee.

Elephants (as we haue alreadie ſaid) neuer bring but one at once, and that commonly is as big as a Calfe a quarter old. Camels goe a whole yeare. After they be 3 yeares old, they are
E ſufficient for to engender: and commonly they come in the ſpring: and it is a yeare after before they be couered againe. As for Mares, if there be three daies betweene, or but one, after they haue foled, it is thought they may very well be couered againe; yea and they are brought perforce to the ſtallion for this purpoſe. It is ſuppoſed alſo, that the ſhee Aſſe within ſeuen daies after, will ſooneſt conceiue. It is a rule, to ſhare and clip a Mares maine, before ſhee will abide the couering of an Aſſe, ſo vile and baſe a beaſt: for ſo long as the haire of her maine is well growne, ſhe is ſo proud and glorious, that ſhe will not abide the Aſſe to come neare her. So ſoone as they be couered and ſped, they run full into the South or North-wind, according as they be conceiued either with male or female: a thing that no other beaſts beſides, doth. And
F then, ſuddainly they change their colour; for their haire will be reddder, or at leaſtwiſe fuller and deeper, what colour ſoeuer it be. By which ſigne it is knowne they are with fole, and then they will admit no ſtallions vnto them, would they neuer ſo faine. And ſay, that ſome of them haue foles running by their ſides, they will doe their deed at worke neuertheleſſe: nay when they be with fole, they will labour as well as they did before: in ſo much, as many times they

ſteale a foling, before their maſter beware that they are with ſole. We haue read in Chronicles, that *Echecratides* the Theſſalian had a Mare, which euen then when ſhe was gone far with ſole, woone the beſt game in the Olympian race. They that haue ſought more narrowly into the ſecrets of Nature, ſay, That ſtone-Horſes, Dogs, and Bores, deſire the females in a morning: but Mares, Bitches, and Sowes make meanes to the male after noone. Mares that are kept within houſe at rack and manger with hay and prouender, deſire to be couered threeſcore daies before thoſe that goe abroad in the heard. Swine alone of all creatures when they be brimming, froth and fome at the mouth. And as for the Bore, if he heare the grunting of a Sow that ſeekes to be brimmed, vnleſſe he may come to her, will forſake his meat, vntill he be leane and poore: and ſhe againe will be ſo far enraged, that ſhee will be readie to run vpon a man and all to teare him, eſpecially if his cloths be white. But this rage and woodneſſe of hers is aſſwaged and allaied, only with bathing her ſhare behind with vineger. Some thinke there be certaine meats will prouoke beaſts to fleſhly luſt, namely, Onions giuen in meat to a beaſt; like as Rocket to a man or woman. Moreouer, it is ſuppoſed, that whatſoeuer is made tame, which by kind was wild, the ſame will not breed, as Geeſe and Ganders. In like manner, wild Swine & red Deere, if they be tamed; or if they doe, it is very long firſt: and ſuch only as were brought to hand euen from the time that they were very yong. Finally, this one thing is ſtrange and wonderfull, that all foure-footed beaſts, ſaue only the Mare and the Sow, if they find themſelues to be with yong, driue the male from them. But the Connie and the Hare alone will conceiue again when they be gone with yong.

Chap. LXIIII.

¶ *The varietie in liuing creatures, as touching their comming into the world.*

WHatſoeuer haue quicke creatures within them, bring the ſame forth with the head forward. For when the time is come, the yong thing turns about a little before, which otherwiſe lay ſtreight out at length in the bellie. Four-footed beaſts, whiles their dams go with them, lie with their legs ſtretched along, cloſe vnto their own bellies. An infant whiles it is in the mothers wombe, gathereth round into a ball, and hath his noſe lying juſt betweene his two knees. As for falſe conceptions or Moone-calues (wherof we ſpake before) ſome thinke they are engendred of the womans ſeed only: namely, when ſhe is not conceiued by a man, but by her ſelfe: and hereupon it is, that the ſaid conception hath no vitall nor animall life, becauſe it proceeds not of the conjunction of male and female both. True it is, that it is endued with a certain vegetatiue power, to be nouriſhed and to grow, like as we ſee intrees and many other plants.

Chap. LXV.

¶ *The breed of Mice and Rats.*

OF all creatures that bring forth their young perfect, Swine only farrow one Pig and two Pigs at a time, yea, and ſomtimes a number of them. Alſo they alone contrarie to the nature of all thoſe that either be whole-hoofed, or clouen-footed in twaine, bring a number of yong ones at one farrow. But aboue all, Mice and Rats for fruitfulneſſe do paſſe. And therefore I cannot put off the diſcourſe of them any longer: and yet therin I muſt follow *Ariſtotle* for mine Author, and the report withall of the ſouldiers that ſerued vnder *Alexander* the great. It is ſaid that they engender by licking, without any other kind of copulation: and that one of them hath brought ſix-ſcore at a time: alſo that in Perſia there haue been young Mice found with yong, euen in the bellie of the old dam. And ſome are of opinion, that they will be bagged, if they taſt but of a little ſalt. Why ſhould wee then wonder any more how ſuch multitudes of field-Mice and Rats ſhould come to deuour whole fields of corne? Howbeit, the reaſon is not yet known, how ſuch numbers of them ſhould al of a ſudden conſume away & come to nothing. For neither bee they found lying dead aboue ground, neither can any man come forth and ſay, that he hath turned vp any one with his ſpade as he digged in the Winter. The countrey of Troas is mightily giuen to breed great ſtore of them, inſomuch, as they haue forced alreadie the inhabitants to abandon the place and depart. Men ſay, that the ſeaſon proper

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A and agreeable for their breeding in ſuch aboundance, is a great drought: alſo, that when they are toward their end, there be little wormes breeding in their heads that kill them. The Mice and Rats of Ægypt haue hard haire and pricky like to hedge-hogs. They go likewiſe vpright on their hinder feet, and walk as if they were two footed, after the manner of thoſe in the Alps. Moreouer, if beaſts of diuers kinds ingender together, they may wel breed yong between them, in caſe they do agree and jump in the time that the females of both ſhould go with yong. It is commonly thought and beleeued, that among foure footed beaſts the Lizard hath egs within her, and deliuereth them at her mouth; but *Ariſtotle* flatly denieth it. Howbeit they ſit not vpon them when they haue ſo done, as being forgetful where they laid them, ſo little or no memorie at all haue they. And therefore the yong Lizards of themſelues breake forth out of the
B ſhell.

Chap. LXVI.

¶ *Of a Serpent ingendred of the marrow of a mans back bone.*

I Haue heard many a man ſay, that the marrow of a mans backe bone will breed to a Snake. And well it may ſo be, for ſurely there be many ſecrets in Nature to vs vnknown, and much may come of hidden cauſes, as we may ſee euen among foure footed beaſts.

Chap. LXVII.

¶ *Of the Salamander.*

C. AS for example, the Salamander made in faſhion of a Lizard, marked with ſpots like ſtars, neuer comes abroad and ſheweth it ſelfe but in great ſhewres: for in faire weather he is not ſeen. He is of ſo cold a complexion, that if he do but touch the fire, he wil quench it as preſently as if ice were put vnto it. The Salamander caſteth vp at the mouth a certaine venomous matter like milke, let it but once touch any bare part of a man or womans body, all the haire will fall off, and the part ſo touched will change the colour of the skinne to the white morphew.

Chap. LXVIII.

D ¶ *Of thoſe that breed of others which neuer were ingendred. Alſo of thoſe that being ingendred, yet breed not.*

SOme creatures there be that breed of thoſe that neuer were ingendred themſelues; and yet not according to thoſe naturall means as others which wee haue ſhewed before; and ſuch alſo as either the Summer or Spring, or ſome certain ſeaſon of the yeare do breed. Among which ſome ingender not at all, as the Salamander: * for there is no more diſtinction of ſex in them, than in Yeeles, and in all thoſe which neither lay egs, ne yet bring forth any liuing creature. Oiſters likewiſe and all ſuch creatures as cleaue faſt either to rockes or to the ſhelues, are neither male nor female. As for ſuch as come of themſelues, if there be ſeene in them any di-
E ſtinction of male and female, ſomthing verily they ingender betweene them; but an imperfect creature verily it is, and not reſembling them: neither doth that generation breed ought any more, as we ſee the flies that ingender certain little wormes. The experience hereof is better to be obſerued in thoſe creatures called Inſects: whoſe nature is hard to be expreſſed, and yet I haue appointed a ſeuerall treatiſe for them apart. Wherefore I will go forward in the diſcourſe begun already, and namely as touching the ſence and vnderſtanding of the forenamed Creatures, and then proceed to the reſt.

* Which is found vntrue by experience.

Chap. LXIX.

F ¶ *The outward ſences of liuing Creatures.*

MAn excelleth all other Creatures, firſt in the ſence of feeling, and then of taſting: In the reſt many beaſts go beyond him. For the Ægles haue a clearer eie-ſight, the Geires a finer ſmell; and the Moldwarps, notwithſtanding they be couered ouer with earth (ſo

heauie,ſo thick and deafe an element as it is)yet their eare is far better than ours. Moreouer,albeit the voice of all them that ſpeake aboue ground doth aſcend vpward ſtill from them, yet heare they when they talke,yea and if a man chance to ſpeake of them,ſome hold that they vnderſtand their ſpeech,and thereupon do fly from them. A man,who at firſt lacketh his hearing, wanteth alſo the vſe of his tongue: neither are there any deafe borne,but the ſame likewiſe be dumbe. A man would not think,neither is it likely, that the Oiſters in the ſea do heare,and yet vpon any noiſe and ſound their manner is to ſink down to the bottome. And therefore when as men do fiſh for them in the ſea they are as ſilent as they may be. G

CHAP. LXX.

¶ *A diſcourſe, That fiſhes both heare and alſo ſmell.* H

FIſhes verily haue no eares,ne yet any holes to ſerue for hearing;and yet plain it is that they doe heare, as we may daily ſee in certaine fiſh ponds and ſtewes where fiſhes be kept: for when thoſe that haue the charge of them make a noiſe with clapping of their hands, as wild as they be otherwiſe,they ſhall haue them come in great flocks to take their meat that is thrown in to them: and this are they wont to do daily: and that which more is, in *Cæſars* Fiſh-pooles a man may ſee whole skuls of fiſhes to repaire at their call: yea, and ſome wil part from the reſt of their company,and come alone to land when they be named. Hereupon it is,that the Mullet,ſea-Pike,Stock-fiſh,and Chronius,are thought to heare beſt of all others,and therfore liue very ebbe among the ſhelues and ſhallowes. That fiſhes haue the ſence of ſmelling it is I manifeſt: for they are not all taken ne yet delighted with one kinde of bait: and this is obſerued,that before they bite they will ſmel to it. Some alſo there be that lie in holes vnder rocks, and no ſooner hath the fiſher beſmeared and anointed the mouth and ſides of the ſaid rocks in the very entrance to their holes,but he ſhall ſee them come forth,as it were to auoid the ſent of their own carion. Let them lie in the very deep,yet wil they reſort to certain odors and ſmells, namely,to the Cuttill burnt,and the Polype, which for that purpoſe they vſe to put into their neſts. And verily they cannot abide the ſmel of the ſinke and pumpe of a ſhip,neither wil they come neere vnto it: but aboue all things they may not away with the bloud of fiſh. The Pourcuttle hardly or not at all can be pulled from the rocks,ſo faſt cleaueth he: howbeit come neer him with the herb Marjerome or Savorie,he will preſently leape from the rocke and away,to K auoid the ſent thereof. Purples alſo be caught by means of ſome ſtinking bait. And for other creatures,who doubteth but they haue a perfect ſmell? Serpents are chaſed away with the ſmell and perfume of the Harts horn; but aboue all, with the odor of Styrax. And Piſmires are killed with the very fume of Origon,Quick-lime,or Brimſtone. Gnats loue all four things, and willingly will thither: but to any ſweet meats they come not neare.

CHAP. LXXI.

¶ *That the ſence of feeling is common to all liuing creatures.*

THere is not a liuing creature throughout the world but hath the ſence of feeling, though L it haue none els: for euen oiſters and earth-wormes,if a man touch them doe euidently feele. I would think alſo that there is none but taſteth as wel as feeles. For what ſhould the reaſon elſe be, that ſome deſire to taſt this, others that? And verily herein is ſeene aboue all the ſingular workmanſhip of Nature, in the frame of their bodies and the members thereof. Some ye ſhall haue to ſeiſe vpon their prey with their teeth,others ſnatch it with their talons and clawes: ſome peck and pluck it with their hookt bils, others pudder into their food with their broad nebs. Some with the ſharp point of their beaks worke holes into their meat; others lie ſucking at it. Some lick,others ſup in: to conclude, ſome chew,others ſwallow and deuoure whole as it is. As touching their feet, there is no leſſe varietie in the vſe thereof: in ſnatching and carrying away,in tearing and plucking a pieces,in holding faſt,and in cruſhing their prey. Some ye ſhall haue to hang by their feet, and others neuer lin ſcraping and ſcratching the earth.

CHAP.

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A

Chap. LXXII.

¶ *What creatures liue of poiſon, and what of earth.*

Roe Bucks and Does, yea, and Quailes (as we haue ſaid before) will feed fat with poiſons; and yet they are the moſt meeke and gentle creatures liuing. Serpents haue a great deſire and loue to egs; wherein the ſubtilty of Dragons is worthy to be conſidered. For either they ſwallow them downe whole (if their throat will receiue them) and after they be within their body, breake and ſquize them in pieces with rolling and winding themſelues round toge-
B ther, and then caſt vp the ſhels againe: or if they be but young ones yet, and not ſo ſtrong as to gobble vp whole egs, then they will winde about an egge with their taile by little and little, & bind it ſo hard, that they wil cut off the crowne of it, as it were with a knife, and then ſup off the reſt which they claſp and hold faſt between. In like manner deale they with birds. For ſwallow they will them whole downe the gullet, and afterwards ſtraine and ſtruggle ſo with themſelues vntill they diſgorge again the feathers and bones that were in their bellies.

Scorpions feed vpon earth. And Serpents againe, if they may come handſomly to wine, will make means to drink their fil of it, how ſoeuer otherwiſe they haue but little need of any drink. They eat no meat at all, or very little, when they be kept cloſe within any thing: like as the ſpiders alſo, which otherwiſe naturally liue by ſucking. And therefore you ſhall not lightly ſee
C any venomous creature die either of hunger or thirſt. For neither haue they ſtore of heat, nor plenty of bloud, ne yet of ſweat: all which naturally prouoke a ſtomack, & giue an edge to appetite. And among theſe venomous creatures, thoſe be euer more dangerous which haue eaten ſome of their own kind, before they bite or ſting. Apes, Monkies, and Marmoſets beſtow and treaſure vp the meat that is giuen them, or that they can come by, within their cheeks, as in a ſtore-houſe. And when they be hungry, they get the ſame forth by little and little with their hands, & ſo fal to chew it. Thus practiſe they in making their prouiſion, for to ſerue them from day to day, and from one houre to another: which Piſmires vſually do from yeare to yeare.

Chap. LXXIII.

D

¶ *The meat and drinke of ſome creatures.*

Of all liuing creatures that haue many toes in their feet, the Hare alone feeds vpon graſſe and greene corne in the blade. As for thoſe that be whole hoofed, they liue both of the blade, and alſo of the fruit thereof. Alſo of ſuch as be clouen footed, Swine will eat all kind of food, yea, and liue of very roots. It is the property of whole hoofed beaſts alone, to wallow and turn ouer and ouer. All that haue teeth indented in like ſaws, be naturally deuourers of fleſh. Bears wil feed of corn, brouſe trees, eat grapes, liue of apples and other fruits, feed vpon bees, creifiſhes, and piſmires. Wolues (as we ſaid before) if they be very hungr , eat earth: ſheep feed the better & grow fat, if they may drink; and therfore ſalt is very good for them, becauſe it
E makes them thirſty. Draught beaſts, and ſuch as are vſed for carriage, albeit they liue of corne and graſſe, yet according to their drinking they do feed. Beſides thoſe mentioned hertofore, of wild beaſts the red and fallow Deere both, doe chew cud when they be made tame and fed by hand: but all chuſe rather in ſo doing, to lie than to ſtand, & in winter more than in ſummer, for ſeuen months ordinarily. The rats and mice in the country of Pontus, namely, Hermins, & ſuch like, after the ſame maner do chew cud and go ouer their meat again. What beaſts ſoeuer are toothed like ſaw teeth, lap as they drinke. So do alſo our common mice and rats, although they be of another kind, and are not ſo toothed. They that haue broad teeth, plaine, and vniforme, as horſes and kine, drinke ſupping and taking their ful draught. Bears in their drinking do neither the one nor the other, but bite at the water and ſo let it down. In Affrick the more part of wild
F beaſts drink not all ſummer long, for want of raine water: which is the cauſe that the Rats and Mice of Ginnie which be taken if they drink afterwards vpon ſo long diſuſe, die therewith. In the deſarts of Affrick, where there is no water euer to be had, there is ingendred a certain wilde goat named Oryx, which as by the nature of the place it wanteth drink, ſo it hath in her bodie a ſouerain and ſingular remedy againſt drought and thirſt. Which the common theeues & robbers by the high way ſide in Getulia, knowing well enough, endure a long time with the helpe

thereof

thereof without drinke; for they vſe to ſtanch and quench their own thirſt, with a certain moiſt holeſome liquour found in the bladders of the ſaid beaſt. In the ſame Affricke the Leopards lie in await among the thickets of trees, hidden within the branches; and ſo ſeize vpon them that paſſe by, and make ſpoile euen from the place where fouls vſe to perch. As for Cats, marke I pray you how ſilent they be, how ſoft they tread when they ſteale vpon the ſilly birds: how ſecret lie they in eſpiall for the poore little mice to leap vpon them. Their owne doung and excrements they will rake vp and hide in the earth, knowing full well, that the ſmell thereof will bewray where they are. G

CHAP. LXXIIII.

¶ *What beaſts accord together, and which they be that diſagree one from another.* H

BEſides theſe outward ſences abouenamed, euident it is alſo, that brute beaſts haue other inſtincts of nature. For they entertain friendſhip and enmity one with another (which cannot be without affection and paſſion) ouer and beſides thoſe other wars and amities which wee haue obſerued in their ſeuerall places. Swans and Ægles jar and war one with another: ſo doth the Rauen and the Witwall or Loriot, which ſeeke after one anothers egs in the night. Likewiſe the Rauen and Kite: for the Rauen is euermore ready to catch the Kites meat from him. Crowes and Owles are at mortall feaud one with another. The roiall Ægle hateth the Wren, and why? becauſe (if we may beleeue it) he is named Regulus (*i.* the pettie king.) Howlets alſo cannot agree with other little birds. Again, foules make warre with foure-footed beaſts. The Weaſell and the Crow be at deadly debate. The Turtle with the Creckit (Pyralis) that liueth about the fire. The Ichneumons with Waſpes: the Phalangia with other Spiders. And among water foules, Ducks and Drakes with the ſea-guls. The Seamews with the Buzzard Triorchis. As for the field Rats or Mice, and the dwarf-Herons, they ſeeke to prey one vpon the others little ones. The bird Ægithus (the leaſt in maner of all others) waiteth the Aſſe a ſhrewd turn; for when he rubbeth himſelf againſt the buſhes to ſcratch where it itcheth, he therewith breaketh and ouerthroweth her neſt; and therefore this ſilly bird is ſo much afraid of the Aſſe, that if ſhe heare him but bray, ſhe is ready to throw the egs out of her neſt, and thoſe that be already hatched, will for very feare fall downe: then in reuenge of this wrong, ſhe will flie vpon him, and with her bill peck where the skin is off and raw with rubbing, yea, and make holes euen to the very bone. Moreouer, Foxes and the Yeeles of Nilus cannot abide one another, but are in continuall war. So be Wezils and Swine. There is an vnhappy bird called Æſalon, and but little withall; yet will ſhe ſquaſh and breake the Rauens egs. And when ſhe hath yong ones, they bee much troubled and annoied with Foxes: ſhe again to be quit with them, will all to pinch & nip both the Fox and her cubs. The Rauens ſeeing that, come to aid (as it were) againſt a common enemy. The Gold-finch liueth among buſhes and thorns, and therefore ſhe alſo hates the Aſſe, becauſe he eateth vp the floures that grow therupon. The bird Ægithus, ſo far hateth another called Anthus, that men are verily perſuaded the bloud of them both will not mingle together: and hereupon it is, that the ſorcerers and witches haue brought it into an ill name. The Thoes and the Lions do fouly jarre and diſagree. In ſumme, the leaſt creatures as well as the biggeſt quarrell and fight one with another. Rats and field Mice cannot abide to come neere a tree that is full of Ant-neſts. The Spider eſpying a Serpent lying along vnder the ſhade of a tree where ſhe ſpinneth, ſlideth down vpon a fine thred to the head of the Serpent, and ſtingeth him ſo deep into the braine, that he falleth a hiſſing and grinding his teeth: he keepeth a winding and turning about, but hath not the power to breake the thred that hangeth aboue, ne yet to fly from the Spider: inſomuch, as the Serpent lieth there dead in the place. Contrariwiſe, Peacocks and Houſe-doues be as friendly one to another: ſo be the Turtles and Popinjaies, the Merles and Turtles likewiſe. The Crow and the leſſe Bittours alſo: for they ioine and band together againſt the common enemy the Fox. Likewiſe, the bird-Harpe and the Kite againſt the Buzzard. What will ye ſay? be there not tokens of affection euen in Serpents, the cruelleſt and felleſt creatures of all others in the world? I haue written already of the report or tale that goeth in Arcadia of a man, whoſe life was ſaued by a Dragon (that was brought vp by him) ſo ſoon as euer he knew him by his voice. As for the Aſpis, *Philarchus* telleth a ſtrange hiſtory of it. I K L M

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A it. For he writeth, that in Ægypt there was an Aſpis vſed ordinarily to come to the table of a certaine Egyptian, and there tooke meat at his hand: which Serpent afterwards had yong ones, whereof one chanced to ſting a ſon of the maſter of the houſe, that he died of it. Now when the dam (the old Aſpis) came accordingly at the accuſtomed houre of repaſt for victuals, and perceiued the deed committed by her little one; not onely killed it in ſatisfaction of the former fact, but alſo forbare the houſe, and was neuer knowne to repaire thither againe.

CHAP. LXXV.

¶ *The ſleepe of liuing creatures.*

B THe queſtion, Whether liuing creatures ſleep or no? is not very difficult, but ſoon decided: For plain it is, that of land creatures, all that winke and cloſe their eies doe ſleepe. As for thoſe in the water, that they alſo ſleepe (though but a little) euen they are of opinion who otherwiſe make doubt of the reſt. And this they do not collect & gather by their eies (for lids they haue none to ſhut) but becauſe they are ſeene to lie ſo ſtill and quiet, as faſt and ſound aſleep, ſtirring no part, but a little wagging their tailes, and ſeeming to ſtart and bee affright at any ſudden noiſe made in the water. As for the Tunnies, we may auouch more confidently of their repoſe: for they come of purpoſe to ſleep vnder the banks or rocks. And flat broad fiſhes lie ſo ſtill ſleeping among the ſhelues, that oftentimes a man may take them vp with his hand. The Dolphins and Whales be heard to rout and ſnort again, they ſleepe ſo ſoundly. Moreouer; as touching Inſects, no man need to doubt that they ſleep, ſo quietly do they lie and make no
C noiſe: nay, if you bring a candle or other light, and ſet it euen before their eies; you ſhall not haue them to awake nor moue. An infant after it is borne, ſleepeth for certaine moneths at the firſt, and in manner doth nothing els. But the elder hee waxeth, wakefull is he euery day more than other. Babes at the very beginning do dreame. For they will waken and ſtart ſuddenly in a fright; and as they lie aſleep, keep a ſucking of their lips, as if it were at the breaſt heads. Some neuer dream at all. And if ſuch chance contrary to this cuſtome, for to dreame once, it hath bin counted for a ſigne of death, as we haue ſeene and prooued by many examples and experiments. And here in this place there offereth it ſelfe a great queſtion, and very diſputable *pro & contra*, grounded vpon many experiments of both ſides: namely, whether the ſoule of man while
D the body is at reſt, foreſeeth things to come? and how it ſhould ſo do? or whether this be a thing of meere chance and altogether coniecturall, as many others be? And ſurely if we go by hiſtories, we may find as many of the one ſide as the other. Howbeit all men in manner agree in this, That dreames either immediatly vpon drinking wine and full ſtomacke, or els after the firſt ſleep, are vaine and of no effect. As for ſleep it is nothing els but a retreat and withdrawing of the ſoule into the mids of it ſelfe. Euident it is, that Horſes, Dogs, Kine, Oxen, ſheep, and goats do dreame. Whereupon it is credibly alſo thought, that all creatures which bring forth their yong quicke and liuing, do the ſame. As for thoſe that lay egges, it is not ſo certaine that they dreame: but reſolued it is, that they all do ſleep. Now let vs paſſe and proceed to the treatiſe of Inſects.

THE ELEVENTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proeme.

IT remaineth now to write of those liuing creatures, which are the most subtill of all others that Nature hath brought forth: forasmuch as some are of opinion, That they breath not, ne yet haue any bloud at all.

CHAP. I.

¶ *Of Insects in generall.* I

MAny and sundry sorts there be of Insects, as well among land creatures as those that fly in the aire. Some are winged, as bees: some haue partly wings and partly feet, as Pismires: others want both, and neither flie nor go on their feet. And wel may they all be called *Insecta*: by reason of those cuts and diuisions, which some haue about the necke; others in the breast and belly; the which do go round and part the members of the body, hanging together onely by a little pipe and fistulous conueiance. There be of them, that haue not the body diuided entire, one part from the other by these incisures, cuts, and wrinckles; but they appeare only either vnder the belly, or vpon the backe aboue, and go no deeper, neither yet round the whole compasse of the body. But a man shall perceiue in them certaine rings or circles, apt to bend and wind to and fro, and those so plated and plaited one ouer another, that in K nothing elswhere is more seen the workmanship of Nature, than in the artificiall composition of these little bodies.

CHAP. II.

¶ *The industrie and subtiltie of Nature in framing these Insects.*

IN bodies of any bignes, or at least-wise in those of the greater sort, Nature had no hard piece of work to procreate, forme, and bring all parts to perfection; by reason that the matter wherof they be wrought, is pliable and will follow as she would haue it. But in these so little bo- L dies (nay pricks and specks rather than bodies indeed) how can one comprehend the reason, the power, and the inexplicable perfection that Nature hath therin shewed? How hath she bestowed all the fiue senses in a Gnat? and yet some there be, lesse creatures than they. But (I say) where hath she made the seat of her eies to see before it? where hath she set & disposed the tast? where hath she placed and inserted the instrument and organ of smelling? and aboue all, where hath she disposed that dreadful and terrible noise that it maketh, that wonderfull great sound (I say) in proportion of so little a body? can there be deuised a thing more finely & cunningly wrought than the wings set to her body? Marke what long-shanked legs aboue ordinary she hath giuen vnto them. See how she hath set that hungry hollow concauitie in stead of a belly: & hath made the same so thirstie and greedy after bloud, and mans especially. Come to the weapon that it hath to pricke, pierce, and enter through the skinne; how artificially hath shee pointed and M sharpened it? and being so little as it is (as hardly the fineneſse thereof cannot be seen) yet as if it were of bigneſse & capacity answerable, framed it she hath most cunningly for a twofold vse: to wit, most sharpe pointed, to pricke and enter; and withall, hollow like a pipe for to sucke in

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A and conuey the bloud through it. Come to the Wood-worme, what manner of teeth hath Nature giuen it, to bore holes and eat into the very heart of hard Oke? who heareth not the ſound that ſhe makes whiles ſhe is at her work? For in wood and timber is in manner all her feeding. We make a wonder at the monſtrous and mighty ſhoulders of Elephants, able to carry turrets vpon them. We maruell at the ſtrong and ſtiffe necks of buls, and to ſee how terribly they will take vp things and toſſe them aloft into the aire with their hornes. We keepe a wondering at the rauening of Tygres, and in the ſhag manes of Lions: and yet in compariſon of theſe Inſects there is nothing wherein Nature and her whole power is more ſeene, neither ſheweth ſhe her might more than in the leaſt creatures of all. I would requeſt therfore the Readers, that in peruſing this treatiſe, they will not come with a preiudicate opinion, nor (becauſe many of theſe
B ſilly flies and wormes be contemptible in their eies) diſdaine, loath, and contemne the reports that I ſhall make thereof; ſeeing there is nothing either in Natures workes that may ſeeme ſuperfluous, or in her order vnworthy our ſpeculation.

Chap. III.

¶ *Whether Inſects do breath, and whether they haue bloud or no?*

DIuers haue denied that they breath at al; and vpon this reaſon they ground their poſition; Becauſe they haue no arterie or wind-pipe annexed or reaching to any inſtrument within of reſpiration. And they be of opinion, that they liue indeed as plants, herbes, and trees: howbeit (ſay they) there is a great difference betweene hauing life, and drawing wind or vitall
C breath. And by the ſame rule they affirme, that they haue no bloud, which is in none that bee without heart and liuer. Neither do any things breath which want lungs. And from hence ariſeth a world of other queſtions thereupon depending. For the ſame men deny flatly, that theſe creatures haue any voice: notwithſtanding ſo great humming of bees, & ſinging ſound of graſhoppers, and ſuch other, whereof we will conſider in due time & place, accordingly. Verily for mine owne part, the more I looke into Natures workes, the ſooner am I induced to beleeue of her euen thoſe things that ſeem incredible. Neither do I ſee any inconvenience to thinke, that theſe Inſects may as well draw wind and breath without lungs, as liue without ſuch noble and principall parts as are requiſite for life in other creatures: according as we haue already ſhewed
D in the diſcourſe of fiſhes and ſuch like, that liue in the ſea; how ſoeuer the quantitie, depth, and heights of the water, may ſeeme to impeach and ſtop their breath. For who would eaſily beleeue, that ſome creatures ſhould flie at libertie, and liuing as they do in the mids of wind and aire, yet want wind and breath themſelues? that they ſhould haue a ſenſe and care to ſeek their liuing, to engender, to worke, and to forecaſt for the time to come: and howbeit they haue no diſtinct members, to carry (as it were in a ſhip) their ſeuerall ſences, yet that they ſhould heare, ſmell, and taſte; yea and be indued with other ſingular gifts beſides of Nature, to wit, wiſdome, courage, skill, and induſtrie. Indeed, confeſſe I muſt, that bloud they haue none: no more haue all creatures that liue vpon the land: howbeit a moiſt humor they haue, ſomewhat like vnto bloud, which ſerues them in ſtead thereof. Like as in Cuttels of the ſea, there is found a certain
E blacke liquor in ſtead of bloud: and in all the ſort of Purples and ſuch ſhel fiſhes, that excellent iuice which ſtaineth & dieth ſo as it doth. Semblably in theſe Inſects, whatſoeuer humor it is, whereby they liue, the ſame may well enough go for bloud and ſo be called: all the while that euery man hath liberty to giue it what name he thinketh fitteſt. As for me, my purpoſe is not to judge and determine of theſe doubtfull quillets, and their cauſes; but to ſet down and ſhew the nature of ſuch things as be cleare and apparent.

Chap. IIII.

¶ *The ſubſtance of the body in theſe Inſects.*

F THeſe Inſects, ſo far as a man may perceiue, ſeeme not to haue either ſinewes or bones, no chine nor griſtle, no fat, no fleſh, ne yet ſo much as a tender and brittle ſhell, as ſome Sea-fiſhes haue, nor that which may be truly called a skin; but a certain corporal ſubſtance of a middle nature between all theſe: for their body without, is like a dry thing, and yet more tender and ſoft than a ſinew: whereas in all other parts the matter is to be accounted rather drie

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than hard. This is the very ſubſtance whereof they conſiſt, and nothing haue they beſides. For within there is nought, vnleſſe it be in ſome very few, who haue a certaine pipe or conduit in ſtead of a gut, & the ſame wrapped and infolded together. Which is the cauſe, that if they be cut in two and pulled in pieces, yet they haue a ſpeciall property to liue long, and each part aſunder wil pant & ſtir by it ſelfe. The reaſon is, becauſe the vitall vertue in them (whatſoeuer it is) is not ſeated in any one member, this or that, but ſpred and defuſed throughout the whole body, and leaſt apparent in the head, of all other parts: for, that alone, vnleſſe it be plucked away together with the breaſt, moueth not one jot. No kind of creatures haue more feet than theſe: and the more they haue, the longer liue they when they be diuided aſunder; as we ſee by experience in the Scolopendres. Eies they haue, that is certain; & beſides ſight, they are not without the ſences of feeling & taſting: ſome there be that ſmell, & a few that haue their hearing alſo.

Chap. V.

¶ *Of Bees.*

BVt among them all, Bees are principall, and by good right deſerue eſpeciall admiration, as being the only Inſects ordained by Nature for mans vſe. They gather honie, a moſt ſweet, pleaſant, fine, and wholeſome liquor. They frame the hony combs, and work the wax, which ſerue for a thouſand turns in this life. They indure pains continually, and diſpatch their worke and buſineſſe. They haue a policie and Commonwealth among themſelues. They hold their ſeuerall counſels: and there is not a ſwarme or caſt that they haue, without a king and captaine of their owne: and that which is moſt admirable of all, there be ciuill faſhions and cuſtomes among them. Moreouer, being as they are, neither tame and gentle, nor yet to be counted wilde and ſauage, yet (ſee the wondrous worke of Nature!) by the means of ſo little a creature, nay, a ſhadow rather (to ſay a truth) of the leaſt creature, ſhe hath effected a thing incomparable: what ſtrength of ſinewes, what force and puiſſance is able to countervaile this ſo great induſtry and effectuall power of theirs? What wit and policy of man is anſwerable to their diſcreet and orderly courſe? Beleeue me, they paſſe them all, and in this one point ſurpaſſe, That all things are common among them, and nothing know they priuat and ſeueral. What ſhould we debate and make queſtion any more as touching their breath? Why ſhould wee diſpute of their bloud, which cannot chuſe but be very little, in ſuch ſmal bodies? Let vs rather conſider henceforth their wit, and the gifts of their mind.

Chap. VI.

¶ *The naturall order and regiment that is in Bees.*

BEes all winter time keep cloſe within their hiues: and good reaſon; for how poſſibly ſhould they indure hard froſt and chilling ſnow? how ſhould they abide the piercing blaſts of the North winds? And verily it is the manner of all theſe Inſects ſo to doe, but yet they keepe not in ſo long. For why? being neſtled warm as they are within our houſes, they ſooner doe recouer their vigor, & come abroad betimes. But as concerning Bees, either the times haue changed, & places altered their courſe, or els the writers beforetime of this argument haue greatly erred. They begin to retire themſelues and take vp their wintering harbor, preſently vpon the ſetting and occultation of the ſtar Vergiliæ; and come not forth into the field againe, vntill after the riſing and apparition thereof. So that Bees go not abroad at the very beginning of the Spring, as Writers haue ſet downe (for who ſeeth not the contrary throughout all Italie) but remaine ſtill cloſe and ſecret, vntill that Beanes begin to bloom; before which time they ſettle not themſelues to any worke or labour. But from thence forward, they loſe not a day, they ſlack not their painful trauel, neither play they one jot, if the weather be faire & wil permit: the firſt thing they do, is to make their combs & wax, that is to ſay, their own habitations & ſtore-houſes. When they are prouided of lodging, they thinke vpon the multiplying of their owne kind: and finally, they gather and make both hony and wax: the ſubſtance whereof they ſucke from the floures of trees and hearbes, from the gums alſo of trees which breed ſuch gluie matter; and beſides, out of the iuice, gum, and roſin of the willow, elme, and cane. With theſe and ſuch like, they plaiſter all the hiue within throughout, as it were with a coat or parget, intermingling

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A gling withall other iuices that are more vnſauorie, gathered from the bittereſt hearbs they can get: to the end that they might keepe out other little vermines that are greedy of their hony: as knowing full well, that they are about a piece of worke which is worthie to be deſired and ſought after. Of this gummy and glutinous ſubſtance they frame alſo their dores and entries which are wide and large.

Chap. VII.

¶ *The proper termes belonging to their worke.*

THe firſt foundation of their worke, skilfull hony-maſters do call Commoſis: the ſecond Piſſoceros: the third Propolis, which lieth between thoſe former coats and the wax of the
B hony-combe, whereof there is ſo great vſe in Phyſicke. Commoſis is the firſt coat or cruſt of a bitter taſt. Piſſoceros commeth next after it, as it were a thinner courſe of pitch or varniſh and a weaker kinde of wax, made of the more liquid and mild gum of vines and poplars. But Propolis conſiſteth of a more ſolid matter, as hauing the ſtrength of ſome floures withall: howbeit, as yet it is no ful and perfect wax, but the foundation and ſtrengthening of the combs: and ſerueth as a good defence againſt cold, and to ſtop the paſſage of waſpes and ſuch hurtful creatures as would do iniurie to the bees, for ſtil a ſtrong ſent it carrieth, as which, many men do vſe in ſtead of Galbanum. After this munition done, then followeth the prouiſion of that which is called Erithace, ſome terme it Sandaracha, and others, Cerinthus. This muſt ſerue for the bees meat, whereof they are to liue whiles they worke: and found it is oftentimes, laid apart within
C the concauities of their combs, it being alſo of a bitter taſte. Now this Erithace commeth of the * Spring-dew, and the moiſture iſſuing out of trees in manner of gum: in leſſe abundance euer, when the South-weſt wind blows: but when it is full South, more blacke: and in the Northerly conſtitution, far better and more red withall. Great ſtore hereof, Bees meet with vpon Almond trees. *Menecrates* ſaith, That it is a floure foreſhewing what harueſt ſhall inſue: * but no man ſaith ſo beſides him.

* *Rore veris* or Sea-dew, *Rore marino.*

* Being deceiued with the Homonymie of the word *Cerinthus*, which hath a double ſignification.

Chap. VIII.

¶ *What flowers they be which Bees ſerue themſelues moſt withall for their worke.*

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AS for wax, Bees gather and make it of the floures of all trees, herbs, and plants, ſauing the docke and * Gooſe-foot, which are two kinds of herbs. Some except alſo a kind of Broom called Spart, but vntruly: for in Spaine (where there be many places full of that ſhrub) the honie carrieth the ſtrength thereof in the taſte. I am beſides of opinion, that they be deceiued who thinke that bees gather not of Oliue trees. For we ſee it ordinary, that there be more caſts and ſwarmes of Bees where Oliues grow in greater abundance. Theſe pretty creatures hurt no fruit whatſoeuer. They will not ſettle vpon a floure that is faded, and much leſſe of any dead carkaſſe. They vſe not to go from their hiue about their buſines aboue 60 paces: & if it chance, that within the precinct of theſe limits they finde not floures ſufficient: out goe their ſpies,
E whom they ſend forth to diſcouer forage farther off. If in this expedition, before they come home againe, they be ouertaken by the night, they couch vpon their backes for feare leſt their wings ſhould be ouercharged with the euening dew, and ſo they watch all night vntill the morning.

* Chenopodes

Chap. IX.

¶ *Thoſe that haue taken a ſpeciall pleaſure in Bees.*

F SVch is the induſtrie of this creature, that no man need to wonder at thoſe two perſons who delighted ſo much in them, that the one (namely *Ariſtomachus* of Soli) for threeſcore yeares lacking but twaine, did nothing elſe but keep bees. and *Philiſcus* the Thaſian emploied the whole time of his life in Forreſts and Deſarts, to follow theſe little animals: whereupon hee was ſurnamed *Agrius*. And both theſe vpon their knowledge and experience, wrote of Bees.

Chap. X.

¶ *The order that they keepe in their worke.*

THe manner of their buſineſſe is this. All the day time they haue a ſtanding watch & ward at their gates, much like to the *corps de guard* in a campe. In the night they reſt vntill the morning: by which time, one of them awaketh and raiſeth all the reſt with two or three big hums or buzzes that it giues, to warn them as it were with ſound of trumpet. At which ſignall giuen, the whole troupe prepares to flie forth, if it be a faire and calme day toward, for they doe both foreſee, and alſo foreſhew when it will bee either windie or rainie, and then will they keepe within their ſtrength and fort. Now when the weather is temperate (which they foreknow well enough) and that the whole armie is on foot and marched abroad, ſome gather together the vertue of the floures within their feet and legges: others fil their gorge with water, and charge the downe of their whole body with drops of ſuch liquor. The yonger ſort of them go forth to worke, and carry ſuch ſtuffe as is beforenamed, whiles the elder labor & build within the hiue. Such as carry the floures abouesaid, ſtuffe the inner parts of their legs behind (and thoſe Nature for that purpoſe hath made rough) with the help of their forefeet: & thoſe again are charged full by the means of their muffle. Thus being full laden with their prouiſion, they return home to the hiue, drawne euen together round as it wete in a heap, with their burden: by which time, there be three or foure ready to receiue them, and thoſe eaſe and diſcharge them of their lode. For this you muſt thinke, that they haue their ſeuerall offices within. Some are buſie in building, others in plaiſtering and ouercaſting, to make all ſmooth and fine: ſome be at hand to ſerue the workemen with ſtuffe that they need; others are occupied in getting ready meat and victuals out of that prouiſion which is brought in: for they feed not by themſelues, but take their repaſt together, becauſe they ſhould both labour and eat alike, and at the ſame houre. As touching the maner of their building, they begin firſt aboue to make arch-work embowed, in their combs, and draw the frame of their work downward; where they make two little allies for euery arch or vault, the one to enter in by, the other to go forth at. The combs that are faſtened together in the vpper part, yea and on the ſides, are vnited a little, and hang all together. They touch not the hiue at all, nor ioin to it. Sometime they are built round, otherwhiles winding bias, according to the proportion of the hiue. A man ſhll find in one hiue hony combs ſomtime of two ſorts: namely, when two ſwarms of bees accord together: and yet each one haue their rites and faſhions by themſelues. For feare leſt their combs of wax ſhould be ready to fal, they vphold them with partition wals, arched hollow from the bottom vpward, to the end that they might haue paſſage euery way to repaire them. The formoſt ranks of their combes in the forefront, commonly are built void and with nothing in them, becauſe they ſhould giue no occaſion for a theefe to enter vpon their labours. Thoſe in the backe part of the hiue, are euer fulleſt of hony: and therefore when men would take out any combes, they turne vp the hiues behind. Bees that are emploied in carrying of hony, chuſe alwaies to haue the wind with them, if they can. If haply there do ariſe a tempeſt or a ſtorm whiles they be abroad, they catch vp ſome little ſtony greet to ballance and poiſe themſelues againſt the wind. Some ſay, that they take it and lay it vpon their ſhoulders. And withall, they flie low by the ground vnder the wind when it is againſt them, and keep along the buſhes, to breake the force thereof. A wonder it is to ſee and obſerue the manner of their worke. They mark and note the ſlow-backs, they chaſtiſe them anon, yea, and afterwards puniſh them with death. No leſſe wonderful alſo it is to conſider how neat and clean they be. All filth and trumperie they remoue out of the way: no foule thing, no ordure lieth in the hiue to hinder their buſineſſe. As for the doung and excrements of ſuch as are working within, they be laid all on a heap in ſome by-corner, becauſe they ſhould not goe far from their worke: and in foule weather (when otherwiſe they haue nought to do) they turn it forth. Toward euening, their noiſe beginneth to ſlacke and grow leſſe and leſſe: vntill ſuch time as one of them flieth about with the ſame loud humming, wherewith ſhe waked them in the morning, and thereby giueth a ſignal (as it were) and commandement for to go to reſt: much after the order in a camp. And then of a ſudden they are all huſht and ſilent.

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Chap. XI.

¶ *Of the drone Bees.*

THe houſes and habitations that Bees build firſt, are for the Commons: which being finiſhed, they ſet in hand with a pallace for their king. If they foreſee that it will be a good ſeaſon, and that they are like to gather ſtore of prouiſion, they make pauilions alſo for the Drones. And albeit they be of themſelues bigger than the very bees, yet take they vp the leaſt lodgings. Now theſe drones be without any ſting at all, as one would ſay vnperfect bees, & the
B laſt fruit of ſuch old ones as are weary and able to do no more good; the very later brood & increaſe, and to ſay a truth, no better than ſlaues to the right bees indeed. And therefore the others as maſter Bees ouer them, haue them at their commandment: if any drudgery or ſuch like buſineſſe is to be don, out are they ſent firſt: make they but ſlow haſt in that they are ſet about, ſure they are to pay for it, and to be puniſhed without mercy. And not only in their ordinarie worke they ſerue them in good ſtead, but alſo they help them to multiply: for the hotter that the place is, the more hope there is of a greater increaſe. Certes, this is found by experience, That the better the hiue is peopled with a number of bees, the Caſt when time comes will bee the greater, and the oftner will they ſwarme. But after the hony is growing once to maturitie and perfection, then begin they to driue theſe drones out of dores: nay, ye ſhall haue many bees
C ſet vpon one poore drone, and kill him out-right. So that a man ſhall not lightly ſee any of that kind but in the Spring time.

If one pluck off the wings from a drone, and put him again within the hiue, he will neuer lin vntill he haue done the like by all the reſt of the ſame kind. As touching the roiall pallaces for the kings and captaines that ſhall be, built they are all moſt ſtately, great of receit, in ſhew magnificent, ſeated by themſelues apart, and like citadels raiſed vpon ſome high knap or tuft of a mountaine. If one of theſe caſtles chance to be preſſed or cruſhed, there will no more come of that princely race. All the lodgings and roomes where the bees abode is, are ſix cornered, according to the number of feet emploied in that worke. None of all this is done at any ſet time or day appointed: but they take the opportunity when they can eſpie faire weather to fit their
D buſineſſe, and ſo do theſe things by ſnatches. And ſurely within a day or two at the moſt, they fill their ſtore-houſes with honie.

Chap. XII.

¶ *The Nature of Hony.*

THis pleaſant and ſweet liquor which we call hony, is ingendered naturally in the aire, and eſpecially by the influence and riſing of ſome ſtarres: but principally during the feruent heat of the canicular daies, euen when the Dog-ſtar is in his ful power and force: neuer before the appearing of the ſtar Virgiliæ, but alwaies before day. For ſo about the day breake betimes in the morning, the leaues of trees are found bedewed with honey: and looke who-
E ſoeuer they are, that haue occaſion to be abroad in the aire about the dawning of the morrow, they may euidently perceiue their cloths wet with a clammy humor of hony, yea, & their hairs glewed therewith together, if they go bare headed. Be it what it will, either a certaine ſweat of the skie, or ſome vnctuous gelly proceeding from the ſtars, or rather a liquor purged from the aire when it purifieth it ſelfe; would God we had it ſo pure, ſo cleare, and ſo naturall, and in the own kind refined, as when it deſcendeth firſt, whether it be from skie, from ſtar, or from the aire. For euen now ſuch as it is, paſſing as it were through ſo many hands: namely, falling from a region ſo high and remote from vs, and in the way as it commeth catching much filth: and namely, infected with the groſſe vapour of the earth which it meeteth in the fall: moreouer, ſucked
F and drunke (as it is) by the Bees from the leaues of trees and graſſe, and ſo gathered and laid vp in their little bellies or bladders (for at their mouth they ſpew and caſt it vp again:) corrupted alſo and ſophiſticated with other humors drawn out of floures: finally, ſo long ſoking within the hiues, and ſuffering ſo many alterations: yet for all the ſorrow, a great reſemblance it carieth ſtill with it of a moſt pleaſant, ſweet, and cœleſtiall liquor.

G

Chap. XIII.

¶ *The beſt kinde of Honie.*

THe beſt hony is euer there, where the beſt floures are, within the receptacles whereof, it lieth. As we may ſee in the counrry about Athens, which carrieth the name for honey: alſo in Sicilie within thoſe territories about Hymettus and Hybla: and laſtly, in the Iſle Calydna. Now this hony, whereof we treat, is at the firſt cleare and thin as water; and for certaine daies in the beginning, it workes and boiles like to new wine, and ſo purgeth it ſelfe. By the 20 day it getteth a certaine conſiſtence and thicke ſubſtance, and ſoon after gathers a thin cream or skin ouer it: which in the very heat of working, is raiſed of a ſcum, and ſo thickneth. The beſt H
ſimply that bees can ſucke, and leaſt infected with the corruption of 3 branches, is that which they get out of the leaues of Oke, Tilia [*i.* Linden tree] and Canes.

Chap. XIIII.

¶ *The ſundry ſorts of hony, according to diuers regions.*

HOnie (as we ſaid before) is better or worſe, according to the region where it is gathered; and that in many reſpects. For in ſome place ye ſhall haue goodly combs: howbeit, more commendable for wax than the hony in them: as in the Pelignians country, and Sicily. In others, and namely in Candie, Cypres, and Africk, the combs yeeld more hony than wax. Some I
countries there be, eſpecially in the North parts, where the combs paſſe for bigneſſe: inſomuch as in Germany there hath bin a hony-combe ſeene eight foot long, and blacke all within. But in what region ſoeuer it be that hony is found, three kinds there be of it. Firſt, the Spring hony made of floures only; like as the comb alſo: and thereupon the Greeks call it Anthinon, which is as much to ſay as the Floure-hony. Some would not haue this to be once touched, but to ſerue for nouriſhment of the young bees, that the ſwarmes or caſts may be more ſtrong and luſtie. Others againe leaue for the bees of none leſſe than of it: by reaſon of the great plenty like to follow, at the riſing of thoſe notable ſtars in the Summer enſuing. Moreouer, the combs are in their principall beauty about the Sun-ſtead in ſummer, when daies be longeſt, at what time as the Vine and Time do begin to floure. Alſo, in taking forth of the hony combs, needfull it is K
to be well aduiſed in ordering the matter for the prouiſion of food for bees. If they be cut ſhort and deſtitute of their meat, they either deſpaire and die for want, or els depart and flie away. Contrariwiſe, if you leaue them too much, plenty breeds idleneſſe, that they will not labour: neither deigne they to feed of Erithace, their ordinarie food, but fall to the good hony. They therefore that be well experienced in theſe matters, thinke it good to leaue them the twelfth part of this ſtore and vintage, if I may ſo ſay, which is gathered in the combs. And verily, it ſeemeth that Nature hath ordained a certaine ſet day for to begin this vintage, if men would take knowledge thereof, and marke it well; namely, the 30 day, after the bees ſwarmed and went forth: and vſually it falleth out, that this gathering commeth within the moneth of May. A ſeL
cond kind of hony there is, which we call Summer hony, and is named alſo Horæum, of that principall ſeaſon wherin it is made, namely, in the very midſt of dog-daies, when the ſtar Sirius is in his full ſtrength: and that commonly is 30 daies after the Sun-ſtead. And I aſſure you, Nature hath ſhewed her admirable and excellent power to men ward in this behalfe: in caſe their fraud and deceit would ſuffer her works in their entire and proper nature without corruption and ſophiſtication, which marreth all, and maketh nothing but confuſion. For vpon the riſing and apparition of any ſtar, and eſpecially of thoſe that be more excellent than the reſt, or after that a rainbow is ſeen aboue the earth, and no ſhowers of rain preſently follow, but a drizling dew warmed with the raies and beams of the Sun: ye ſhall haue that which falleth, not to be bare hony, but a very medicinable thing, euen a celeſtiall gift, ſingular good for eies and vlcers, yea, and comfortable to the principall noble parts within the body. And if this happen to M
be at the riſing of the dog-ſtar, and it chance withall, that vpon the ſame day (as oftentimes it falleth out) *Venus*, *Iupiter*, or *Mercury* bee Orientall, then ſhall yee haue ſo heauenly a ſweet liquor, that no one thing in the World may bee comparable to it for the curing of all our maladies, and euen to reduce and recouer vs backe from death vnto life, like vnto that cœleſtiall

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A and diuine Nectar, which immortalizeth the gods aboue.

Chap. XV.

¶ *The markes of good hony.*

More plenty of hony is gathered in the full of the Moone, than at any other time: and if therewith the weather be faire, the ſame wil be more vncteous and fattie. In all kinds, the beſt hony is that, which runneth of it ſelfe as new Wine and Oile; and called it is Acedon, as a man would ſay, gotten without care & trauell. All Summer hony is red, as being made in the drieſt ſeaſon of the yere. The hony which commeth of Time, is held to be the beſt and
B moſt profitable; in colour like gold, in taſte right pleaſant; euident to be knowne by the little leaues therein: and the ſame is likewiſe fattie. That which is made of Roſemary, or within the aire and vapour of the ſea, is thick: and ſuch verily as is thus candied, and will not run like life-hony, is nothing commendable. As for Time honey it will not thicken: and if a man touch it, rope it wil and draw ſmall ſlimie threds after it: which is a principall ſigne of the weight and heauineſſe thereof. If hony be ſhort in the handling, and ſoon breake, and that the drops part one from the other, it is thought to be a token of the worſt and courſeſt of all. Another triall there is beſides of good hony, namely, if it be fragrant and odoriferous to ſmell vnto, ſweet in taſte, & biting withall, or quick at the tongues end, glutinous and cleare. As touching the driuing of hiues for ſummer hony, *Thaſius Dionyſius* is of opinion, that the tenth part therof ſhould
C be left for the bees, namely, if they were ful: if not, then according to the proportion: but if they were but light and very thin, he would not haue them to be touched at all. The Athenians goe by this rule, and do obſerue duly the Caprificial day, which is kept wholly vnto *Vulcan*: for then they euer begin to driue their hiues for this kind of honie.

Chap. XVI.

¶ *Of a third kinde of Honie: and how a man ſhould know good Bees.*

There is a third ſort of wild hony, which the Greeks cal Ericæum [*i.* Heath or Ling hony] and is of leaſt reckoning. It is gathered after the firſt rain in Autumne, when the heath and
D lings only bloom in the woods, wherupon it ſeems as if it were ſandy. This kind of hony is ingendred for the moſt part after the riſing of Arcturus, much about the Ides of September. Some there be that continue in gathering Summer hony to the riſing of Arcturus: betweene which and the Autumne Equinoctial are 14 daies; & from thence vnto the ſetting of Virgiliæ (namely, for the ſpace of 48 daies) the ſaid heath is moſt in his blooming time. This ſhrub the Athenians call Tetralix; the Eubœans name it Siſara: & they repute it to be a floure moſt pleaſant to bees, haply, becauſe at that time there is no plenty of other floures. This gathering of hony is about the end of vintage, & the occultation of the Vergiliæ: & commonly ends by the Ides of Nouember. In driuing of the hiues for this hony, by good reaſon, two [third] parts therof would be reſerued for the bees: & eſpecially thoſe corners of the combs, which haue in them
E the prouiſion called Erithace. From the mids of winter to the riſing of Arcturus, for 60 daies bees are nouriſhed only with ſleep, without any other food. But from that time vnto the ſpring equinoctial, and namely, where the weather is more warm, they are awake. Howbeit, they lie ſtil in their hiue, & then fal to their victuals which they had laid vp in ſtore againſt that time: but in Italy they do the like indeed after the riſing of the ſtar Virgiliæ: howbeit, till then they do nothing but ſleep. And there verily, men vſe when they take the hony forth of the hiues, to weigh the combs, and ſo by weight diſpenſe & ſet out how much they will leaue them for their food: hauing this opinion, that they are bound to deale in juſtice & equity euen with the very bees: inſomuch, as it is commonly ſaid, if they be defrauded of their due in this ſociety & part-taking, and find falſhood in fellowſhip, they wil die for griefe: & ſo both the old ſtock will be loſt, and
F the hope alſo of a new increaſe. In the firſt place therfore, this is a rule, that ſuch folk only be ſet about this buſineſſe to driue the hiues, who are neat & clean. A theefe & a woman whiles ſhe is in her monthly ſicknes, they abhor. In the taking out of hony, the beſt means to driue away the bees, is to ſmoke them out of the hiue: leſt that you anger them, or that they deuoure the honie themſelues with more greedines. Moreouer, when they grow to be idle, perfuming & ſmoking

of them thus now and then, maketh them more fresh to go about their worke. For when they lie still and doe nothing, they make their combes looke dead and blackish. Again, if they be ouermuch smoked, they will be the worse for it; and surely, the very hony soon catcheth the hurt hereof, for so tender and weake will it be, that with the least dew that is, you shal haue it to turn and wax soure. And therefore in all kinds of hony they obserue and keepe that which is called Acapnon [*i.* without smoke.] The hony gathered of both sorts of Thyme, called thereupon Bithymum, is not white: howbeit, very good it is for eies and to clense vlcers.

Now as touching the generation of Bees, and how they multiply and increase, much dispute there hath bin among the learned, and a nice question this is. For first and foremost, bees were neuer seen to ingender one with another: and therfore most men haue bin of opinion, that yong bees must needs be made of floures fitly and handsomely laid together and composed, according to Natures lore. Others say, that one master Bee which is the king in euery swarme, doth beget them all: and that he forsooth is the only male; bigger also than the rest and more strong, because he should not faint and faile in the action: for without such an one, we see there is no breed: and him all the other bees attend vpon, not as their leader and captain, but as the female follow the male. Certes this were a good coniectural opinion, and sounding to a truth, but that the breed of these Drone-bees aforesaid, doth checke and ouerthrow it cleare: for what reason is there that one and the same maner of procreation, should bring forth some perfect & others vnperfect? The former opinion yet might seeme more probable, but for another difficulty and inconuenience that crosseth it too; for otherwhiles in the vtmost edges and sides of the combs, there are seen to breed the bigger kind of bees, which chase and driue the others away: and this vermin is called Oestrus [*i.* the gad-bee or horse flie.] Now if those little wormes or grubs from whence the bees come, were made of floures, which they themselues formed and brought into fashion, how commeth this gad-bee, and whereof is he made? This is certaine, that bees couvy and sit as hens do: and that which is (after a sort) by them hatched, seemeth at the first to be a little white grub or magot, lying crosse ouerthwart the hony, and so fast sticking thereto, as if it seemed to feed thereupon. The king that shall be, at the very first is yellow, and of the colour of hony: as if he were made of the most choice and excellent floure of all the rest: nothing like to a grub as the other, but presently hath wings. The rest of the multitude, when they begin to take some shape, are called Nymphæ: like as the Drones at the beginning, be termed Sirenes or Cephenes. If a man take their heads from either sort, before they be winged, it is a most pleasant and excellent meat for the old dams. In processe of time as they grow bigger, the old bees distill and drop meat into their mouths, as they sit vpon them: then they keep most humming (as some thinke) for to set combs into an heat, which is requisit and necessarie for the hatching of them: and thus they continue, till the little pellicles or membranes be broken: within which, euery one lieth by it selfe, as egs: and then they break forth all together and shew themselues accomplished bees. The manner and experiment hereof, was seene vpon a time in a ferme neere vnto Rome, belonging to a nobleman of Rome who somtime had bin Consul: for he caused his hiues to be made of lanterne horns that a man might see through into them. These yong worms be 45 daies before they come to their perfection.

There is found in some combs, a certain bitter thing and hard like to wax, which the Latines call *Clerus*. This is as it were the abortiue and vntimely fruit of the bees, to wit, when either by maladie or idlenesse, or rather vpon some barrennesse and vnfruitfull disposition by nature, bees are not able to bring the same to perfection.

As for the yong bees, they are not so soon abroad, but they begin to labor with their mothers, and are trained by them to learn how to gather hony. This youg people haue a yong king also: vnto whom they make court, and whom they follow. And many such kings are bred at first, for feare lest they should want: but when the bees are grown big, they all agree with one accord and voice, to kill those that be most vntoward among them, for feare they should make diuisions, factions, and siding to parts. These kings be of two sorts: those that are red all ouer, be better than the black or partie-coloured. All the race of them be very faire and goodly to see to: and twice as big as the rest: their wings shorter, their legs streight: in their port and manner of march, more stately: carrying in their front a white star, like a diadem or coronet: far brighter also and more neat they be than the common sort.

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Chap. XVII.

¶ *The regiment of Bees, and their gouernment.*

WHat ſhall a man now diſpute about *Hercules*, whether there was but one of that name or many? Likewiſe as touching the Sepulchre of Prince *Bacchus*, where and which it is? As alſo trouble his head in many other ſuch like antiquities, buried by long continuance of time. For behold, in one ſmall matter that is daily ſeene in our countrey houſes, in a thing annexed to our fermes, and whereof there is ſuch ſtore, all Authors who haue written of Agriculture are not yet reſolued: namely, Whether the king of Bees alone hath no ſting, and is armed only with majeſtie? or, whether Nature hath beſtowed a ſting vpon him, and denied him only the vſe thereof? For certaine it is, that this great commander ouer the reſt, doth nothing with his ſting: & yet a wonder it is to ſee, how they all are readie to obey him. When hee marches abroad, the whole armie goes forth likewiſe: then they aſſemble together, and enuiron him round about; they are of his guard, & ſo cloſe they keep vnited together, that they wil not ſuffer him once to be ſeen. At other times, when all his people are buſie in labor, himſelfe (as a right good captaine) ouerſeeth their workes, goes about from one to another, encouraging them in wel doing, and exhorting them to plie their buſineſſe: himſelfe only exempt from all other trauell & pains taking. About his perſon he hath a certaine guard euer attendant: he hath his Lictors & officers alwaies in readineſſe, in token of majeſtie and princely port. He neuer ſets forward, but when the whole ſwarme is preſt likewiſe to goe forth: and in truth, long time before a man may perceiue that they be about a voiage and expedition; for, many daies together there is an extraordinarie humming and noiſe within, whiles they prepare to diſlodge, truſſing vp as it were their bag and baggage, and expecting only a faire day of remoue. And ſuppoſe that the king haue in ſome battaile loſt one of his wings, yet will not his hoaſt forſake him and flie. When they be in march, each one deſires and ſtriues to be next the prince, as taking a joy and pride to be ſeene of him, how luſtily they performe their deuoir. If he begin to be wearie, they ſupport him with their ſhoulders: if he be tired indeed and faint outright, they cary him full and whole. If any one of their owne companie chance to faile for very wearineſſe, and doe drag behind, or ſtray aſide and wander out of the way, it will yet endeauour to follow the armie only by the ſmell and ſent. Where the king once ſettles and takes vp his reſting place, there they all pitch downe their tents and encampe. And I aſſure you, herein lieth a matter of great weight and importance; as touching the Auguries and preſages gathered by the manner of their ſetling, prognoſticating both to publicke ſtates and alſo to priuat perſons, ſomthing to enſue of much moment, either for good or otherwiſe; according as they haue been obſerued to hang together in cluſters like bunches of grapes, either at mens houſes, or on the temples of the gods. By occaſion whereof, folke had recourſe ro their deuotions and ſacrifice, for to appeaſe the heauenly powers: and yet oftentimes ſuch foretokens haue not beene expiat without ſome ſtrange euents in the end. There was a ſwarme of Bees reſted vpon the very lips and mouth of *Plato*, when he was but a very babe & infant; foreſhewing (no doubt) that ſingular eloquence of his, and ſweet vtterance that afterwards he had. Another caſt of Bees ſetled within the very camp of General *Druſus*, the very ſame day, when he obtained that notable victorie at Arbalo. By which examples we may ſee, that this conjecturall skill and learning of theſe Soothſayers holds not alwaies, nor prooues euer true: for they forſooth ſuppoſe this to be euermore a portenteous ſigne of ſome fearfull euent and misfortune. To returne again to our captaine Bee: if he chance to be entrapped and ſurprized by the enimie, the whole armie is ſure withall to bee taken with him. If he be defeited & ſlain, the field is loſt: all the reſt be ſcattered, and ſeek their fortune to ſerue ſome other prince: for without one king or other, liue they cannot. Sometime they are driuen to kill thoſe of the kings race, and namely when there be many kings together: but this they doe perforce and full againſt their wills: and before they will ſo do, they chuſe rather to ruinate and pul down the houſes wherein they were bred; eſpecially when there is ſome feare of ſcarſitie, by reaſon of the vnkind ſeaſon: and at ſuch a time alſo, they chaſe and driue away the drone bees. And yet I ſee ſome doubt made of them: for diuers be of opinion, that they be a kind of Bees by themſelues, and that the reſt do ſet againſt them as very theeues. The biggeſt they are of all others, but blacke and broad bellied: good reaſon therefore that they ſhould

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be called Theeues, becauſe they come ſtealing and eat vp their honey. Certaine it is, that theſe G
drones be killed by the other Bees: and ſurely, king of their owne they haue none. But how they ſhould be naturally without a ſting, there is ſome queſtion, & the ſame as yet not determined. This is well known, that in a moiſt and rainie ſpring, Bees multiply better: but if it be drie weather, there will be more increaſe of hony. Now if it happen, that the meat in one hiue be ſpent, the Bees belonging thereto will aſſaile their next neighbors, with intent to rob & ſpoile them of their prouiſion. But they on the contrarie ſide, put themſelues in battel aray, with full intent to take them againe. And if there chance to be a keeper by, to ſee the combat, that part which perceiues him to fauor their ſide, wil not once make at him for to ſting him. Other cauſes there are beſides, which make them often to go together by the ears, & then ſhall ye haue 2 ſeuerall captaines to araunge their battalions one againſt another. But moſt of all they brawle and jar H
vpon occaſion of gathering and carrying floures, whiles they call each one to his owne companie, for to come forth and take part. But all this great fray is ſoon parted and diſpatched, either by caſting vp ſome duſt among them, or by making a little ſmoak & perfume vnder them. And reconciled ſoone they be againe, with ſetting before them a meſſe of milke, or honied-water.

Chap. XVIII.

¶ *Of the ſundrie ſorts of Bees in generall: and what things be contrarie and hurtfull vnto them.*

THere is a kind of ruſticall and wild Bee: and ſuch are more rough and hideous to ſee to: I
much angrier alſo and curſt than the reſt: howbeit, more laborious and painfull by farre.
Of domeſtical and tame houſe-Bees, there are two ſorts. The beſt be thoſe that are ſhort, well truſt vp and round, and withall, painted with ſundrie colours. The long ones be the worſe, and ſuch as reſemble waſpes: and yet the worſt of all others, be thoſe that are hairie all ouer. Within the kingdome of Pontus there be white Bees, and thoſe make honey twice in euerie moneth. Moreouer, along the riuer Thermodoon, there be two ſorts more. The one, gathers honey in trees: others, within the ground, and bring great encreaſe thereof: for they frame their combes with a threefold courſe and ranke. The ſting that Nature hath giuen vnto Bees ſticketh within their bellies. Some are of opinion, that with the firſt pricke they giue with it, they die K
preſently. Others hold, that they die not withall, vnleſſe they thruſt it forth ſo far, that ſome of the gut follows after: mary howſoeuer it be, they become afterwards no better than drones: neither gather they any more honey, as if they were guelded of their vigor and ſtrength; ſo as they ceaſe to doe good and harme both at once. We find it written in Chronicles, that horſes haue been ſtung to death by them. Filthie ſtinking ſauors they cannot abide, and namely, ſuch as be contagious; and from them will they flie farre enough. Nay more than that, ſure they will be to haunt & ſting them that ſmell as they go of ſweet pomanders and odoriferous ointments, notwithſtanding they be otherwiſe themſelues ſubject to the injuries of moſt liuing creatures. For firſt and foremoſt, they are moleſted and aſſailed by thoſe of their owne nature, but yet degenerate and of baſtard breed, to wit, Waſpes and Hornets: alſo by a kind of Gnats called Mu- L
liones, Swallowes, Martins, and ſome other birds, make foule worke among them, and are their mortall enemies. The Frogs lie in wait for them as they come to drink: which is the principall worke they haue to doe, when they be about to multiply and breed yong. And not thoſe Frogs only which keep in ſtanding pooles and running riuers, but thoſe land-Frogs of a Todes kind will come of their owne accord from out of the brambles and briers where they keep, and leap vp to the very dore and entrance of the hiue; were they wil blow and breath in vnto them: and when the Bees come flying forth thither, to ſee what the matter is, ſoone are they ſnapt vp and deuoured. And as for Frogs, all the ſort of them are ſuppoſed not to feele the pricke of their ſting. Sheep alſo are no friends of theirs: for if they be once intangled within their wool, hardly can they get out again. Seeth but Crab-fiſh neer to their hiues, the very aire & ſmel therof will M
kill them. Ouer and beſides, Bees naturally are many times ſick; and that do they ſhew moſt euidently: a man ſhall ſee it in them by their heauie looks, & by their faintneſſe in their buſines: ye ſhall mark how ſome will bring forth others that be ſicke and diſeaſed, into the warme ſun, and be readie to miniſter vnto them & giue them meat. Nay, ye ſhall haue them to carie forth their dead, and to accompanie the corps full decently, as in a ſolemne funerall. If it chance that

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A the king be dead of ſome peſtilent malady, the commons & ſubiects mourn, they take thought and grieue with heauy cheere and ſad countenance: idle they be, and take no ioy to doe any thing: they gather in no prouiſion, they march not forth; onely with a certaine doleſull humming they gather round about his corps, and will not away. Then requiſite it is and neceſſarie to ſeuer & part the multitude, and ſo to take away the body from them, otherwiſe they would keep a looking at the breathleſſe carcaſſe, and neuer go from it, but ſtil moan and mourn without end. And euen then alſo they had need be cheriſhed and comforted with good victuals; otherwiſe they would pine away & die with hunger. To conclude, a man may ſoon know when Bees be well in health, by their cheerfulneſſe and freſh hue that they carry.

B

Chap. XIX.

Diſeaſes of Beees.

THere be diſeaſes alſo and imperfections in their worke: and namely when they fill not their combs, or bring not to perfection their yong Bees. The firſt is called Cleros, like as the other Blapſigonia. Moreouer, the ſound made by reuerberation of the aire, which men call Eccho, is hurtfull vnto them, for they feare mightily that reſounding noiſe comming with a double ſtroke. Miſts & fogs alſo trouble them much: as for ſpiders, they be their greateſt enemies of all others, in caſe they can preuaile ſo much as to enter into the hiue & weaue a copweb within it: for they kil all the Bees, and there is no remedie againſt it. Againe, that Moth or Butterfly which vſeth to fly about the ſnuffe of a candle burning, (a poore ſilly flie otherwiſe, and of baſe account) here doth much hurt, and that in diuers ſorts; for not only it ſelf
C eateth and gnaweth the wax of their combes, but alſo doth blow and leaue behind them ſuch excrements as afterwards proue other moths. Alſo, whereſoeuer he goes and flies within the hiue, he leaues behind him a certaine ſubſtance, comming moſt from the duſty downe of his wings, with which he thickneth the threds as it were of copwebs. There breed likewiſe euen in very wood certain worms, which aboue all things make means to eat the combs. What ſhould I ſpeake of their owne greedy feeding and glutting themſelues with too much liquour of the floures, in the Spring time eſpecially? whereupon enſueth a dangerous flux and looſneſſe of their belly. As for oile, it is not bane to Bees only, but alſo to all other Inſects: eſpecially if a
D man dip their heads in it, and then let them be in the Sun, for preſently they wil die of it. Many times Bees are cauſers of their own death, with getting a ſurfet by exceſſiue deuouring of hony, namely when they ſee it ready to be taken out of the hiue: for otherwiſe they are very thrifty ouer-great ſparers, and ſuch, as at other times will driue out thoſe that waſt prodigally, and be gluttinous, no leſſe than ſuch as be idle lusks, and ſlow at work. Nay, euen their own hony doth them hurt; for if they be anointed therewith in their hinder parts, they will die vpon it. Lo how many enemies this creature, ſo liberall and bountifull, hath! ſee how many caſualties it is ſubiect vnto! and yet what be theſe I haue already rehearſed, in proportion and compariſon of thoſe which are omitted. Their remedies will we ſpeak of in conuenient time and place: for this preſent content I will my ſelfe to treat only of their natures.

E

Chap. XX.

¶ *How to keepe Bees to the hiue: and the manner of repairing them.*

BEes ioy in the clapping of hands, and ringing of braſen baſons: at the ſound thereof they will aſſemble and come together: wherby it is plain, that they haue the ſence of hearing. When they haue done their taske of worke; when they haue brought forth their young ones, and fully accompliſhed all their deuoir, then they perform a ſolemnitie of exerciſe: wherin after they haue flown abroad in the open aire at libertie, fetched their compaſſe about on high, gathered into rings and rounds in manner of tournament for their pleaſure: then at laſt when it is time of repaſt they return home again. The longeſt time that they can liue (ſay that
F they paſſe through all dangers, and no misfortune light vpon them, but euery thing that is aduerſe fall out well and happily) is not aboue ſeuen yeares. And neuer was it knowne or heard of, that an hiue continued aboue ten yeares. Some Writers be of opinion, That dead Bees if they be kept within a houſe all a Winter, and when the Spring is come be laid forth in the hot

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Sun to fry,and one whole day be kept couered all ouer with fig tree aſhes,they will reuiue and G
be quick again. But ſuppoſe they be not only dead,but their bodies alſo loſt and gon,ſome ſay they may be repaired,and a new ſwarm ingendred, by laying the freſh panches of oxen or kine newly killed,with the dung,garbage and all,within a dunghill there to putrifie. *Virgil* affirms, that the carcaſſes of any yong ſteers will do the ſame: like as dead horſes will bred waſpes and hornets: and Aſſes carrion turne to be Beetle flies, by a certain metamorphoſis which Nature maketh,from one creature to another. And yet there be none of all theſe but are ſeen to engender: howbeit the manner of their breed is much after the nature of Bees.

Chap. XXI.

¶ *Of Waſps and Hornets.* H

WAſps vſe to build them neſts on high of earth and clay,and therein make their roomes and cels of wax. Hornets,in caues and holes vnder the ground. All theſe verily haue their chambers made with ſix corners, and yet their neſts conſiſt of ſome barke and ſubſtance like cobwebs. And as they be a barbarous and ſauage kind of creatures,ſo their yong is not vniforme: one is ready to fly abroad,while another is but yong & not fledge,and a third a meere worme and grub ſtill. All theſe breed in Autumne,and neuer in the ſpring. When the Moone is in the full they increaſe maruellouſly. As for the little waſpes, called Ichneumones (and leſſe they be than others) they vſe to kill one kind of ſpiders,called Phalangia,and carry I
them into their neſts: they beſmeare them all ouer with a liniment, ſit ouer them, and ſo procreate their own kind. Moreouer,all the ſort of theſe liue vpon fleſh, contrary to the manner of Bees,which will not touch a dead carcaſſe. But waſpes hunt after the greater flies, and when they haue whipt off their heads, carry away the reſt of their bodies for their prouiſion. The wild Hornets vſe to keep in hollow trees: all winter time, like other Inſects, they lie hid, and liue not aboue two yeres. If a man be ſtung with them,hardly he eſcapes without an ague:and ſome haue written,that 27 pricks of theirs will kill a man. The other Hornets which ſeeme to be the gentler be of two ſorts: the leſſe of body do worke and trauell for their liuing,and they die when winter is come; but the greater ſort of them continue two yeares: and thoſe alſo are nothing dangerous,but mild and tractable. Theſe make their neſts in the ſpring, and the ſame K
for the moſt part hauing foure dores or entries vnto them,wherein the leſſer labouring hornets aboueſaid are ingendred. When thoſe are quick,brought to perfection, & gotten abroad,they build longer neſts; in which they bring forth thoſe that ſhall be mothers and breeders; by which time thoſe yong hornets that worke be ready to do their buſineſſe and feed theſe other. Now theſe mothers appeare broader than the reſt, and doubtfull it is, whether they haue any ſting or no,becauſe they are neuer ſeen to thruſt them forth. Theſe likewiſe haue their drones among them as wel as Bees. Some think,that toward winter theſe all do loſe their ſtings. Neither Hornets nor Waſpes haue kings or ſwarmes, after the maner of Bees,but yet they repaire their kind,and maintaine their race by a new breed and generation.

Chap. XXII. L

¶ *Of Silk-wormes: the Bombylius,and Necydalus. And who firſt inuented ſilke cloath.*

A Fourth kind of flie there is breeding in Aſſyria, & greater than thoſe aboue named,called Bombyx [*i.* the Silke-worme.] They build their neſts of earth or clay, cloſe ſticking to ſome ſtone or rock,in manner of ſalt; and withall ſo hard,that ſcarcely a man may enter them with the point of a ſpear. In which they make alſo wax,but in more plenty than bees: and after that,bring forth a greater worme than all the reſt before rehearſed. Theſe flies ingender alſo after another ſort; namely,of a greater worme or grub,putting forth two hornes after M
that kind: and theſe be certain canker-wormes. Then theſe grow afterwards to be Bombylij; and ſo forward to Necydali: of which in ſix moneths after come the ſilke-wormes Bombyces. Silk-worms ſpin & weaue webs like to thoſe of the ſpiders,and all to pleaſe our dainty dames, who thereof make their fine ſilks and veluets,forme their coſtly garments and ſuperfluous apparell,which are called Bombycina. The firſt that deuiſed to vnweaue theſe webs of the ſilke-

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A worme, and to weaue the ſame againe, was a woman in Coos named *Pamphila*, daughter of *Latous*: and ſurely ſhe is not to be defrauded of her due honor and praiſe, for the inuention of that fine ſilke, Tiffanie, Sarcenet, and Cypres, which in ſtead of apparell to couer and hide, ſhew women naked thorough them.

Chap. XXIII.

¶ *Of the Silke-worme in Cos.*

IT is commonly ſaid, that in the Iſle Cos there be certaine Silkwormes engendred of floures, which by the meanes of rain-ſhowers, are beaten downe and fall from the Cypres tree, Tere-
B binth, Oke, and Aſh: and they ſoone after doe quicken and take life by the vapor ariſing out of the earth. And men ſay, that in the beginning, they are like vnto little Butterflies naked; but after a while (being impatient of the cold) are ouergrowne with haire; and againſt the winter, arme themſelues with good thick-clothes: for being rough-footed, as they are, they gather all the cotton and downe of the leaues which they can come by, for to make their fleece. After this they fal to beat, to felt & thicken it cloſe with their feet, then to card it with their nailes: which done, they draw it out at length, and hang it betweene branches of trees, and ſo kembe it in the end to make it thin and ſubtill. When al is brought to this paſſe, they enwrap & enfold themſelues (as it were) in a round bal and clew of thread, and ſo neſtle within it. Then are they taken vp by men, put in earthen pots, kept there warme, and nouriſhed with bran, vntill ſuch time as they haue wings acording to their kind: and being thus well clad and appointed, they be let go
C to do other buſineſſe. Now as touching the wooll or fleece which they haue begun, men ſuffer it to relent in ſome moiſture, and ſo anon it is ſpun into a ſmall thread, with a ſpindle made of ſome light Kex or Reed. This is the making of that fine Say, wherof ſilk cloth is made; which men alſo are not abaſhed to put on and vſe, becauſe in ſummer they would go light and thin. And ſo far do men draw back now a daies from carying a good corſlet & armor on their backs, that they think their ordinarie apparell doth ouer-lode them. Howbeit, hitherto haue they not medled with the Aſſyrian Silkworme, but left it for the fine wiues and dames of the city.

Chap. XXIV.

D ¶ *Of Spiders, and their generation.*

IT were not amiſſe to joine hereunto a diſcourſe of Spiders, for their admirable nature, which deſerues a ſpeciall conſideration. Wherin, this is firſt to be noted, that of them there be many kinds, and thoſe ſo well known vnto euery man, that needles is to be particularize & ſtand much vpon this point. As for thoſe which be called Phalangia, their ſtinging and biting is venomous, their bodie ſmall, of diuers colors, and ſharpe pointed forward; and as they go, they ſeeme to hop and skip. A ſecond ſort be black, and their feet are exceeding long. All of them haue in their legs, three joints, The leaſt of this kind, called Lupi, ſpin not at all nor make any webs. The greater, ſtretch forth their webs before the ſmall entries into their holes within the ground. But the third kind of Spiders, be they which are ſo wonderfull for their fine ſpinning
E and skilful workmanſhip: theſe weaue the great and large cobwebs that we ſee; & yet their very womb yeeldes all the matter and ſtuffe wherof they be made. Whether it be, that at ſome certain ſeaſon naturally their belly is ſo corrupt (as *Democritus* ſaith:) or that within it there is a certain bed (as it were) which engenders the ſubſtance of ſilke. But ſurely what ſoeuer it is, ſo ſure and ſteadie nailes the Spider hath; ſo fine, ſo round, and euen a thread ſhe ſpinnes, hanging thereunto her ſelfe, and vſing the weight of her owne bodie in ſtead of a wherue; that a wonder it is to ſee the manner thereof. She begins to weaue at the very mids of the web, and when ſhe hath laid the warpe, brings ouer the woofe in compaſſe round. The maſhes and marks ſhe diſpenſes equally by euen ſpaces; yet ſo, as euery courſe growes wider than other: and albeit they do increaſe ſtill from narrow to be broader, yet are they held and tied faſt by knots that canot
F be vndone. Mark, I pray you, how artificially ſhe hides the ſnares in that net of hers, made into ſquares, to catch the poore flies. A man would not thinke (who ſees the long yarne in her web wrought ſerce-wiſe, ſmoothed and poliſhed ſo cunningly, and the verie manner of the woofe ſo glewiſh and clammie as it is, of it ſelfe) that all were to any purpoſe, and ſerued for that which

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ſhe intends. See withall, how ſlacke and hollow the net is made to abide the wind, for feare of breaking: and thereby ſo much the better alſo to fold and enwrap whatſoeuer coms within her reach! What a craft is this of hers to leaue the vpper part thereof in the front vndone, as if ſhe were wearie (for ſo a man may gueſſe, when he can hardly ſee the reaſon) and (as it is in hunters net and toile) that ſo ſoone as thoſe nets be ſtumbled vpon, they ſhould caſt the flies headlong into the lap and concauitie of the net? To come now vnto her neſt and hole: Is there any Architecture comparable to the vault and arched frame? And for to keep out the cold, how is it wrought with a longer and deeper nap than the reſt! What ſubtiltie is this of hers, to retire into a corner ſo far from the mids, making ſemblance as though ſhe meant nothing leſſe than that ſhe doth, and as if ſhe went about ſome other buſineſſe! Nay, how cloſe lies ſhe, that it is impoſſible for one to ſee, whether any bodie be within or no! What ſhould I ſpeak of the ſtrength that this web hath to reſiſt the puffes and blaſts of winds; of the roughneſſe to hold and not breake, notwithſtanding a deale of duſt doth weigh and beare it downe? Many a time ye ſhall ſee a broad web reaching from one tree to another: and this is when ſhe learns to weaue & begins to practiſe and trie her skill. Shee ſtretches a thread, and warps in length from the top of the tree downe to the very ground; and vp again ſhe whirles moſt nimbly by the ſame thread: ſo as at one time, ſhe ſpins and winds vp her yarne. Now if it chance that any thing light into her net, how watchfull, how quick ſighted, how readie is ſhe to run? Be it neuer ſo little ſnared euen in the very skirt and vtmoſt edge therof, ſhe alwaies skuds into the mids; for ſo by ſhaking the whole net, ſhe intangles the flie or whatſoeuer it be, ſo much the more. Looke what is ſlit or rent therein, ſhe preſently doth mend and repaire, and that ſo euen and ſmall, that a man cannot ſee where the hole was derned and drawne vp again. Theſe Spiders hunt alſo after the yong Lizards: firſt they enfold and wrap the head within their web: then, they catch hold and tweake both their lips together, and ſo bite and pinch them. A worthy ſight and ſpectacle to behold, fit for a king, euen from the ſtately Amphitheatres, when ſuch a combat chances.

Moreouer, there be many preſages and prognoſtications depend vpon theſe Spiders: for againſt any inundations and ouerflowings of riuers, they weaue and make their cobwebs higher than they were wont. In faire and cleare weather, they neither ſpin nor weaue, vpon thicke and cloudie daies, they be hard at worke: and therefore many cobwebs be a ſigne of raine. Some thinke, it is the female that ſpins and weaues; and the male, which hunts and gets in the prouiſion for the familie: thus ordering the matter equally in earning their liuing, as man and wife together in one houſe. Spiders engender together with their buttocks; & little worms they do lay like egs. For, conſidering that the generation of all Inſects beſides, in a manner can be declared and ſhewed no otherwiſe, I muſt not deferre the relation therof, it being ſo admirable as it is. Well then, theſe egs they lay in their webs, but ſcattering here and there, becauſe they vſe to skip and leap when they thruſt them forth. The Phalangius only ſits vpon the eggs within the very hole and thoſe in great number: which begin not ſo ſoon to peep, but they eat the mother, yea and oftentimes the father likewiſe, for he helps her alſo to cooue. And theſe kind of Spiders bring commonly 300 at a time: wheras all the reſt haue fewer. They ſit ordinarily thirtie daies. As for yong Spiders, they come to their full growth and perfection in foure weekes.

Chap. XXV.

¶ *Of Scorpions.*

SEmblably, the land Scorpions do lay certaine little worms or grubs in maner of eggs: and when they haue ſo done, periſh likewiſe for their labour, as the Spiders. Their ſtings be as venomous and dangerous, as thoſe of ſerpents: and albeit there enſue not thereupon ſo preſent death, yet they put folke to more paine a great deale; inſomuch as they languiſh and lie drawing on three daies before they die. If a maiden be ſtung with one of them, ſhe is ſure to die of it: other women alſo for the moſt part catch their death thereby, and hardly eſcape. Yea and men alſo find their poiſon to be mortall & deadly, if they be ſtung in a morning by them when they creep newly out of their holes, faſting, & before they haue diſcharged their poiſon by pricking one thing or other firſt. Their ſting lies in their tails, and readie they are with it alwaies to ſtrike. There is not a minute of an houre but they practiſe and trie how they can thruſt it forth, (ſo malicious they be) becauſe they would not loſe and miſſe the firſt opportunity preſented

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A vnto them. They ſtrike both ſidelong or byas, and alſo crooked and bending vpward, with their taile. The poiſon that comes from them, is white, as *Apollodorus* ſaith, who alſo hath ſet downe 9 ſorts of them, and diſtinguiſhed them by their colours, which me thinks, was but ſuperfluous, and more than needed; conſidering that a man cannot know by his diſcourſe, which of them he would haue to be leaſt hurtfull and noiſome. He affirmeth, that ſome haue double ſtings, and that the males are more curſt and cruell than the females: for he auouches, that they do engender together, and that the males may be knowne by this, That they are long and ſlender. Moreouer, that they be al of them venomous about mid-day, when they be enchafed and ſet into an heat, by the ſcalding and ſcorching ſun: alſo when they be drie and thirſtie, they cannot drinke
B their full and quench their drought. This is well known, that thoſe which haue ſeuen joints in their tailes, be more fell than the reſt: for it is ordinarie in them to haue but ſix. In Affrick, this peſtilent creature vſes to flie alſo, namely, when the Southerne winds blow, which carrie them aloft in the aire and beare them vp as they ſtretch forth their armes like oares. The ſame *Apollodorus* before-named auouches plainely, that ſome of them haue very wings indeed. The people called Pſylli (who making a gainfull trade and merchandiſe of it, to bring in hither vnto vs the poiſons of other countries, and by that meanes haue filled Italie with forrein venomous beaſts) haue many times aſſaied to bring them hither; but neuer would they abide ſo much as the aire of Sicilie, nor liue in that tract. Howbeit we ſee of them now and then in Italie, but harmleſſe they be all: like as in many other places beſides, and namely about Pharus in Ægypt.
C In * Scythia they be ſo dangerous, that they kill their hogs; which otherwiſe be creatures that can eat ſuch poiſons, and yet liue and do full well. And if it be true that is ſaid, the black ſwine die more ſpeedily, eſpecially if after they be ſtung, they goe into the water and drench themſelues. If a man be ſtung with a Scorpion and drinke the powder of them in wine, it is thought to be preſent remedie. Men hold, that nothing is more contrarie vnto them than oile, if they be dipped therein: as alſo to the Stelliones, which are made like Lizards, and do no hurt to them only, becauſe they are without blood. Like as the Scorpions alſo are ſaid to be harmleſſe to a-any thing that is bloodleſſe. Some are of opinion, that they likewiſe deuoure their young, ſaue only one who is more ſlie and craftie than the reſt, who gets vpon the rumpe behind of the mother, and there ſits, being aſſured that hee is ſafe enough in that place, both from ſting of taile
D and tooth in mouth. This Scorpion reuenges the death of his other brethren and ſiſters: for in the end he skips vpon the backe of father and mother both, where he gnaweth and eateth them to death. To conclude, Scorpions vſually do breed eleuen young ones at a time.

* Or rather in Caria.

Chap. XXVI.

¶ *Of Stellions and Graſhoppers.*

THe Stellions after a ſort be of the nature of Chamæleons, liuing only vpon dew and Spiders. Graſhoppers liue alſo much after the ſame manner. And they be of two ſorts, namely, the leſſer, which come firſt, and die laſt: but thoſe be mute. The latter breed, ſeldome or
E neuer flie: and thoſe likewiſe are of two kindes. Such as ſing aloud be named Echetæ; and the leſſer ſort of them Tettigoniæ: but thoſe other are more ſhril, and chant full merrily. The male Graſhoppers in both kinds, do ſing: the females are ſilent. The people of the Eaſt countries make their food of them: euen the very Parthians, who otherwiſe abound in wealth. The hee Graſhoppers are the ſweeter meat before the time of engendring: and the ſhee Graſhoppers afterward, by reaſon of egs knotted within them, and thoſe be white. They engender with their bellies vpward. They haue a certain roughneſſe vpon their backs, which is very ſharp, and therwith they worke a hollow gutter in the ground, as a neſt to lay their egs and breed in. At the firſt, appeareth a little worme or maggot; whereof coms afterward that which they call Tettigometra, as one would ſay, the mother of Graſhoppers, or the great Graſhopper. For about the
F Sunſtead in Summer, the vtmoſt cruſt or caſe thereof breaketh, and then out they flie, and alwaies in the night. At the firſt, blacke they be and hard withall. Of all creatures that are known to liue, the Graſhoppers alone haue no mouth: in ſtead wherof, they haue a certaine ſharp pointed thing in their breaſt (like vnto their tongues that carrie ſtings in their mouthes) and with it they ſucke and licke in the dew. Their breaſt is full of little pipes, from whence commeth that ringing noiſe of the Echetæ which we do heare, as I haue aboue ſaid. Moreouer, their bellie is

emptie and hath nothing in it. When a man raiſeth them, ſo as they be thereby forced to flie, they yeeld forth a certaine humor: which is the onely argument that they be nouriſhed of the dew. They haue moreouer this one marke from all other liuing creatures, namely, no concauitie of their bodie to be ſeene wherby to void out any excrements. So dimme-ſighted they be, that if a man chance to come neare vnto them, plucking in and ſtretching out his finger before them, they will preſently leape vpon it, ſuppoſing that it is ſome leafe that waggeth. Writers there be, that make two more kinds of them, namely, the greater, which appeare at the firſt ſpring and budding of trees; wherupon it is called Surcularia: and a leſſer, which ſome name Frumentaria, others Auenaria. For this ſheweth it ſelfe when the corne is ripe and begins to die in the ſtraw.

Chap. XXVII.

¶ *Places wherein there be no Graſhoppers: alſo where they are mute.*

IN countries bare and naked of trees and wood, there breed no Graſhoppers: and therefore ye ſhall haue them at Cyrene, about the towne, but not in the plaines and fields therof. Neither ſhall a man meet with them in woods that be cold and full of ſhade. It ſeemes alſo, that they take a liking to ſome one quarter more than another: for in the region of the Mileſians, few places there be that haue them: but in Cephalenia, there is a riuer that doth limit and bound them: for of the one ſide there be plentie of them, and on the other, few or none. In the territorie of Rhegium they be all mute. Paſſe the riuer once and come into the Locrians countrey ye ſhall heare them chaunt luſtily. Wings they haue like to thoſe of Bees, but larger, to the proportion of their bodies.

Chap. XXVIII.

¶ *The wings of Inſects, and ſundrie kinds of Beetles.*

OF Inſects, ſome carie two wings about them, as the flies: others foure, as Bees. As for Graſhoppers, they flie with wings made like pellicles or fine skins. In ſumme, all Inſects which be armed with a ſting in their bodie or taile, haue foure apeece: and none againe haue aboue twaine that carrie their offenſiue weapon in their mouth. To the former, Nature hath giuen it for to reuenge; to the other, only to feed themſelues, and content their appetite. Moreouer, plucke from any of them their wings, there will neuer come new in the place. None that haue a ſting in their taile, be double winged. Some Inſects there be, which haue growing a certaine husk or cod ouer their wings, for the ſafegard and defence thereof, as the Beetles: and the wings of ſuch be thinner and more brittle than others. Sting they haue none, but a certaine kind of the great ones be armed with two long hornes boking out before them, and two-forked they be and toothed like Pinſons, in the top, which (when they liſt) they can bring together and make them meet, and ſo nip and bite withall. Theſe Beetles, folke vſe to hang about the necke of young babes, as preſent remedies againſt many maladies. Such Beetles, *Nigidius* calleth Lucanes. Ouer and beſides, there is another ſort, which tumbling vpon their back in dung, do roll it into great round balls with their feet; & therin do make neſts for to beſtow their little grubs (which are their young) againſt the cold of winter. Some there be that vſe to flie vp and down, and where euer they go, make a great buzzing noiſe as if they lowed. Ye ſhal haue others again that keepe in medowes; yea and Creckets that haunt the earth and ſtocke of chimnies, where they make many holes, and lie cricking aloud in the night.

The Glo-wormes, are named by the Greeks Lampyrides, becauſe they ſhine in the night like a ſparke of fire: and it is no more but the brightnes of their ſides and taile: for one while as they hold open their wings, they glitter; another while when they keep them cloſe together, they be ſhadowed and make no ſhew. Theſe Glowbards neuer appeare before hay is ripe vpon the ground, ne yet after it is cut downe. Contrariwiſe, the flies called Blattæ, liue and be nouriſhed in darkneſſe: light is an enemie vnto them, and from it they flie. They breed commonly in baines and ſtouves, of the moiſt vapors that be there. Of the ſame kind there be other great Beetles red in color, which work themſelues holes in the drie earth, where they frame certaine receptacles like vnto Bees combs, little and ſmall, ful of pipes reſembling hollow ſpunges; and

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A all for a kind of baſtard honey, whereof yet there is ſome vſe in Phyſicke. In Thrace neare to Olynthus, there is a little territorie or plot of ground; where this one creature (among all other) cannot liue; whereupon the place is called Cantharolethus. The wings generally of all Inſects, be whole, without any ſlit: and none of them hath a taile but the Scorpion. Hee alone hath not only armes but alſo a ſting in the taile. As for the reſt, ſome of them haue a ſharp pricked weapon in their muzzle, as namely, the Breeſe or great Horſe-flie, called in Latine *Aſilus* or *Tabanus*, whether you will. Likewiſe Gnats alſo, and ſome kind of flies. And theſe prickes ſerue them in good ſtead both for mouth and tongue. Some of theſe are but blunt, & not good for to pricke, but only handſome to ſucke withall, as flies, which haue all of them a tongue, beeing euidently fiſtulous and like a pipe. And none of all theſe haue any teeth. There bee Inſects
B with little hornes proaking out before their eyes, but weake and tender they bee, and good for nothing; as the Butterflies. And there be againe, that are not winged, and ſuch be the Scolopendres. All Inſects that haue legges and feet, goe not directly, but bias and crooked. Of which, ſome haue the hinder legges longer than the former, and ſuch bend hooked outward; as the Locuſts.

Chap. XXIX.

¶ *Of Locuſts.*

C THe Locuſts lay egges in Autumne, by thruſting downe into the ground the fiſtule or end of their chine, and thoſe come forth in great abundance. Theſe eggs lie all winter long in the earth; and at the end of the ſpring the yere following, they put out little Locuſts, black of colour, without legs, and creeping vpon their wings. Hereupon it commeth, that if it be a wet ſpring and rainie, thoſe egs periſh and come to no good: but in a drie ſeaſon, there will be greater increaſe and ſtore of Locuſts the Summer enſuing. Some writers hold opinion, that they lay and breed twice a yeare: likewiſe that they periſh and die as often. For they ſay, that when the ſtar Vergiliæ doth ariſe, they breed: and thoſe afterwards about the beginning of the Dogdaies, die: and others come in their place. Others ſay, that they engender and breed againe their ſecond litter, at the full or ſetting of Arcturus. True it is indeed, that the mothers die ſo ſoone as they haue brought forth their little ones, by reaſon of a ſmall worme that preſently
D breedes about their throat, which chokes them. And at the ſame time, the males likewiſe miſcarrie. See what a little matter (to ſpeake of) bringes them to their death! and yet a wonder it is to conſider, how one of them when it liſt will kill a ſerpent: for it will take him faſt by the chaws, and neuer lin biting till ſhe hath diſpatched him. Theſe little beaſts breed no where but in plain and champion countries, namely, ſuch as be full of chinks and creuiſes in the ground. It is reported, that there be of them in India, three foot long: where the people of the country vſe their legs and thighes for ſawes, when they be thoroughly dried. Theſe Locuſts come by their death another way, beſides that aboue-named: for when the wind takes them vp by whole troupes together, they fall down either into the ſea, or ſome great ſtanding pooles. And this many a time happens by meer chance and fortune; and not (as many haue ſuppoſed in old time)
E becauſe their wings are wet with the night dew. For euen the ſame Authors haue written, that they flie not in the night for cold. But little know they, that it is ordinarie with them to paſſe ouer wide and broad ſeas, and to continue their flight many daies together without reſt. And the greater wonder is this, that they know alſo when a famine is toward: in regard wherof, they ſeek for food into far countries: in ſuch ſort, as their comming is euer held for a plague of the gods, proceeding from their heauie wrath and diſpleaſure. For then commonly they are bigger to be ſeen, than at other times: and in their flight they keepe ſuch a noiſe with their wings, that men take them for ſome ſtrange fowles. They ſhade and darken the very Sunne as they flie, like vnto a great cloud: inſomuch, as the people of euery country behold them with much feare, leaſt they ſhould light in their territorie, and ouer-ſpread the whole countrey. And verily their
F ſtrength is ſuch, that they hold out ſtill in their flight: and as if they had not enough of it to haue flowne ouer ſeas, they giue not ouer to trauerſe mightie great countries in the continent. And looke in what place ſoeuer they ſettle, they couer whole fields of corne with a fearefull and terrible cloud: much they burne with their very blaſt, and no part is free but they eat and gnaw euen the very dores of mens dwelling houſes. Many a time they haue been known to take

their flight out of Affrick, and with whole armies to infeſt Italie: many a time haue the people of Rome, fearing a great famine and ſcarſitie toward, been forced to haue recourſe vnto Sybils books for remedie, and to auert the ire of the gods. In the Cyrenaicke region within Barbarie, ordained it is by law, euery three yeares to wage war againſt them, and ſo to conquer them: that is to ſay, firſt to ſeeke out their neaſts, and to ſquaſh their eggs; ſecondly, to kill all their yong; and laſt of all, to proceed euen to the greater ones, and vtterly to deſtroy them: yea, and a greeuous puniſhment lieth vpon him that is negligent in this behalfe, as if he were a traitor to his prince and countrey. Moreouer, within the Iſland Lemnos there is a certaine proportion and meaſure ſet down, how many and what quantitie euery man ſhall kill; and they are to exhibit vnto the magiſtrate a juſt and true account thereof; and namely to ſhew that meaſure full of dead Locuſts. And for this purpoſe they make much of Iaies, Dawes, and Choughes, whom they doe honour highly, becauſe they flie oppoſite againſt the Locuſts, and ſo deſtroy them. Moreouer, in Syria they are forced to leuie a warlike power of men againſt them, and make riddance by that meanes. See in how many parts of the world this hurtfull and noiſome vermine is diſperſed and ſpread: and yet in Parthia they are taken for very good meat. The voice that they haue (ſuch as it) ſeemes to come from the hinder part of their head: for about that place where the joincture is of the ſhoulders to the nape of the neck, they are thought to haue certain teeth, which by grating and grinding one againſt the other, doe yeeld a kind of craſhing noiſe: and namely, about the time of both the Æquinoctials: like as the Graſhoppers at midſummers Sunſtead. Locuſts engender after the manner of all other Inſects which do engender: to wit, the female carries the male: and ſhe lying vnderneath, bends vp the very end of her taile againſt the other: and thus they continue a good while ere they part aſunder. To conclude, the males of all this kind be leſſe than the females.

Chap. XXX.

¶ *Of the ordinarie Piſmires of our countrey in Italie.*

MOſt part of Inſects do breed a grub or little worme. For euen the very Ant in the Spring time doth bring forth ſuch wormes like egges. Theſe ſilie creatures labor and trauell in common, as the Bees do: this only is the difference, that Bees do make their owne meat; wheras theſe ſtore vp only their food and prouiſion. As touching their ſtrength, if a man would compare the burdens that they carie, with their own bodies, he wil find and confeſſe, that there is not a creature againe in the world, for that proportion, ſtronger. And how doe they carrie them? euen with their very mouthes. Howbeit, if they meet with any greater load than they can bite betweene their chawes, then they ſet their ſhoulders to it, and with their hinder legs alſo make meanes to driue it forward. They haue among them a certaine forme of Commonwealth: they remember: they are not without care and fore-caſt. Looke what ſeedes or graines they do lay vp for prouiſion, ſure they will be to gnaw it firſt, for feare they ſhould ſprout and take root againe, and ſo grow out of the earth. If a corne or ſeed be too big for their carriage, they diuide it into peeces, that they may go with it more eaſily into their houſe. If their ſeeds within, chance to take wet, they lay them abroad, and ſo drie them. They giue not ouer worke by night, when the Moone is at the full: but when ſhe is in the change, they reſt and play them. When they are at worke, how painfull are they? how buſie, how induſtrious? And for as much as they make their purueiance in diuers places, and bring from al parts, without knowledge one of the other: they keepe among them certaine market daies, for a mutuall enteruiew and conference together. And verily, it is a world to ſee, how then they will aſſemble; what running, what greeting, what entercourſe and communication there is between them, whiles they are inquiſitiue, as they meet one with onother. What newes abroad: euen like merchants at a Burſe. Their waifare is ſo ordinarie and continual, that we may ſee the very hard flint and pebble ſtones worn with their paſſage too and fro: we may ſee (I ſay) a very path-way made where they vſe to goe about their worke: whereby, let no man doubt of what force and power continuall vſe is, of any thing whatſoeuer, be it neuer ſo little. Of all liuing creatures, they only and men, doe enterre and burie their dead among them. To conclude, thoroughout all Sicilie a man ſhall not ſee a flying Ant.

CHAP.

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Chap. XXXI.

¶ *Of Indian Piſmires.*

IN the temple of *Hercules* at Erythræ, there were to be ſeen the horns of a certain Indian Ant, which were there ſet vp and faſtned for a wonder to poſteritie. In the countrey of the Northerne Indians, named Dardæ, the Ants do caſt vp gold aboue ground from out of the holes and mines within the earth: theſe are in colour like to cats, and as big as the * wolues of Ægypt. This gold beforeſaid, which they worke vp in the winter time, the Indians do ſteale from them in the extreme heate of Summer, waiting their opportunitie when the Piſmires lie cloſe within their caues vnder the ground, from the parching Sun. Yet not without great danger: for
B if they happen to wind them and catch their ſent, out they go, and follow after them in great haſt, and with ſuch fury they fly vpon them, that oftentimes they teare them in pieces; let them make way as faſt as they can vpon their moſt ſwift camels, yet they are not able to ſaue them. So fleet of pace, ſo fierce of courage are they, to recouer gold that they loue ſo well.

* O. Foxes

Chap. XXXII.

¶ *The diuers generation of ſome Inſects.*

C MAny Inſects there be that breed after another ſort than the former aboue ſpecified: and principally of dew which ſettles vpon the radiſh leafe in the beginning of the Spring. For being made thicke, and hardned with the heate of the Sun it growes to the bignes of the grain of Millet. From it ariſeth a little grub, and three daies after it becomes a kind of canker-worme: and ſo in proceſſe and tract of time it groweth bigger without mouing at all, and gathereth an hard husk or caſe about her: only if a man touch the webby panicles wherein the ſaid worme lieth inwrapped, it will ſeem to ſtir. This is called Chryſalis: and after ſome time, when the kex or husk is broken, he proueth a faire flying butter-fly.

Chap. XXXIII.

¶ *Of Inſects that breed in wood, and of wood.*

D SEmblably there be ſome Inſects ingendred of raine drops ſtanding vpon the earth, and others alſo of wood: for not only the ordinarie wood-wormes breed in timber, but alſo certain Brees and horſe-flies come of it, yea, and other ſuch like creatures, whenſoeuer the wood happen to be dotted with ouer-much moiſture. Like as within one of our bodies there haue bin found broad wormes of 30 foot in length, yea and ſometimes longer. Alſo there haue bin ſeen in dead carions many worms: and the very fleſh of liuing men is apt to breed ſuch vermin: and ſo is the haire of the head to harbor lice, of which filthy & loathſome creatures both *Sylla* the Dictator, and alſo *Alcman* (one of the moſt renowned Greeke Poets) periſhed. Moreouer, birds are much infeſted and troubled therewith. And as for Feaſants, they will dy thereof vnleſſe they beſtrew themſelues with duſt. Of ſuch beaſts as carry haire, it is verily thought
E that the Aſſe alone and ſheep are free from this kind of vermin. Some kind of cloath likewiſe is apt to ingender lice, and eſpecially thoſe which are made of wooll that ſheepe bare which were worried of wolues. Ouer and beſides, I find in ſome writers, That there is ſome water will ingender this vermin if we do but waſh therein. For euen in wax there will breed mites, which are thought to be of all creatures that haue life, the very leaſt. Alſo ye ſhall haue others again ingender of filthy dry duſt, namely fleas, which vſe to skip and hop with their hinder feet luſtily like theſe tumblers and vautors. Laſt of all, there be that come of a certaine moiſt pouder in cranies of the ground, and thoſe be our ordinary little flies.

Chap. XXXIV.

F ¶ *Of one kind of creature that hath no paſſage to void excrements.*

THere is a creature as foule and ill-fauoured as the reſt, which hath euermore the head faſt ſticking within the skin of a beaſt, and ſo by ſucking of bloud liueth, and ſwells withall: the only liuing creature of all other that hath no way at all to rid excrements out of the

body: by reaſon whereof when it is too full, the skin doth crack and burſt, and ſo his very food G
is cauſe of his death. In Horſes, Aſſes, and Mules theſe do neuer breed: in Kine and oxen they be common, and otherwhiles in dogs, who are peſtered not only with theſe ticks, but alſo with all other vermine aboue named. And in Sheepe and Goats a man ſhall finde none other but ticks. It is as ſtrange a thing alſo to ſee, how the horſe-leeches which be nouriſhed in ſtanding waters of fens, are thirſty after bloud: for theſe will thruſt their whole head into the fleſh, for to draw and ſuck out bloud. Finally, there is a kind of flies that plagueth dogs and none elſe: they are buſie commonly about their eares, where they will bite and ſting them ſhrewdly; for there they cannot come by them with their teeth to ſnap and kill them.

Chap. XXXV. H

¶ *Of Moths and Gnats.*

WOoll and cloth when they be duſty breed moths, eſpecially if a ſpider alſo be gotten within them. For the Spider is very thirſty; and by reaſon that he drinketh vp all the moiſture of the cloth or wool, he increaſeth the drineſſe much more. In paper alſo they will ingender. A kind of them there is which carry their coats and caſes with them, as cockles and ſnailes do; but they haue feet to be ſeen. If they be turned out of their coats or huſks, they preſently die. If they grow ſtill they wil proue to be Chryſalides. The wild fig tree breeds certaine Gnats called Ficarij. As for the Cantharides or French greene Flies, they be bred of little wormes in Fig trees, Peare trees, wilde Pines, or Pitch trees, the Eglantine Brier, I
and Roſes. A venomous vermin this is, howbeit medicinable in ſome ſort. The wings be they that are good in phyſick: caſt them away, & the reſt is deadly. Moreouer, there be other gnats that ſoure things will ingender. And no maruell, ſeeing there be ſome wormes found in ſnow, which are white, if the ſnow be but thin and new fallen. But in caſe it haue lien long, and bee deep, a man ſhall find in the mids within thoſe which are red (for ſnow alſo if it be old waxeth red) rough and hairy, greater alſo than the reſt, and dull of motion.

Chap. XXXVI. K

¶ *Of the fire-Fly called Pyralis, or Pyrauſta.*

THe fire alſo, a contrary element to generation, is not without ſome liuing creatures ingendred therein. For in Cypres, among the forges and furnaces of copper, there is to be ſeen a kind of four-footed creature, and yet winged (as big as the greater kind of flies) to flie out of the very midſt of the fire, and called it is of ſome Pyralis, of others Pyrauſta. The nature of it is this; ſo long as it remaines in the fire it liues: but if it chance to leap forth of the Furnace, and fly any thing farre into the aire, it dieth. There is a riuer in the kingdome of Pontus called Hypanis, which about the ſummer Sunſtead vſeth to bring down the ſtreame thin pellicles or bladders like to grape kernels: out of which there breaks forth and iſſueth a foure footed flie, like vnto thoſe aboue named; and it liueth not aboue one day, whereupon it is called L
Hemerobion [*i.* a day-fly.] All other Inſects of like ſort may continue and liue a ſeuen-night. The Gnat and the little wormes three weeks: but ſuch as bring forth their yong aliue, may endure a full moneth. As for the metamorphoſis of theſe creatures from one forme to another, it is moſt commonly performed in three daies, or foure at the moſt. All the reſt of the winged kind lightly die in Autumne: among which, the brees and horſe-flies are ordinarily blind firſt. To be ſhort, thoſe flies which haue bin drowned, and ſo come to their death, if they be laid and kept in hot cinders or aſhes, will come again to themſelues and reuiue.

Chap. XXXVII. M

¶ *A diſcourſe Anatomicall, of the nature of liuing creatures part by part, according to their particular members.*

The head. IT remaines now to treat of the ſeuerall parts of the body, and ouer and aboue the former deſcription, to particularize and ſet down the ſtory of one member after another. Firſt therefore this is generall, that all liuing creatures whatſoeuer hauing bloud, haue alſo heads: and

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A few of them haue cops or creſted tufts vpon their heads, vnleſſe it be birds, and thoſe be of di-
uers forms and faſhions. The Phœnix is adorned with a round plume of feathers, out of the Creſts, tufts, and combes.
midſt of which growes another little pennache. Peacockes carry vpon their heads a tuft (as it
were) of little hairy trees: and the Stymphalides a lock of criſped and curled haires. Feaſants
haue feathers ſtanding vp like hornes. The pretty Titmouſe or Nonett is filletted or coifed
vpon the head: and in lieu thereof, the Lark hath a little peruke of feathers, whereupon at firſt
it was called Galerita, but afterwards after the French word Alanda, and of it one of the Ro-
man legions tooke the name, becauſe of their pointed Morions. We haue written alreadie of
the Ginny or Turky cocks and hens, vpon whom Nature hath beſtowed a folding creſt, lying
from the very bill, ouer the midſt of the head, vnto the nape of the necke. She hath giuen alſo
vnto all the ſort of Seamewes, Fen ducks, and Moore-hens, certain cops and criſped tufs: to the
B Woodpeck alſo and Baleare crane. But aboue all others, the houſe dunghill cocks carry vpon
their heads the goodlieſt ornament of their combe, and the ſame conſiſting of a maſſie and fle-
ſhie ſubſtance, indented beſides like a ſaw. And yet we may not properly ſay it is either fleſh,
griſtle, or calloſitie, but compoſed of ſome particular matter by it ſelfe, which canot well be
named. As for the creſts of dragons, I could meet with no man hitherto that euer ſaw them.

To come now to Horns, there be many fiſhes, as well of the ſea as freſh waters, and alſo Ser- *Hornes.*
pents, that haue horns in diuers and ſundry ſorts. But to ſpeak a truth and properly, they be no
hornes indeed, for thoſe pertain only to four-footed heaſts. As for *Actæon* and *Cippus*, of whom
we read in our Latine ſtory that they had hornes, I take them to be meer fables and no better.
C Certes in nothing more hath Nature taken her pleaſure than in this, as if ſhe had meant to de-
light and ſport her ſelfe in theſe armes and weapons of beaſts. For in ſome ſhe hath made them
knagged and branched, as in Deere, both red and fallow: in others plain and vniforme without
tines, as in the Spitters, a kind of Stag, which thereupon be called Subulones in Latin, for that
their horns be like a ſhoomakers * Nall blade. There be againe which haue broad hornes, and Subulæ.
plaited like a mans hand, with fingers ſtanding out of them: whereupon the beaſts that beare
them be called Platycerotes, [*i.* broad horned.] Roe bucks haue by nature branched heads, but
they are ſmall: and theſe do not mew and caſt them yearely, as the ſtag and bucke. All the ſort
of rams be armed with crooked horns, turning and winding with certain revolutions as if they
were gantlets or whorlebats, giuen them by nature to thumpe and jurre withall. Buls hornes be
D ſtrait and vpright, ready alwaies to do a miſchiefe. The females of this kind, to wit, Cowes, are
horned as wel as Buls: whereas in many others, the males only be in that wiſe armed. The wild
Goats, called Roch-goats, haue their hornes turning backeward, whereas in fallow Deere they
bend rather forward. There is a kind of Roe-buck called in Africke Addace, which the Greeks
haue named Strepſiceros, and they haue vpright hornes: but they are furrowed and wreathed
round about as if they were ribbed like the backe of a lute; or rather chamfered like the ridge
of a land, and alwaies ſharp pointed with a tip. Ye ſhall haue droues and herds of beaſts, namely
Kine and Oxen in Phrygia, which wil ſtir and wag their horns like eares: and thoſe in the king-
dome of the Troglodites, cary their hornes pendant directly to the ground, which is the cauſe,
that as they eat they are forced to beare their necks awry, and looke atone ſide. Some haue but
E one horne apiece, and that either in the midſt of the forehead, as the Oryx; or elſe in the noſe
and muffle, as the Rhinoceros, wherof we haue written before. In ſum, there be that haue ſtrong
and hard horns to butt with: others to ſtrike and gore withall: ſome crooking forward, others
bending backward. In ſome, they are good only to toſſe and fling, and that in diuers manners.
For there be of them that giue back, others turn one againſt another, and ſome euen ioyne and
meet together: but all run vp ſharp pointed in the end. A kind of beaſts there is that vſe their
horns in ſtead of hands to ſcratch their body when it itches: and others ſerue the turn to ſound
the way before them, as certain ſhel-Snails and Winkles. And theſe horns giuen for this pur-
poſe are ſome of them of a fleſhy ſubſtance, as thoſe of the ſerpents called Ceraſtæ: and other-
whiles one alone without a fellow. As for the Periwinckles and Snailes aforeſaid they are ne-
F uer without twain apiece: and at this paſſe they haue them, to put out and draw in as they liſt.
In Buffles horns the barbarous people of the North parts vſe to drinke: and ye ſhall haue the
hornes of one Buffles head to hold full two meaſures called Vrnæ, which is about 8 gallons. In
ſome countries men head their ſpeares and jauelins with horne. With vs in Italy they be cut
into thin plates, and ſerue for lanterns: and ſurely they are ſo tranſparent and cleare, that they

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make the candle within incloſed to caſt the greater light, and farther off. Nay, they are good G
for many other toies of delight and pleaſure: inſomuch as ſome paint and die them with ſun-
dry colours, others verniſh and anneile them: and ye ſhal haue men to make thereof their fine
inlaid works in Marquetrie of diuers colours, called thereupon Ceroſtrata. All herns in man-
ner be hollow, ſaue that as they grow toward the pointed tip, they be ſolid and maſſie: onely
Deers both red and fallow are ſound and entire throughout: and euery yere they fal off. Huſ-
bandmen in the countrey, when they ſee their Oxe hooſes ſurbatted and worne too neere the
quick with ouermuch trauell, anoint their hornes with ſweet greaſe, & that is the way to make
them grow again. And in very truth the hornes of theſe beaſts are of ſo pliable a ſubſtance, and
eaſie to be wrought, that as they grow vpon their heads, euen whiles the beaſts are liuing, they
may with boiling wax be bended and turned euery way as a man will: yea, and if they be cut H
when they break new forth out of the skin, they may be eaſily writhed to grow ſeueraly in ſun-
dry parts, ſo as euery head may ſeem to haue foure hornes. For the moſt part, the hornes of
Cowes are more tender and thinner than the other; like as we ſee it is in the females of ſmal-
* With vs it is otherwiſe. ler beaſts: * Ewes haue none at all: ne yet Hinds and Does: no more than the beaſts that haue
feet clouen & diuided into many toes: or thoſe that be whole hoofed, except the Indian aſſe,
who is armed with one horne and no more. Beaſts clouen footed in twaine haue likewiſe two
hornes: but none at all haue they which are toothed in the vpper mandible. They that make
this reaſon, becauſe the matter of their teeth runs al into the horn, and ſo contrariwiſe, are de-
ceiued, and ſoon conuinced by this, That Hinds & Does are toothed no more than Stags and
Bucks, and yet are not horned. In other beaſts the hornes grow to the very bone of the head, in I
Deere only they come out of the skin, and are graffed no deeper. Fiſhes of all liuing creatures
haue the biggeſt heads for the proportion of their bodies, haply becauſe they might the bet-
ter diue vnder water and ſink to the bottom. No kind of Oiſters haue any head at all, no more
than Spunges, or any other in manner, which want al their ſences but only feeling. Some haue
heads indeed, but within their body, and not diuided apart from it, as Crabs and Creifiſhes.

Haire. Mankind of all liuing creatures hath moſt haire on the head, euen men as much as women,
as we may ſee in thoſe countries where they neuer cut their haire, but let it grow. And namely
in Sauoy, Dauphine, and Languedoc about the Alps, where men and women both weare long
haire; and thereupon that part of France is called Comata. And yet this is not ſo general, but K
that the nature of ſome land and ſoile may make ſome alteration and varietie. For the Myco-
nians naturally haue no haire at all: like as the Caunians be all ſubiect to the diſeaſe of hard
and ſwelling ſpleens, euen from their mothers womb. Some reaſonleſſe creatures likewiſe are
* Or rather Alpine. by nature bald, as Oſtriches, and certain * water Rauens, which of the Greeks are named there-
upon Phalacro-coraces. Seldom do women ſhed their haire clean, and become bald: but neuer
was any guelded man knowne to be bald: nor any others that be pure virgins, and haue not ſa-
crificed vnto *Venus*. The haire growing beneath the ventricles of the brain, & vnder the crown
of the head, like as alſo about the temples and eares, falls not off quite. Man alone of all crea-
tures groweth to be bald, I ſpeake not of thoſe that are ſo by nature. Men, women, and horſes
wax gray haired. Men and women both begin at the forepart of their heads to be griſlie, and af- L
terwards behind. Men and women alone be double crowned.

Brain pan. Some creatures haue the bones of their skull flat, plain, thin, and without marrow, and the
ſame vnited or ioined together by certain ſutures or ſeams indented & toothed on either ſide,
which run one into another. The ruptures and cracks of the brain pan cannot be conſolidated
and ſaudred perfectly again: but if the ſpels and pieces be gently taken out, and but ſmal, there
is no danger of death: for in their place there will grow a certaine callous cicatrice or fleſhie
ſubſtance that will ſupply in ſome ſort that defect. Bears of all others haue the tendreſt suls;
and Parrats the hardeſt, as we haue ſaid before in place conuenient.

Braines. Moreouer, all liuing creatures that haue bloud haue likewiſe brains: yea, & thoſe in the ſea
which we call Soft-fiſhes, although they haue no bloud at all, as namely the Pour-cuttles or M
Polypes. But man for his bignes and proportion hath moſt braine of all other, and the ſame is
the moiſteſt & coldeſt part he hath within his body. Infolded it is within two tunicles or kels,
both aboue and beneath: whereof if the one be pierced and wounded [to wit, *Pia mater*] there
is no way but preſent death. Alſo, men commonly haue more braines than women. And
both of them haue neither bloud nor veines therein: as for that which is in other creatures, it

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A wanteth all kind of fat. The learned Anatomiſts,who haue ſearched diligently into the nature of things,do teach vs a difference between the brain & marrow of bones:for,brains in the boyling and ſeething,wax hard. In the midſt of the braine of all creatures there be certaine little * bones. Man alone in his infancie hath his brain to pant and beat:and fully ſettled it is not,nor confirmed,before that he begins to ſpeak. Of all parts neceſſary for life,it is placed higheſt,and next vnto the cope of head and heauen both: without fleſh,without bloud, without filth & ordure. And in truth,it is the fort and caſtle of all the ſences: vnto it all the veines from the heart do tend: in it they all do likewiſe end. It is the very higheſt keep,watch-tower,and ſentinell of the mind: it is the helme and rudder of intelligence and vnderſtanding. Moreouer, in all creatures it lieth forward in the front of the head:and good reaſon,becauſe all our ſences bend that way juſt before our faces. From our braine comes ſleepe, from thence proceedeth our nappes, our nods,our reeling, and ſtaggering. And looke what creature ſoeuer wanteth braine, the ſame ſleepeth not. Stags (by report) haue within their heads twentie little wormes,to wit,in the concauity vnder their tongue,and about that ioincture where the head is graffed to the chin bone.

*Officula,ſome reade Oſcula, holes.

Man alone hath not the power to ſhake his eares. Of flaggie,long,and hanging eares, came the ſyrnames firſt of the *Flacci* (families & houſes in Rome.) There is no one part of the bodie coſteth our dames more than this,by reaſon of their precious ſtones and pendant pearls thereat. In the Eaſt countries,men alſo as wel as women,think it a great grace and brauery to weare earings of gold. As touching their proportion, ſome creatures naturally haue bigger or leſſer than others. Deere only,the fallow as well as the red,haue them ſlit and as it were diuided. In Rats and mice they be hairy. To conclude,no creature hath ears but thoſe that bring forth their yong aliue:and none of them are without,ſaue onely Seales, Dolphins, Vipers, and ſuch fiſhes as were called Cartilagineous and griſtly. And theſe all in ſtead of ears,haue certaine holes,or conduits,except the foreſaid griſtly fiſhes,& the Dolphins:and yet manifeſt it is, that they do heare wel enough. For delighted they be with muſick: and vpon ſome great noiſe and ſudden crack they are aſtoniſhed,and then eaſily taken. But maruel it is how they ſhould heare as they do: neither can I comprehend the reaſon and means thereof, no more than I am able to ſhew how they do ſmell? for no Organs and Inſtruments haue they thereof to be ſeene,& yet there is not an hound vpon the land ſents better,nor hath a finer noſe than they. Of all fouls, the Like-owle and the Otus alone,haue feathers like eares:the reſt haue only holes to heare by. And after the ſame manner ſkaled fiſhesand ſerpents. In Horſes,Mules,and Aſſes,and all ſuch as ſerue either pack or ſaddle,the ears are tokens of their courage more or leſſe,and will ſhew what ſtomack is within them. If they be tired and weary,they hang down flaggie: be they afraid, you ſhall perceiue them to wag too and fro: in heat of fury they ſtand pricking vp: in ſicknes they lie downe.

Eares.

Man only of all creatures hath a Face and Viſage: the reſt haue either muzles and ſnouts,or elſe bils and beakes.

Face or Viſage.

Other creatures haue Foreheads alſo as well as men: but in mans alone we may ſee & reade ſorrow & heauineſſe,mirth and joy,clemencie and mildneſſe,cruelty,and ſeuerity; and in one word,gueſſe by it,whether one be of a good nature or no?

Forehead.

In the aſcent or riſing of the forehead,man hath Eie-brows ſet,like to the eaues of an houſe; which he can moue as he liſt,either both at once, or one after another: and in them is ſhewed part of the mind within. By them we denie,by them wee grant. Theſe ſhew moſt of all others, pride and arrogancie. Wel may it be that pride doth appeare and ſettle in ſome other part,yet here is the ſeat & place of reſidence. True it is,that in the heart it beginnes,but hither it mounteth and aſcendeth,here it reſteth and remaineth. No part can it find in the whole body more eminent and hauty,and withall more ſteepe than the browes, wherein it might rule and raigne alone without controlment.

Eie-browes.

Next vnder the browes is the Eie,the moſt precious member of the whole body; which by the vſe of light makes difference between life and death. Yet hath not Nature giuen eies to all creatures: Oiſters haue none: and for ſome other ſhel-fiſhes,it is hard to ſay whether they haue any or none. As for Scallops,if a man ſtir his fingers againſt them as they lie gaping open,they wil ſhut,as if they ſaw. And the ſhel-fiſhes called Solenes,giue backe if any edge-toole come neere vnto them. Of foure-footed creatures, Moldwarpes ſee not at all: a certaine ſhew and forme

The Eie.

forme they haue of eies to be ſeen, if a man take off the skin that lieth ouer the place. Moreouer, among fouls of the aire, thoſe of the Herons kind, which are called Leuci, for that they be white, want (by report) one eie. And for certaine, in caſe of Augurie, if theſe birds flie either into the South or North, it is holden for an excellent good preſage, for they aſſure men that peril is paſt and promiſe ſecuritie. *Nigidius* affirmeth, That neither Locuſts nor yet Graſhoppers haue eies. As for ſnailes and ſuch like, the two little horns that they put forth, ſerue them in ſtead of eies, as they ſound or trie the way before them. The earth-mads and all the ſort of worms & grubs, are without eies. Men alone of all liuing creatures haue eies of diuers colours, ſome of one, and ſome of another. For all other creatures of one and the ſame kind, are eied alike. Howbeit, ſome horſes there be that extraordinarily haue *red eies. But in men it is hard to ſet down the infinit variety and difference in them: for ſome haue great glaring eies: others againe as little & as pinking. Others alſo there be that haue them of a moderate and reaſonable bignes. Some be goggle eied, as if they would ſtart out of their heads, and thoſe are ſupported to be dim-ſighted: others be hollow eied, and they are thought to haue the beſt and cleareſt ſight: like as they who for colour haue goats eien. Moreouer, ye ſhall haue ſome men, who can diſcern a far off: others againe that ſee not but neere at hand. Many there are, whoſe eieſight dependeth of the Sunnes light: for let the day be ouercaſt and cloudy, or the Sun gon downe, they ſee juſt nothing: and others contrariwiſe there be, that all the day time haue but a bad ſight; yet in the night ſeaſon they ſee better than any others. As concerning 2 balls or apples in one eie, as alſo who they bee that can bewitch and hurt folk with their very eie, ſufficient hath bin ſaid already. *Gray eies commonly in the dark ſee more cleare than others. It is reported of *Tiberius Cæſar* the Emperor to haue had this property by himſelf, that if he were awakened in the night, for a while he could ſee euery thing as wel as in the cleare day light; but ſoon after, by little and little, the darkneſſe would ouercaſt and ſhadow all again: a gift that no man in the world was euer known to haue but himſelfe. *Auguſtus Cæſar* of famous memory, had *red eies like to ſome horſes: and indeed wall-eied he was, for the white thereof was much bigger than in other men: which alſo was the cauſe, that if a man looked earneſtly vpon him, and beheld him wiſtly (and a man could not anger him worſe) he would be diſpleaſed, & highly offended. *Claudius Cæſar* had a fleſhy ſubſtance about the corners of his eies, that tooke vp a good part of the white, and many times they were very red and bloud ſhotten. *C. Caligula* the Emperor, his eies were euer ſet in his head, and ſtiffe again. *Nero* had a very ſhort ſight; for vnleſſe he winked (as it were) and looked narrow with his eies, he could not well ſee ought, were it neuer ſo neere. Twentie couple of profeſſed maſters of fence and ſword-plaiers there were in the fence-ſchoole, that *C. Caligula* the Emperor maintained: & among the reſt two there were & no more, whom a man could not make to winke, or once to twinckle with their eies: preſent before them what weapon he would, or make offer to ſtrike, ſo ſteady & firm were they: and therfore they euermore carried the prize, & were inuincible. So hard a matter is it for a man to keep his eies from twiring: and many men naturally cannot chuſe but be euermore winking and twinckling with their eies: but ſuch are holden for fearful and timorous perſons. None haue their eyes all of one color: for the bal or apple in the midſt is ordinarily of another color than the white about it. Neither in any one part of the body are more ſignes and tokens to be gathered of the affection and diſpoſition of the heart, than in the eie, of man eſpecially aboue all other creatures. By it we may know whether one be modeſt, ſtaied, ſober, gentle, mild, pittifull or no. It ſheweth malice, hatred, loue, heauineſſe, ſorrow, and joy. In the caſt alſo of the eie there is as much variety; for ſome haue a furious, cruell, terrible, fierce, ſterne, and fierie looke: others ſhew grauitie and conſtancie in their eie. Some haue an ouerthwart regard with them, others looke askew and awry. One while a man lookes atone-ſide, and hath a wanton ſheeps eie: another while he caſteth his eie downe, and lookes heauily: and when he liſt againe, hee can giue one a pleaſant and merry looke. In briefe, the Eies are the very ſeat and habitation of the minde and affection. For one while they be ardent and fierie: otherwhiles they be bent and fixed vpon a thing: one while they twinckle, another time they winke cloſe and ſay nothing. From them proceed the teares of compaſſion: When wee kiſſe the eie, we thinke that we touch the verie heart and ſoule. From hence commeth our weeping: from hence guſh out thoſe ſtreames of water that drench and run downe the cheeks. But what might this water and humour be, that in the hearts griefe iſſueth in ſuch plentie, and is ſo ready to flow? Where may it lie at other times, when we are in joy, in mirth, and repoſe? it

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A cannot be denied, That with the Soule we imagine, with the minde we ſee, and the Eies as veſſels & inſtruments receiuing from it that viſuall power and faculty, ſend it ſoon after abroad. Hereupon it commeth, that a deep and intentiue cogitation blinds a man ſo, that he ſeeth not; namely, when the ſight is retired far inward. Thus it is, that in the Epilepſie or Falling-ſickneſs the eies are open and yet ſee nothing: for why? the mind within is darkened. Moreouer, Hares haue this qualitie, to ſleep open eied: and ſo do many men beſides them: and this the Greekes do expreſſe by the terme ὑπνοβλεφαρίζειν. Nature hath framed and compounded the eie, of many thin membranes or skins. As for thoſe tunicles without-forth, they are tough and hard * like horn, to withſtand the iniuries of heat and cold: and thoſe ſhe hath ordained eftſoones to be clenſed and purified with the moiſture of teares; to the end that they ſhould be ſlipperie and moueable, for to turne quickly and to ſhift from all that may offend. As for the middle part & membrane of the eie, ſhe hath ſet in a ball, like a window made of tranſparent horne [or rather of a grape:] the little compaſſe whereof containeth all the ſight of the Eie, and ſuffereth it not to wander and roll here and there, but directeth it as it were within a certaine pipe or ſmall conduit: by which means alſo (to note by the way) the apple being gathered into ſo narrow a circle, doth eaſily auoid all inconueniences that are incident vnto it, for to annoy the ſame. This ball and point of the ſight is compaſſed alſo round about with other circles of ſundry colors, black, blewiſh, tawny, ruſſet, and red; to the end that by this medley and temperate mixture of colors enuironed with the white beſides, the light might be let in & repreſented to the Optick-ſinew: and alſo by a temperat reuerberation and beating backe from thoſe other colours, it ſhould not dazle or offend the apple with the exceeding brightneſſe thereof. In ſum, this mirror or glaſſe-window, is ſo perfect and ſo artificially contriued, that as little as the ball of the ſight is, a man may ſee himſelfe ful and whole in it. And this is the cauſe that many fouls, from a mans fiſt are ready to peck at the eies aboue all other parts, for that they would gladly ſort and draw vnto their owne repreſentation and image, which they ſee in the eies, as vnto that which they naturally affect. Certain ſumpter-horſes and mules, & ſuch like beaſts of carriage only, are troubled with ſore eies, and diſeaſed that way at euery change and increaſe of the Moon. But man alone, in the catarrhact & ſuffuſion of the eie, by voiding from it a certain humor which troubled the ſight, doth recouer and ſee again. There haue bin many known blind 20 yeares and more, & yet afterwards inioied the benefit of their eies. Some haue bin borne blinde, without any fault or defect of their eies. Diuers men likewiſe haue ſuddenly loſt their ſight by ſome ſecret accident and no outward offence knowne to giue occaſion thereof. Many right skilfull maſters in Chirurgerie, and the beſt learned Anatomiſts are of opinion, That the veines of the eies reach to the braine. For mine owne part, I would rather thinke that they paſſe into the ſtomacke. This is certain, I neuer knew a mans eie pluckt out of his head, but he fell to vomiting vpon it, & the ſtomack caſt vp all within it. We that be citizens of Rome, haue a ſacred and ſolemne manner and vſe among vs, To cloſe vp their eies that lie a dying, and are giuing vp the Ghoſt; and when they be brought to the Funerall fire, to open them againe. The reaſon of this ceremonious cuſtom, is grounded hereupon, That as it is not meet for men aliue to haue the laſt view of a mans Eie in his death, ſo it is as great an offence to hide them from heauen, vnto which this honor is due, & the body now preſented. Man alone is ſubiect to the diſtortion & depraued motion of his eies. Hereof are come the ſyrnames of certain families in Rome, *Strabones* & *Pæti*: for that the firſt of thoſe houſes were ſquint-eied, and had rolling eies. Thoſe that were borne blink but with one eie, our countrymen called *Coclites*: as alſo them that were pinke-eied and had very ſmall eies, they termed *Ocellæ*. As for ſuch as came by thoſe infirmities by ſome iniurie or miſchance, they were ſurnamed *Lucini*. Moreouer, we ſee that thoſe creatures which ordinarily do ſee by night (as Cats do) haue ſuch ardent and fierie eies, that a man cannot indure to look full vpon them. The eies alſo of the Roe-bucke and the Wolfe are ſo bright, that they ſhine again, and caſt a light from them. The ſea-calues or Seales, and the Hyenes, alter eftſoones their eies into a thouſand colours. Ouer and beſides, the eies of many fiſhes do glitter in the night, when they be drie: like as the putrified and rotten wood of ſome old trunke of an oke or other wood. Wee haue ſaid before, that thoſe winke not nor ſhut their eie-lids, who cannot roll their eies atone-ſide, but are faine to turne their whole head withall when they would ſee a thing that is not iuſt before them. The Chamæleons (by report) rol their eies all whole euery way as they liſt, vp and downe, too and fro. Crabs looke awrie. And yet ſuch fiſhes as are incloſed within a brittle

brittle and tender ſhell, haue their eies inflexible & ſtiffe. Lobſters and Shrimpes for the moſt part, haue their eies ſtanding out very hard, albeit they be couered with the like ſhells. Thoſe that haue hard eies, are not ſo well ſighted as thoſe that haue moiſt. It is commonly ſaid, that if a man pluck the eies out of the heads of yong ſerpents, or yong Swallows, they wil haue new again in their place. All Inſects and other creatures that lie within hard ſhels, ſtir their eies as four-footed beaſts do their ears: but in thoſe that haue tender ſhels, their eies be hard. And all ſuch, as alſo fiſhes & Inſects, haue no lids to their eies, and therfore couer them not. But there be none without a thin membrane or pellicle ouer them, which is cleare and tranſparent like glaſſe. G

Eie-lids. Men and women haue haire growing on the brims of both Eie-lids: but women do colour them euery day with an ordinarie painting that they haue: ſo curious are our dames and would ſo fain be faire & beautiful, that forſooth they muſt die their eies alſo. Nature ywis gaue them theſe hairy eie-lids for another end, namely, for a palaiſade as it were & rampier of defence for the ſight, yea, and to ſtand out like a bulwark for to keep off and put by all little creatures that might come againſt the eies, or what things ſoeuer els ſhould chance to fall into them. Some write, That the haire of the eie-lids will ſhed and fal away, but not without ſome great injury, and namely, in ſuch perſons as be ouermuch giuen to lecherie. No other liuing creatures haue theſe haires, but ſuch as otherwiſe be clad all ouer their bodies with haire or feathers. But, as four-footed beaſts haue them in the vpper lid only, ſo Fouls haue none but in the nether: like as thoſe ſerpents which are tender skinned and four-footed, as Lizards. The Oſtrich is the only foule which hath haire on the vpper eie-lidde. The Ape hath on them both as well as man. Moreouer, all fouls haue not eie-lids, and therefore ſuch do not winke, namely, thoſe that bring forth liuing creatures. The greater and heauier foules, when they would cloſe their eies doe it with drawing vp the nether lid. The ſame alſo twinkle by means of a pellicle or skin comming from the corners of their eies. Doues and ſuch like birds wink with both eie-lids: but four-footed beaſts that lay egs, as Tortoiſes and Crocodiles, vſe the nether lid only, without any twinkling at all, becauſe their eies be very hard. The vtmoſt compaſſe or edge of haire in the vpper lid, the Latines called in old time *Cilium*, and thereof came the name of the brows, to be *Supercilium* in Latine. This brim of the eie-lid, if it be diuided by any wound, cannot be drawne together againe: like as ſome few parts beſides of mans body. H I

Bals of cheeks Vnder the eies, are the balls of the Cheeks, which men and women only haue; which in old time they called *Genæ* in Latine. And by the law of the twelue Tables, women were expreſſely forbid not to teare, rent, or ſcratch them in any caſe with their nails. This is the feat of baſhfulneſſe and modeſty: heare appeareth moſt of all the redneſſe of bluſhing. Vnder them, are the hollow pits of the cheekes, wherein mirth and laughter do lodge and inhabite. K

Noſe-thrils. Man only hath his Noſe ſtanding forth aloft, which now adays they dedicate to ſlie ſcoffing and deriſion, inſomuch as they attribute that terme do dry mockers and flowters. And verily there is not a creature beſides, that hath his noſtrils ſo bearing out. [As for birds, ſerpents, and fiſhes they haue holes only to ſmel at, without any other noſthrils to be ſeen:] & hereof come the ſurnames of *Simones* and *Silones*, whereof the former haue flat noſes, the other are hooked and camoiſe noſed vpward. Infants haue bin known many times when they are ſeuen moneths old, to want the holes and paſſages both of noſe and eares. L

Lips. Then follow the Lips: ſome men there be that put them far out, by reaſon that they are gag-toothed or tut-mouthed, and thoſe are called *Brocci*. Others againe who are blabber-lipped, are named in Latine *Labeones*.

Mouth. As for the mouth, all creatures haue it that bring forth their yong aliue: and either it is gentle and pliable, or elſe hard and vnruly; as we ſee horſes; that either willingly receiue, or elſe refuſe the bit. By which alſo we giue to men, the tearme either of modeſt and good countenance, or elſe of ſhameleſſe and vntoward. But in ſtead of mouth and lips both, Nature hath giuen to

Bills. all foules ſharpe Bills of an horny ſubſtance. and as many of them as liue vpon rauin and prey, haue them hooked inward: but ſuch as gather and pecke onely, they haue ſtrait beakes. As for thoſe that either graſe, root, or pudder in mud, like to ſwine, they are broad and flat billed. As for horſes, mules, and ſuch like, they vſe their mouthes in ſtead of hands, to gather in their food as they either feed in paſture, or be at racke and manger. And the wider mouthes haue they that liue of killing and deuouring other beaſts. M

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A No creatures liuing, but man and woman, haue Chins and Iaws. The riuer Crocodile alone moueth the vpper iaw: the land Crocodiles chew as other creatures do, but only bias. *The Chin & Iaw.*

Of Teeth, there be three ſorts: for either they be framed like ſaws, or els ſet flat, euen, and leuell: or laſt of all, ſtand gabbing out of the mouth. The ſaw teeth run one betweene another, as if two combes grew together, becauſe they ſhould not weare if they met one with another, as we ſee in ſerpents, fiſhes, and dogs. Horſes & men haue their teeth of one euen leuell. The bore, the water-horſe, and the Elephants, haue their tusks and fangs ſticking forth. Of thoſe teeth which are ſmooth and meet juſt one againſt another; ſuch as diuide and cut the meat, be broad edged, as the fore-teeth: thoſe that grind and chew, be double, and ſtand within the chaw: but ſuch as ſeuer and part the meat in the mouth, be ſharp pointed: and we call them our eie-teeth; the Latines *Caninos*, or Dog-teeth. And theſe are they, that of ſaw teeth be the longeſt. Euen *The Teeth.*

B and leuel-ranged teeth, be either in both chaws alike, as in an horſe; or els they be wanting before in the vpper chaw, as in Kine, Buls, Oxen, Sheep, & all ſuch as chew cud. Goats haue none aboue but the 2 foreteeth. None haue gabbed tusks ſtanding forth of the mouth, whoſe teeth are faſhioned like a ſaw. The females of them that haue thoſe fangs & tusks, if haply they haue the like (for ſeldome they are ſeen with ſuch) make no offenſiue vſe of them at all: for whereas the Bores do ſtrike with them, the Sowes only do but bite. No horned beaſts hath ſuch tuskes: But all thoſe haue hollow teeth, wheras in all the reſt, they be ſound & ſolid. All fiſhes be toothed like ſaws, ſaue only the guilt-head Scarus; for this only of all creatures liuing within the water, hath an euen courſe of teeth. Furthermote, many fiſhes be found to haue their mouth, yea

C and their tongue, couered and beſet all ouer with teeth: to the end, that by the means of many wounds (as it were) they might make ſoft their meat, which otherwiſe they could not poſſibly chew and teare. In many the teeth ſtand in the pallat and roofe of their mouth, yea and in their very taile. Moreouer, ſome there be that haue them crooking inwardly to the mouth, that the meat might not fall out againe: as hauing no other means to hold it in. Alſo, the Aſpides, and Serpents are likewiſe toothed, but they haue aboue, both on the right ſide & the left, two teeth that be very long, and thoſe are hollowed within after the maner of ſmal pipes, like to the ſtings of Scorpions, by which they diſcharge their phiſon. The beſt writers who haue ſearched moſt curiouſly into the ſecrets of Nature, do hold, That the venome of Serpents is nought els but their gal; and that by certain veins vnder their ridge bone, the ſame paſſeth along to the mouth.

D Some ſay, that a Serpent hath but one venomous tooth; which becauſe it is crooked, therefore he turneth and bendeth it vpright when he would ſting or bite withall. Others affirme, that at ſuch a time the ſame falls out, and a new commeth vp again and groweth in the place: for eaſie it is to be driuen or ſhaken out: and we ſee ſome of them handled and carried in mens boſomes, without that tooth. It is ſaid moreouer, that the Scorpions haue the like tooth in their taile, and moſt of them three together. Vipers teeth are couered and lie hidden within their gumbs. This Serpent being full of poiſon, redoubleth her pricke, and at euery bit letteth in poiſon into the wound. No flying foule hath teeth, ſaue only the Bat or winged-mouſe. Of all creatures which beare no hornes, the Camell onely hath no fore-teeth in the vpper chaw. Such as be horned, haue no ſaw-teeth. Snailes likewiſe haue teeth: witneſſe the leaues and tendrils of vines,

E which the very leaſt of them all do gnaw and eat away. But for ſea-fiſhes, that thoſe which liue in ſhels or be griſtly, ſhould haue their foreteeth; and namely, that the ſea-Vrchins 5 apiece; I cannot but wonder how men could come by the knowledge. Inſects in ſtead of teeth, haue a ſharp pricke to ſting withal. Apes haue teeth euen as men. An Elephant hath foure teeth within to chew with (beſides thoſe that ſtand out) which in the males turne and bend vpward, but in the female they are ſtreight, & ſhut directly downward. The fiſh alſo called Muſculus Marinus, which goeth before the Whale or Whirlpoole as his guid, hath no teeth at all; but in ſtead thereof, his mouth all within, his tongue alſo and pallat, is rough againe with certaine briſtles. The leſſe four-footed land-beaſts, haue the two fore teeth of either ſide, longer than the reſt. As for all other creatures, they bring their teeth with them into the world: man only is born with-

F out them, and at the 7 moneth they commonly breed. In all other creatures they continue ſtill and ſtick faſt; except Men, Lions, Horſes, Mules, Aſſes, Dogs, and ſuch as chew cud, for theſe change their teeth: but Lions and dogs caſt only the eie-teeth, called *Canini* in Latine. The eie-tooth of a Wolfe (ſo it grow on the right ſide of the head) is thought to doe ſtrange matters. The great grinders which ſtand beyond the Eye-teeth, in no creature whatſoeuer doe fall

out of themſelues. As for the fartheſt cheek-teeth in a mans head, which be called *Genuini*, [*i.* G
the Wit-teeth] they come about the time that he is 20 yeares old, and in many at 80 yeares of age. Sure it is, that thoſe teeth fall from women in their old age, and ſoone after come againe: ſuch women I meane, as had no children in their youth. And *Mutianus* hath reported, That hee ſaw one *Zancles* a citizen of Samothrace, who had new teeth comming vp after he was an 104 yeares old. Moreouer, males ordinarily haue more teeth than the females: as we may ſee in mankind, Sheep, goats, and Swine. *Timarchus* the ſon of *Nicocles* the Paphian, had a double courſe of teeth in either jaw. He had a brother alſo who neuer caſt his foreteeth, and therefore hee wore them before to the very ſtumps. We reade in Chronicles of one man that had a tooth growing out of the very pallat of his mouth. As for the eye-teeth, if they be loſt by any miſchance, there neuer grow again any other for them. In horſes only, of all other creatures, teeth wax whiter by H
age: for in the reſt, they turne to be browne and reddiſh. The age of Horſes, Aſſes, and Mules, is knowne by a marke in the teeth: a horſe hath in all 40. At the end of 30 moneths, hee loſeth his fore teeth of either chaw, as well aboue, as beneath: the yere following as many, euen thoſe that be next, namely at what time as they put out thoſe which be called the cheeke teeth. At the beginning of the fifth yere, he loſeth other two, but there come vp new in the place in the ſixth yere. By the ſeuenth yere he hath all, as well thoſe that ſhould come in others place, as thoſe which are firme and neuer change. A guelding neuer caſts his teeth, no not his ſucking teeth, in caſe he were guelded before. Aſſes in like manner begin to ſhed their teeth at the 30 moneth of their age; and ſo forward from 6 moneths to 6 moneths: and if they fole not before they haue ſhed their laſt teeth; they are for certaine to be holden barren. Kine and Oxen, when I
they be two yeres old, do change their teeth. Hogs or Swine neuer haue any teeth to fall. Now when as theſe marks are gon out, which ſhew the Age of Horſes, Aſſes, and ſuch like, yee muſt (to know their age) go by the ouergrowth & ſtanding out of the teeth, the greineſſe of the haire ouer their brows, and the hollow pits thereabout: for then are they ſuppoſed to be 16 yeares of age. As touching men, ſome are thought to haue venome and poiſon in their teeth: inſomuch, as they be ſhewed bare and naked againſt a cleare mirror or looking glaſſe, they wil dimme the beauty thereof, yea, and kill yong pigeons whiles they be calow and vnplumed. But foraſmuch as we haue ſpoken ſufficiently of teeth, in our treatiſe as touching the generation of Man, wee will paſſe ouer the reſt, and proceed vnto other parts; ſaue onely that this is to be obſerued and noted, How children be ſicke when they be about breeding of their teeth. And to conclude, of K
all other creatures, thoſe are moſt dangerous with their Teeth, which haue them framed like ſawes, and cloſing one betweene another.

The Tongue. Now as concerning Tongues, we obſerue much diuerſitie in them: for all creatures are not tongued alike. Firſt and formoſt, Serpents haue very thin tongues, and the ſame three-forked; blacke of colour, ſhaking, and ready to pierce; and if a man take them forth, very long. Lizards haue tongues two-forked and full of haires: ſo haue the Seales or Sea calues a double tongue: but the tongues of theſe beforenamed, are as ſmall as haires: as for the reſt, their tongues ſerue them to licke their muffles and lips all about. Fiſhes haue their tongues for the greater part therof, cleauing faſt to their pallat; and in Crocodiles they are ſo, clean throughout. But as wel fiſhes as other creatures of the water, haue a fleſhy palat, which ſerues them in ſtead of a tongue L
to taſt withall. Lions, Libards, and all of that ſort, yea and Cats, haue their tongues rough and vneuen, made like a file with many ſmall edges lapping one ouer another: in ſuch ſort, as that with licking it wil weare the skin of a man ſo thin, that their ſpittle and moiſture when it commeth neare vnto the bloud and the quick, will driue oftentimes into rage and madneſſe, thoſe whom they ſo licke, yea although otherwiſe they be made tame and gentle to come to hand. As touching the tongues of Purple fiſhes we haue written already. Frogs haue their tongues in the forepart faſt to the mouth: the hinder part within toward their throat, is free and at liberty, whereby they keep that croking which we heare at one ſeaſon of the yeare; namely, when the males cal to the femals for to ingender; & then they be called Olalygones: for at that time they let down their nether lip ſomwhat vnder the water, that they gargle with their tongue leuell to M
the water, which they receiued into their throat: and ſo while their tongue quauereth withall they make that croking noiſe aboueſaid: he that would looke then aduiſedly vpon them, ſhould ſee their ſpecks ſo ſwoln and ſtretched out full, that they will ſhine againe: he ſhould perceiue, their eies ardent and fierie with paines that they take thus with the water. Thoſe creatures that haue

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A haue pricks and ſtings in their hin-parts,are furniſhed alſo with tongue and teeth. As for Bees, their tongue is very long;and the Graſhoppers put it forth a good way. They that haue a fiſtulous ſting or pricke in their mouth, are prouided neither of teeth nor tongue. In ſome Inſects, (as namely Piſmires) the tongue lieth cloſe within. Elephants, aboue all other beaſts, haue a large and broad tongue. All creatures haue their tongue looſe and at liberty at all times, each one in their kind: man only is oftentimes ſo tongue-tied, that needful it is to cut certain ſtrings and veines for to eaſe it. *Metellus* the high prieſt and chiefe ſacrificer at Rome, had ſuch a ſtuttering and ſtammering tongue (by report) that againſt he ſhould dedicate the temple of the goddeſſe *Opifera*, he labored ſo with his tongue for vtterance, for certaine moneths together, & took ſuch pains, as if he had bin vpon the racke. All children, by that time that they be ſeuen yeares
B old at the fartheſt, ſpeake readily, ſo as they be not by ſome vnnaturall cauſe impeached. But ſome men there be, which haue their tongues ſo at commandement, and ſo artificially they can handle it and their throat together, that they are able to counterfeit the ſinging of all birds, and the voice of any other creature, that one cannot know and diſcerne them aſunder. As touching Taſte, which is the judgement of meats and drinks, to wit, What ſmack and tallage they haue: all other liuing creatures find it at the tip of their tongue only: but man taſteth as wel with the pallat or roofe of his mouth. The ſpungeous kernels, which in men be called Tonſillæ, or the Almands, are in ſwine named the Glandules. That which betweene them hangeth downe from the inmoſt part and roofe of the mouth, by the name of the Vvula, is to be found in man onely.

Vnder it, there is a little tongue (which the Greekes call Epigloſſis) at the root of the other; *The flap Epi-*
C and the ſame is not to be found in any creature that laieth egs. A twofold vſe it hath, lying as it *gloſſis.*
doth between the two pipes. Whereof, that which beareth more outward, and is called The rough Arterie, or the Windpipe, reacheth vnto the lungs and heart. And as a man doth eat and *The Winde-*
ſwallow downe his meat, this foreſaid little flap doth couer it, for feare leſt as the ſpirit, breath, *pipe, and We-*
and voice paſſeth that way, the meat or drink (if it ſhould go wrong to the other conditi or paſ- *zand pipe.*
ſage) might indanger a man and put him to great trouble. The other is more inward, called properly the Gullet, or the Wezand, by which we ſwallow down both meat and drink, and it goeth to the ſtomacke firſt, and ſo to the belly. This alſo the ſaid flap doth couer by turns, to wit, as a man doth either ſpeake or draw his breath, leſt that which is already paſſed into the ſtomacke, ſhould come vp againe, or be caſt vp vnſeaſonably, and thereby impeach a man in his ſpeech: the
D Windpipe conſiſteth of a griſtly and fleſhie tunicle: the Wezand of a membranous or ſinewie ſubſtance and fleſh together.

There is no creature hauing a necke indeed, but it hath alſo both theſe pipes. Wel may they *The Necke.*
haue a gorge or throat, in whom there is found but the gullet only: but nape of neck behind they can haue none. As for thoſe vpon whom Nature hath beſtowed a neck, they may with eaſe turn their head about too and fro euery way, to looke about them, becauſe it is compoſed of many ſpondyles, or turning round bones, tied and faſtened one vnto another by ioints and knots. The Lion only, together with the Wolfe, and the Hyæna, haue this necke bone of one entire and ſtraight peece, and therefore ſtiffe that it cannot turne. Otherwiſe it is annexed to the chine, and the chine to the loines.

E This Chine likewiſe is a bony ſubſtance, but made round and long, and fiſtulous within, to *The Chine-*
giue paſſage to the marrow of the backe, which deſcendeth from the brain. Learned men are of *bone.*
opinion, That this marrow is of the ſame nature that the braine is: and they ground vpon this experience, That if the thin and tender skin that incloſeth it be cut through, a man cannot poſſibly liue, but dieth immediatly. All creatures that be long legged, haue likewiſe in proportion as long necks. So haue alſo water-fouls, although their legs be but ſhort. But contrariwiſe, yee ſhall not ſee any birds with long necks, that haue hooked tallons. Men onely and Swine, are troubled with the ſwelling bunch in their throats: which many times is occaſioned by corrupt water that they drinke. The vpper part or top of the Wezand, is called the Gorge, or the gullet:
F the nether part or the extremitie thereof, is the Stomacke. There is another fleſhie concauitie of this name, vnder the windpipe, annexed to the chine-bone: long it is and wide, made in faſhion of a bottle, flagon, or rather a gourd. Thoſe that haue no gullet, are alſo without a ſtomack, a necke, and a wezand, as fiſhes: for their mouths and bellies meet. The ſea Tortoiſe hath neither tongue nor teeth: with the edge of his muffle (ſo ſharpe it is) he is able well enough to chew all his victuals.

The Stomack. Vnder the Arterie or wind-pipe, is the mouth of the ſtomacke; of a callous or griſtly ſubſtance, thicke toothed, with prickles in manner or a bramble, for the better diſpatching of the meat: and theſe notches or plaits grow ſmaller and ſmaller, as they approch neerer to the belly: ſo as the vtmoſt roughneſſe thereof in the end is like vnto a Smiths file. G

The Heart. Now are we come to the Heart, which in all other liuing creatures is ſcituate in the very midſt of the breſt: in man only it lies beneath the left pap, made in maner of a peare, & with the pointed and ſmaller end beareth out forward. Fiſhes alone haue it lying with the point vpward, to the mouth. It is generally receiued and held, that it is the firſt principall part which is formed in the mothers wombe: next vnto it the braine, and the eies laſt of all. And as theſe be the firſt that die, ſo the Heart is laſt. In it (no doubt) is the moſt plenty of heat, which is the cauſe of life. Surely it euer moueth and panteth, like as it were another liuing creature by it ſelfe: co- H
uered it is within-forth with a very ſoft, yet a ſtrong tunicle, that enwrappeth it: defended it is beſides with a ſtrong mure of ribs, and the breſt bone together: as being it ſelfe the principall fortreſſe and caſtle, which giues life to all the reſt. It contains within it certaine ventricles and hollow receits, as the chiefe lodgings of the life, and bloud, which is the treaſure of life. Theſe in greater beaſts are 3 in number: & none there is without two. This is the very ſeat of the mind and ſoule. From this fountain there do iſſue 2 great veſſels, maſter-veins or arteries, which are diuided into branches: & being ſpred as wel to the fore-part as the back parts of the body, into ſmaller veins, do miniſter vitall bloud to all the members of the body. This is the only principall part of the body that cannot abide to be ſick, or languiſh with any infirmity: this lingereth not in continuall pain: no ſooner is it offended, but death inſueth preſently. When all other I
parts are corrupt and dead, the Heart alone continueth aliue. All liuing creatures that haue an hard & ſtiffe heart, are ſuppoſed to be brutiſh: thoſe that haue ſmall Hearts, be taken for hardy and valiant: contrariwiſe, they are reputed for timorous and fearfull, which haue great Hearts. And the biggeſt Heart, in proportion of the body, haue Mice, Hares, Aſſes, Deere, Panthers, Weaſels, Hyenes, & in one word, all creatures either by nature fearefull, or vpon feare hurtful. In Paphlagonia, Partridges haue two Hearts. In the Hearts of Horſes, Kine, Buls and Oxen, are otherwhiles bones found. The Heart in a man groweth yerely two drams in weight, vntill it be 50 yeares of age: and from that time forward it decreaſeth from yere to yere as much: whereupon he is not able to liue aboue 100 yeares, for want of Heart: as the Ægyptians be of opinion; whoſe manner is to preſerue the dead bodies of men ſpiced and embalmed. It is reported of K
ſome men, that they haue hearts all hairy: and thoſe are held to be exceeding ſtrong and valorous. Such was *Ariſtomenes* the Meſſenian, who ſlew with his owne hands * 300 Lacedæmonians. Himſelfe being ſore wounded and taken priſoner, ſaued his owne life once, and made an eſcape out of the caue of a ſtone quarrie, where he was kept as in a priſon: for hee got forth by narrow Fox-holes vnder the ground. Being caught a ſecond time, whiles his keepers were faſt aſleep, he rolled himſelfe to the fire, bound as he was, and ſo without regard of his owne bodie, burnt in ſunder the bonds wherewith he was tied. And at the third taking, the Lacedæmonians cauſed his breſt to be cut and opened, becauſe they would ſee what kind of Heart hee had: and there they found it all ouergrown with hair. Moreouer, this is obſerued in peruſing the inwards of beaſts, That when they be wel liking, and do preſage good, the Heart hath a kind of fat in the L
vtmoſt tip thereof: howbeit, this would be noted, That according to the Soothſaiers learning, their Heart is not alwaies taken for a part of the bowels or intrails: for after the 123 Olympias when *Pyrrhus* king of Epyrus was departed out of Italy, what time as *L. Poſthumius Albinus* was king ſacrificer at Rome, the Soothſaiers and Wiſards began firſt to look into the heart, among other inwards. That very day when as *Cæſar* Dictator went firſt abroad in his roiall purple robe, and tooke his ſeat in the golden chaire of eſtate, he killed two beaſts for ſacrifice, & in both of them the intrailes were found without any Heart: whereupon aroſe a great queſtion and controuerſie among the Augures and Soothſaiers, How it could be, that any beaſt ordained for ſacrifice ſhould liue without that principall part of life? or whether poſſibly it might loſe it for that preſent only? Ouer and beſides, it is held for certaine, that if any dye of the trembling and ache of the heart, or otherwiſe of poiſon, their heart will not burne in the fire. And verily, an Oration M
there is extant of *Vitellius*, wherein he challengeth *Piſo*, and chargeth him directly with Poyſoning of *Germanicus Cæſar*, vpon this preſumption; for he openly proteſted and prooued, That the heart of *Germanicus* would not conſume in the funerall fire, by reaſon of poyſon. But contra-

riwiſe,

* In three ſundry battels.

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A riwiſe, *Piſo* alledged in his own defence the foreſaid diſeaſe of the Heart called Cardiaca, wherof as he ſaid *Germanicus* died.

Vnder the Heart lie the Lights, which is the very ſeat of breathing: whereby we draw and deliuer our wind. For which purpoſe, ſpungeous it is and ful of hollow pipes within. Few fiſhes, as we ſaid before, haue any Lungs: other creatures alſo that lay egs, haue but ſmal, and the ſame full of froth, and without bloud: wherupon they be not thirſty at all: which is the cauſe likewiſe that Seales and Frogs can diue ſo long vnder the water. The Tortoiſe alſo, albeit he haue very large Lungs, and the ſame vnder his ſhell, yet there is no bloud therein. And verily, the leſſer that the lungs be, the ſwifter is the body that hath them. The Chamæleons lights be very big, for the proportion of his body, for little or nothing els hath he within it. *The Lights or Lungs.*

Next followeth the liuer, which lies on the right ſide. In that which is called the head of the
B Liuer, much varietie and difference there is. For a little before the death of *Marcellus* (who was ſlaine by *Annibal*) as he ſacrificed, there was found a Liuer in the beaſt, without that head or fibres aforeſaid: and the next day after, when he killed another for ſacrifice, it was ſeen with two. When *C. Marius* ſacrificed at Vtica, the ſame was likewiſe wanting in the beaſt, being opened. Semblably, when prince *C. Caligula* the Emperor ſacrificed vpon the firſt day of Ianuarie, at his entrance into the Conſulſhip, the Liuer head was miſſing: but ſee what followed! in that yeare his hap was to be ſlain. Moreouer, his ſucceſſor *Claudius* within a month before he died by poiſon, met with the like accident in his ſacrifice. But *Auguſtus Cæſar*, late Emperor of famous memory, as he killed beaſts for ſacrifice, the very firſt day that he entred vpon his imperiall dignity, found in 6 of them 6 liuers, which were all redoubled & folded inward, from the nethermoſt
C lobe or skirt beneath: wherupon anſwer was made by the Soothſayers, That within one yere he ſhould double his power and authority. The foreſaid head of the Liuer, if it chance to be ſlit or cut, preſageth ſome euill hap, vnleſſe it be in caſe of feare and penſiueneſſe: for then it betokeneth good iſſue, and an end of care and ſorrow. About the mountaine Briletum and Tharne; alſo in Cherſoneſus neere vnto Propontis, all the Hares ordinarily haue two Liuers: and (a wonderous thing it is to tell) if they be brought into other countries, one of the ſaid Liuers they looſe. *The Liuer.*

Faſt to the Liuer hangeth the Gall; yet all creatures haue it not. And about Chalcis in Eu-
D bœa, the ſheep are quite without Gall. But in Naxus they all haue two Gals, and the ſame very big. The ſtrangers that come into both thoſe parts, think the one as prodigious & monſtrous as the other. Horſes, Mules, Aſſes, Deere both red and fallow, Roe-bucks, Swine, Cammels, and Dolphins haue no Gall. Some Mice and Rats there be which haue it. And few men there are without, howbeit, ſuch are of a ſtronger conſtitution, more healthfull, & longer liued. Howbeit ſome are of opinion, That all horſes haue Gall, not annexed to their liuer, but within their belie: and as for the Deere abouſaid, it lieth (as they think) either in their taile, or els their guts: which (by their ſaying) are ſo bitter, that hounds and dogs by their good wils would not touch them. Now this Gal is nothing els but an excrement purged from the worſt bloud: & therefore bloud is taken to be the matter thereof. Certain this is, that no creatures haue Liuers, but ſuch as likewiſe haue bloud. And in truth, the Liuer receiueth bloud from the heart, vnto which it is
E adioined, and ſo conueigheth and deſtributeth it into the veins. Black choler lying in the Liuer cauſeth fury and madneſſe in man: but if it be all caſt vp by vomit, it is preſent death: hereupon it commeth, that we terme furious and raging perſons by the name of cholericke, or full of Gall: ſo great is the venome of this one part, if it reach once to the ſeat of the mind, and poſſeſſe it. Nay more than that; if it be ſpred and diſperſed ouer all parts of the body, it infecteth it with the yellow jaundice, yea, and coloureth the very eies, as it were with Saffron. Let it out of the bladder or bag wherin it is, ye ſhal ſee it ſtain veſſels of braſſe, yea, they wil becom black againe, and loſe their brightneſſe if they be touched therewith. No maruell then if the venome and poiſon of ſerpents, proceed from the Gall. They that vſe to feed of worme-wood growing in Pontus, commonly haue no gall. Rauens, Quailes, and Feaſants, haue their gall ioining to
F their kidnies, or rather to their guts, of one ſide and no more: and ſome to the guts only, as Pigeons, Haukes, and Lampreies. Few birds there be that haue gall in the Liuer. As for Serpents and Fiſhes, they haue the greateſt gals of all others, for the proportion of their bodies. Moſt of them haue their gall along their guts throughout, in manner of the Hauke and the Kite. Moreouer, in all Whale fiſhes their gall is faſtened to the liuer: and ſo we ſee it lieth in the Seales, *The Gall.*

whoſe Gall is ſingular good for many purpoſes. Oxe Gall in limming giueth a golden colour: G
The Soothſaiers haue dedicated it to *Neptune*,& the mighty power of water. *Auguſtus* the Emperor found two Galls in a beaſt that he killed for ſacrifice,vpon that very day whereon he obtained that famous victorie at Actium. Some ſay,that the lobes or fibres in the ſmal Liuers of certaine Mice and Rats,are commonly found to be as many as the Moone is daies old in euery moneth: and looke how many daies you reckon of her light,ſo many may you count the fibres aforeſaid. Alſo,that their liuer groweth at mid-winter, when daies be at ſhorteſt. In the kingdomes of Grenada and Andaluſia in Spaine, Connies are many times found with double Liuers. The land Frogs of Toads kind, haue one lop or lappet of the liuer, which Ants will not touch; becauſe of the poiſon therein,as is ſuppoſed. Liuer of all things may be kept and preſerued longeſt: and we reade in chronicles,that there haue bin found in ſome cities long beſieged, H
Liuers in ſalt or pouder,which had continued a 100 yeres. Serpents and Lizards haue long Liuers. In that ſacrifice which *Cæſina Volaterranus* killed, Dragons were ſeen to iſſue from among the Entrails and the Liuer; and this turned to be a lucky preſage. And verily,why ſhould wee think this report or any other in ſacrifices,to be incredible? conſidering that vpon the very day that K. *Pyrrhus* was ſlain,the heads of the beaſts being ſlain for ſacrifice (notwithſtanding they were cut off from the bodies) moued forward vpon the ground, and licked vp their owne bloud.

The Midriffe The vpmoſt inwards of a man, to wit, the Heart and Lungs, are diuided from the other entrails beneath,by certain pellicles or rims of the Midriffe, which the Latines call Prœcordia, (becauſe they are drawne and ſet before the Heart as a defence:) and the Greeks Phrenes: true I
it is,that Nature in great prouidence hath incloſed all the noble and principal parts within ſeuerall skins and coats of their owne, which might ſerue in ſtead of ſheathes and caſes for their better defence: but in this partition of the Midriffe, ſhee had a more particular regard to the propinquitie of the Stomack and Belly, leſt that the vitall parts being ſo neare, ſhould be oppreſſed and ſuffocated with the ſtreams and vapors of the meat therin boiling. To this parr are we beholden for our quick wit,this membrane of the Midriffe we may thank for our ready conceit and vnderſtanding: to which effect,charged it is with no fleſh,but compoſed of fine & ſubtild ſinews. The ſame likewiſe is the very eſpeciall ſeat of mirth: as we may perceiue euidently by tickling vnder our armeholes,vnto which it reacheth: and as in no place of mans body the skin is more fine and tender, ſo it taketh as great pleaſure to be tickled and lightly ſcratched K
there. And herupon it is,that in ſolemne combats of ſword-fencers at vtterance with the ſharp, as alſo in field battels,we haue many a time ſeen men wounded and thruſt through the Midriffe,to die laughing.

The Bellie or Paunch,with the Guts. To proceed in our Anatomy,all creatures hauing a Stomack or Read,are not without a belly vnder it. As many as chew cud,haue the ſame * double or two fold,the reſt one and no more: and looke who want bloud,are without it alſo. For ſome there be that haue one entire gut,that beginneth at the mouth,and by a certaine way redoubleth and returneth backe againe thither, and namely,the Cuttill and the Polype. In man it is annexed to the bottome of the Stomack, like as in a Dog. And in theſe twaine onely,narrower it is in the lower part: which is the cauſe that none but they do vomit; for when their bellies be full,the ſtreight paſſage beneath keepes L
the meat from deſcending,and ſo it returneth vpward: which cannot happen to them that haue it wide and large,whereby the meat is ſooner ſent downe into the guts beneath. Next to the bag of the Stomack,men and ſheep haue the ſmall guts called Lactes,through which the meat paſſeth: in others it is named Ile. Next vnto which are the greater guts, that reach into the Paunch: and in man they are full of windings and turnings: which is the reaſon, that as many as haue a great ſpace between the Stomacke and the Paunch, are more hungry and greedy of meat than others. And thoſe who haue the fatteſt and moſt greaſieſt bellies, moſt commonly are the groſſeſt of capacity and vnderſtanding. Some fouls likewiſe haue a two-fold receptacle for their meat: the one is the gizzer,craw,or gorge, wherein they beſtow at the firſt their meat when they take it new: the other is the true ſtomacke indeed; into which they ſend out of the former,the victuals already altered,prepared,and in good forwardnes of concoction. And ſuch M
be Hens and Pullein, Coiſts or Stock-doues, Houſe-doues,or Pigeons,and Partridges. All the reſt in manner want the ſaid gizzer, but in ſtead thereof haue a wider gorge, where-through the meat paſſeth into the ſtomack,as Choughes, Rauens,and Crowes. Some againe there bee that

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* *Ariſtotle* ſaith foure fold.

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A haue neither one nor other, but be far different from the reſt,and theſe haue their bellie hard to their gorge: and eſpecially ſuch as haue long neckes and narrow, as the bird Porphyrio. The paunch or bellie of thoſe beaſts which are whole houfed,is hard and rough. And in land beaſts, it is in ſome thicke toothed, and ſet full of ſharp pricks:in others it is framed rugged likewiſe, plaited croſſe in manner of lattice, readie to catch and bite whatſoeuer. Thoſe which haue not teeth in both chawes, nor yet chew cud, do in this bellie concoct and digeſt their victuals, and out of it they ſend the meat into the paunch where the guts lie. This member, in the mids,is in all creatures faſtened to the nauill:and in man it is like vnto that of a ſwine, hauing toward the neather part,a great gut named Colon: and this is it, which giues occaſion to the intollerable paine of the colique. This Gut in dogs,is very ſtreight and narrow,whereupon they haue much
B adoe to diſcharge it, and lightly they doe not skummer, but with great paine and difficultie. Thoſe creatures of all others be counted moſt vnſatiable, whoſe meat paſſes immediatly out of their bellie into the ſtraight gut Longaon, or the Tiwill:as among foure-footed beaſts, the Wolfe, engendred betweene the Hind and a hee-Wolfe: and in foules,the Cormorant. An Elephant hath foure bellies or paunches:all other parts within,be anſwerable to thoſe in Swine. Their lungs be foure times as big as thoſe in an Oxe. The gorge or craw,and the ſtomacke or gizier in birds,is the thicke and fleſhie. In the maw or ſtomack of Swallows young birds,there be ſome certaine little white ſtones, or elſe of a reddiſh colour, called thereupon Chelidonij: and they be in great requeſt in Art-Magicke,namely for charmes and enchantments. Likewiſe in the ſecond bellie or paunch of yong Heifers,there is found a ſmall,black,and grauelly ſtone round as a bal,and light withall:a ſingular remedie(as it is thought)for women that haue hard
C labour and be deliuered with much paine & difficultie, ſo it be taken before that euer it touch the ground. The Stomacke and the Guts, are kept within a fat and thin cawle, in all creatures but thoſe that lay egs. *The Cawle or Kell.*

Vnto this Cawle,is faſtened the Spleene on the left ſide of the belly juſt againſt the liuer. And otherwhiles theſe two ſhift their places, and one lies where the other ſhould; but that is euer held as a prodigious token. Some are of opinon,that thoſe creatures which lay egs haue a Splene,but it is very ſmal:as alſo the Serpents. And ſurely ſuch an one appeares plainely in the Tortoiſe,Crocodile,Lizards,and Frogs. Certaine it is,that the bird Ægocephalus hath none at all,no more than others that want bloud. This member hath a propertie by it ſelf ſomtimes, *The Splene.*
D To hinder a mans running: whereupon profeſſed runners in the race that be troubled with the ſplene,haue a deuiſe to burne and waſt it with an hot yron. And no maruell: for why? they ſay that the Splene may be taken out of the bodie by way of inciſion, and yet the creature liue neuertheleſſe:but if it be man or woman that,is thus cut for the Splene, hee or ſhee loſeth their laughing by the means. For ſure it is, that vntemperate laughers haue alwaies great Splenes. In Scepſis(a countrey of Aſia)the ſheep haue very ſmall Splenes,and from them were deuiſed the remedies to cure the diſeaſe thereof, and to waſt their exceſſiue greatneſſe.

But about Briletum and Tharne(the hils abouenamed)the Deer haue foure Kidnies apeece: whereas on the contrarie ſide, neither feathered fowle nor skalie fiſh, haue any. Moreouer, the Kidnies ſticke cloſe vnto the bones. The right Kidney in all creatures is the bigger, leſſe fat, *Kidnies.*
E dryer of the twaine:howbeit in both of them, there is a fat iſſueth out of the mids, ſaue only in Seales. All liuing creatures are fatteſt about the raines of the backe:and ſheepe may be ſo far ouergrowne with fat, that they will die thereof. Somtime there be little ſtones found within them. Al four-footed beaſts that bring forth their yong quick,haue kidnies. And of ſuch as lay egs,the Tortoiſe alone,which alſo hath all other entrails. The Kidnies of a man,be like to thoſe of Kine and Oxen, as if they were compoſed of many together.

Nature hath embarred the Breaſt-parr(wherin lie the vitall members) with ribs round about: but toward the belly(which needs muſt grow and ſtretch) ſhe hath not ſo done,but hath giuen it libertie:for no liuing creature hath bones to compaſſe the panch. Mans Breaſt only is broad and ſquare: in all others it is framed otherwiſe,like the keele of a ſhip:which is more euidently to be ſeene in birds and in water-fowles moſt of all others. As for Ribs,man only hath eight
F that be full and whole: Swine haue ten:horned beaſts thirtene:Serpents thirtie. *Breſt & ribs.*

Vnder the belly and paunch in the fore- part of the bodie, hangeth the bladder: which no creature laying egs hath,ſaue only the Tortoiſe. It is found in none but ſuch as haue a paire of lungs,and the ſame with bloud:neither in any creeping creature without feet. Betweene it and *The Bladder.*

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the belly be certaine canals or arteries, reachiug to the groine, which by the Greeks are named *Ilia* [*i.* the Flanks.] In the bladder of a Wolfe, is found a little ſtone called Syrites. But in ſome mens bladders, ye ſhall ſee otherwhiles certaine groſſe haires to engender, like to briſtles; alſo grauell and ſtones, which put them to intollerable paine. This bladder conſiſteth of a certaine tunicle or skin, which if it be once wounded, cannot again be conſolidated; no more than thoſe fine pellicles or rinds that enwrap the braine and the heart. For you muſt thinke, that there be many ſorts of theſe membranes or filmes ſeruing to ſundrie vſes. G

The Matrix As for women, their inward parts are anſwerable to mens in all theſe reſpects abouesaid: and beſides, they haue by themſelues adjoyning cloſe vnto the bladder, another little bag or purſe; whereupon it is called in Latine *Vterus*: and it hath another name beſide, to wit, *Loci*; which we call the Matrice, the Mother, or the Wombe: and in other creatures it is tearmed *Vulua*. In Vipers, and ſuch as hatch their egs within them it is double. In thoſe that lay eggs, it lyeth faſt to the Midriffe. In women, it hath of either ſide two chombers or concauities. If at any time it chance to be peruerted and turned the wrong way, or take aire into it, it is deadly, and riſeth vp to ſtop the wind. If Kine be with Calfe, men ſay, they carrie not their yong but in the right cell or receptacle thereof, yea, although they goe with two Calues at once. Our fine-toothed gluttons do find a better taſt in a Sows wombe that ſlips and caſts her Pigs and it together, or is cut out of her belly, than if the dam bringeth forth her fruit at ful time. The one forſooth is called Ejecticia, the other, Porcaria. And the beſt is that of a yong Sow that neuer farrowed before: and contrariwiſe, of old Sows and ſuch as haue giuen ouer to farrow. After ſhe hath pigged, vnleſſe ſhe be killed the ſame day, the ſame hath a dead color, and is but leane. And yet that of a young Swine is not greatly commended, vnleſſe it be of her firſt Pigs. Howbeit, thoſe of old Sowes alſo be in requeſt, ſo they haue not giuen ouer breeding: and namely, if they be taken either within two daies before they ſhould pig, or within two daies after they haue pigged, or at leaſtwiſe, the very ſame day. The next to the caſt-wombe abouesaid, is that of a Sow killed a day after ſhe hath pigged. The paps and teats of ſuch a Sow, newly hauing farrowed, is counted excellent good meat, ſo that it be taken before euer the Pigs ſucked them drie: but thoſe of a Sow which hath caſt her pigs before time, is held for the worſt of all. In old time they called this morcell in Latine *Abdomen*, and before it was growne hard and brawnie, they neuer were wont willingly and wittingly to kil Sowes,* euen vpon the point of their farrowing, and being readie to Pig [as our monſtrous gluttons doe now adaies, becauſe they would haue the teats ſoft, tender, and full of milke.] H I K

* Incientes.

Tallow and greaſe. All horned beaſts hauing teeth growing but in one jaw, and paſterne bones about their feet, do beare tallow or ſewet, and feed fat. Thoſe that be clouen-footed, or otherwiſe haue feet deuided into many toes, and beare no horns; haue no tallow, but greaſe or fat. The tallow or ſewet growes to be hard, and when it is thoroughly cold, is brittle and apt to crumble and breake; and is euer found in the edge and extremities of the fleſh: contrariwiſe, the ſeam or greaſe is enterlarded betweene the fleſh and the skin; liquid it is, and eaſie to melt. Some creatures there bee that will neuer be fat, as the Hare and Partridge. Generally, whatſoeuer is barren, be it male or female, will ſoone feed fat. Sooner grow they to be old which are ouer-fat. No liuing creatures there are but haue a certain fat in their eies: & the tallow in any thing whatſoeuer, is ſenſleſſe: for neither hath it Arteries nor Veines. The fat alſo & greaſe in moſt of them, is without ſence. And hereupon it is, That ſome affirme, how Mice and Rats haue gnawne and eaten fat Hogs whiles they were aliue, and made them neſts in their backs: yea, and *Lucius Apronius* ſomtimes Conſull, had a ſonne ſo fat that he could not goe, ſo heauie was he loden with greaſe; inſomuch, as he was faine to take ſome of his greaſe forth of the bodie, and ſo diſcharge himſelſe and become lighter. L

Marrow. Marrow ſeemeth to be much of the ſame natnre: in youth it is red, and in age waxeth white. This is neuer found but in hollow bones: and yet not in the legs of Horſe, Aſſe, Mule, or Dog. And therefore if they chance to be broken, they will not ſowder and vnite againe, which happens when the Marrow runs out to the place of the fracture. In thoſe that carrie greaſe or ſewet, fattie it is and greaſie: but in horned beaſts it reſembles Tallow. Sinewie it is, and that onely in the ridge of the backe of as many as haue no bones, as namely, in all fiſhes. Beares haue none at al. A Lion likewiſe hath but very little, to wit, in ſome few bones of his thighes & buts behind, and alſo of his legs before vnder his ſhoulders. For his other bones are ſo hard, that they will M

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A ſtrike fire, as it were an hard flint. The Marrow is hard in them that gather no greaſe, but rather tallow.

The bones of Aſſe legs are good to ſound ſhrill, and to make pipes of. Dolphins haue verie bones, and not prickie chines: for they bring forth their yong aliue. Serpents haue only prickie ridges. Fiſhes that be ſoft haue no bones: but their bodie is bound with certaine hoopes or circles of fleſh, as the Cuttill or Calamarie. Neither haue Inſects any bones at all. Thoſe fiſhes which be not ſoft, but griſtly, haue a kind of marrow in their ridge bone. Seales haue griſtle, and no bone. The eares and noſethrils of all creatures, if they beare vp but a little, haue a ſoft tender griſtle apt to bend and wind: ſuch is the goodneſſe of Nature, prouiding that they ſhould not breake. A griſtle if it be broken, will not cloſe together and be ſound. Neither will bones, if
B ought be cut from them, grow againe: vnleſſe it be in horſes and ſuch beaſts of carriage, and namely, betweene the houſe and the paſternes. *Bones and Griſtles.*

A man Groweth in height and length vntill hee be one and twentie yeares of age: then beginnes he to ſpread and burniſh in ſquareneſſe. As well men as women-kind, ſhute vp moſt and vndoe the knot that hindered their growth, when they are come to fourteene yeares of age, and be vndergrowne: and moſt is this ſeene, if ſome ſickneſſe happen about that time. *Growth.*

As for the Sinewes, Ligaments, and Cords, which take their beginning at the heart, be couered (as it were) with a certain white and glutinous ſubſtance; and the like cauſe and nature they haue. Theſe in all bodies, are tied to the ſlipperie bones: the knitting of the bones together, which be called joints, they faſten and bind together, ſome by comming betweene, others by claſping round about, & others again, by paſſing croſſe ouer: in one place they be twined round,
C in another broad, according as the figure of each part doth require. Be they cut a two, as they cannot knit againe, ſo they put a man to no paine: pricke or wound them, a wonder to ſee, what extremitie of paine will thereupon enſue. Some creatures be without nerues and ſinewes, as namely fiſhes, for they ſtand much vpon Arteries, and yet ye ſhall haue neither the one nor the other in ſoft fiſhes. Look where there be Sinews, Cords, and Ligaments, thoſe that lie more inward and vnderneath, ſtretch out the part and giue libertie: whreas the vppermoſt that lie ouer them, draw the ſame in as much. *Sinues, Cords & ligaments*

Among theſe are hidden the Arteries, that is to ſay, the paſſages of the ſpirit and life. And ouer them ride the Veines, euen the very conduits and channels that carie the bloud. The Pulſe
D or beating of Arteries, is moſt euident in the extremities or ends of any members; and for the moſt part bewraies hidden diſeaſes. *Herophilus* that renowmed Poet and interpreter of Phyſick, hath with maruellous skill reduced the order thereof into an art: he hath ſet downe moſt artificially, the certaine meaſures and times, the compaſſe, the metricall lawes thereof, according to euery age: when they ſtrike euen and ſteadie, when too faſt, when too ſlow. But the skill herof is little exerciſed, and his inuention in that behalfe neglected: becauſe it ſeemed ouerwittie, ſubtile, and curious. Howbeit, the obſeruation of the ſtrokes, either comming thick & faſt, or ſlow and ſoftly, giueth a great light to judge of the ſtrength of Nature, that gouerns our life. Arteries want ſence, and no maruell, for they be without bloud. Neither do they all containe within them vitall ſpirit. For there haue beene knowne ſome of them cut in twaine, and yet that part of
E the body only is mortified, which receiued the offence. Birds haue neither Veines nor Arteries. Likewiſe, Serpents, Tortoiſes & Lizards, haue but very little bloud. The Veines diſperſed at the laſt into moſt fine and ſmall threadie fibres vnder all the skin, grow at the length to bee ſo ſlender that the bloud cannot poſſibly paſſe thorough them, nor any thing elſe: ſaue a thin humor or moiſture, which thorough infinite ſmall pores of the skin doth breath forth, and ſtands there like a dew, and is called Sweat. The place where all the Veines doe meet in a round knot together, is the Nauell. *Veines and Arteries.*

Chap. XXXVIII.

F ¶ *Of Bloud, as well that which ſooneſt waxeth drie, as that which will not thicken at all. Alſo, which is the groſſeſt bloud, and heavieſt, which the lighteſt and thinneſt: and laſt of all, what creatures liuing haue no bloud at all.*

THoſe that haue much bloud, and the ſame fat and groſſe, are angrie and chollericke. The bloud of males is commonly blacker than that of females: yea, and more in youth than in old

old age: and the ſame in the bottome and lower part, ſetleth fatter and groſſer than aboue. In G
bloud conſiſts a great portion and treaſure of life. When it is let out, it caries with it much vi-
tall ſpirit: howbeit, ſenceleſſe it is, and hath no feeling. The ſtrongeſt creatures bee they which
haue the thickeſt bloud: but the wiſeſt, thoſe that haue thinneſt: the more fearefull, that haue
leaſt: but dull and blockiſh altogether which haue none at all. Buls bloud of all other ſooneſt
congealeth and waxeth hard, and therefore poiſon it is, to be drunke eſpecially. The bloud of
Bores, red and fallow Deere, Roe-buckes, and all Buffles, will not thicken. Aſſes bloud is moſt
fatty and groſſe: and contrarily, mans bloud is thinneſt & fineſt. Thoſe beaſts which haue more
than 4 feet, are bloudleſſe. Thoſe that be fat haue ſmall ſtore of bloud, becauſe it is ſpent in fat-
neſſe. Man only bleeds at the noſe: ſome at one noſthrill alone, others at both: and ſome againe
void bloud downward by the Hemorrhoids. Many there be that caſt vp bloud at certaine times, H
ordinarie, by the mouth: as not long ſince *Macrinus Viſcus*, late pretor of Rome: and vſually eue-
rie yeare *Voluſius Saturninus*, Prouoſt of the citie; who notwithſtanding liued vntill hee was a-
boue foureſcore and ten yeres old. Bloud is the only thing in the body that increaſes preſent-
ly. For ſo we ſee, that beaſts killed for ſacrifice wil bleed moſt freſhly & in greater abundance,
if they dranke a little before. Thoſe creatures that lie hidden in the earth at certaine times, (as
we haue ſaid before) haue no bloud in all that while; vnleſſe it be ſome few, and thoſe very ſmal
drops gathered about their hearts. A wonderfull worke of Nature, that it ſhould be ſo: as alſo
that in a man it ſhould alter and change euer and anon, ſo as it doth vpon euery ſmall occaſion:
and the force and ſtrength thereof varie, not only for defect and want of matter to diſperſe a-
broad, but alſo for euery little motion and paſſion of the minde, as ſhame, anger, and feare. For I
one while it ſheweth pale, another whiles red, more or leſſe, in much varietie of degrees. In caſe
of anger it wil ſhew one color: of ſhame and baſhfulneſſe appearing in another. In feare, doubt-
leſſe it retires and flies backe, in ſuch ſort, as a man knowes not what is become of it: ſo as many
in that fit haue ben ſtabbed and run thorough, and yet bleed not at all one drop: but this ſud-
daine change of colour happens to men only. For in other creatures, which (as we haue ſaid) do
alter their hue, it is an outward colour that they take from the reflection of certain places neer
vnto them, man alone hath this change from within himſelfe. To conclude, all maladies and
death eſpecially, conſume the bloud.

Chap. XXXIX. K

¶ *Whether in Bloud reſteth the ſouereignetie or no? Alſo of the nature of Skin of Haires, and the Paps.*

SOme meaſure not the fineneſſe of ſpirit and wit by the puritie of bloud: but ſuppoſe that creatures are brutiſh, more or leſſe, according as their Skin is, thicker or thinner: and as the other couertures of their bodie be either groſſe and hard, or thin and tender: as we ſee for example in Oiſters and Tortoiſes. They affirme moreouer, that the thick hide in Kine & Oxen, and the hard briſtles in Swine, impeach the entrance of ſubtile aire and fine ſpirit into their bo-dies: in ſuch wiſe, that nothing can pierce and paſſe through, which is pure and fine, as it ſhould be. And hereto they bring men alſo, as a proofe, who are thicke skinned, and more brawnie; for L
to be more groſſe of ſence and vnderſtanding: as who would ſay, that Crocodiles were not ve-
ry wittie and induſtrious, & yet their skin is hard enough. And as for the Riuer-horſe, his hide
is ſo thicke, that thereof jauelines and ſpeares are turned: and yet ſo induſtrious is that beaſt,
that in ſome caſe he is his owne Phyſician, and he hath taught vs to open a veine, and let bloud.
The Elephants skin is ſo tough and hard, that therof be made targuets and ſhields, of ſo good
proofe, that is is impoſſible to pierce them thorough, and yet they are thought to be of all four-
footed beaſts, moſt ingenious and wittie. Wherefore, conclude we may, that the skin it ſelfe is
ſenceleſſe, and hath no fellowſhip at all with the vnderſtanding: and eſpecially that of the head;
and wherſoeuer it is of it ſelfe naked and without fleſh, be ſure (if it be wounded) impoſſible it
is to conſolidate the wound, and namely, in the eie lids and bals of the cheekes. All creatures M
that bring forth their young quicke, are hairie: thoſe that lay egs, haue either feathers, as birds:
skales, as fiſhes: or elſe be couered with ſhels, as Tortoiſes: or laſt of all, haue a plaine skin and
no more, as Serpents. The quils of all feathers be hollow. Cut them, they will grow no more:
plucke them, they will come againe. Inſects flie with thin and brittle pellicles or membranes.

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A The ſea Swallowes haue them euermore moiſt and drenched in the ſea. As for the Bat, he is afraid to wet them, and therfore flies about houſen, & his wings beſides are diuided into ioints. The haires that grow forth of a thick skin, are commonly hard & groſſe, but euermore thinner and finer in the females. In horſes and mares they grow at length vpon their mains. Lions alſo haue them long about their ſhoulders and foreparts. Connies haue long haires about their cheekes, yea, and within-forth: as alſo in the ſoles of their feet: and ſo hath the Hares, according to the opinion of *Trogus*: who thereby collecteth, that hairy men likewiſe are more letcherous than other. The hairieſt creature of all other is the Hare. In mankind only there grows haire about the priuy parts: and whoſoeuer wants it, man or woman, is holden for barren, & not
B apt for generation. Haires in men and women are not all of one ſort: for ſome they bring with them into the world, others come vp and grow afterwards. Thoſe they haue from their mothers womb do not lightly fall and ſhed, and leaſt of all in women. Yet ſhal ye haue ſome women to ſhed the haire of the head, by occaſion of ſicklineſſe: as alſo other women to haue a kinde of down vpon their face, namely when their monethly fleurs do ſtay vpon them. In ſome men the later kind of haires, to wit of the beard, &c. wil not come of their own accord without the help of Art. Four-footed beaſts ſhed their haire yerely, and haue it grow again. Mens haire of their heads groweth moſt: and next to it that of their beards: if the haire be cut it grows not again at the cut end, but ſprings from the root. It growes apace in ſome ſickneſſes, and moſt of all in the conſumption of the lungs, and in old age, yea, and vpon the bodies of the dead. In lecherous
C perſons, the haire of their head, browes, and eie-lids, with which they came into the world, doe fall more early than in others: but thoſe that ſpring afterward grow ſooner again if they be cut and ſhauen. The wooll and haire that foure footed beaſts do beare is more courſe and thick by age, but it comes not in ſuch plenty as before. And ſuch haue alwaies their backe well couered with haire and wooll, but their bellies bare. Of Kine and Ox hides ſodden there is made glew: but the Bulls hide hath no fellow for that purpoſe. Man only of all males hath euident paps in his breaſts: other creatures haue little nipples only in ſhew of teats. Neither hath all females teats in their breſts, but only ſuch as are able to ſuckle their yong: none that lay egs haue paps: nor any haue milk vnles they bring forth their yong liuing: and yet of all fowles I muſt except
D the Bat alone. As for the ilfauored Scritchowles called Stryges, I think they be but tales that go of them: namely, That they will giue milk out of their breſts to yong infants. True it is, all men agree in this, That the manner was in old time to vſe in curſing and execration, the terme of Strix; but what bird it ſhould be I ſuppoſe no man as yet knoweth.

Chap. XL.

¶ *Notable obſeruations in liuing Creatures as touching their paps.*

SHee Aſſes are much pained with the ache of their vdders, when they haue foled; and therefore after ſix moneths they will not giue them any more ſucke: whereas mares doe ſuckle
E their colts a whole yeare almoſt. Thoſe beaſts which be whole hoofed, and haue not aboue two yong at once, haue all of them two paps and no more, and thoſe in no other place elſe but between their hinder legs. Such as be clouen footed, and horned likewiſe, haue them in that place: but Kine haue foure teats; Ewes & Goats but two apiece. Such beaſts as be very fruitful and bring many yong, and likewiſe whoſe feet are parted into toes, theſe haue many nipples or teat heads all along their belly, diſpoſed and ſet in a double courſe, as namely Sowes: of which thoſe of the better ſort haue 12; the common ſort but tenne. Alſo Bitches after the ſame maner. Some beaſts haue 4 teats in the mids of their belly, as Panthers: ſome twain and no more, as the Lioneſſe. The Elephant alone hath twaine vnder his ſhoulders or legs before, and thoſe not euident in the breaſt part, but ſhort thereof, and lying hidden as it were within
F the arm-pits. And generally, none that haue their feet diuided into toes, haue vdders behinde vnder their hin legs. A Sow at euery farrow giues the formoſt nipples to thoſe pigs that come firſt, and ſo in order as they be farrowed: and thoſe teats be they that are next to her throat, and higheſt. Euery pig knowes the own pap, and will take it and no other when it comes firſt into the world; and thereof it is nouriſhed. If a pig be taken from the ſow, the milk of that pap wil dry vp preſently, or returne backe, and the pap it ſelfe fall flat to the belly. Alſo if it chance that but one ſucking pig be left, that pap alone wil do the part and let down milke, which Nature

ture firſt appointed for that one pig. She Beares haue foure paps apiece. Dolphins haue no more but two teats and nipples in the bottom of their belly, and thoſe not very apparant to the eye, nor ſtreit and direct, but lying ſomwhat aſide and byas: and no beaſt beſides giueth ſucke as it runneth but ſhe. To conclude, Whales, Wirlepooles, and Seales, nouriſh their yong with their vdder and teats. G

Chap. XLI.

¶ *Of Milke: and of what milke Cheeſe cannot be made.*

THe milk that comes from a woman before ſhe hath gon 7 months with child is not good: but from that time forward it is wholſome, becauſe the infant may liue and do well after that terme. H Many are ſo frim and free of milke, that all their breaſts are ſtrut and full thereof euen as far as to their arm-holes. Camels giue milke vntill they be great with yong again: and their milke is thought to be moſt ſweet and pleaſant in taſt, if to one meaſure thereof you put three of water. A Cow hath no milke ordinarily before ſhe hath calued. The firſt milke that ſhe giueth downe is called Beeſtins: which, vnleſſe it be delayed with ſome water, will ſoon turn to be as hard as a pumiſh ſtone. She Aſſes are not ſo ſoon with yong, but they haue milke in their vdders: but if they go in good and battle paſture, it is not good their yong foles ſhould ſuck their milke in two daies after; for the very taſt thereof is enough to kil them: and this diſeaſe that comes of Beeſtins is called Coloſtratio. The milk that thoſe giue which haue teeth in both chawes is not good to make cheeſe of, becauſe it will not cruddle. I Camels milke of all others is thinneſt, and Mares milke next to it. Aſſes milk is holden for to be thickeſt, and therefore they vſe it in ſtead of renning, to turn milke and gather curds thereof. It is thought alſo to be very good for to make womens skin faire and white. Certes the Empreſſe *Poppæa*, wife to *Domitius Nero*, had alwaies whereſoeuer ſhe went, 500 ſhe Aſſes milch, in her train: and in their milke ſhe bathed and waſhed her whole body, as in an ordinary bain, ſuppoſing that thereby her skin was not only whiter, but alſo more neat, ſmooth, and void of riuels. All ſorts of milke will thicken with fire, and turne into whey with cold. Cowes milke maketh more cheeſe than Goats milk, by twice as much almoſt, although you take no more of the one than the other. The milke of thoſe that haue aboue foure paps is naught for cheeſe: but theirs K is better that haue but twain. The rennet of an hind-calfe or Leveret, and a Kid, is much commended. But eſpecially of a Leveret or Rabbet, which alſo is medicinable for the flux of the belly: a thing to be obſerued in them alone, of all creatures that are toothed in both chawes. A wonder it is, that barbarous nations liuing of milke, haue for ſo many hundred yeares either not knowne, or elſe not regarded the benefit of cheeſe: and yet they vſed to thicken their milk into a kind of pleaſant ſoure curd in manner of a Sellibub; and to charn butter thereof, which is the skum and cream of milke, much thicker than that which is called whey. To conclude, I may not let paſſe, That Butter hath the vertue and properties of oile: inſomuch as forrein and barbarous nations do anoint their children therewith, as we alſo do ours.

Chap. XLII.

¶ *Cheeſes of ſundry ſorts.*

AT Rome (the only place that hath beſt meanes neere at hand, to judge of the fruits and commodities of all nations in the world) the cheeſes which come out of the prouinces of Nemauſium, and from the villages of Læſo and Baux, are highly praiſed for the beſt; but they laſt not long: their commendation is for the preſent ſeaſon while they be greene and new. There are brought good cheeſes from two coaſts of the Alps, which greatly praiſe the paſture thereabout. Alſo dainty cheeſes are made in Dalmatia, from whence we haue paſſing good; and namely from Drinaldi. Moreouer, the prouince of Ceutronia ſends vs excellent M cheeſe from Vatuſium. But the great ſtore and plenty of cheeſe commeth from the Apennine mountain: which yeeldeth vs the Cebane cheeſe out of Liguria, which is very fine meate, notwithſtanding it be made moſt of ewes milk. Alſo out of Vmbria we haue good cheeſe, from the dairies along the riuer Æſio. Howbeit in the confines between Tuſcane and Liguria, the monſtrous great cheeſes are made, and namely about Luca, for one of them weigheth a thouſand pounds.

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A pounds. Next to theſe in goodneſſe be thoſe that are made neer the city of Rome about Veſtinum: but from out of the Sæditian territory and the plains thereabout, there come cheeſe that paſſe all the reſt. As for cheeſes made of goats milke, they are not to be defrauded of their due praiſe, eſpecially when they they are freſh and new made: and if beſides, they may haue a little drineſſe in ſmoke, which giueth both a good luſtre, and alſo a pretty taſt to them: for ſuch cheeſes be made within the very city of Rome, and go beyond all others. As for the cheeſes made in France, they taſte like a medicine, and haue an aromatical reliſh with them. For outlandiſh cheeſes beyond-ſea the Bithynian carry the beſt name. That there is a certain tarter or ſalter (if by nothing els) may wel be known by the taſt of the cheeſe made thereof: for there is none, but the older they are, the more ſaltiſh they be: yet ſuch are well known to recouer their
B freſh taſte again, if they be ſoked in Thyme vinegre. Some report, that *Zoroaſtres* liued in the deſart wilderneſſe 20 yeares with cheeſe: the which was ſo well tempered, that it ſeemed nothing old, for it neither moulded nor yet bred vermin.

Chap. XLIII.

¶ *The difference betweene the members of Man and other Creatures.*

OF liuing creatures vpon the land, Man alone is two footed. He only hath a cannell bone and ſhoulders, armes alſo to embrace: whereas others haue ſhoulders only & fore-legs to reſt vpon. In all creatures that haue hands, they be fleſhy within-forth only: for the back part conſiſts of skin and ſinewes. Some men there be with ſix fingers to one hand. Wee
C haue heard, that *M. Curiatius* a Nobleman of Rome had two daughters ſo handed: whereupon they were called *Sedigitæ*. Alſo there was a man named *Volcatius*, who was an excellent poet, and had ſix fingers to an hand, whereupon he was named *Sedigitus*. Euery finger of a mans hand hath three joints; the thumbe twaine, and it bendeth and boweth full oppoſite to all the reſt of the fingers: and yet by it ſelfe it ſtretcheth awry from the others, and is thicker than the reſt of the fingers. The little finger is equall in length to the thumbe: the fore-finger and the fifth (or ring finger) are iuſt of one ſize: betweene which the middle finger is the longeſt. Thoſe foure footed beaſts that liue of rauine and prey haue fiue toes to their fore-feet, whereas others haue but foure: Lions, Wolues, and Dogs, and ſome few others, haue likewiſe 5 toes or pawes in their hin-feet, and one like a ſpur, which beares forth behind, and hangs down from the pa-
D ſtern bone of the foot. All other ſmaller beaſts haue fiue to a foot. The armes of all men be not of a iuſt and euen meaſure: for it is well known, That there was a Thracian ſword-Fencer named *Studioſus*, belonging to the fence-ſchoole of *C. Caligula* the Emperour, whoſe right arme was longer than the left. Certaine beaſts without reaſon vſe the miniſtery of their fore-feet in ſtead of hands, and as they ſit on their rumpe reach meat therewith to their mouth, as ſquirils.

Chap. XLIV.

¶ *The reſemblance that Apes haue to men.*

E AS for all the race and kind of Apes, they reſemble the proportion of men perfectly in the face, noſe, eares, and eye-lids; which eye-lids theſe creatures alone (of all foure-footed) haue vnder their eyes as well as aboue: nay, they haue paps and nipples in their breſts, as women: armes alſo and legs bending contrarie waies, euen as ours doe. Nailes they haue alſo and fingers like to vs, with the middle finger longer than the reſt, as ours be. A little they differ from vs in the feet; for ſomewhat long they are, like as their hands be; and the ſole of their foot is anſwerable to the palm of their hand. Thumbs and great toes they haue moreouer, with joints directly like a man. And ſetting aſide the member of generation, and that only in the he Ape, all inward parts are the very ſame that ours, as if they were made iuſt by one patterne.

Chap. XLV.

F

¶ *Of Nailes.*

NAiles are taken and reputed for the extremities and vtmoſt ends of the ſinewes: and ye ſhall finde them in as many as haue fingers and toes. But in Apes they are channelled

halfe round like a gutter tile, whereas in man they be flat and broad. When one is dead they G
will grow. In rauenous creatures hooked they be and bowing inward: in dogs right and ſtrait, ſaue only that which in moſt of them crooks from behind their legs like a ſpur. All creatures that haue the faſhion of a foot, haue toes therto except an Elephant. And yet he ſeems to haue an appearance of fiue in number, but they are not diuided aſunder, or if they be, they are not diſtinct one from another but very ſleightly, and like rather to houfs than nails: the forefeet alſo are bigger than the hinder. In the hin-feet they haue ſhort ioints. The elephant bends his hams inward, as doth a man: whereas all other liuing creatures bow the ioints of their hinder legs, otherwiſe than of the former. For ſuch as ingender and breed yong aliue bend their knees before them: but the ioint of their hough behind clean backward. Mens knees and elbowes bow contrary one to the other: ſo do Beares and all the ſort of Apes, which is the cauſe they be not H
ſo ſwift of foot as others. Foure footed beaſts, as many as lay eggs (as the Crocodile and Lizards) haue their knees before, bending backward; but thoſe behind bowing forward: and yet their legs be crooked like a mans thumbe. In like ſort, they that haue many feet: vnleſſe it be the hin feet of all, in as many as do skip and hop; for they all be ſtraight. Birds, after the manner of foure footed beaſts, doe bow their wings forward, but the ioint of their legges backeward.

In the knees of men there is generally repoſed a certaine religious reuerence, obſerued euen in all nations of the world: for humble ſuppliants creep and crouch to the knees of their ſuperiors: their knees they touch, to their knees they reach forth their hands: their knees (I ſay) they worſhip and adore as religiouſly as the very altars of the gods: and for good reaſon haply I
they do ſo, becauſe it is commonly receiued, That in them there lies much vital ſtrength. For in the very ioint and knitting of both knees, on either ſide thereof before there are two emptie bladders as it were, like a paire of cheeks; which hollowneſſe and concauitie if it be wounded and pierced through, cauſeth as preſent death as if the throat were cut. In other parts likewiſe of the body we vſe a certain religious ceremonie: for as our maner is to offer the backe part of the right hand to be kiſſed, ſo we put it forth and giue it as well in teſtimonie of faith and fidelitie. It was an antient faſhion in Greece, when they would make court and with great reſpect tender a ſupplication to ſome great perſonage, to touch the chin. In the tender lappet of the eare is ſuppoſed to reſt the ſeat of remembrance, which we vſe to touch when we mean to take one to beare witneſſe of an arreſt or other thing done, and to depoſe the ſame in the face of the K
court. Moreouer, behind the right eare likewiſe is the proper place of *Nemeſis* (which goddeſſe could neuer yet find a Latine name, ſo much as in the very Capitol) and that place are we wont to touch with the fourth finger (which is next the leaſt) in token of repentance, when we haue let fal ſome word raſhly, and would craue pardon of the gods therefore. The crooked and ſwelling veins in the legs man alone hath, and women very ſeldome. *Oppius* writes, that *C. Marius* (who had bin Conſul of Rome 7 times) endured, without ſitting down for the matter, to haue thoſe veins taken forth of his legs, a thing that neuer any was known to abide before him. All foure-footed beaſts begin to go ordinarily on the right hand, and vſe to ly downe on the right ſide: others go as they liſt. Lions and Camels only haue this propertie by themſelues, to keep pace in their march, foot by foot, that is to ſay, they neuer ſet their left foot before their right, L
nor ouer-reach with it, but let it gently come ſhort of it and follow after. Men & women haue the greateſt feet in proportion of all creatures: but females vſually in euery kind haue leſſe & ſlenderer feet than males. Men and women only haue calues in their legs, and their legs full of fleſh. Howbeit we reade in ſome writers, That there was one man in Ægypt had no calfe at all to his legs, but was legged like a crane. Man alone hath palmes of his hands, & broad flat ſoles to his feet; and yet ſome there be who that way are deformed and disfigured. And thereupon it came that diuers came to be ſirnamed *Planci* [*i.* flat footed:] *Plauti* [*i.* ſplay footed:] *Scauri*, [*i.* with their ancles ſtanding ouermuch out:] *Pauſi*, [*i.* broad footed.] Like as of their miſſhapen legs ſome haue bin named *Vari* [*i.* wry legged:] others, *Vatiæ*, and *Vatinij*, [*i.* bow-legged:] which imperfections beaſts alſo are ſubiect vnto. Whole hoofed are all they that beare M
not horns: in regard wherof they be armed with houfe in ſtead of that offenſiue weapon: and ſuch as they be haue no ancle bones: but all clouen footed haue thoſe bones. Howbeit all that haue toes want ancles: and in a word, there is not one hath them in the fore-feet. Camels haue ancles like to Kine and Oxen, but ſomewhat leſſe: for indeed they be clouen footed, although

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A the partition be very little, and hardy diſcerned vnder the foot, but ſeemeth fleſh all ouer the ſole, as Beares alſo, which is the cauſe that if they trauaile farre vnſhod, their feet are ſurbated, and the beaſts will tire.

Chap. XLVI.

¶ *A diſcourſe of beaſts houſes.*

THe Houſes of Horſes, Mules, Aſſes, and ſuch like beaſts of carriage onely, if they be pared and cut, will grow againe. In ſome parts of Sclauonia, the Swine are not clouen-footed, but whole hoofed. All horned beaſts in manner be clouen-footed: but no beaſt beares
B two hornes, and hath withall the houſe of one entire peece. The Indian Aſſe hath onely one horne. The wild Goat alſo called Oryx, is clouen houſed, and yet hath but one horne. The Indian Aſſe moreouer, of all the whole houſed beaſts alone, hath the paſterne or ankle-bones. As for Swine, a mungrell kind they are thought to be of both, in regard of thoſe bones; and thereupon are reputed filthy and acurſed. They that haue thought that a man had ſuch, are ſoon conuinced. As for the Once, he indeed alone of all thoſe whoſe feet are diuided into toes, hath that which ſomewhat reſembles a paſterne bone. So hath a Lion alſo, but that it is more crooked and winding. As for the ſtreight paſterne bone indeed, it beareth out with a bellie in the joynt of the foot; and in that hollow concauitie wherein the ſaid bone turnes, it is tied by ligaments.

C

Chap. XLVII.

¶ *Of Birds feet, and their Clawes or Tallons.*

OF Fowles, ſome haue their feet diuided into clees and toes; others be broad and flat footed: and ſome are betweene both; which haue indeed their toes parted and diſtinct, and yet their feet be broad between. But of all them that haue foure toes to a foot: to wit, 3 in the forepart, and one behind at the heele in manner of a ſpurre: howbeit this one is wanting in ſome; that are long legged. The Wrinecke or Hickway, with ſome few others, haue two before and other two behind. The ſame bird putteth out a tongue of great length, like to ſerpents. It turneth the necke about and looketh backward: great clawes it hath like thoſe of Choughes.
D Some bigger birds haue in their legs one other ſhanke-bone more than ordinarie. None that haue crooked tallons, be long legged. All that ſtaulke with long ſhankes, as they fly ſtretch out their legges in length to their tailes: but ſuch as be ſhort legged, draw them vp to the midſt of their belly. They that ſay, No bird is without feet: affirme alſo, That * Martinets haue feet: like as alſo the ſwift Swallow called Oce, and the ſea Swallow Drepanis. And yet ſuch birds come ſo little abroad, that they be ſeldome ſeen. To conclude, there haue been now of late, Serpents knowne flat-footed like Geeſe. * *Apodes.*

Chap. XLVIII.

¶ *Of the feet of Inſects.*

E

ALl Inſects hauing hard eies, haue their fore-legges longer than the reſt, to the end that otherwhiles they might with them, ſcoure their eies, as we ſee ſome flies doe: but thoſe whoſe hinder-legs are longeſt, vſe to skip and hop, as Locuſts. Howbeit, all of them haue ſix legs apeece. Some Spiders there be, that haue two ouer and aboue the ordinarie, and thoſe be very long: and euery leg hath three joynts. As for ſome ſea-fiſhes, we haue ſaid before that they haue eight legs: namely, Manyfeet, Pourcuttles, Cuttles, Calamaries, and Crabfiſhes: and thoſe moue their fore-clees like armes a contrary way, but their feet either they turne round or elſe fetch them crooked atone ſide: and a man ſhall not ſee any liuing creature againe, al round, but they. As for others, they haue two feet to guide them and lead the way; but Crabs onely
F haue foure. There be Inſects beſides vpon the land, that exceed this number of feet; and then, they haue no fewer than twelue: as the moſt ſort of wormes: yea and ſome of them reach to an hundred. No creature whatſoeuer hath an odde foot. As touching the legs of thoſe which bee whole houſed, they be all full as long when they firſt come into the world, as euer they will be: well may they ſhoot out bigger and burniſh afterward, but (to ſpeake truly and properly) they

grow no more in length. And therefore when they be yong ſucking foles, a man ſhall ſee them G
ſcratch the haire with the hinder feet: which, as they wax elder and bigger, they are not able to do, becauſe their legges thriue only in outward compaſſe, and not in length. Which alſo is the cauſe, that when they be new foled, they cannot feed themſelues but kneeling, vntill ſuch time as their neckes be come to their full growth and juſt proportion.

Chap. XLIX.

¶ *Of Dwarfes: and genitall parts.*

There are no liuing creatures in the world (euen the very fowles of the aire not excepted) but in each kind there be dwarfs to be found. As for thoſe males which haue their inſtru- H
ments of generation behind, we haue ſufficiently ſpoken. In Wolues, Foxes, Weeſils, and Ferrits, thoſe genitall members be of a bonie ſubſtance; and of them there be ſoueraigne medicines made, for to cure the ſtone and grauell in mans bodie engendred. The Beares piſle alſo, becommeth as hard as an horn (men ſay) ſo ſoone as his breath is out of his bodie. As for Camels piſles, they vſe in the Eaſt countries to make their beſt bow ſtrings therof, which they account to be the ſureſt of all others. Moreouer and beſides, the genitall parts put a difference between nation and nation; alſo between one religion and another: for the prieſts of *Cybele* (the great mother of the gods) vſe to cut off their owne members and to gueld themſelues, without danger of death. On the contrarie ſide, ſome few women there be, monſtrous that way, and in that part reſemble men: like as we ſee there are Hermaphrodites, furniſhed with the members I
of both ſexe. In the daies of *Nero* the Emperor, the like accident was ſeen (and neuer before) in ſome foure-footed beaſts. For he, in very truth, exhibited a ſhew of certaine mares that were of the nature of thoſe Hermaphrodites, found in the territorie of Treuiers in France: and they drew together in his owne coach. And verily a ſtrange and wondrous ſight this was, To ſee the great monarch of the world, ſit in a charriot drawne by ſuch monſtrous beaſts. As touching the ſtones of Rams Buckes, and greater beaſts, they hang dangling downe between their legs: but in Bores, they be thruſt together, & knit vp ſhort cloſe to the bellie. Dolphines haue theſe parts very long, and the ſame lying hidden within the bottom of their bellies. In Elephants likewiſe they be cloſe and hidden. In as many creatures as doe lay egges, the ſtones ſticke hard to their K
loines within the bodie: and ſuch be euer moſt quicke of diſpatch in the act of generation, and ſoone haue done the feat. Fiſhes and Serpents haue none at all; but in ſtead therof there be two
* *Triorchis.* ſtrings or veines reach from their kidnies to their genitall member. The * Buzzard (a kind or Hawke) is prouided of three ſtones. A man hath his cods ſometime bruiſed and broken, either by ſome extraordinarie accident, or naturally: and ſuch as be thus burſt, are counted but halfe men, and of a middle nature betweene Hermaphrodites and guelded perſons. To conclude, in all liuing creatures whatſoeuer, the males be ſtronger than the females, ſetting aſide the race of Panthers and Beares.

Chap. L. L

¶ *Of Tailes.*

There is not a liuing creature, excepting men and Apes (take as well thoſe that bring forth their yong aliue, as others that lay egges only) but is furniſhed with a taile, for the neceſſarie vſe of their bodies. Such as be otherwiſe rough-haired and briſtly, yet haue naked tailes, as Swine: thoſe that be long ſhagged and rugged, haue very little and ſhort skuts, as Beares: but as many as haue long ſide haires, be likewiſe long tailed, as Horſes. If Lizards or Serpents haue their tailes cut off from their bodies, they will grow againe. In fiſhes they ſerue in good ſtead, as rudders and helmes to direct them in their ſwimming: yea they fit their turnes as well as oares, to ſet them forward as they ſtirre them, to this or that hand. There be Lizards M
found with double tailes. Kine and Oxen haue the longeſt rumpe for their tailes of any other beaſts; yea and the ſame at the end, hath the greateſt tuft and buſh of haire. Aſſes haue the ſaid docke or rumpe longer than horſes: and yet all ſuch beaſts either for ſaddle or packe, haue it ſet forth with long haires. Lions tailes are faſhioned in the very tip thereof, like vnto Kine or Oxen, and Rats: but Panthers are not after the ſame manner tailed. Foxes and Wolues

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A haue ſhag tailes like ſheep, but that they be longer. Swine carie their tailes turned and twined round. And Dogs, that be of curres kind and good for nothing, carrie their tailes cloſe vnderneath their bellies.

Chap. LI.

¶ *Of Voices.*

Ariſtotle is of opinion, That no liuing creature hath any voice, but ſuch only as are furniſhed with lungs and wind-pipes: that is to ſay, which breath and draw their wind: and therefore he holdeth, that the noiſe which we heare come from Inſects, is no voice at all, but a very
B ſound, occaſioned by the aire that gets within them, and ſo being encloſed, yeelds a certaine noiſe, and reſoundeth againe. And thus it is (quoth he) that ſome keep a humming or buzzing, as Bees: others make a cricking with a certain long traine, as the Graſhoppers; for euident it is, and wel known, that the aire entring into thoſe pipes (if I may ſo term them) vnder their breaſt, and meeting with a certaine pellicle or thin skin, beates vpon it within, and ſo ſets it a ſtirring, by which attrition, that ſhril ſound commeth. Again, it is as apparent, that in others, and namely, Flies and Bees, the buzzing which we heare, begins and ends euer with their flying. For (no doubt) that ſound commeth not of any wind that theſe little creatures either draw or deliuer, but of the aire which they hold incloſed within, and the beating of their wings together. As for
C Locuſts, it is generally beleeued & receiued, that they make that ſound with clapping of their feathers and wings and thighs together. In like manner, among fiſhes in the waters, the great Scallops make a certaine noiſe as they ſhoot out of the water. But ſoft fiſhes and ſuch as lie couered with a cruſt or ſhell, neither vtter voice, nor yet yeeld ſound. As for other fiſhes, although they be without lungs and pipes, yet are they not quite mute, but deliuer a certaine ſound. Howbeit, they that would maintaine, that fiſhes are dumbe indeed, doe cauill and ſay, that ſuch a noiſe commeth of craſhing and grinding their teeth together. But what will they ſay then to the water-Goat, & the riuer Bore, which in the riuer Achelous do euidently grunt: as alſo others, wherof we haue ſpoken? Againe, ſuch as lay egs do hiſſe: and Serpents draw their
D hiſſing out in length. The Tortoiſe hiſſes likewiſe, but after a broken manner, with ſtaies and reſts between. Frogs keep a croaking after their kind, as hath been ſaid before: and yet a man may ſeem well to doubt therof, how it ſhould be? conſidering, that the noiſe which they make comes but from their teeth and mouth outward, and is not framed in their breaſt or ſtomacke. Howbeit, in them there is great difference, by occaſion of the nature of diuers countries. For in Macedonie (by report) they are mute: and there alſo the Swine be dumbe. As for birds, the leaſt euermore be moſt full of chirping, chaunting, and ſinging; and moſt of all, about the treading time. Some of them keepe a ſinging when they fight, as Quailes: others, when they goe to fight, as Partridges: and ſome again after victorie, as cocks. And they haue a crowing by themſelues differing from the cackling of hens: whereas in other birds you canot diſcerne the male
E from the female by the ſinging, as we ſee in Nightingales. Some ſing all the yeare long, others at certaine times, as we haue more at large declared, in the particular treatiſe of each bird. The Elephant he ſends out at his very mouth (ſomwhat ſhort of his muffle) a certaine ſound like to ſneeſing: but thorough that muffle or trunke of his, he ſounds (as it were) out of a trumpet. Kine only of females, haue a bigger voice than Buls: for in euery kind elſe the female hath a ſmaller voice than the males: like as we ſee in mankind, the gelded Eunuchs. As an infant is comming into the world, it is not heard to crie all the while that it is in the birth, before it be fully born. When it is a yeare old, it begins to prattle and talke, but not before. King *Cræſus* had a ſonne, who lying ſwoddled in his cradle, ſpake by that time he was 6 months old: but this was a prodigious ſigne, and preſaged the finall ruine of that kingdome. Thoſe children that begin with
F their tongue betime, are later ere they find their feet. The voice in man or woman beginneth to change and waxe greater at 14 yeares old. The ſame in old age growes again to be ſmaller: and in no other creature doth it more often alter. Moreouer, as touching the Voice, there be ſtrange and wonderfull matters reported, and thoſe worth the rehearſal in this place. For firſt and foremoſt, we do ſee, That vpon the ſkaffold or ſtage in publick Theatres, if the floore be ſtrowed ouer well and thicke with ſaw-duſt or ſand, the voice of the actors will be drowned and loſt, yea, and remain ſtil aboue the ſkaffold, as if it were there buried: alſowhere there be hollow and vn-

euen wals round about or emptie drie-fats and tuns ſet, the voice will be taken vp in them, and G
paſſe no farther. But the ſame voice, betweene two wals directly ſet one by another, runs apace:
yea, and through a vault it may be heard from the one end to the other, be the ſound neuer ſo
low; prouided, that all be ſmooth and euen between, and nothing to hinder the paſſage thereof.
To ſpeake yet ſomwhat more of the Voice: In it doth reſt a great part of the countenance
and viſage of man, wherby he is diſcerned and knowne. For we know a man by hearing his voice
before we ſee him, euen as well as if our eies were fixed vpon him. And ſee how many men and
women there are in the world, ſo many ſundrie voices there bee, for each one hath a ſeuerall
voice, as well as a face, by himſelf. And hereof ariſes that varietie of nations, that diuerſitie of
languages all the world through. From hence come ſo many tunes in ſong, ſo many notes in
Muſick, as there bee. But aboue all, the greateſt thing to be noted in Voice, is this, That wheras H
the vtterance of our mind, therby doth diſtinguiſh vs from brute and wild beaſts: the ſame euen
among men maketh as great a difference betweene one and another, as the other is betweene
man and beaſt.

Chap. LII.

¶ *Of the excreſcence and ſuperfluitie of ſome members. Alſo the diſcourſe and ſayings of Ariſtotle as touching mans life*

LOoke what part is more than ordinarie by nature, in any liuing creature, the ſame ſerues to
no vſe. As for example, the ſixt finger in a mans hand is euermore ſuperfluous, and there- I
fore fit for nothing. It was thought good in Ægypt once to nouriſh and keep a monſtrous
man who had foure eies, wherof two ſtood in the backe part of his head behind: but ſurely he
ſaw neuer a whit with them. I wonder verily, that *Ariſtotle* not only beleeued, but alſo ſticked
not to ſet downe in writing, that there were certaine ſignes in mans bodie, whereby we might
foreknow whether he were long liued or no. Which, albeit I take to be but vanities, & not raſh-
ly to bee vttered without good aduiſement (becauſe I would not haue men amuſed, and buſi-
ly occupied in ſearching Prognoſtications in themſelues, as touching their owne life) yet will
I touch the ſame, and deliuer them in ſome ſort, ſince ſo great a clerk as *Ariſtotle* was, held them
for Reſolutions, and thought them worth the penning. He putteth downe therefore, as ſignes of
ſhort life, thin teeth, long fingers, a leaden hew, many lines in the palme of the hand, with croſſe K
bars or ſhort cuts. Contrariwiſe, he ſaith, That thoſe who are Lute backed, thicke ſhouldered,
and bending forward, who alſo in one hand haue two long life lines, and aboue 32 teeth in their
head, and beſides are wel hanged, and haue large eares, bee long liued. And as far as I can gueſſe,
he requires not, that all theſe ſignes ſhould concurre and meet together, for to ſignifie as is be-
foreſaid: but, as I ſuppoſe, his meaning is that euery one of them by it ſelfe is ſignificatiue and
ſufficient. Surely, theſe Phyſiognomers & Chiromantines or Palmeſtrie, as friuolous and foo-
liſh as they be, yet now adaies are in credite, and euery man is full of them. *Trogus*, a moſt graue
and renowmed Author among vs, is of opinion moreouer, That there is judgment to be giuen,
not only of mens complexions, but alſo of their conditions, by their very ſight & countenance:
and ſurely, I think it not amiſſe to ſet downe his very words. A large and broad forehead (ſaith L
he) is a token of a dull conceit and heauie vnderſtanding: and contrariwiſe, they that haue a lit-
tle forehead, are by nature, fickle and inconſtant: and finally, a round forehead, and bearing out
argues anger and choller, as if this outward tumor thereof bewraied the ſwelling and boiling,
of that humor. In whomſoeuer the eie-browes are ſtreight and lie euen, they betoken ſoft and
effeminat perſons: but if they bend and bow toward the noſe, they ſhew auſteritie. Say their tur-
ning and bending be toward the temples of the head, they are ſignes of a mocker and ſcorner:
finally where they lie very low, ſuch perſons (be ye ſure) are malicious, ſpightfull, and enuious.
Long eies, in whomſoeuer they bee, do teſtifie hurtfull and dangerous perſons. They that haue
the corners full of fleſh, are of a malicious nature: where the white of the eie is ſpread large and
broad, it is a token of impudencie. And ſuch as euery whiles be winking and cloſing of their
eie-lids, (truſt me truly) they be giddie-headed, and vnſtaied. Thoſe that haue great eares, and M
eſpecially the laps therof, make account they be blabs of their tongue, and fooles withal. Thus
much of Phyſiognomie, according to *Trogus*.

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CHAP. LIII.

¶ Of the Spirit and breath of liuing creatures: alſo what things be venomous in taſte, and do kill. Of mens food. And laſt of all, what hindereth digeſtion and concoction of meat.

THe breath of Lions hath a very ſtrong deane and ſtinking ſmell with it: but that of a beare is peſtilentiall and deadly: inſomuch, as no beaſt will touch where a beare hath breathed and blown vpon: for ſurely ſuch will ſooner corrupt & putrifie than others, as if they were blaſted. As for the breath of a man, Nature hath ſuffered it to be infected many waies, namely, by the viands and meat that he eateth; by faulty and rotten teeth; and moſt of all by old age. And yet our breath, without which there is no ſence, feeleth no pain it ſelf, as being void of feeling and altogether ſenceleſſe. The ſame goeth and commeth continually without reſt and intermiſſion: the ſame is alwaies new and freſh: and as it ſhal depart out of the body laſt, ſo it ſhal remaine alone, when all is gon beſides it. Finally, returne it ſhall into the aire and the heauen, from whence it firſt came. Now, albeit this breath that we draw, be the very means whereby we liue, and without which we cannot maintain our life, yet otherwhiles troubleſome it is vnto vs, and plagueth vs as a very puniſhment ordained for vs. The Parthians of all others be moſt ſubject to this inconuenience, euen from their very youth, by reaſon of the groſſe feeding of all meats indifferently, without choiſe and diſcretion: and ſpecially of their drunkenneſſe. For exceſſiue drinking of wine cauſeth ſtinking breat. But the Nobles and great States of that countrey haue a remedy therfore, and make their breath ſweet, by taking with their meats the kernels of Pome-citrons, which yeeld a moſt pleaſant ſauor. The very breath of Elephants cauſeth Serpents to come out of their holes: but Stags and ſuch other Deere, therewith do blaſt & burn them. As touching certain kinds of men, who by ſucking only could draw & fetch out the poyſon out of bodies wounded by venomous Serpents, we haue already ſpoken. As for hogs, they will feed of Serpents, and do well enough, wheras to other creatures they be no better than poiſon. All thoſe little creatures, which we named Inſects, wil die if they be but ſprinckled or wet with oile. The Vultures or Geires which flie from ſweet ointments, are deſirous yet of other odors and perfumes: like as Beetles like well the ſmell of Roſes. Some Serpents there be that the Scorpion kils. The Scythians poiſon their arrow heads with the venomous filthy bloud of vipers and mans together. A preſent poiſon this is, and remedileſſe; and it no ſooner toucheth but it taketh, and killeth forthwith. As touching thoſe creatures that feed of poiſon, wee haue ſpoken heretofore. Moreouer, ſome creatures there be, which otherwiſe being harmleſſe, if they be fed with venomous beaſts or plants, become alſo themſelues noiſom & dangerous. The wild bores in Pamphylia, and vpon mountains of Cilicia, that haue eaten Salamanders, become venomous: and whoſoeuer chance to eat of their veniſon, are ſure to die vpon it. And yet cannot a man know any ſuch venome therein, either by ſent at noſe, or taſt of tongue. Moreouer, the very water or wine wherein a Salamander hath bin ſtifled and ſuffocated, or whereof it hath but drunk, wil kil a man that ſhall but ſip thereof neuer ſo little. The like is to be ſaid of that Frog which we cal *Rubeta* [*i.* the toad that liues in buſhes.] See how many ambuſhes our life is ſubject vnto! Waſpes feed greedily vpon Serpents, and vpon that food their ſtings be deadly. And therefore you ſee it skilleth much what meats we eat, and the maner of our food is very material. As we may learn farther in that treatiſe which *Theophraſtus* wrote of the Ichthyophagi that liue of fiſh: where he hath ſet downe, That Kine and Oxen doth eat fiſh, but they muſt in any caſe be aliue.

To come now vnto mens diet: their beſt and moſt wholſome feeding is vpon one diſh and no more, and the ſame plaine and ſimple: for ſurely this hudling of many meats one vpon another of diuers taſtes is peſtiferous: but ſundrie ſauces are more dangerous than that. As touching our concoction: all tart and ſharp meats are of hard digeſtion: alſo fulneſſe and ſurfeting: haſty and greedie feeding likewiſe be enemies to digeſtion, and hurtful to the ſtomack. In ſum, we digeſt our meat more hardly in Summer than in Winter, and in age worſe than in youth. Now to helpe and remedie all this exceſſe and enormitie, vomite hath beene deuiſed: but vſe it whoſoeuer will, he ſhall find the naturall heat of his bodie thereby to decay: he ſhal ſenſibly perceiue that it hurteth the teeth, and eies eſpecially. To goe to bed vpon a full ſtomacke, and

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to digeſt in ſleepe, is better to make a man fat and corpulent, than ſtrong and luſty. And therefore wreſtlers and champions who are acquainted with ful & liberall diet, vſe rather to walk after meat for to digeſt. And in one word, much watching maketh beſt digeſtion. G

CHAP. LIIII.

¶ *Of making bodies fat or leane. Alſo, what things being taſted, do allay hunger, and quench thirſt.*

BOdies grow to be burly and groſſe, with ſweet meats, fat feeding, & much drinke: contrariwiſe, drie diet, actually cold, and thirſt withal, make a body lean. There be beaſts in Africk, and eſpecially the leſſer ſort, which drink not aboue once in foure daies. A man may well liue 7 daies without any food whatſoeuer: & wel is it knowne, that many haue continued more than 11 daies without meat or drink. There haue bin ſome known ſo hungry euermore that nothing would ſatisfie them, and ſuch haue died for very famine, although they did nothing elſe but eat: a diſeaſe incident to no creature but a man. Some again can aſſwage and appeaſe their hunger, yea, and ſlack and extinguiſh their thirſt with a very little, and yet preſerue & maintain the naturall ſtrength of their body: namely, with taſting butter, cheeſe made of Mares or Aſſes milk, and Licorice. But to conclude aud knit vp this diſcourſe: the worſt and moſt dangerous thing euery way that can be in all the courſe of our life, is Exceſſe and Superfluity; but to the health of our bodies moſt of all: and therefore the beſt courſe is, to cut off by all meanes that which is offenſiue and heauy to the body. Thus much ſhall ſuffice as touching liuing and ſenſible creatures. Let vs therefore now proceed to the reſt of Natures workes. H I

THE TVVELFTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

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The Proeme.

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THus you ſee by that which hath bin written before, what are the natures as well in generall, as particularly in parts, of all liuing and ſenſitiue creatures within the compaſſe of our knowledge. It remaineth now to diſcourſe of thoſe which the earth yeeldeth: and euen they likewiſe are not without a ſoule in their kind (for nothing liues which wanteth it:) that from thence we may paſſe to thoſe things that lie hidden within the earth, and are to be digged out of it: to the end, that no worke and benefit of Nature might ouerpaſſe our hands, and be omitted. And in truth, theſe treaſures of hers lay long couered vnder the ground, inſomuch as men were perſuaded, that Woods & Trees were the laſt & only goods left vnto vs and beſtowed vpon vs by Nature. For of the fruit of trees had wee our firſt food: their leaues and branches ſerued to make vs ſoft pallats and couches within the caues: and with their rinds and bark we clad and couered our nakedneſſe. And euen at this day, ſome Nations there be that liue ſtill in that ſort, and no otherwiſe. A wonderfull thing therefore it is, that from ſo ſmall ond baſe beginnings wee ſhould grow to that paſſe in pride, that wee muſt needs cut through great mountaines for to meet with marble: ſend out as far as to the Seres for ſilk ſtuffe to apparell vs: diue downe into the bottome of the red ſea for pearls: and laſt of all ſinke deepe pits euen to the bottom of the earth, for the precious Hemerauld. For this pride and M

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A *vanitie of ours, we haue deuiſed means to pierce and wound our eares: becauſe, forſooth it would not ſerue our turns to weare coſtly pearles and rich ſtones in carkanets about our necke, borders vpon the haire of our head, bracelets about our arms, and rings on our fingers; vnleſſe they were ingrauen alſo, and cut into the very fleſh of our bodies. Well then, to follow the courſe of Nature, and the order of our life (as meet it is we ſhould) wee will treat in the firſt place of Trees, and lay before mens faces the life of the old world, and what was their behauior and demeanure at the firſt, in their maner of liuing.*

CHAP. I.

¶ *The honour done in old time to Trees. When the Plane-trees were firſt knowne in Italy, and of their nature.*

B IN old time, Trees were the very temples of the gods: and according to that antient manner, the plaine and ſimple peaſants of the country, ſauoring ſtill of antiquity, do at this day conſecrate to one god or other, the goodlieſt and faireſt Trees that they can meet withal. And verily we our ſelues adore not with more reuerence & deuotion the ſtately Images of the gods within our temples (made though they be of glittering gold, and beautifull yuorie) than the very groues and tufts of trees, wherein we worſhip the ſame gods in all religious ſilence. Firſt and formoſt, the antient ceremonie of dedicating this and that kind of Tree to ſeuerall gods, as proper and peculiar vnto them, was alwaies obſerued, and continueth yet to this day. For the mighty great C Oke named Æſculus, is conſecrated to *Iupiter*; the Laurell to *Apollo*; the Oliue tree to *Minerua*; the Myrtle to *Venus*; and the Poplar to *Hercules*. Moreouer, it is receiued and beleeued generally, That the Syluanes and Faunes, yea, and certaine goddeſſes, are appropriate and aſſigned to woods and forreſts; yea, there is attributed vnto thoſe places a certain diuine power and godhead, there to inhabit: as well as vnto heauen the proper ſeate for other gods and goddeſſes. Afterwards, in proceſſe of time men began to taſte alſo the fruit of Trees, and found therein a juice (without all compariſon) more lenitiue and pleaſant to the contentment of their nature than that which came of corn and grain: for thereof made they Oile, a ſingular liquor to refreſh and comfort the outward members and parts of the body: out of it they preſſed wine, the one- D ly drinke that giueth ſtrength within, and fortifieth the vitall powers. From thence gather wee ſo many fruits, yerely growing and comming of themſelues without the labour and induſtry of man. And albeit, to ſerue our belly & pleaſe our tooth, we ſtick not to maintain fight and deale in combat with wild beaſts in the forreſts; although we hazard our ſelues in the ſea, to meet with monſtrous fiſhes which are fed with the dead bodies of men caſt away by ſhipwracke; and all to furniſh and ſet out the table; yet is not the cheare thought good enough, vnleſſe fruits alſo be ſent vp at the later end, that they may haue the honor in al feaſts of the ſecond ſeruice, and the banket. Beſides all this, Trees ſerue our turns for a thouſand neceſſary vſes, without which our life could not be well maintained. With Trees we ſaile ouer ſeas into ſtrange lands, and by tranſporting commodities and merchandiſe too & fro, we make lands meet together: of Trees we build our houſes, wherein we dwell. Trees were the matter in times paſt, whereof were made E the images of the gods. For as yet no man thought of the coſtly Anatomy of the elephant, neither was their tooth in any account: wheras now adaies we make the treſſels, frames, and feet of our tables, euen of the ſame yuory that we ſee the faces of gods are portraied of, as if we had our warrant from them to begin & maintain our riot and ſuperfluity in this behalf. We find in old Chronicles, That the Frenchmen and Gaules took occaſion firſt to come down into Italy, & to ouerſpread the whole country (notwithſtanding they were beforetime debarred from thence by the impregnable fort, as it were, and the vnpaſſeable bulwark of the Alps between:) becauſe one *Elico*, a Swiſſer or Heluetian, who had made long abode at Rome (where he was entertained for his skil in Smiths worke and Carpentry) at his return home again into his country, brought F ouer with him dry figs and Raiſons: the firſt fruits alſo as it were of oile & wine for a taſt, to ſet their teeth a watering. And therefore the French had good reaſon, and might wel be born withall and pardoned, for ſeeking to conquer euen by force of armes thoſe countries where ſuch fruits grew. But who would not maruell rather at this, That our people here ſhould go into far countries, and fetch a tree from thence, euen out of another world, only for the ſhade that it gi-

ueth:

veth? For ſurely, of fruitfull trees Italy hath ſtore enough: and what tree ſhould that be, but the very Plane? brought firſt ouer the Ionian ſea into the Iſle Diomedea, for to beautifie the tomb of *Diomedes*: from thence tranſlated into Sicily, and ſo beſtowed at length vpon Italy, & there planted as a moſt ſingular, rare, & ſpeciall tree. But now is it carried as far as Terwin and Tournay in France, where it is counted an appertenance to the very ſoile that paieth tribute: inſomuch, as people that wil but walk and refreſh themſelues vnder the ſhadow of it, muſt pay a cuſtome therefore vnto the people of Rome. *Dionyſius* king of Sicily, and the firſt of that name, cauſed them to be brought from Rhegium in Calabria to his Roial city, where his pallace was, only of a ſingularity, becauſe they ſhould be ſeen to giue a ſhade before his houſe, where afterwards was made the Colledge or place of publick exerciſe. But theſe trees did not greatly like the ſoile, for they neuer grew big, nor proſpered to any purpoſe. Howbeit, I find in writers, that there were other beſides in Italy, and namely about Adria, as alſo in Spain. And all this happened about the time that Rome was ſackt by the Gauls. But afterwards they came to be ſo highly eſteem'd, that for to make them grow the better, men wolud be at the coſt to water them with wine: for this was found by experience, that nothing was ſo good for them as to poure wine to their roots. Thus haue we taught euen our trees alſo to drinke wine, and be drunke. The Plane trees of any great name at firſt, were thoſe that grew in the walking place of the Academia in Athens; where the root of one outwent the boughs 36 cubits in length. Now in this age there grows a famous one in Lycia, neer to the high way were men paſſe too & fro, & it hath a pleaſant cold fountain adioining to it: the ſame is hollow within like to a houſe, & yeelds a caue of 81 foot in compaſſe: but it caries ſuch an head withal like a groue, ſo large, ſo broad, & ſo branched, that euery arm reſembles one entire tree: inſomuch, as the ſhade therof takes vp & ſpreadeth a great way into the fields. And becauſe in euery reſpect, it might reſemble a very cabbin and caue indeed, there are ſtony banks & ſeats within, in form of an arbor round about, made as it were of pumiſh ſtone ouergrown with moſſe. And in truth, this tree, and the ſcituation therof is ſo admirable, that *Licinius Mutianus* thrice Conſull, and lately Lieutenant generall and Gouernor of that Prouince, thought this one thing worthy to be recorded as a memoriall to poſterity, That he and 18 more perſons of his company, vſed to dine and ſup within the hollowneſſe of that tree: where the very leaues yeelded of the own ſufficient bed and bench-room to reſt and repoſe themſelues: where they might ſit ſecured from danger of wind to blow vpon them: where whiles he ſat at meat, he wiſhed nothing more than the pleaſure to heare the ſhowers of rain to pat drop by drop, and rattle ouer his head vpon the leaues: & finally, that he tooke much more delight to lie within the ſaid cabbin, than in a ſtately chamber built of fine marble, all glorious within with hangings of tapiſtrie and needleworke of ſundry colours, and the ſame ſeeled ouer head with an embowed roofe laid with beaten gold. Moreouer, *Caligula* the Emperor had ſuch another Plane tree growing in the country about Velitræ, moſt artificially: wherein he vſed to take great pleaſure, with admiration of the ſundry lofts and planks one ouer another, the large ſettles alſo and ſpacious branches that the boughs yeelded, where he was wont to ſit at repaſt, making one of the 15 gueſts. For the room was of that capacity, that it would not only receiue ſo many to ſit with eaſe at the table, but alſo the gentlemen and ſeruitors that waited and miniſtred vnto them: and he termed this ſupping place by the name of, His neſt: becauſe it ſeemed like a birds neſt in a tree. There is to be ſeen at Gortyna, within the Iſland Candy, one Plane tree neere vnto a faire fountain: recorded it is as well by Greekes as Latines in their writings, and by the teſtimony of them both, neuer ſheds the leaues, but remains alwaies green, as well in Winter as Summer: by occaſion whereof aroſe the tale (ſo much giuen is Greece to deuiſe fables by and by of euery ſmall matter) That *Iupiter* vnder that tree defloured the yong lady *Europa*: as if (forſooth) there were no other tree but it of the ſame kind and nature, in Cyprus. But as the nature of man is euermore curious, and ſeeketh after nouelties) the Candiotes deſirous to haue of the ſame race within Creet, ſet many ſlips thereof in ſundry places, as if they longed to haue more ſuch vicious fruit (as is before-named:) for in very deed that Tree is in no one thing more commendable, than for excluding the heat of the Sunne in Summer, and admitting it in Winter. In the time of *Claudius Cæſar*, late Emperour, there was an enfranchiſed ſlaue belonging to *Marcellus Eſerninus*, a daintie guelded Eunuch of Theſſalie, and exceeding rich, who cauſed certain Plane trees to be brought out of Candie into Italie, for to plant them at a manor which he had in the the territorie neare vnto Rome. This freed Eunuch for to grow into

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A more power and fauor with *Cæſar*, had ingraffed himſelfe, as adopted among his freed men: and ſurely for his wealth might well be called *Dionyſius*, who was the firſt that tranſplanted theſe kind of trees. Thus you ſee, that ouer and aboue thoſe monſtruoſities which Italy hath deuiſed of it ſelfe, we haue remaining and reigning among vs thoſe alſo of ſtrange and forraine nations abroad in the world.

Chap. II.

¶ *Of the low or dwarfe Plane tree. And who firſt deuiſed to clip and ſhred Arbours.*

B AS big as theſe Plane-trees, are yet there be thoſe of a forced ſmalneſſe to the other, called Chamæplatani: whereby a man may ſee, that we haue inuented the meanes to haue abortiue trees alſo euen to hinder their growth, that they cannot come to their ful perfection. And therefore euen in Trees as well as in other liuing creatures, there is a certaine infelicitie, which may well be termed, A dwarfiſh vntowardneſſe. This ſmalneſſe in trees may come, by the maner of planting them, as wel as by cutting and keeping them downe. The firſt man that deuiſed to ſhred and cut arbors, was one *Cn. Martius*, a gentleman of Rome, and a fauorit of the Emperour *Auguſtus*; and this inuention hath not bin knowne aboue 80 yeares.

Chap. III.

C ¶ *Of Trees that be ſtrangers in Italy: and namely of the Citron or Limon Tree.*

CHerry-trees, Peach-trees, and generally all that either haue Greek names or any other but Latine, are held for aliens in Italy. Howbeit, ſome of them now are infranchiſed and taken for free denizens among vs: ſo familiar they be made vnto vs, and they like the ground ſo well. But of them, we will ſpeake in the ranke of thoſe trees that beare fruit. For this preſent we are to treat of thoſe that be meere forrainers: and for good lucke ſake, begin we will with that D which of all others is moſt holeſome; to wit, the Citron tree, called the Aſſyrian tree; and by ſome, the Median Apple-tree: the fruit whereof is a counterpoiſon and ſingular Antidote againſt all venome. The tree it ſelfe, bears the leafe like vnto an Arbut tree; mary it hath certain pricks among. The Pomecitron is not ſo good to be chewed and eaten of it ſelfe: howbeit very odoriferous it is: as be the leaues alſo therof, which are vſed to be laid in wardrobes among apparel; for the ſmel thereof wil paſſe into the cloths, and preſerue them from the moth, ſpider and ſuch like vermin. This tree beares fruit at all times of the yere; for when ſome fall for ripeneſſe, others wax mellow; and ſome again, begin then but to ſhew their bloſſome. Many forrainers haue aſſaied to tranſplant them, and ſet them in their own countries, in regard of their excellent vertue to reſiſt poiſons. And for this purpoſe they haue caried yong quick ſets, or plants E of them, in earthen pots made for the purpoſe, and incloſed them well with earth: howbeit the roots had liberty giuen them to breath (as it were) at certain holes for the nones, becauſe they ſhould not be clunged and pent in priſon. Which I rather note, becauſe I would haue it known once for all, and well remembred, That all plants which are to be remoued and carried far off, muſt be ſet very cloſe, and vſed in the ſame order moſt preciſely. But for all the care and paines taken about it, for to make it grow in other countries, yet would it not forget Media and Perſia, nor like in any other ſoile, but ſoon die. This is that fruit, the kernels wherof (as I ſaid before the lords and great men of Parthia vſe to ſeeth with their meat, for to correct their ſoure and F ſtinking breaths. And verily there is not a tree in all Media, of better reſpect than is the Citron tree. As for thoſe trees in the region of the Seres (which beare the ſilk wool or cotton) we haue ſpoken thereof in our Coſmographie, when we made mention of that Nation.

Chap. IV.

¶ *Of Indian Trees: and when the Ebene was firſt knowne at Rome.*

IN like manner, diſcourſed we haue of the talneſſe and greatneſſe of Indian trees. Of all thoſe trees which be appropriate to India, *Virgil* hath highly commended the Ebene aboue all the reſt:

reſt: and he affirmeth, That it will not grow elſwhere. But *Herodotus* aſſigneth it rather to Æthyopia; and ſaith, That euery three yeares the Æthyopians were wont to pay by way of tribute vnto the kings of Perſia, * 200 billets of the timber of that tree, together with gold and yuory. Moreouer, I muſt not forget (ſince that mine author hath ſo expreſſely ſet it downe) that the Ethyopians in the ſame regard were bound to pay in like manner, twentie great and maſſie Elephants teeth. In ſuch eſtimation was yuorie then, namely in the 310 yeare after the foundation of Rome, at what time as *Herodotus* put forth that hiſtorie at Thurij in Italy. The more maruell it is, that we giue ſo much credit to that writer, ſaying as he doth, How that in his time & before, there was no man knowne in Aſia or Greece, nor yet to himſelfe, who had not ſo much as ſeen the riuer Po. The Card or Map of Ethiopia, which lately was preſented and ſhewed to the Emperor *Nero* (as we haue before ſaid) doth ſufficiently teſtifie, That from Syene (which confines and bounds the lands of our Empire and dominion) as far as to the Iſland Meroe, for the ſpace of 996 miles, there is little Ebene found: and that in all thoſe parts betweene, there be few other trees to be found, but Date trees. Which peraduenture may be a cauſe, That Ebene was counted a rich tribute, and deſerued the third place, after Gold & Iuory. Certes, *Pompey* the Great, in that ſolemnitie of triumph for the victorie and conqueſt of *Mithridates*, ſhewed one Ebene tree. *Fabianus* is of opinion, that it wil not burne: howbeit, experience ſheweth the contrary, for take fire it will, yea and caſt a pleaſant and ſweet perfume. Two kindes there be of Ebene: the one, which as it is the better, ſo likewiſe it is rare and geaſon; it carrieth a trunke like another tree, without knot, the wood thereof is blacke and ſhining, and at the very firſt ſight, faire and pleaſant to the eie, without any art or poliſhing at all. The other is more like a ſhrub, and putteth forth twigs as the Tretrifolie. A plant this is, commonly to be ſeene in all parts of India.

Chap. V.

¶ *Of certaine Thornes, and Fig-trees of India.*

THere groweth alſo among the Indians, a Thorne reſembling the later kind of Ebene: and found to ſerue for the vſe of candles: for no ſooner commeth it neere vnto the fire, but it catcheth a flame, & the fire leaps preſently vnto it. Now it remains to ſpeak of thoſe trees, which ſet *Alexander* the Great into a wonder, at what time as vpon his victory he made a voiage for to diſcouer that part of the world. Firſt and formoſt, there is a fig tree there, which beareth very ſmall and ſlender Figs. The property of this tree, is to plant and ſet it ſelfe without mans help. For it ſpreadeth out with mighty armes, and the loweſt water-boughes vnderneath, doe bend ſo downward to the very earth, that they touch it againe, and lie vpon it: whereby, within one yeares ſpace they will take faſt root in the ground, and put forth a new Spring round about the Mother-tree: ſo as theſe branches thus growing, ſeeme like a traile or border of arbors moſt curiouſly and artificially made. Within theſe bowers the Sheepherds vſe to repoſe and take vp their harbor in Summer time: for ſhady and coole it is, and beſides well fenced all about with a ſet of young trees in manner of a pallaiſado. A moſt pleaſant and delectable ſight, whether a man either come neere, and looke into it, or ſtand a farre off: ſo faire and pleaſant an arbour it is, all greene, and framed arch-wiſe in juſt compaſſe. Now the vpper boughes thereof ſtand vp on high, and beare a goodly tuft and head aloft like a little thicke wood or forreſt. And the body or trunke of the Mother is ſo great, that many of them take vp in compaſſe threeſcore paces: and as for the foreſaid ſhadow, it couereth in ground a quarter of a mile. The leaues of this Tree are verie broad, made in forme of an Amazonian or Turkiſh Targuet: which is the reaſon, that the Figges thereof are but ſmall: conſidering that the leafe couereth it, and ſuffereth it not to grow vnto the full. Neither doe they hang thicke vpon the Tree, but here and there very thinne, and none of them bigger than a beane. Howbeit, ſo well and throughly ripened they bee with the heate of the Sunne, notwithſtanding the leaues are betweene, that they yeeld a moſt pleaſant and ſweet rellice in taſt, and are a fruit for a king, anſwerable to the mightie, huge, and prodigious tree that beareth it. Theſe Fig-trees grow abundantly about the riuer Aceſine.

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Chap. VI.

¶ *Of the tree named Pala: of other Indian trees, whereof the names be vnknowne. Alſo of thoſe that beare wooll or Cotton.*

ANother tree there is in India, greater yet than the former, bearing a fruit much fairer, bigger, and ſweeter than the figs aforeſaid; and whereof the Indian Sages & Philoſophers do ordinarily liue. The leafe reſembleth birds wings, carrying three cubits in length, and two in bredth. The fruit it puts forth at the bark, hauing within it a wonderfull pleaſant iuice: inſomuch as one of them is ſufficient to giue 4 men a competent and ful refection. The trees name
B is Pala, and the fruit thereof is called Ariena. Great plenty of them is in the country of the Sydraci, the vtmoſt limit of *Alexander* the Great his expeditions and voiages. And yet is there another tree much like to this, and beareth a fruit more delectable than this Ariena, howbeit, the guts in a mans belly it wringeth, and breeds the bloudy-flix. Whereupon *Alexander* made open proclamation and ſtraitly forbad, That no man ſhould taſte thereof. As for the Macedonian ſouldiers, they talked much of many other trees, but they deſcribed them in generall tearmes only, and to the moſt of them they gaue no names at all. For one tree there is beſides, in other reſpects reſembling the Terebinth, and it carrieth a fruit much like to Almonds; onely it is leſſe, but of a moſt ſweet and toothſome taſte. In Bactriana verily, ſome take it to be a ſpeciall kind of the Terebinth indeed, rather than a tree like vnto it: but that tree which carrieth a fine
C flax, whereof they make their dainty linnen & lawn, it hath leaues like to thoſe of the Mulbery tree, and beareth a red berry like to the hips of an Eglantine. They plant and ſet theſe in their fields and plains: and ſurely, ſtanding as they do in ſuch order, there are no rowes of any trees that yeeld a fairer ſight and proſpect. The Oliue tree of India is but barren, ſaue that it brings a fruit much like the Wild Oliue.

Chap. VII.

¶ *Of Pepper trees: of the Cloue tree, and many other.*

D THe trees that beare Pepper euery where in thoſe parts, be like vnto our Iuniper trees. And yet ſome haue written, That they grow only vpon the front of the hill Caucaſus on that ſide which lieth full vpon the Sun. The corns or graines that hang thereupon, differ from Iuniper berries: and thoſe lie in certain little huskes or cods like to the pulſe called Faſels or Kidney beans. If that be plucked from the tree before they gape and open of themſelues, they make that ſpice which is called long-Pepper: but if as they do ripen, they cleaue and chawn by little & little, they ſhew within, the white pepper: which afterwards being parched in the Sun, changeth colour, and waxeth black, and therewith riueled alſo. Peppers be ſubiect to the iniury of the weather as well as other fruits: for if the ſeaſon be vnkindly and vntemporat, they will catch a blaſt, and then the ſeeds will be deafe, void, light, & naught. This fault is called among the Indians, Brechmaſis, which in their language ſignifieth, an abortiue or vntimely fruit. This pepper of all other kinds is moſt biting and ſharp, but it is the lighteſt, and pale of colour with-
E all. The blacke is more kindly and pleaſant: and the white is more milde in the mouth than both the other. Many haue taken Ginger (which ſome cal Zimbiperi, and others Zingiberi) for the root of that tree: but it is not ſo, although in taſte it ſomwhat reſembles pepper. For Ginger grows in Arabia and Troglodytica in medowes about the villages: and it is a white root of a certain little herbe. And howſoeuer it be very bitter and biting, yet it quickly meeteth with a worme, and rottes. A pound of Ginger is commonly ſold at Rome for ſix deniers. Long pepper is ſoon ſophiſticated, with the Senuie or muſtard-ſeed of Alexandria: & a pound of it is worth fifteen Romane deniers. The white coſteth ſeuen deniers a pound, and the blacke is ſold after foure deniers by the pound. As for Pepper, I wonder greatly that it ſhould be ſo much in re-
F queſt as it is: for whereas ſome fruits are ſweet and pleaſant in taſte, and therefore deſired; others beautifull to the eie, and in that regard draw chapmen: Pepper hath neither the one nor the other. A fruit or berry it is (call it whether you will) neither acceptable to the tongue, nor delectable to the eie: and yet for the biting bitterneſſe that it hath, we are pleaſed therwith, and we muſt haue it fet forſooth from as far as India. What was he, gladly would I know, that ven-

tured firſt to bite of pepper and vſe it in his meats? Who might he be, that to prouoke his appetite and find himſelfe a good ſtomack, could not make a ſhift with faſting and hunger onely? Surely, Ginger and Pepper both, grow wild in thoſe countries where they do like, and yet wee muſt buy them by weight, as we do gold and ſiluer. Of late daies here in Italy, wee haue made means to haue the Pepper tree growing among vs: and verily a litle ſcrubby plant it is, or ſhrub rather, bigger ſomwhat than the myrtle, and not far vnlike. The graine that ours beareth, carrieth the very ſame bitterneſſe that the greene pepper of India is thought to haue before it be ful ripe. For here it wanteth the due parching and ripening againſt the ſun: and by that means commeth ſhort of the riuels and blackneſſe that the outlandiſh pepper hath. Sophiſticated it is, by intermingling with it the grains or berries of Iuniper: for ſurely, they do maruellous ſoon take the taſte and ſtrength of pepper. And as for the weight, there be diuers waies to deceiue the chapman therein.

Ouer and beſides, there is another fruit that commeth out of India, like vnto pepper cornes, and it is called Cloues, but bigger ſomwhat and more brittle. And they ſay, that it groweth in a certain groue conſecrated to their gods in India. Tranſported ouer it is vnto vs for the ſweet ſmell that it caſteth.

Moreouer, the Indians haue a thorny and pricky plant, which beareth a fruit like to pepper, and paſſing bitter: the leaues be ſmal and grow thick after the maner of Priuet: it putteth forth branches 3 cubits long: the bark is pale, the root broad and of a wooddy ſubſtance, reſembling the colour of box. Of the infuſion of this root in faire water, together with the ſeed, in a braſen veſſell, is made that medicine or compoſition which is called Lycium. A buſh there groweth likewiſe vpon mount Pelion [like Pyxiacantha, *i.* the Berberrie buſh] whereof is made a counterfeit Lycium. In like manner, the root of the Aſphodill, with an Oxe-gal, Wormewoot, Frankincenſe, and the mother and lees of oile, wil do the ſame: but the beſt Lycium, and moſt medicinable, is that which doth yeld a great froth or ſcum. The Indian merchants do ſend it ouer in bags made of the skins either of Camels or Rhinocerotes. In ſome parts of Greece they name the very buſh whereof this Lycium is made, Pyxacanthum Chironium.

Chap. VIII.

¶ *Of Macir, Sugar, and the trees of the region Ariana.*

THe Macir likewiſe is brought out of India. A reddiſh bark or rind it is, of a great root; and beareth the name of the tree it ſelfe: but the form of that tree I know not how to deſcribe. This rind ſodden in hony, & ſo condit as a Succade, is a ſingular good medicine for thoſe that be troubled with the Dyſentery or bloudy-flix: as for ſugar, there is of it in Arabia; but the beſt comes out of India.* A kind of hony it is, gathered and candied in certaine Canes: white this is like gum [Arabick] and brittle between a mans teeth. The graines hereof when they are at the bigſt, exceed not a filberd nut, and ſerue only for phyſick. In the realm of Ariana (which confineth and boundeth vpon the Indians) there is a certain thorny plant, ſo ful of ſharp pricks, that it is comberous to them who come about it; which yeeldes a precious liquor iſſuing out thereof, like to Myrrhe. In the ſame prouince there grows a peſtilent venomous ſhrubbe called Rhaphanus, bearing leaues like the bay tree, which with their fragrant ſmell train horſes thither to eat thereof; but they are ſo good for them, that they left not *Alexander* the Great ſcarce one horſe of all his Cauallerie, they died ſo faſt of that food at his firſt entrance into the countrey. The like accident befell to him alſo among the Gedroſians. In like manner, there is another thornie plant (by report) in that region, leaued like the Laurell: the iuice and liquor whereof, if it be ſprinckled or daſhed in the eies of any liuing creature whatſoeuer, puts them quite out and makes them blind. Moreouer, they haue an herb there, of a ſingular pleaſant ſauor, but couered all ouer it is with little venomous ſerpents: their ſting is preſent death. *Oneſicritus* reports, That in the vales of Hircania there be trees like fig-trees, which the Hircanians call Occhi, out of which there diſtils or drops hony euery morning for the ſpace of two houres.

* White ſugar candie.

Chap. IX. ¶ *Of Bdellium: and the trees growing by the Perſian gulfe.*

NEere to theſe parts lies Bactriana, wherin is the moſt excellent Bdellium. The tree that bears it is black, of the bigneſſe of an Oliue, with leaues like an Oke; and the fruit reſembleth

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A bleth wild figs, and is of the ſame nature. The gum thereof, ſome cal Brochos; others, Malachra; and there be again that name in Maldacon. Howbeit, when it is blacke, and brought into roſes or lumps, they giue it another name, and call it Hadrobolon. But indeed the right Bdellium when it is in the kinde, ſhould be cleare, as yellow as wax, pleaſant to ſmell vnto, in the rubbing and handling fatty, in taſte bitter, and nothing ſoure. Being waſhed and drenched with wine (as they vſe it in ſacrifices) it is more odoriferous. There is found of it in Arabia, India, Media, and Babylon. As for that which is brought out of Media, they call it Peraticum: this is more tractable and gentle in hand, more cruſty and bitter than the reſt. But the Indian Bdellium is the moiſter and more gummy: this is ſophiſticated with Almonds, whereas the other kinds be made
B counterfeit with the bark of Scordaſtus, a tree that yeelds the like gum. But this trumpery and deceit is found by the ſmell, colour, weight, taſte, and fire. And let this one word for all, ſerue as a generall rule to proue all ſuch drugs and ſpices by. The Bactrian Bdellium when it is in the fire, yeeldeth a dry and ſmoky fume, and hath many white markes in it reſembling the nailes of ones fingers: beſides, it hath his juſt poiſe and weight that it ought to haue, neither more nor leſſe; for as it ſhould not be ouer weighty, ſo it may be too light. Commonly the price goeth after this rate, to wit, three deniers a pound.

Vpon theſe regions aboue-named, confineth Perſis, whereas the red ſea (which we named in our Geographie, the Perſian gulfe) floweth at certain tides far into the land, and in theſe ſands and downes are to be ſeen diuers trees of ſtrange natures: for when the tide is paſt, you ſhal ſee
C at a low water ſome trees with their roots bare, as if they were eaten with the ſalt water; & a man cannot tell whether they were brought thither with the tide, or left in the ebbe: but ſurely the naked roots ſeem to claſp & take hold of the barren ſands, as if they were Polype fiſhes ſhould cling to any thing. And yet the ſame, when the ſea floweth again, notwithſtanding they be beaten vpon with the waues, ſtand faſt and ſtir not. Again, at ſome high water and ſpring-tide, they be couered all ouer with water: and by good arguments it is euident to the eie, That nouriſhed they be with the roughneſſe of the ſurging ſea-water. Their heights is wonderfull: and faſhioned they be in forme of an Arbut tree: the fruit without-forth like to Almonds, but the kernels within be writhed.
D

Chap. X.

¶ *The Trees of the Iſland Tylos within the Perſian ſea. Moreouer of thoſe trees that beare Wooll or Cotton.*

WIthin the ſame gulfe of Perſia, there lieth an Iſle full of woods to the Eaſt ſide, euen vpon that coaſt which is ouerflowed with the tide. Euery tree within, is equall in bigneſſe to the fig-tree: the bloſſoms that they carry, are ſo ſweet, as it is wonderful & vnſpeakable: the fruit like a Lupine, yet ſo rough & prickly, as no beaſt will gladly touch it. In
E the higheſt part and knap of the ſame Iſland, there be trees bearing wooll, but not in ſuch ſort as thoſe of the Seres: for whereas the leaues of thoſe do carry a downe or cotton, theſe are altogether without and barren thereof: and but that they be ſomewhat leſſe, they might ſeeme to be vine leaues. Howbeit they beare a fruit at the laſt, like Gourds in faſhion, and as bigge as Quinces; which when they be full ripe, do open and ſhew certain bals within of down: whereof they make moſt fine and coſtly linnen clothes.

Chap. XI.

F ¶ *Of the Goſſampine trees: as alſo of other Cotton or Bombaſe trees, whereof clothes be made. In what manner diuers trees do yeeld their fruit.*

THere is a leſſer Iſle named Tylos, ten miles from the other, where be trees called Goſſampines, which yeeld more cotton than thoſe in the greater. King *Iuba* ſaith, that this cotton groweth about the branches of the ſaid trees, and that the linnens made therof be farbetter than thoſe of the Indians. As for thoſe trees in Arabia whereof they make their linnen cloth, he affirmeth that they be called Cynæ, and haue leaues like the Date tree. Thus you ſee, how the Indians be clad with trees of their own. In thoſe Iſlands called Tyli, there is another tree which beareth a bloſſome much like the floure of a White Violet, or Scock-gilloſre, but foure times

as big, which may ſeeme ſtrange in that tract. And yet there is another Tree not vnlike to it, G
howbeit fuller of leaues, and bearing a bloſſome like to a Damaske or incarnate Roſe. This
floure ſhutteth cloſe in the night, beginneth to open in the morning at the Sun-riſing, and by
noone ſheweth out at the full. The inhabitants haue a by-word and ſaying among them, That
it ſleepes all night, and wakes in the morning. The ſame Iſland bringeth forth Date trees, O-
liue trees, Vines, and amongſt other fruits Figges alſo. No Trees there, doe ſhed their leaues:
for the Iſland is well watered with cold and quicke-ſprings: and beſides it hath the benefit of
raine. As touching Arabia, which lieth neere and bordereth vpon theſe Iſlands, the ſpices and
odoriferous fruits that be therein, are to be treated of with diſtinction: for their merchandiſe
doth conſiſt of roots, branches, barke, juice or liquor, gums and roſins, wood, twigs, floures, leaues
and apple. H

Chap. XLI.

¶ *Of Coſtus, Spike-nard, and the diuers kindes of Nard.*

BVt the root and leafe be of greateſt price in India. And firſt and formoſt the root of Coſtus
bites and burns in the mouth; and is of a moſt excellent and ſoueraigne ſmell: for otherwiſe
the branches or body of the ſhrub is good for little or nothing. In the Iſland Patale (which
lieth at the very firſt foſſe and mouth where the riuer Indus falleth into the ſea) there be found
two kindes thereof: namely, the black, and the white, which is counted the better. A pound of
Coſtus is held at 16 Roman deniers. I

As touching the leafe of Nardus, it were good that we diſcourſed therof at large, ſeeing that
it is one of the principall ingredients aromaticall that go to the making of moſt coſtly & pre-
cious ointments. The plant it ſelfe Nardus, hath a maſſie, heauy, & thick root; but ſhort, black,
and brittle, notwithſtanding that it be fatty and oleous. Soone it vinoweth and catcheth a kind
of muſtineſſe: and like to the Cypreſſe [or Cyperus] it hath a ſharp taſt, rough and ſmal leaues,
but comming thick. The head of Nardus ſpreads into certain ſpikes or eares, whereby it hath
a twofold vſe, both of ſpike and alſo of leaf; in which regard it is ſo famous. A ſecond ſort there
is of it growing along the riuer Ganges, condemned altogether as good for nothing, for it hath
a ſtrong and ſtinking ſauor: whereupon it is called Ozænitis. There is an herbe growing euery
where called Pſeudonardus, or baſtard Nard, which is obtruded vnto vs and ſold for the true K
Spikenard. A thicker leafe it hath and a broader than the other: the colour is more pallat and
weak, inclining to white. Alſo the very root of the right Nard, for to make the better weight, is
mingled with gums, with Litharge of ſiluer, Antimony, or the rind of Cyperus. But the good,
ſincere, & true Nard is known by the lightnes, red colour, ſweet ſmell, and the taſte eſpecially:
for it drieth the tongue and leaueth a pleaſant relliſh behind it. The Spike carieth the price of
an 100 Roman deniers a pound. As touching the leaues, the diuerſitie rhereof makes difference
alſo in the price: for that which hath the larger leaues, and therupon is called Hadroſphærum,
is worth 30 deniers a pound. A ſecond ſort there is with a ſmaller leafe, and of a middle ſize,
named therefore Meſoſphærum: and that is bought after 60 deniers the pound. But the beſt
of all is that with leaſt leaues, and carrieth the name of Microſphærum: and that the merchant L
ſelleth for 75 deniers the pound. What kind ſoeuer it be, the greener and newer it is, the better
is it reputed, and more odoriferous, than that which hath been long kept. Yet ſay it be old ga-
thered, if the colour hold and keepe well, men preferre it before the blacker, though it bee new.
With vs in Italie, and in this part of the World, the leafe of Nardus comming from Syria, is
eſteemed beſt: next to it the Celtick, out of France: and in the third place that of Candy, which
ſome name Agrion, [i. the wild] others Phu: and this hath a leafe reſembling Loueach or Ale-
ſanders, a ſtalke a cubite long full of ioints and knots, of a weake whitiſh and light purple co-
lour; the root groweth crooked, full of ſtrings and haires hanging to it, and is much like to birds
clawes or feet. As for Baccharis, it is called likewiſe Ruſtick-nard: but of it wil we ſpeak among M
other floures. Al theſe kinds of Nardus are to be reckoned herbs, ſaue that only of the Indians:
of which, the Celticke or French Nard, is plucked and gathered together with the root: and for
the better preparing thereof, it ought to be well waſhed and ſoked in wine, aud ſo dried in the
ſhade out of the Sunne. Then is it made vp into certaine bundels of an handfull apeece,
bound vp in papers, and differeth not much in goodneſſe from the Indian Spikenard: How-
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A beit, lighter it is than that of Syria. A pound of it is worth at Rome 13 deniers. The only proof and triall of all their leaues is this, That they be not brittle, and rather ripe drie, than ſere or rotten-dry, That they breake not and fall in pieces. With the Celticke and French Nard there euermore groweth another herbe, called Hirculus, and it taketh that name of a ſtrong and Goatiſh ſmell which it yeeldeth: beſides, ſo like it is vnto the other, that it is foiſted in among the good, and ſo ſold with it. Yet herein is the difference; for that this hath no ſtem or ſtalke at all; the leaues thereof alſo are leſſe: and laſt of all, the root is neither bitter in taſte, nor ſweet in ſmell.

CHAP. XIII.

B ¶ *Of Aſara-Bacca, Amomum, Amomis, and Cardamomum.*

ASarum or Fole-foot, called otherwiſe, Aſara-Bacca, hath the very properties and vertues of Nard: and therefore ſome haue called it Wild Nard. An herbe it is, carrying leaues like to Iuie, ſaue that they be more round and ſofter: it putteth forth a purple floure, and hath a root like vnto the French Nard. The floure is full within of ſeeds like grape kernels, of an hot taſte, and reſembling wine. In ſhadowie mountaines it floures twice a yeare. The beſt groweth in Pontus, the next to it for goodneſſe is found in Phrygia: that of Illyricum is of a third ranke. The root is digged vp when it beginneth to put forth leaues. They vſe to dry it in the Sun: ſoon it wil vennow and be mouldy; quickely alſo it waxes old, and loſes the ſtrength. Of late daies there was an herbe found in Thracia, the leaues whereof differ in nothing from the
C Indian Nard.

As for the grape of Amomum, which now is in vſe and much occupied, ſome ſay it groweth vpon a wilde vine in India. Others haue thought, that it commeth from a ſhrubbe like Myrtle, & carieth not aboue a hand-bredth, or 4 inches in height. Plucked it is together with the root: and gently muſt be laid and couched in bunches by handfuls, for if great heed be not taken, it will ſoone burſt and breake. The beſt Amomum and moſt commendable, is that which carrieth leaues like to thoſe of the Pomegranate, without riuels and wrinckles, and beſides, of a red colour. The next in goodneſſe is that which is pale. The greene or graſſe coloured is not all out ſo good, but the worſt of all is white: and that colour comes by age, and long keeping: a pound of theſe grapes intire and whole in the cluſter, is worth 60 Roman deniers. But if they be crum-
D bled and broken, it will coſt but 48. This Amomum groweth likewiſe in a part of Armenia named Otene: alſo, in the kingdomes of Media and Pontus. It is ſophiſticated with the leaues of the Pomgranate, and with ſome other liquid gum beſides, that it may hang vnited together and roll round into the forme of grapes.

Now as touching that which is called Amomis, it is leſſe full of veins, and nothing ſo ſweet ſmelling, but harder than Amomum: whereby it appeareth, that it is either a diuers plant from it, or els if it be the ſame, it is gathered before it be full ripe.

Cardamomum is like to theſe aboue rehearſed, both in name, and alſo in making and forme: but it bears a longer graine for ſeed. The maner alſo of gathering and cutting it downe, in Arabia, is the ſame. Foure kinds there be of it. The firſt is moſt green and fatty withal: hauing foure
E ſharp corners, and if a man rub it between his fingers, he ſhal find it very tough and ſtubborne: and this is moſt eſteemed of all the other. The next to it is ſomwhat reddiſh, but inclining to a whitiſh colour. A third ſort is ſhorter, leſſer, and blacker than the reſt. Howbeit, the worſt is that which hath ſundry colours, is pliable and gentle in the rubbing, and ſmelleth but a little. The true Cardamomum ought to come neare in reſemblance to Coſtus. And it grows in Media. A pound of the beſt will coſt 12 deniers.

The great affinitie or kinred rather in name, that Cinnamon hath with theſe ſpices before rehearſed, might induce me to write therof in one ſuit, euen in this place: but that more meet it is to ſhew firſt the riches of Arabia, and to ſet down the cauſes why that country ſhould be ſyr-
F named Happy and Bleſſed. Wee will begin therefore with the chiefe commodities thereof, namely. Frankincenſe and Myrrhe: and yet Myrrhe is found as wel in the Troglodites country, as in Arabia.

Chap. XIV.

¶ *Of Happy Arabia, that yeeldeth plenty of Frankincenſe.*

There is no region in the whole world that bringeth forth frankincenſe but Arabia: and yet is it not to be found in al parts therof, but in that quarter only of the Atramites. Now theſe Atramites inhabit the very heart of Arabia, and are a county of the Sabæi. The capitall city of the whole kingdom is called Sabota, ſeated vpon a high mountain: from whence vnto Saba, the only country that yeelds ſuch plenty of the ſaid incenſe, it is about 8 daies journey. As for Saba (which in the Greek tongue ſignifieth, a ſecret myſterie) it regards the Sunne riſing in Summer, or the North-Eaſt, encloſed on euery ſide with rockes inacceſſible: and on the right hand it is defended with high cliffes and crags that beare into the ſea. The ſoile of this territorie, by report, is reddiſh, & inclining to white. The forreſts that carry theſe Incenſe trees ly in length 20 Schænes, and beare in bredth half as much. Now that which we cal Schænus, according to the calculation of *Eratoſthenes*, contains forty ſtadia, that is to ſay, fiue miles: how ſoeuer ſome haue allowed but 32 ſtadia to euery Schænus. The quarter wherein theſe trees grow is full of high hills: howbeit, go down into the plains and valley beneath, you ſhall haue plenty of the ſame trees, which come vp of their own accord, and were neuer planted. The earth is fat, and ſtandeth much vpon a ſtrong clay, as all writers do agree. Few Springs are there to be found, and thoſe that be are full of Nitre. There is another tract by it ſelfe confronting this country, wherein the Minæans do inhabit: and through them there is a narrow paſſage, whereby the frankincenſe is tranſported into other parts. Theſe were their firſt neighbours that did traffique with them for their Incenſe, and found a vent for it: and euen ſo they doe ſtill at this day, whereupon the frankincenſe it ſelfe is called of their name, Minæum. Setting theſe people of the Sabeans aſide, there be no Arabians that ſee an Incenſe tree from one end of the yere to another: neither are all theſe permitted to haue a ſight of thoſe trees. For the common voice is, that there be not aboue 3000 families which can claime and challenge by right of ſucceſſion that priuiledge to gather incenſe. And therefore all the race of them is called Sacred and Holy: for looke when they go about either cutting and ſlitting the trees, or gathering the Incenſe, they muſt not that day come neere a woman to know her carnally; nay they muſt not be at any funerals, nor approch a dead corps, for being polluted. By which religion and ceremonious obſeruation the price is raiſed, and the incenſe is the dearer. Some ſay, theſe people haue equall liberty in common to go into theſe Woods for their commodities when they will: but others affirme that they be diuided into companies, and take their turns by yeares. As concerning the very tree I could neuer know yet the perfect deſcription of it. We haue waged warres in Arabia, and our Roman armie haue entred a great way into that country. *C. Cæſar* the adopted ſon of *Auguſtus* wan great honour and glory from thence: and yet verily, to my knowledge, there was neuer any Latine Author, that hath put down in writing the form and faſhion of the tree that carrieth incenſe. As for the Greeke Writers, their bookes doe vary and differ in that point. Some giue out, that it hath leaues like to a Peare tree, only they be ſomewhat leſſe, and when they come forth they be of a graſſe green colour. Others ſay that they reſemble the Lentiske tree, and are ſomwhat reddiſh. There be again who write, that it is the very Terebints and none elſe, that giueth the Frankincenſe: of which opinion king *Antigonus* was, who had one of theſe ſhrubs brought vnto him. King *Iuba* in thoſe books which he wrot and ſent to *C. Cæſar*, ſon to the Emperor *Auguſtus*, (who was inflamed with an ardent deſire to make a voiage into Arabia, for the great fame that went thereof) ſaith, That the tree which beares Frankincenſe hath a trunke or body writhen about, and putteth forth boughes and branches like for all the world to the Maple of Pontus. *Item*, that it yeeldeth a iuice or liquour as doth the Almond tree; and ſuch are ſeene commonly in Carmania: as alſo thoſe in Egypt which were planted by the carefull induſtrie of the *Ptolomees*, Kings there. Howeuer it be, this is receiued for certaine, that it hath the very barke of a Bay tree: Some alſo haue ſaid that the leaues be as like. And verily ſuch kind of trees were they which were ſeen at Sardis: for the Kings of Aſia likewiſe were at the coſt and labor to tranſplant them, and deſirous to haue them grow in Lydia. The Embaſſadours who in my time came out of Arabia to Rome, haue made all that was deliuered as touching theſe trees, more doubtfull and vncertaine than before. A ſtrange matter, and wonderfull indeed, conſidering that twigges and branches of the Incenſe tree haue paſſed betweene:

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A by the veiw of which impes, we may judge what the Mother is: namely, euen and round in the bodie, without knot or knar, and from thence ſhe putteth out ſhoots.

They vſed in old time to gather the Incenſe but once a yere, as hauing little vent, and ſmall returne, and leſſe occaſion to ſell than now adaies: but now, ſince euery man calleth for it, they feeling the ſweetneſſe of the gaine, make a double vintage (as it were) of it in one yere. The firſt, and indeed the kindly ſeaſon, falls about the hotteſt daies of the Summer, at what time as the Dog daies begin: for then they cut the Tree where they ſee the bark to be fulleſt of liquor, and wheras they perceiue it to be thinneſt and ſtrut out moſt. They make a gaſh or ſlit only to giue more libertie: but nothing do they pare or cut cleane away. The wound or inciſion is no ſooner
B made, but out there guſheth a fat ſome or froth: this ſoone congeales and growes to be hard: and where the place will giue them leaue, they receiue it in a quilt or mat made of Date tree twigs, plaited and wound one within another wicker-wiſe. For elſewhere, the floore all about is paued ſmooth, and rammed downe hard. The former way is the better to gather the purer and clearer Frankincenſe: but that which falleth vpon the bare ground, prooues the weightier. That which remaines behind, and ſtickes to the Tree, is parted and ſcraped off with kniues, or ſuch like yron tooles; and therefore no maruell if it be ful of ſhauings of the bark. The whole wood or forreſt is diuided into certaine portions: and euery man knowes his owne part: nay, there is not one of them will offer wrong vnto another, and encroch vpon his neighbors. They need not to ſet any keepers to look vnto thoſe Trees that be cut, for no man will rob from his fellow if
C he might; ſo juſt and true they be in Arabia. But beleeue me, at Alexandria where Frankincenſe is tried, refined, and made for ſale, men canot look ſurely ynough to their ſhops and work-houſes, but they will be robbed. The workeman that is emploied about it, is all naked, ſaue that he hath a paire of trouſes or breeches to couer his ſhame, and thoſe are ſowed vp and ſealed too, for feare of thruſting any into them. Hood-winked he is ſure ynough for ſeeing the way to and fro, and hath a thicke coife or maske about his head, for doubt that he ſhould beſtow any in mouth or eares. And when theſe workmen be let forth againe, they be ſtripped ſtarke naked, as euer they were borne, and ſent away. Whereby we may ſee, that the rigor of juſtice canot ſtrike ſo great feare into our theeues here, and make vs ſo ſecure to keepe our owne, as among the
D Sabæans, the bare reuerence and religion of thoſe woods. But to returne againe to our former cuts. That Incenſe which was let out in Summer, they leaue there vnder the Tree vntil the Autumne, and then they come and gather it. And this is moſt pure, cleane, and white.

A ſecond Vintage and gathering there is in the Spring: againſt which time, they cut the bark before in the Winter, and ſuffer it to run out vntil the Spring. This comes forth red, and is nothing comparable to the former. The better is called Carpheotum, the worſe, Dathiathum. Moreouer, ſome ſay, that the gum which iſſueth out of the young trees is the whiter: but that which comes from the old, is more odoriferous. There be others alſo of opinion, that the better Incenſe is in the Iſlands. But King *Iuba* doth auouch conſtantly, that there is none at all in the Iſlands. That which is round like vnto a drop, and ſo hangeth, we call the male Incenſe; wheras
E in other things lightly we name the male, but where there is a female. But folk haue a religious ceremonie in it, not to vſe ſo much as the tearme of the other ſexe, in giuing denomination to Frankincenſe. Howbeit, ſome ſay, that it was called the Male, for a reſemblance that it hath to cullions or ſtones. In very truth, that is held for the cheife and beſt ſimply, which is faſhioned like to the nipples or teats that giue milk, ſtanding thick one by another: to wit, when the former drop that diſtilled, hath another preſently followeth after, and ſo conſequently more vnto them, and they all ſeeme to hang together like bigs. I read, that euery one of theſe were wont to make a good handfull, namely, when men were not ſo haſty & eager to carry it away, but would
F giue it time and leiſure to drop ſoftly. When it is gathered in this ſort, the Greeks vſe to call it Stagonias and Atomus: but the leſſer goblets they name Orobias. As for the ſmall crums or fragments which fall off by ſhaking, wee called Manna, [*i. Thuris.*] And yet there be found at this day drops of Incenſe that weigh the third part of a pound, that is to ſay, about * 39 Roman deniers. It happened on a time, that king *Alexander* the Great being then but a very little child, made no ſpare of Incenſe, but caſt ſtill vpon the altar without all meaſure when he offered ſacrifice. Whereupon, *Leonides* his tutor and ſchoole-maiſter, by way of a light reproofe, ſaid vnto him thus, Sir you ſhould in that maner burne Incenſe when you haue once conquered thoſe nations where there growes Incenſe. Which rebuke and checke of his tooke ſo deep a print in

or rather 33 and a ſcruple.

Alexanders

Alexanders heart, and ſo well he carried it in memorie, that after he had indeed made conqueſt of Arabia, he ſent vnto the ſaid *Leonides* his Tutor, a ſhip ful fraught and charged with Incenſe; willing him not to ſpare, but liberally to beſtow vpon the gods when hee ſacrificed. To returne againe to our hiſtorie. When the Incenſe is gathered (as is beforeſaid) conueighed it is to Sabota, vpon Cammels backs, and at one gate (ſet open for that purpoſe) is it brought into the citie. For by law forbidden it is on pain of death, to take any other way. Which done, the Prieſts there of the god whom they call *Sabis*, take the diſme or tenth part of the Incenſe, by meaſure, and not by weight, and ſet it apart for that god. Neither is it lawful for any man to buy or ſell, before that duty be paied: which ſerues afterwards to ſupport certaine publick expenſes of the citie. For al ſtrangers and trauellers within the compaſſe of certain daies journey, if they come to the citie, are courteouſly receiued, and liberally entertained at the coſt and charge of the ſaid god *Sabis*. Caried forth of the country it cannot be, but thorough the Gebanites: and therfore there is a cuſtome paid to their king. The head citie of that kingdome, Thomna, is from Gaza (the next port-towne in Iudæa toward our coaſt) ſeuen and twentie miles fourſcore times told: and this way is diuided into 62 daies journy by Camels. Moreouer, beſides the tyth aforeſaid, there be meaſures beſtowed vpon the Prieſts to their owne vſe: and others likewiſe to the kings Secretaries and Scribes. And not only theſe haue a ſhare, but alſo the Keepers, Sextons, and Wardens of the temple, the Squires of the bodie, the Guard and Penſioners, the kings officers, the Porters, Groomes, and other ſeruitors pill and poll, and euery one hath a ſnatch. Moreouer, all the way as they trauell; in one place they pay for their water, in another for fodder and prouender, or elſe fortheir lodging & ſtable-room, & euery where for one thing or other they pay toll: ſo as the charge of euery Cammell from thence to the ſea vpon our coaſt, commeth to 688 deniers: and yet we are not come to an end of paiments. For our Publicanes and cuſtomers alſo belonging to our Empire, muſt haue a fleece for their parts. And therefore a pound of the beſt Incenſe will coſt 16 deniers: of the ſecond 15: and the third 14. With vs it is mingled and ſophiſticated with parcels of a white kind of Roſin which is very like to it: but the fraud is ſoone found, by the meanes aboue ſpecified. The beſt Incenſe is tried and knowne by theſe markes, *viz.* If it be white, large, brittle, and eaſie to take a flame when it comes neare a coale of fire; laſt of all, if it ſtill not abide the dent of the tooth, but flie in pieces and crumble ſooner than ſuffer the teeth to enter into it.

Chap. XV.

¶ *Of Myrrhe, and the Trees that yeeld it.*

SOme haue written, That the Trees which beare the Myrrhe, doe grow confuſedly here and there in the ſame woods, among the Incenſe Trees: but more there are who affirme, That they grow apart by themſelues. And in truth, found they are in many quarters of Arabia, as ſhall be ſaid when we treat of the ſeuerall ſpecies of Myrrh. There is very good Myrrh brought out of the Iſlands: and the Sabæsns paſſe ahe ſeas, and trauell as far as to the Troglodites countrey for it. There is a kind of Myrrhe tree planted by mans hand in Hort-yards, and much preferred it is before the wild that groweth in the woods. Theſe Trees loue to be raked, bared, and cleanſed about the roots: they delight (I ſay) to haue the ſuperfluous ſpurnes rid away from the root: and the more that the root is cooled, the better thriueth the Tree. The plant groweth ordinarily fiue cubits high, but not all that length is ſmooth and without pricks: the bodie and trunke is hard and wrythen, thicker than the Incenſe trees: it is greateſt toward the root: and ſo ariſes ſmaller and ſmaller, taperwiſe. Some ſay, that the bark is ſmooth and euen, like vnto that of the Arbute Tree: others againe affirme, that it is prickly and full of thornes. It hath a leaſe like to the Oliue, cut more criſped and curled, and withall it is in the end ſharp-pointed like a needle. But King *Iuba* writes, that it beareth the leafe of Loueach or Aliſanders. There be who write, that it reſembles the Iuniper, ſaue only that it is more rough and beſet with ſharp pricks And ſome let not to dream & talke, that both Myrrhe and alſo Incenſe came from one and the ſame Tree. Indeed, the Myrrhe trees are twice cut and launced in one yeare, and at the ſame ſeaſons, as wel as the Incenſe trees: but the ſlit reacheth from the very root vp to the boughes, if they may beare and abide it. Howbeit, before that inciſion be made; they ſweat out of themſelues a certain liquor called Stacte, which is very good Myrrh, and none better. As wel of this franke

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A franke and garden myrrh tree, as of the wild in the woods, the Myrrh is better that is gathered or runs in Summer time. There is no allowance of myrrh offered and giuen to the god *Sabis*, as there was of Incenſe, becauſe it is found in other countries. Howbeit the King of the Gebanites hath payed vnto him for toll and cuſtome a fourth part of all that paſſeth through his kingdome. To conclude, whatſoeuer is bought in any market or place abroad, they put and thruſt it hard together in leather bags one with another: but the Druggiſts and Apothecaries can ſoon ſeparate the better from the worſe, and be very cunning and ready to digeſt them according to the marks that they go by, as well of ſmell as fattineſſe.

Chap. XVI.

B ¶ *Diuers kindes of Myrrhe: the nature, vertue, and price thereof.*

MAny ſorts there be of Myrrh. Of all the wild kinds, the firſt is that which groweth in the Troglodites country. Next to it is Minæa, in which rank you may place Attramittica and Auſaritis, which both come out of the realme of the Gebanites. In a third place reckon that which they call Dianitis. A fourth ſort is gotten here and there in all parts, and hudled together. In the fift range is Sembracena, ſo called of a city within the kingdom of the Sabæans, and is next vnto the ſea. The ſixt they call Duſaritis. Beſides all theſe, a white myrrh there is found but in one place, which ordinarily is brought to the city Meſalum, & there ſold. The Trogloditick myrrh they chuſe by the fattineſſe thereof, and for that it ſeemes to the eye greener: it ſhewes alſo foule, rude, and ilfauoured: but ſharper it is, and more biting in mouth
C than the reſt. The Sembracene hath none of theſe faults, but is pleaſant and cheerful to ſee to, howbeit of ſmall operation and ſtrength. But to ſpeake in a word, and once for all, the beſt myrrh is known by little pieces which are not round: and when they grow together, they yeeld a certain whitiſh liquor which iſſueth and reſolueth from them, and if a man break them into morſels, it hath white veines reſembling mens nailes, and in taſte is ſomewhat bitter. A ſecond degree there is in goodnes, when it ſheweth ſundry colors within. And the worſt of all is that which within-forth is black; and the ſame is worſe yet, if it be as black without. As touching the price of myrrh, it alters as it is more or leſſe in requeſt, and according as it meeteth with many or few chapmen. For ye ſhal haue Stacte ſold ſomtimes for 6 deniers a pound, and
D otherwhiles for 50. The greateſt price of the garden frank-Myrrh, or that which is ſet by mans hand is 22 deniers. The red called Erythrea is neuer aboue 16: and this is taken to be the true myrrh of Arabia. The kernell within of the Trogloditick Myrrh will coſt 13 deniers a pound: but that which they call * Odoraria is ſold for 14. All kinds of Myrrh be mingled and ſophiſticated with pieces of Maſticke comming from the Lentiske, and with other gum: *Item* with Elaterium [*i.* the iuice of the wild cucumber] to make it more bitter: as alſo, that it might ſeem weightier, with the ſome of lead, or litharge of ſiluer. And ſurely ſetting aſide theſe two corruptions, all the reſt are found by the very taſt of the gum, which alſo will ſticke vnto the teeth in the chewing. But the craftieſt and fineſt deuice to counterfeit it, is with Indian myrrh, gathered there from a certain thorny plant which growes among them. This is the onely thing
E that India bringeth forth worſe than other countries. And verily ſo bad it is, that ſoone it may be knowne from other myrrhes.

* or *Adoraria*, *i.* θυμιαματὰ, which ſerueth for perfuming in temples.

Chap. XVII.

¶ *Of Maſtick, Ladanum, and Bruta of Enhæmus, Strobus, and Styrax.*

FRom the foreſaid Myrrh therefore laſt named, let vs for the affinitie paſſe to Maſtick: which comes alſo of another thorny tree in India, as alſo in Arabia, called Lama. Howbeit of Maſtick there be two ſorts: for both in Aſia and alſo in Greece there is found an hearbe, which directly from the root putteth forth leaues, and it beareth a bur or thiſtle head like an
F apple, full of ſeeds. Cut the top of this herbe, and there will iſſue forth a certain liquor ſo like vnto the right maſtick, that hardly a man ſhall know the one from the other. Ouer and beſides, there is a third ſort of Maſticke in Pontus, more like to Bitumen. Howbeit, the very beſt Maſtick is brought out of the Iſland Chios, and the ſame is white, and a pound of it is worth in Rome 20 deniers: but the black ye ſhall buy for twelue. As for the Chian Maſticke, it iſſueth forth

forth as a gum out of the Lentisk tree. Mingled this is also like as frankincense, with rosin. G

Moreouer, Arabia doth glory euen yet in their Ladanum. And many haue reported, that this comes by fortune or chance, and by occasion of violence and wrong done to an odoriferous plant that yeeldeth it in this manner following: The Goats they say, harmefull creatures as they be to all plants, but more desirous to be brousing of sweet and aromaticall shrubs (as if they knew how precious they were) vse to crop the sprouts and sprigs of this plant which beareth Masticke; which being so full of this odoriferous and sweet liquor, that they smel again, doth drop and distill the said moisture, which the shrewd and vnhappy beast catcheth among the shag long haires of his beard. Now by reason that dust getteth among, it baltereth & cluttereth into knots and balls, and so is concocted into a certaine consistence in the Sunne. And hereupon it is, that in Ladanum are found goats haires. But this hapneth by their saying, in no H other place but among the Nabatæans in the frontiers of Arabia toward Syria. The later moderne writers call the plant which yeeldeth Ladanum, Strobos: and they affirme, That in the forrests of Arabia where these do grow, the boughes are much broken by the brousing of these goats, and so the iuice and liquor stickes to their locks and beards. But the true Ladanum (say they) is peculiar to the Iland Cyprus (for, giue me leaue I pray you, to speake by the way of euery kind of spice and aromaticall drugs, & not strictly to keep & obserue the order & consequence of places where they be found.) And by report, after the same manner as this Ladanum in Arabia, there hangeth and cleaueth to the beards and shagge haired legs and flankes of the goats there also, a certain grease and fattinesse called Oesypus: but, according to them, it must be gotten when they crop off the leaues and floures of the herbe Cistus, in a morning for their I breakefast, at what time as the Iland Cyprus standeth all with a dew. Now when the morning mist is dispatched by the heat of the Sunne, there gathereth dust amongst these moist and wet haires of theirs, and sticketh to: and then the Islanders come and comb from their beards and flanks that which the call Ladanum. Some call that plant in Cyprus whereof it is made, Ledon: and in truth thereof it taketh the name of Ledanum amongst them. For by their report, this herbe hath a fatty substance setling vpon it, and the peasants of the countrey roll the herbs together into balls or rundles, with small cords, and so make vp those little lumpes ye see. By which we may perceiue, that as well in Arabia as Cyprus there be two kinds of Ladanum: the one mixed with earth, and naturall of it selfe: the other brought into balls and artificiall. The earthy is brittle and will crumble: the artificiall is tough, clammy, and will cleaue to ones fin- K gers. Moreouer, it is said that there be certain shrubs in Carmania that beare Ladanum, as also about Egypt, by occasion of plants thither brought by the *Ptolomæs*, kings of Egypt: or as some say it is the Incense tree that bringeth it forth: and is gathered after the manner of a gum issuing out of the tree by incision made in the barke, and is receiued in goat skins. The best Ladanum is worth forty Asses a pound. Sophisticated it is with Myrtle berries, and with other filth of beasts. The good Ladanum indeed, which is of it selfe without other mixture, ought to haue a wild and sauage smell with it, as if it came out of a wilderneſſe. Greenish it is, and drie to see to: but handle it neuer so little, and presently it doth relent and wax soft. Set it on fire, and it burneth bright and cleare, and then it casts a sweet and pleasant odour. But all that is counterfeit and mixed with myrtle berries may soon be knowne, for they will crackle in the L fire. Besides, the true Ladanum hath rather stony grit comming from the rockes, mingled with it, than dust.

In Arabia, the Oliue tree also hath a kind of liquour which issueth out of it: and thereof is compounded a certain soueraign salue named of the Greeks Enhæmon, which is singular good to draw vp wounds and heale them clean. In the maritime parts and sea coasts the said Oliue trees at some tides are ouerflowed with the waues. Yet receiue the Oliue berries no hurt thereby: notwithstanding it be certain, that the sea doth leaue salt vpon the leaues. Thus you see what be the peculiar commodities as touching trees, proper vnto Arabia. True it is that it hath others besides, but because they be found elsewhere, and knowne to be better in other places than in Arabia, I will treat of them in their course and ranke when it commeth. And yet Ara- M bia it selfe, as fruitfull and happy as it is in this behalfe, is wondrous eager in seeking after forreine spices, and sendeth for them into strange countries. So soone are men glutted and haue their fill of their owne: and so greedy and desirous be they of other countries commodities.

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A They ſend therfore as far as the Helymæans, for a tree named Bruta, like to a ſpreding cypres, hauing boughes couered with a whitiſh bark, caſting a pleaſant ſmelling perfume when it burneth, and highly commended in the chronicles and hiſtorie of *Claudius Cæſar* for ſtrange vertues and wonderfull properties. For he writeth, That the Parthians vſe to put the leaues therof in their drinke, for to giue it a good taſt and odoriferous ſmell. The odour thereof reſembleth the Cædar very much: and the perfume is a ſingular remedie againſt the ſtinking and noiſome fumes of other wood. It groweth beyond the great channell of the riuer Tigris, called Paſitigris, vpon the mount Zagrus neare vnto the citie Citaca.

They ſend moreouer to the Carmanians for another tree called Strobos, and all to make ſweet perfumes: but firſt they infuſe the wood thereof in Date-wine, and then burn it. This is an excellent perfume: for it wil fill the whole houſe, riſing vp to the chambers aloft to the arched
B ſeelings of the rouſe, and returning downe againe to the very floore and ground beneath, moſt pleaſantly. But it ſtuffes a mans head, howbeit without any paine or ach at all. With this perfume they procure ſleep to ſick perſons. And for the traffick of this commodity, the merchants meet at the citie Carras, where they keep an ordinarie faire or mart: and from thence they went cuſtomably to Gabba, twentie daies journey off, where they were wont to haue a vent for their merchandiſe, and to make returne: and ſo forward into Paleſtine of Syria. But afterwards (as K. *Iuba* ſaith) they began to go to Charace, and to the kingdom of the Parthians, for the ſame purpoſe. For mine owne part, I thinke rather with *Herodotus*, That the Arabians tranſported theſe odours and ſpices to the Perſians firſt, before that they went therewith either into Syria or Ægypt: and I ground vpon the teſtimonie of *Herodotus*, who affirmeth, That the Arabians paid e-
C uery yeare vnto the KK. of Perſia the weight of a talent in Frankincenſe, for tribute.

Out of Syria they bring back Storax, with the acrimonie and hot ſmell wherof, being burnt vpon their herths, they put by and driue away the loathſomneſſe of their own odors, wherewith they are cloyed: for the Arabians vſe no other fuell at all for their fires; but ſweet wood. As for the Sabæans, they ſeeth their meats in the kitchin, ſome with the wood of the Incenſe tree, and others with that of Myrrhe: inſomuch as both in citie and country their houſes be full of the ſmoke and ſmell thereof, as if it came from the ſacrifice vpon the altars. For to qualifie therfore this ordinarie ſent of Myrrhe and Frankincenſe wherewith they are ſtuffed, they perfume their houſes with Storax, which they burne in Goats skins. Loe, how there is no pleaſure whatſoeuer but breedes lothſomneſſe, if a man continue long to it. The ſame Storax they vſe to burn
E for the chaſing away of Serpents, which in thoſe foreſts of ſweet trees, are moſt rife & common.

Chap. XVIII.

¶ *Of the felicitie of Arabia.*

NEither Cinamon nor Caſia do grow in Arabia, and yet is it named Happie: vnworthie countrey as it is, for that ſurname, in that it taketh it ſelfe beholden to the gods aboue therefore, whereas indeed they haue greater cauſe to thanke the infernal ſpirits beneath. For what hath made Arabia bleſſed, rich, and happie, but the ſuperfluous expenſe thnt men be at, in funerals; employing thoſe ſweet odors to burne the bodies of the dead, which they knew
F by good right were due vnto the gods. And verily it is conſtantly affirmed by them who are acquainted well with the world, and know what belongeth to theſe matters, That there commeth not ſo much Incenſe of one whole yeares increaſe in Saba, as the Emperor *Nero* ſpent in one day, when he burnt the corps of his wife *Poppea*. Caſt then, how many funerals euery yeare after were made throughout the world: what heaps of odors haue been beſtowed in the honor of dead bodies: wheras they offer vnto the gods by crums and graines only. And yet when as men made ſupplication to them with the oblation of a little cake made with ſalt, and meale, and no more; they were no leſſe propitious and merciful, nay they were more gratious and fauourable a great deale, as may appeare by hiſtories. But to returne againe to Arabia, the ſea enricheth it more than the land, by occaſion of the orient pearles that it yeeldeth and ſendeth vnto vs. And ſurely our pleaſures, our delights, and our women together, are ſo coſtly vnto vs, that there is not a
D yeare goeth ouer our heads, but what in pearles, perfumes, and ſilkes; India, the Seres, and that demy-Iſland of Arabia, ſtands vs at the leaſt in an hundred millions of Seſterces, and ſo much fetch they from vs in good money, within the compaſſe of our Empire. But of al this maſſe of

Spice

Spice and Odors, how much (I pray you) commeth to the ſeruice of the cœleſtiall gods, in G
compariſon of that which is burnt at funerals, to the ſpirits infernall?

Chap. XIX.

¶ *Of Cinamon, and the wood thereof called Xylocinnamomum. Alſo of Canell or Caſia.*

FAbulous antiquitie, and the prince of lyers *Herodotus*, haue reported, That in that tract where *Bacchus* was nouriſhed, Cinamon and Canell either fell from the neſts of certaine fowles, and principally of the Phœnix, thorough the weight of the veniſon and fleſh which they had preyed vpon and brought thither whereas they builded in high rockes and trees; or H
elſe was driuen and beaten downe, by arrowes headed with lead. Alſo that Canell or Caſia was gotten from about certaine mariſhes, guarded and kept with a kind of cruell Bats, armed with terrible and dreadfull tallons, and with certain flying Pen-dragons. And all theſe deuiſes were inuented only to enhaunce the price of theſe drugs. And this tale is told another way, namely, That in thoſe parts where Canell and Cinamon grow (which is a country in manner of demy-Iſland, much enuironed with the ſea) by the reflection of the beames of the Noon-ſun, a world of odoriferous ſmells is caſt from thence, in ſuch ſort, that a man may feele the ſent at one time of all the aromaticall drugs as it were met together, and ſending a moſt fragrant and pleaſant ſauour far and neare: and that *Alexander* the Great ſailing with his fleet, by the very ſmell alone diſcouered Arabia a great way into the maine ſea. Lies all, both the one and the other: for Ci- I
namone or Cinamon, call it whether you will, groweth in Æthiopia, a countrey neare vnto the Troglodites, who by mutuall marriages are linked together in great affinity. And in very truth the Æthiopians buy vp all the Cinamon they can of their neighbours, and tranſport it into other ſtrange countries ouer the vaſt Ocean, in ſmal punts or boats, neither ruled with helme and rudder, nor directed to and fro with ores, ne yet caried with ſailes or any ſuch meanes of nauigation: one man alone ſhall ſee you there in a boat, armed and furniſhed with boldneſſe only in ſtead of all, to hazard himſelf and his goods in the ſurging ſea. Theſe fellowes, of all times of the yeare, take the dead of the winter, and then (to chuſe) they will venter to croſſe the ſeas for their voyage, when the Southeaſt winds are aloft & blow luſtily. Theſe winds ſet them forward in a ſtreight and direct courſe thorough the gulfes; and after they haue doubled the point of K
Argeſte, and coaſted along, bring them into the famous port or hauen-towne of the Gebanites, called Ocila. And albeit this voiage be long & dangerous (for the merchants hardly can return in fiue yeres, and many of them miſcarie by the way) yet by report they are nothing diſmaied and daunted therwith, but willingly aduenture ſtill. And being at Ocila, what thinke you doe they exchange for, and wherewith fraight they their veſſels back againe homeward? euen with glaſſes, veſſels of copper and braſſe, fine cloth, buckles, claſpes, and pincers, bracelets and carcanets, with pendant jewels: ſo as a man would verily thinke, that this trafficke were maintained and the voiages enterpriſed vnder the credit & for the pleaſure of womankind eſpecially. Now as touching the plant that bears Cinamon, the talleſt is not aboue 2 cubis high aboue ground, nor the loweſt vnder one hand-breadth or 4 inches: in compaſſe about 4 fingers thicke: immedi- L
atly from the earth it putteth forth twigs, and is full of branches of ſix fingers length, but it looketh as if it were drie and withered: whiles it is greene it yeelds no ſmell at all, and the leaf reſembleth Origan: it loues drought, for in rainie weather it is leſſe fruitfull, and yet it is of this nature, To be cut as a coppis. It will grow verily in plaines, but gladly it would lodge among the thickeſt rough of buſhes, greeues, & briers that are to be found: ſo as men haue much adoe to come by it and to gather it: but neuer is cut or cropped without eſpeciall permiſſion of a certtaine god, which they take to be *Iupiter*; and this patron of the Cinamon tree, they call *Aſſabinus*. To obtaine leaue and licenſe ſo to do, they are glad to ſacrifice the inwards of 44
Kine or Oxen, Goats alſo and Rams: and when they haue all done, yet permitted they be not to go about this buſineſſe either before the Sun riſing, or after his ſetting. Now when theſe twigs M
and branches be cut, the Sacrificer or Prieſt diuides and parts them with a jauelin, and ſets by one portion for the god abouesaid: the reſt doth the merchant put vp and beſtow in paniers for the purpoſe. This manner of diuiſion is otherwiſe reported, namely, That the whole heap is caſt into three parts, whereof the ſunne hath one for his ſhare: but they draw lots firſt for euery

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A one of theſe trees ſeueral bundles or parcels of Cinnamon ſticks; and that which falleth to the Sun is let alone and left behind: but of the own accord it catcheth a light fire and burneth. The beſt Cinamon is thought to be that which growes about the ſlendereſt ſticks, for the length of an hand bredth from the vpper end. The ſecond ſort in goodneſſe is that which is next it, and ſomwhat lower, but it beareth not full ſo much as an hand bredth; and ſo conſequently in order by degrees downward; for the worſt and of leaſt price is that which is neereſt the root, becauſe there is leaſt barke, the chiefe thing required in Cinamon: which is the cauſe that the twigs in the tree top are preferred before the reſt, for that in them there is moſt barke. As for the very wood it ſelfe, which is called Xylocinamonum, there is no reckoning made of it, becauſe of the acrimonie and ſharpeneſſe that it hath, reſembling Origan. A pound thereof is worth 20 deniers. Of Cinamon there be (according to ſome) two kinds; to wit, the whiter and
B the blacker. In times paſt, the white was in more requeſt: but now adaies the black is moſt ſet by: yea, and that of diuers colours is better eſteemed than the white. But the trueſt marke indeed to chuſe the beſt, is to ſee that it be not rough, and that it crumble not quickely if one piece be rubbed againſt another. That which is tender and hath beſides a white bark, is not regarded at all, but condemned for the worſt. Moreouer, this is to be noted, that the King onely of the Gebanites ſetteth the price and ſale of Cinamon: he it is that ſelleth it in open market according as it is by him taxed. In old time a pound of it was ſould for 1000 deniers, and this price afterward roſe higher by one halfe, by reaſon that the forreſts of Cinamon were (as men ſay) burnt by the barbarous Troglodites their neighbors in their furious wrath. Now why it ſhould be ſo deare, no man certainly knows: whether it were through the great rich merchants
C who ingroſſed all into their hands by way of monopoly, or by ſome other caſualtie and chance of fire aforeſaid. But true it is and well knowne by that we find in diuers writers, That there be ſuch hot Southerne windes blowing in thoſe parts, that in Summer many times they ſet the woods on fire. *Veſpaſian Auguſtus* the Emperor was the firſt that dedicated in the Temples of the Capitoll and goddeſſe *Peace*, garlands and chaplets of Cinamon encloſed within fine poliſhed gold. In that temple which the Empreſſe *Auguſta* cauſed to be built in the palace vpon Mount Palatine, for the honor of *Auguſtus Cæſar* late Emperor, her husband, I haue my ſelf ſeen a Cinamon root of great weight, ſet in a cup of gold, which yearely did put forth certain drops which congealed into hard grains. That monument remained there to be ſeen, vntill the Temple and all was conſumed by fire.

E As concerning Caſia or Canell, a plant it is, which groweth neer to the plains from whence the Cinamon comes; but it loueth to liue vpon mountaines, and beareth a bigger and rounder wood in the branches than the Cinamon, and hath a thin rinde or skin, more truly than a bark: the ſlenderer that the ſame is, and lighter, the more reckoning is made of it; clean contrary to the Cinamon. This ſhrub that beareth Caſia groweth to the height of 3 cubits: and 3 colours it carieth; for when it comes vp firſt, for a foot from the root it is white: then as it ſhooteth halfe a foot higher it waxeth red: but as it riſeth farther it is blackiſh: and this part is held for the beſt; and ſo the next to it in a degree lower: but the white is of no regard at all, and therefore they neuer cut the twigs and branches neere the root, nor aboue two cubits in length. And when they haue cut them in this manner, they preſently ſow them vp in greene skinnes of
F four-footed beaſts, killed new and freſh for that purpoſe, that of their corruption and putrefaction there might breed certaine wormes to eat out the wood within the barke, and ſo make it hollow; for the bark is ſo bitter that the worm will not touch it. The neweſt and freſheſt Canell is reputed beſt, and that which hath a moſt delicate ſmell; very hot in the mouth, and burning the tongue, rather than gently warming it without any great biting. Such Canell is of a purple colour, and very light in hand; which ſeeming much to the eye, yet weigheth little: beſides, the pipes be but ſhort, and the outward rinde or coat is not brittle and eaſie to fall in pieces. This elect and choice Canell the barbarous people call Lacta. Another ſort there is named Balſamodes, becauſe it hath a ſmell reſembling Balm: bitter it is in the mouth, & therefore of more vſe in phyſicke; like as the blacke is moſt imployed in ſweet perfumes and oyntments. There is no drugs that varieth more in price than the Canell: for whereas the beſt will coſt fifty deniers Roman a pound; all the reſt a man may buy for fiue.

Chap. XX.

¶ *Of Iſocinnamon, Cancamum, and Tarum.*

THe Huckſters and regraters that buy and ſell againe haue another kinde, which they call Daphnoides, and they ſyrname it Iſo-cinnamon: and ſurely they hold it at 300 deniers a pound. Mingled it is and made counterfeit with Storax; with the ſmalleſt and tendreſt branches alſo of Lawrell, for the likeneſſe it hath to the bark therof. Moreouer, it is ſet & planted in our part of the world here in Italy, alſo in the vtmoſt marches and confines of our Empire, along where the riuer Rhine runs, it liueth, being ſet neere vnto Bee-hiues. Howbeit, becauſe it wants the parching heate of the Sun, it is nothing ſo deepe coloured; and thereupon alſo it comes ſhort of the ſmell that the other hath. Out of the regions which bound on thoſe parts where Caſia and Cinamon groweth, there are brought ouer vnto vs two other ſpices, called Concamum and Tarum: but by the way of the Troglodite Nabathæans, who onely of the antient Nabathæans there ſetled and remained,

Chap. XXI.

¶ *Of Serichatum, Gabalium, and Myrobalanum,* [i. *Ben.*]

IN the ſame country, the Arabians come charged alſo with Serichatum and Gabalium: but they make an hand with it among themſelues, and ſpend it quite: in ſuch ſort, as their drugs are known only in name to vs in this part of the world, albeit they grow together with Cinamon and Caſia. And yet otherwhiles there is Serichatum brought vnto vs, which ſome perfumers vſe to put into the compoſition of ointments. And a pound of it is commonly exchanged for ſix deniers.

As for Myrobalanon, [*i. Behen*] it growes ordinarily in the region of the Troglodites, about Thebais, and that part of Arabia which diuideth Iury from Egypt: a drug that Nature hath brought forth only for ointment, as the very name giueth it. Whereby it appeareth alſo, that it is a very nut of a certain tree, which beareth leaues like to Heliotropium: whereof we wil ſpeak among other herbs. The fruit that this plant beareth is about the bignes of a filberd nut. That which growes in Arabia, and yet called Syriaca, is white: but contrariwiſe that about Thebais is black. The former of theſe two is commended for the goodneſſe of the oile which is preſſed out of it: but the Thebaick Ben is in greater requeſt for the plenty that it yeeldeth. As for the Trogloditick, it is the worſt of all, and the cheapeſt. And yet ſome there be that prefer the Æthiopian Ben before all other. The Nut and fruit thereof is black and fat, with a ſmal and ſlender kernell within: howbeit the liquor preſſed forth of it is more odoriferous: and it groweth in champian countries and plains. It is affirmed moreouer, that the Egyptian Ben is more oleous and fat, hauing a thicker ſhell, and the ſame red. And albeit that it grow in mariſh ground, yet is it a ſhorter plant and more dry than the others. But contrariwiſe they ſay, that the Arabick is green of colour, and thinner in ſubſtance: and for that it groweth vpon the mountaines it is more maſſie and weighty. But the beſt ſimply by many degrees, is that Ben which is called Petræa, comming from about the town aboueſaid; with a blackiſh rind, & white kernel. Now the Perfumers and Apothecaries, do preſſe only the husks and ſhels; but the Phyſitians extract an oile out of the very kernels, which as they ſtamp, they poure hot water euer and anon vnto it, by little and little.

Chap. XXII.

¶ *Of Phœnicobalanus, Calamus odoratus, and Squinanth.*

THe Date in Egypt called Adipſos hath the like vſe in ointments, and is next in requeſt for ſuch odoriferous compoſitions, as the Myrabalanus, or Ben aforeſaid. Green it is in colour, it ſmelleth like vnto a Quince, and hath no wooddy ſtone within. But to ſerue for thoſe purpoſes aboue recited, it muſt be gathered ſomewhat before it beginneth to ripen. That which is left behinde vngathered is called Phœnicobalanus. This waxeth blacke, and maketh them drunke that eat thereof. As for Myrobalanus, or Ben, it is worth two Romane deniers a pound.

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A pound. The occupiers and ſhopkeepers call the very ſetling and grounds of their ointment and compoſitions, by the name of Myrobalanon.

Moreouer, within Arabia there growes alſo the ſweet Calamus, which is common to the Indians & Syrians likewiſe. That of Syria paſſes all the reſt, and comes vp in a tract of that countrey, diſtant from the coaſt of our Sea fiftie ſtadia. Between mount Libanon, and another mountain of no account [for it is not Antilibanon as ſome haue thought] in a little vale beneath neer vnto a lake, the marſhes and flats whereof are drie in Summer for the ſpace of thirtie ſtadia, there grow both ſweet Calamus, and alſo Sqinanth or Iuncus Odoratus, [*i.* the Sweet-ruſh.] For let vs ſpeak alſo in this place of the ſaid Scænanth: and although it be but a ruſh, and another booke is appointed for the treatiſe and hiſtorie of ſuch Hearbes, yet becauſe we handle the
B *Species* that go to the compoſition of ſweet Perfumes, Pomanders, & ointments, I cannot paſſe it ouer. Well then, neither the one nor the other of theſe twaine, differ in ſight from the reſt of that kind. But Calamus is the better of the twaine, and hath a more pleaſant ſmell; for a man may wind the ſent of it preſently a great way off: beſides, it is ſofter in hand: and better is that which is leſſe brittle, and breaketh in long ſpils and ſhiuers, rather than knappeth off like a Radiſh root. Within the pipe of this reed, there lieth a certaine matter like vnto a Spiders-web, which the Apothecaries call the flower of it, and that Calamus is counted better, which hath more in it of theſe floures. There is another mark alſo of good Calamus, namely, if it be black: and yet in ſome place, they make no reckoning of the blacke Calamus. But in a word, the ſhorter and thicker that the reed is, the better is the Calamus: and the ſame is more ſupple and pliable when a man would breake it. As for Calamus, it is worth eleuen deniers the pound: but
C Squinanth is ſold for fifteen. Moreouer, ſome ſay that there is a ſweet ruſh or Squinanth found in Campania. And now are we gone from thoſe lands that coaſt vpon the deep ocean, and come to thoſe that confront and lie vpon our Mediteranean ſeas.

Chap. XXIII.

¶ *Of Hammoniacum, and Spagnum.*

TO begin withall, in the ſands of thoſe parts of Affrick, which lie vnder Æthiopia, there is a liquor diſtilleth, called in Greeke *Hammoniacum*, of *Hammon*, which ſignifieth Sand, and
D the Oracle of *Iupiter Hammon*, for neare vnto the temple where the ſaid Oracle returnes Anſwers, there grow certaine trees within the ſands, which they call Metopia, from which, Hammoniacum droppeth in manner of a roſin or gum: and of it there be two kinds: the one is named Thrauſton, like vnto the male or better Frankincenſe, and is moſt eſteemed: the other is fat and full of roſin, and they cal it Phyrama. The manner to ſophiſticate Hammoniacum, is with ſand, to make men beleeue that it grew among the ſands, and gathered it in the growing and comming vp: and therefore the good Ammoniacum is known when it is in leaſt morcels, and thoſe very cleare. The price of the beſt is after fortie aſſes the pound.

Beneath theſe quarters, and within the prouince Cyrenaica, there is found a paſſing ſweet Moſſe, called Sphagnos; and of ſome Bryon [aromaticum.] Of all ſuch Moſſes, this is thought
E to be the beſt. Next vnto it, is that of Cyprus: and in a third ranke, the moſſe which groweth in Phœnicia. There is ſuch Moſſe (by report) in Ægypt, and likewiſe in France: whereof, for my part, I make no doubt: for they be nothing elſe but the grey and whitiſh haires that we ſee hang to trees, and about the oke eſpecially, called commonly Moſſe; but only that theſe be ſweet and odoriferous. The cheife praiſe is of the whiteſt and lighteſt: a ſecond commendation belongs to that which is red: but the blacke is worth nothing, neither is any reckoning made of that which groweth in Iſlands and rockes, and (to conclude) all thoſe that ſmell not as Moſſe ſhould, bur rather like to Dates, or the plants whereof they come.

Chap. XXIIII.

¶ *Of Cyprus, Aſpalathus, and Marum.*

THere is a tree in Ægypt called Cypros, bearing leaues like to Ziziphus or the Iujube tree, and a grain reſembling Coriander ſeed, with a white floure very pleaſant and ſweet. Theſe floures be ſteeped and ſodden in common oile: out of which is afterwards preſſed medi-

cinable oile called Cyprus,or Cyprinum. A pound of it will coſt fiue Roman deniers. The beſt comes from that tree which growes vpon the bankes of that riuer Nilus about Canopus,which is the firſt mouth where it diſcharges it ſelfe into the ſea. The ſecond in goodneſſe groweth about Aſcalon a citie of Iudæa. The third in worth for ſmell and ſweetnes, is had from the Iſle Cyprus. Some take this Cyprus to be the plant,which in Italy is called Liguſtrum. [*i.* Priuet.] G

In the ſame tract groweth Aſpalathus: a white thornie ſhrub it is, of the bigneſſe of a ſmall tree,and beareth a floure reſembling a roſe. The root of it is in requeſt for the making of ſweet perfumes and ointments. There goes a common ſpeech, That euery plant ouer which the rainbow is ſeen bent,will caſt the ſame ſent that Aſpalathus doth: but if it chance that the rainbow ſettle ouer Aſpalathus,then it wil yeeld a ſweet ſauor incomparable, and ſuch as cannot be expreſſed. Some call it Eryſiceptrum, others Sceptrum, ſimply. The good Aſpalathus is red,or rather of a fierie colour,maſſie and heauie in hand,with a ſmell of Caſtoreum. It is ſold for fifteene deniers the pound. H

In Ægypt likewiſe there groweth Marum, but it is not ſo good as that of Lydia; for it hath greater leaues,and thoſe ſpotted with ſundry colours; wheras the other hath little ſhort leaues, but they ſmell paſſing ſweet.

Chap. XXV.

¶ *Of Baulme, as well the liquor thereof called Opobalſamum, as the wood named Xylobalſamum. Alſo of Storax* [*Calamita*] *and Galbanum.*

BVt the Baulme is that ſweet and odoriferous liquor that goes beyond all others. The tree that yeelds it, Nature hath beſtowed only vpon the land of Iurie. In old time it was not to be found but in two parkes or hortyards, belonging both to the kings of Iurie, whereof the one contained not aboue twentie jugera or acres, the other not ſo much. The Emperors *Veſpaſians*, both father and ſon, brought one of thoſe little Balm trees to Rome, and ſhewed it openly to the whole citie. *Pompey* the Great likewiſe made proud boaſt and vaunted much, when hee ſaid, That trees alſo by him were borne in triumph. Now this Balme tree ſerueth and doth homage, yea is tributarie with the whole nation where it groweth: but it is of a nature far different from that which both our Latine writers, & thoſe alſo of forrain countries, haue deſcribed: for more like it is to a vine than a Myrtle. It is planted by ſlips and branches, as the vine: and of late bound and tied alſo like a young vine. It ſpreadeth and filleth the hills where it is ſet, after the manner of thoſe vines in vineyards, which without any helpe of props, ſupport and beare vp themſelues. Cut likewiſe it is, pruned, and cleanſed, from thoſe ſuperfluous ſhoots that it puts out. It loueth to be well husbanded, digged about, raked, and trimmed: and with this ordering, growes apace, ſo as within three yeres it is fruitfull. It beares a leafe much like to Rue, and continueth with a greene head all the yeare long. At the ſacking and deſtruction of Ieruſalem, the Iewes in a furious rage both againſt their owne perſons & their goods, would needs haue wreaked their anger and been reuenged on the poore Baulme trees, and haue ſpoiled them for euer: but the Romans on the other ſide ſtood in their defence, ſo as about this very plant, there was a cruell battell fought. But now theſe trees are vnited vnto the domaine of our Empire: and by order from the ſtate, are ſet and maintained: ſo as neuer at any time before, were they more in number, or taller of growth: howbeit the higheſt exceeds not two cubits. And three ſorts there be of them. The firſt hath ſmall branches and ſmall like haires; whereupon it is called Eutheriſtos, [*i.* eaſie to be cut or lopt.] The ſecond, rough and rugged to ſee to, bowing and bending forward, full of twigs and branches; ſweeter alſo than the other to ſmell to, and this they name Trachy in Greeke, which is as much to ſay as Rough. The third they call Eumeces, becauſe it is higher than the reſt, and it hath beſides a ſmooth barke: this in goodneſſe is the ſecond; and the firſt, named Eutheriſtos, is the worſt. The fruit or ſeed that the Baulme tree beareth reſembleth wine in taſt, of colour red, and it is not without a certaine veine of fat. The worſt part of the graine or fruit, is the lighter in weight, and the greener. It is clad with boughes and leaues thicker than the Myrtle. Now, for to draw the precious liquor out of it called Baulme, inciſion ought to be made in the barke, with glaſſe-kniues, with ſharp flint ſtones, or lancets of bones. For it may not abide, that any inſtrument of yron or ſteele ſhould come neare vnto the quicke; it dieth preſently if you touch the heart of it therewith: and yet the ſame will ſuffer all I K L M

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A ſuperfluous boughes and branches to be cut off and pruned. But he that launceth and maketh inciſion, muſt guide and gage his hand very artificially in the cutting, that he go not too deep, nor prerce a jot farther than the barke. This feat being wiought, there iſſues out of the wound a juice or liquor, which they call Opobalſamum, of an excellent and ſurpaſſing ſweet ſmell: but it comes forth by ſmall drops: and as it thus weepes, the teares ought to be receiued in wooll, and then afterwards it is gathered and laid vp in ſmall hornes. Out of which it is poured into earthen pots that neuer were occupied. This Baulme when it is freſh and new, may be likened to Oile, in thickeneſſe and conſiſtence, but in colour it is white; in time it growes reddiſh, and hard withall, howbeit, cleare and tranſparent, that a man may ſee thorough it. During the wars that *Alexander* the Great waged in Iurie, it was ordinarie in a Summers day to gather one ſpoonefull of this liquor, and that was all that might be done. And when the ſeaſon ſerued beſt
B for this purpoſe, and that it was counted a plentifull yere, the greater hort-yard or parke of the kings aboue ſaid, neuer yeeldeth in al aboue 6 gallons, and the leſſer but one: ſold it was commonly for the double weight in ſiluer. But at this day, euery tree that may beare it, and hath a larger veine to abide inciſion, is launced thrice in a ſummer: and after that, it is lopt and ſhread. And thoſe cuttings are good chaffer, and ſold very well to the merchant. For being thus lopped once in 5 yeares at the fartheſt, they yeeld in branches for wood only, eight hundred deniers. This is called Xylobalſamum, and it goes into odoriferous compoſitions: for in default of the right Baulme liquor, the Apothecaries make a ſhift to ſerue their turne with the wood alone, called Xylobalſamum. As for the very bark, it enters alſo into many medicinable confections:
C no maruell therefore if it carrie ſome price. But it is the liquor only that is ſo precious, the liquor it is which yeelds that moſt fragrant ſmel; then followes the grain or fruit in a ſecond degree, the bark in a third, and the wood as it is laſt, ſo it hath leaſt grace and credit. Of the wood, the beſt is that which in color reſembles Box, and giues ſweeteſt ſent. But of the fruit, the greateſt graines and the weightieſt, be moſt eſteemed; ſuch bite at the tongues end, and be hote in the mouth. Howbeit, this is adulterated with the ſeed of * Hypericum, that comes from the citie Petra. But the deceit is ſoone detected and found, for that ſeed is not ſo big, ſo maſſie and full, nor ſo long as the true graine of Baulme: beſides, it hath but a dull ſauor or none at all, and in taſt reſembles pepper. The liquor is knowne to be right or good, if it be oileous and fat, thin, and ſheere, ſomwhat inclining to red; and, if in rubbing betweene your fingers, it renders a plea-
D ſant ſauour. The white Baulme may be raunged in a ſecond place of goodneſſe: the greene and the thicke is not ſo good as it: but the blacke is worſt. For Baulme as well as Oile, will be ſtale and worſe for the age, if it be kept too long. This is moreouer obſerued, that in euery inciſion, that which flowed forth before the ſeed is ripe, is moſt precious. Ouer and beſides, this Baulme may be ſophiſticated with the owne ſeed: and hardly can this couſenage be found out, but that it hath a bitterer taſt than that which is naturall. For the good Baulme ſhould be pleaſant and delicat in the mouth, not ſoure nor tart at all: only in ſmel it ſhould haue a harſh verdeur. Corrupted it may be otherwiſe, with Oile of Roſes, of Cyperus, of Lentiske, or Maſticke, of Ben, of Terebinth, and Myrtles, alſo with Roſin, Galbanum, and Cyprian waxe, as occaſion ſerues, and according as men liſt to ſophiſticat it. But the greateſt knauerie of al, is to mingle gum among
E it: for being ſo handled, it will ſticke and cleaue to the palme or inſide of a mans hand, nay, it will ſinke in water to the bottome, which are two chiefe properties of the right Balme. For the very pure and perfect Baulme ought to cleaue too: but when it hath gum mingled among, ſtick it will likewiſe, but it will gather ſoon a brittle rouſe or cruſt vpon it, which quickly cracks and breaks. Alſo this ſophiſtication is found out by the taſt. But in caſe there be any trumperie of Wax or Roſin, the fire wil ſoone bewray it; for when it burnes, it will yeeld a more muddie and blacke flame. As for the ſophiſtication made with honie, it may ſoon be knowne: for preſently the flies will take it, and gather thicke about it. Ouer and beſides, put a drop of pure Baulme into warme water, it will ſettle to the bottom of the veſſell, and congeale: but contrariwiſe, the
F counterfeit Baulme, will flote and ſwim aboue like oile. Againe, if it haue Galbanum in it, yee ſhall ſee a white ſtreake or circle round about it. To conclude, would you know in a word the right Baulme indeed? It will turne milke, and cruddle it: and it wil not ſtain a cloth. In ſumme, there is no merchandiſe and commodity in the world, wherin there is practiſed more fraud and deceit, than in the trafficke of Baulme. For a Sextare or wine quart of Baulme will coſt a thouſand Roman deniers by retaile, which was bought for three hundred and no more at the hands

* i. S. Iohns wort.

of the factors vnder the Emperor, who ſold it firſt. Whereby a man may ſee how gainfull it is G
to increaſe this liquor by ſophiſtications. As for the Baulme wood Xylobalſamum, the price of it is ſix deniers a pound.

Now it remaines to ſpeake of Storax [Calamita] comming out of that part of Syria, which aboue Phœnice, confronts and borders next to Iurie: and namely, about Gabala, Marathus and the mount Caſius in Seleucia. The tree that yeeldeth this gum or liquor, is alſo named Styrax, like vnto a Quince tree. It hath firſt a rawiſh auſtere taſt, which afterwards turnes to be more ſweet and pleaſant. There is found within a reſemblance of canes and reeds, full of this iuice. Howbeit, about the riſing of the Dog ſtar there be certain winged wormes ſettle vpon the ſaid reeds, creepe in and eat away the marrow (as it were) which lay within: ſo as a man ſhall find nought left behind but a mouldy duſt or rotten powder, good for nothing. Next to this Storax of Syria, great account is made of that which commeth out of Piſidia, from Sidon, Cypres, and H
Cilicia: but leaſt reckoning is made of that which Candie ſendeth vs. That which is brought from the mount Amanus in Syria, is good for the Phyſicians, but better for the perfumers and confectioners. From what nation ſoeuer it comes, the beſt Storax is that which is red, ſomewhat glutinous beſides by reaſon of the fattines. The worſt is that which hath no conſiſtence and tenacitie, but crumbles like bran, and is ſo mouldie that it is ouergrowne with a white hoarie moſſe. The pedlers and ſuch like petie merchants can skill how to ſophiſticate this drug alſo, with the roſin of cedar and gum: otherwhiles alſo with honie, or bitter almonds. But al theſe deceits are known by the taſt. The price of the beſt is 19 deniers a pound. There is a Storax beſides which Pamphylia doth yeeld, but drier it is, and nothiug ſo full of moiſture. I

Moreouer, we haue from Syria out of the ſame mountain Amanus, another kind of gum called Galbanum, iſſuing out of an hearbe like Fennell-geant, which ſome call by the name of the ſaid Roſin, others Stagonitis. The beſt Galbanum, and which is moſt ſet by, is griſtly and cleare withall, reſembling Hammoniacum, without any ſpils of wood in it. For in that wiſe the hucksters vſe to deceiue chapmen by mingling beanes with it, or the gum Sagapenum. The right Galbanum, if you burn it, chaſeth away Serpents with the ſtrong perfume or ſmoke thereof. It is ſold for fiue deniers the pound: and is vſed only in Phyſicke for medicines.

Chap. XXVI.

¶ *Of Panaces, Spondylium, and Malobathrum.* K

THe ſame perfumers ſeeke alſo into the ſame Syria for Panaces growing there, and yet it is to be found alſo about Pſophis, a citie in Arcadia; and the fountaines from whence floweth the riuer Erymanthus: yea, and in Affricke beſides, and Macedonie. This Panax is an hearbe with a tall ſtalke and round tuft in the head like Fennell, and yet it is a plant by it ſelfe, growing to the height of fiue cubits. At the firſt it putteth out foure leaues, and afterwards ſix. They be very large and round withall, lying vpon the ground: but toward the top they reſemble the leaues of an Oliue: it beareth ſeed in the head hanging within certaine round tufts, as doth the Ferula. Out of the ſtalk of this hearb there there is drawn a liquor by way of inciſion, made in harueſt time: and likewiſe out of the root in Autumne, or the fall of the leaf. And this is called Opopanax. The beſt lookes white when it is gathered and congealed. The next in worth and L
weight, is that which is yellow. As for the blacke it is of no account. The berter Opoponax coſteth not aboue two Aſſes a pound.

Another hearbe there is of this Fennell kind, namely Spondylium, ſomwhat different from the former, but in leaues only; becauſe they be leſſe than thoſe of Panax, and diuided after the manner of the Plane leaues. This Spondylium groweth no where but in cold and ſhadowie places. It carrieth a fruit or graine called alſo Spondylium, which reſembleth the forme of Sil or Siler montanum, and ſerueth for no vſe but Phyſick.

We are beholden moreouer to Syria for Malobathrum. This is a tree that beares leaues rolled vp round together, and ſeeming to the eie withered. Out of which there is drawne and preſſed an Oile for perfumers to vſe. Ægypt is more fruitfull of this hearbe than Syria. And yet M
there comes a better kind therof from India than both thoſe countries. It is ſaid, that it grows there in meeres and ſtanding waters ſwimming aloft, after the manner of Fen-lentils or Duckes meat, more odoriferous than Saffron: enclining to a blacke colour: rough in handling, & in taſt

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A ſalt or brackiſh. The white is not ſo well eſteemed. It wil ſoon be mouldie when it is ſtale. The relliſh thereof ought to reſemble Nardus at the tongues end. The perfume or ſmell that *Malobathrum or the leafe yeeldeth when it is boiled in wine, paſſeth all others. It is ſtrange and monſtrous, which is obſerued in the price: for it hath riſen from one denier to 300 a pound, whereas the Oile it ſelfe doth coſt 60. *Folium.

Chap. XXVII.

¶ *Of Oile Olive, made of greene Oliues, likewiſe of Grape Veriuice.*

FOr the mixture and compoſition of ointments, the Oile of vnripe Oliues and Veriuice is very good: and verily, made it is in two kinds, & after two ſorts, to wit, of the Oliue, and the
B Vine. Of the Oliues, if yee would haue good, they ought to bee preſſed whiles they be yet white; for if they turn colour once and be blackiſh, the worſe is the Oyle or Veriuice that commeth thereof. And ſuch kind of Oliues be called Drupæ, namely, before they be fully ripe and good to eat, and yet haue loſt their colour. And herein is the difference, for that the oyle of this later ſort is green, the other is white. Now as for grape Verjuice, it ſhould be made of the Vine Pſythia, or Amminea, and before the canicular daies, when as the grapes bee but new knit, and no bigger than the Cich-peaſe. The grapes (I ſay) muſt be gathered for this purpoſe, at the beginning before they change colour, & the juice thereof ought then to be taken. Then ſhould the Verjuice that comes from it, be ſunned: and heed muſt be taken in any caſe, that no dews by night do catch it, and therefore it would ſtand in couvert. Now when this iuice or verjuice is
C gathered, it is put vp in earthen pots: and otherwhiles kept alſo in veſſels of copper. The beſt grape verjuice, is red, ſharp, and ſoure in taſte, dry withall and ſcyptick. A pound or a pinte of ſuch verjuice is worth ſix deniers. It may be made in another ſort: namely, by punning and ſtamping vnripe grapes in morters: drying it afterwards in the Sunne, and ſo made vp into certain rolls or trochiſks.

Chap. XXVIII.

¶ *Of Bryon and Oenanthe: of the tree Elate, and Cinnamon Cariopus.*

THe moſſe of the white Poplar or Aſp, which is reputed as the grape therof, is vſed likewiſe
E in theſe odoriferous and ſweet compoſitions. The beſt grows about Cnidos or Caria, in thirſty, dry, and rough places. A ſecond ſort is that which is found vpon the Cedar of Lycia. To this pertaineth Oenanthæ, which is no more but the grapes of the wild vine called Labruſca. Gathered it is when it floureth, that is to ſay, when it ſmels beſt. It is dried in the ſhade vpon a linnen ſheet lying vnder it, and then put vp into little barrels. The chiefe commeth from Parapotamia: the ſecond from Antiochia and Laodicea in Syria: and a third ſort from the mountaines of Media: and this is beſt for medicine. Some prefer before all theſe, that which groweth in the Iſland Cyprus. As for that which is made in Africke, it is meet for Phyſitions onely, and is called Maſſaris. Now, the better euer is that which they gather from the white wild vine, than from the black. Moreouer, there is another tree which ſerues for perfumes: ſome call it Elate, and we Abies [*i.* the Fir] others Palma or the Date, and ſome againe Spathe. That
F which grows about the ſands of Africk, where *Iupiter Hammons* temple ſtandeth, is highly commended aboue the reſt: and after it, that in Ægypt. Next thereto is the Syrian. This tree is odoriferous when it grows in dry places only: it hath in it a certaine fat liquor or Roſin, and entreth into compoſitions of ſweet ointments, for to correct and mitigate the other oile. In Syria there is a drug which they call Cinnamum Caryopon. A iuice or oyle this is, preſſed out of a certain nut. This Cinnamon differeth much in forme from the ſtickes of true Cinnamon indeed aboue ſpecified: although in ſmell it commeth neare vnto it. A pound thereof is worth to be bought and ſold 40 Aſſes, [*i.* 2 *ſhil.* 6. *d.*]

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THE THIRTEENTH BOOK OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

H

The Proeme.

THus far forth the woods and forreſts are of eſtimation, in regard of the pleaſure they doe vnto vs for perfumes and ſweet odors: and in truth, if we conſider duly theſe aromaticall plants, admirable they be euerie one in their kinde, euen as they be weighed apart by themſelues alone. But ſuch is the riot and ſuperfluitie of man, that being not content with that perfection of Nature I *ſhining in thoſe plants and trees aboue rehearſed, he hath not ceaſed to mingle and compound them, and ſo of them all together for to make one confuſed ſmell: and thus were our ſweet ointments and precious perfumes deuiſed, whereof we purpoſe to write in this booke next inſuing.*

CHAP. I.

¶ *Of Ointments, Perfumes, and their compoſitions: and when they came into knowledge firſt at Rome.*

K

AS touching the inuention of Ointments, it is not well knowne who was the firſt that deuiſed them. Certaine it is, that during the raigne of the Troianes, and whileſt Ilium ſtood, men knew not what they meant: nay, they vſed not ſo much as Incenſe in Sacrifice and diuine ſeruice. The ſume and ſmoke of the Cedar and the Citron trees onely, the old Troianes were acquainted with when they offered ſacrifice: their fuming and walming ſteame (more truly I may ſo terme it, than any odoriferous perfume) they vſed: which they might eaſily come by, ſince they were plants growing among them, and ſo familiar; notwithſtanding they had found out the iuice of Roſes, wherwith yet they would not correct the foreſaid ſtrong fumes in thoſe daies; for that alſo was knowne to be a commendable qualitie of Oile Roſate. But the truth is, The Perſians L
and none but they ought to be reputed the inuentors of precious perfumes and odoriferous ointments. For they to palliate and hide the ranke and ſtinking breath which commeth by their ſurfet and exceſſe of meats and drinkes, are forced to helpe themſelues by ſome artificiall meanes, and therefore goe euermore all to be perfumed and greaſed with ſweet ointments. And verily, ſo farre as euer I could finde by reading hiſtories; the firſt prince that ſet ſuch ſtore by coſtly perfumes, was King *Darius*, among whoſe coffers (after that *Alexander* the Great had defeated him and woon his campe) there was found with other roiall furniture of his, a fine caſket full of perfumes and coſtly ointments. But afterwards they grew into ſo good credit euen among vs, that they were admitted into the ranke of the principal pleaſures, the moſt commendable delights, and the honeſteſt comforts of this life. And more than that, men proceeded ſo M
far, as therewith to honour the dead: as if by right that duty belonged to them. And therefore it ſhall not be amiſſe to diſcourſe of this theame more at large. Wherein I muſt aduertiſe the Reader by the way, that for the preſent I will but only name thoſe ingredients that go into the compoſition of theſe ointments: ſuch I mean as came not from herbs and trees, ſhrubs & plants; reſeruing the treatiſe of their natures, vertues, and properties, vnto their due place.

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A Firſt and formoſt therefore, all perfumes took their names either of the country where they were compounded, or of the liquors that went to their making, or of the plants that yeelded the ſimples and the drugs: or els of the cauſes and occaſions proper and peculiar vnto them. And here it would be noted alſo principally, that the ſame ointments were not alwaies in like credit and eſtimation: but one robbed another of their honor and worth: inſomuch, as many times vpon ſundry occaſions, that which was lately in requeſt and price, anon gaue place to a new and later inuention. At the firſt in antient time, the beſt ointments were thought to come from Delos; but afterwards, thoſe that were brought out of Ægypt: no talke then but of Mendeſium, compounded at Mendes, a city there. And this varietie and alteration was not occaſioned alwaies by the diuerſity of compoſition and mixture, but otherwhiles by reaſon of good or bad drugs: for ye ſhould haue the ſame kind of liquors and oiles better in this country for one pur-
B poſe, and in that for another: yea, and that which in ſome place was right and true, the ſame did degenerat and grow to a baſtard nature, if you changed once the region: for a long time, the oile or ointment of Iris or the Floure-de-luce root made at Corinth, was in much requeſt, and highly praiſed: but afterwards that of Cizicum won the name and credit, for the artificiall compoſition thereof. Semblably, the oile of Roſes that came from Phaſelus, was greatly called for: but in proceſſe of time, Naples, Capua, and Præneſte, ſtole that honor and glory from thence in that behalfe. The ointment of Saffron, confected at Soli in Cilicia, imported for a good while and carried the praiſe alone: but ſoone after, that of Rhodes was euery mans money. The oile drawne out of the floures of the wild vine in Cyprus, bare the name once; but afterwards that of Egypt was preferred before it: & in the end the Adramyttians gained the credite and com-
C mendation from both places, for the perfect and abſolute confection thereof. The ointment made of Marjoram, gaue credit for a certain time to the Iſle Cos: but not long after, their name was greater for another made of Quinces. As for the oile Cyprinum, which came of Cypros, the beſt was thought to be made in Cyprus: but afterwards there was a better ſuppoſed to be in Egypt: where the ointments Metopium and Mendeſium all of a ſudden were better accepted than all the reſt. It was not long firſt, but that Phœnice put Ægypt by that credit for thoſe two ſingular compoſitions, & left the Ægyptians the name alone for the foreſaid oyle Cyprinum. The Athenians were renowned for their antient Panathenaicum, & euer held their own. There was in old time a notable compoſition named Pardalium, made in Tharſus: but now the mixture & making thereof is quite loſt. The ointment likewiſe Narciſſimum, where the floure of
E the Daffodil was the Baſis, is now forgotten, and no more made of it. The manner of compounding all theſe ointments, was twofold, to wit, either of the iuice & liquor, or els of the very ſubſtance & body of the ſimples. The former ſort reſemble rather the nature of oiles: but the later of ointments. And theſe the Greeks cal either Stymmata, which yeeld the conſiſtence & thicknes to ointments; or Hedyſmata, which ſerue to aromatize and giue a compleat perfection to them. There is a third thing between theſe, requiſit alſo to the full making of theſe ſweet ointments, namely, the colour: although many take no regard at all of it. And for this purpoſe, the perfumers put into their compoſitions Cinnabaris [*i.* Vermillion or Sanguis Draconis] and Orcanet. The ſalt moreouer that is ſtrewed among, ſerueth to repreſſe and correct the nature of the oile that vniteth all the ingredients beſides. But thoſe that haue the root of Orcanet in them,
F need no ſalt at all to be put in beſides. As for Roſin and Gum, they are mingled with the reſt to incorporat the drugs and ſpices, and to keep in the ſweet odour therof, which otherwiſe would euaporate and ſoon be loſt. We are to preſume by all likelyhood, that the firſt compoſition of ointments and ſooneſt made, was of the odoriferous moſſe Bryon, and the oile of Ben onely: whereof we haue written in the former book. Then came in place a more compound ointment called Mendeſium, and that receiued Roſin alſo to the foreſaid oile of Ben. And more than that, another beſides named Metopium. Now is this Metopium an oile compounded, which the Egyptians do preſſe out firſt of bitter Almonds, but they added thereto for to incorporate the better, grape Veriuice: and the ingredients beſides, were Cardamanum, Squinanth, ſweet Calamus, Hony, Wine, Myrrhe, the graines or ſeeds of Baulme, Galbanum, Roſine, and Terpintine. One of the meaneſt and baſeſt ointments now adaies, and therefore thought to be as antient as any other, is that which conſiſts of the oile of Myrtles, ſweet Calamus, Cypreſſe, and Cypros, [Squinanth] Lentiske, and the rind of the Pomegranat. But I would thinke verily, that Oyntments came to bee ſo diuulged and common euery where abroad, by meanes of Roſes moſt

of

of all: conſidering, that nothing grows more rife in all places. Which was the cauſe, that the G
ſimple mixture of oile Roſate, without any ſophiſtication beſides, continued for a long time,
hauing the addition of grape Verjuice, the floure of Roſes, the Saffron, Cinnabaris, or Sang-
Dragon, Calamus, Hony, Squinanth, the floure of ſalt called Sperma-ceti, or els in lieu therof
the root of Orcanet, & Wine. The oile or ointment of Saffron was after the ſame ſort made, by
putting thereto Cinnabaris, Orcanet, & wine. Semblably is to be ſaid of the oile of the ſweet
leſſe Maioran, wherin was mixed grape verjuice and ſweet Calamus. This compoſition was ſin-
* Samſuchus. gularly wel made in Cyprus & at Mitylene, where great ſtore of ſweet *Majoran grows. There
be other oiles likewiſe which are not of ſo good reckoning, namely, of Myrtles, & Bayes, which
receiue a mixture with the addition of Majoran, Lillies, Feni-greek, Myrrhe, Caſia, Spikenard,
Squinanth, & Cinnamon. Moreouer, of great quinces & the leſſe called Mala Struthea, is made H
the oile Melinum, whereof we wil ſpeak hereafter: which the perfumers vſe in their ointments,
by putting thereto grape-verjuice, the oile Cyprinum, the oile Seſamine, Baulme, Squinanth,
* Suſinum. Caſia, & Sothernwood. As touching the oile of *Lillies, which is the moſt ſubtil and thinneſt
of all other, it is made of Lillies, Ben, ſweet Calamus, Hony, Cinnamon, Saffron, Myrrhe, & Aſ-
palathus. Alſo the foreſaid oile Cyprinum is made of the floures of Cypros, of Veriuice, Car-
damonum, Calamus, Aſpalathus, & Sothernwood. Some there be that put moreouer vnto this
oile, Myrrhe & Panace. The Sidonians are excellent at the making of this compoſition: & after
them the Egyptians, ſo that they put not in Seſamium oile: for it wil laſt & keep good ful four
yeres: & if it begin to loſe the ſmel, it is quickned and refreſhed again with Cinnamon. Now
* Telinum. as touching the ointment of *Feni-greek, it is made of freſh oile, Cyperus, Calamus, Melilot, Fe- I
ni-greeke, Hony, oile of Quinces, the greater & the leſſe ſweet Marioram. This was of higheſt
reputation in the daies of *Menander* the comicall poet. But long after there ſucceeded into the
ſame place of credit, the ointment Megalium: ſo called for the great glory that it caried: & this
was compounded of the oile of Ben, of Baulm liquor, ſweet Calamus, Squinanth, Balm-wood,
Caſia, & Roſin. In the making hereof, this property it had by it ſelfe, that all the while it was a
compounding and ſeething, it ſhould euer and anon be vented, & ſhifted out of one veſſell into
another, vntill the ſmel of it were gone. Which neuertheleſſe it would recouer againe after it
was once cold. Moreouer, ſome liquors there be of themſelues, that without any other mixtures
may ſerue and go for noble ſweet ointments. Among which, that of Malabathrum is the chief: K
next to it the Flour-de-luce of Sclauonia, and the great ſweet Marioram of Cyzicum. Howbeit,
the Herbariſts loue to be putting in ſome few ſpices beſides, as well in the one as the other: but
ſome make choiſe of one thing, ſome of another to intermingle withall. They that take delight
to haue their mixtures moſt compound, adde vnto either of thoſe abouenamed, Hony, the floure
of ſalt, grape veriuice, the leaues of Agnus Caſtus, and Panace, & generally all that be ſtrange
and forrain, to make their compoſitions ſeem more wonderful. To the oile or ointment of Cin-
* Xylobalſamum namon, there goes the oile of Ben, Balm-wood, ſweet Calamus, Squinanth, the * fruit or ſeedes
* Carpobalſamū of Balſamanum, Myrrh, & Hony Aromatical. This is of all other the thickeſt ointment in ſub-
ſtance. The price of this, is from 35 deniers to 300 the pound. As for the ointment Nardinum
or Foliatum, it is compoſed of the oile of green Oliues or grape veriuice, of the oile of Ben, of L
Squinanth, Coſtus, Spikenard, Amomum, Myrrhe, and Baulme. Howbeit, this point would not
be forgotten in the making of this compoſition, that it is a very eaſie matter to ſophiſticate it,
by reaſon, that there be no fewer than nine herbs or ſimples which we haue declared, that come
neere to the Indian Spikenard, and may be taken for it. Finally, to quicken and fortifie the ſent
of all theſe ointments, there muſt no ſpare be made of Coſtus and Amomum, which of all o-
ther drugs pierce into the noſthrils, and caſt a ſtrong ſmell. To make them thicker and more
pleaſant, there would be good ſtore of Myrrhe put in: but to haue them better for the vſe of
Phyſicke, and more medicinable, it is good to ſeaſon them wel with Saffron. As for Amomum,
of it ſelfe alone it cauſeth all ointments where it comes to be moſt quicke and penetratiue: in-
ſomuch as it cauſeth head-ache. Some for to ſpare coſt thinke it ſufficient to aromatize onely M
theſe ointments with thoſe drugs that are ſo deare and precious, either by ſtrewing the pouder,
or ſprinckling their liquors amongſt, whereas the reſt of the ingredients be boiled: but ſuch
compoſitions be nothing ſo effectuall, as when all be ſodden and fermented together. As for
Myrrhe it ſelfe, it maketh alone a precious ointment without any other oile, I meane that one-
ly of the liquor Stacte: for otherwiſe it is exceeding bitter and vnpleaſant. If it bee mingled

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A with the oile Cyprinum, it looketh greene; if with the oile of Lillies, it will be fatty and vnctuous; if with Mendeſium, blacke; with oile Roſet, white; with that of Myrrh, pale. Lo what were the inuentions in old time of aromaticall and odoriferous ointments: loe what were the deuiſes afterwards of the ſhopkeepers and perfumers, to picke pence out of our purſes, and to rob vs. It remains now to ſpeak of the parangon indeed of all theſe pleaſures and delights: of that I ſay wherein conſiſts the very height and chiefe point of this argument in hand.

Chap. II.

¶ *Of the Ointment called Roiall: of drie Perfumes, Poulders, and Pomanders: and how they be kept.*

B THe Roiall Ointment therefore (which the Parthian kings vſed ordinarily, and of whome it took that name to be called Roiall) is tempered and compoſed in this manner: to wit, of Ben, Coſtus, Amonium, Cinamon, the Arbut or Comarus, Cadamonum, Spikenard, Marum, Myrrhe, Caſia, Storax Calamita, Ladanum, Baulme liquor, ſweet Calamus, Squinanth of Syria, the floure of the wild vine, Malabathrum, Serichatum, Cyperus, Aſpalathus, Panace Saffron, Cypros, Marioram the greater, clarified, or purified Hony, and Wine. As for Italy (the lady and conquereſſe of all other nations) there growes nothing in it good to make ointments, no nor nothing throughout all Europe, vnleſſe it be the Flour-de-luce root, and the Celticke Spikenard: for wine, Roſes, Myrtle leaues, and oile, are well known to be common for all coun-
C tries.

As for thoſe mixtures which be called Diapaſmata, they conſiſt of dry ſpices and drugs. Alſo the dregs or grounds of Ointments, they cal Magma. Moreouer, this is to be obſerued in the mixture and compoſition of thoſe Ointments, That the drugs which be put in laſt, are euer the ſtrongeſt and moſt effectuall.

Now as touching the keeping of Ointments, they are beſt preſerued in pots or veſſels of Alabaſtre: and Odors are ſureſt maintained and continue longeſt, being incorporate in oile: which the fatter that it is, ſerueth better for a continuance of their ſent; as a man may ſee very well in the Oile of Almonds. And to ſay a truth, the older that an ointment is, and the longer fermented, the more vertue it hath for the age. The ſun is an enemy vnto them, and therefore they muſt
D incorporate and vnite together in the ſhade, and be put vp in veſſels of lead. The triall of them is taken with the back-part of the hand, for feare leſt that the heat of the fleſhie ſide within, ſhould corrupt and marre them.

Chap. III.

¶ *Of the Superfluitie in expence at Rome, about theſe Ointments: and at what time they were firſt vſed there.*

AT this day there is not in Rome any thing wherein men more exceed, than in theſe coſtly and precious ointments: and yet of all other, they are moſt ſuperfluous and may be beſt
E ſpared. True it is, that much money is laid out vpon pearles and precious ſtones; but theſe are in the nature of a domaine and inheritance, and fall to the next heire in ſucceſſion. Againe, rich and coſtly apparell ſtand vs in a great deale of coine; howbeit they are dureable and laſt a long time: but Perfumes and ointments, are ſoone done and gone; they exhale and breath away quickly; they are momentanie, they ſerue but for the preſent, and die ſuddenly. The greateſt matter in them, and their commendation is this, To cauſe a man (what buſineſſe ſoeuer he hath otherwiſe) to caſt his eie and looke after a gentlewoman as ſhe paſſes by perfumed in the ſtreets, and ſendeth a ſmell from her as ſhe goes. This is all the good they do: and yet forſooth a pound of this ware muſt coſt 400 deniers: ſo deare is the pleaſure that paſſes from our ſelues & goes to
F another: for the party himſelfe that carrieth the perfume about him, hath little or no delight at all in it: others they be that read the benefit and pleaſure thereof. And yet amoug theſe odoriferous compoſitions, there is choiſe and difference betweene one and another. We finde in the writings of *M. Cicero*, that he made more account of thoſe ointments that ſauored of the earth, than thoſe which ſmelled all ſtrong of Saffron: as if he meant thereby, That in this exceſſiue diſorder and moſt corrupt enormitie of all others, a certaine moderation yet and ſad delay

would

would do wel; and that a ſeuerity (if I may ſo ſay) in the vice it ſelf, were better to be liked. But G
ſome take delight eſpecially in thick and groſſe ointments, and are not content to be perfumed yea and bathed all ouer, vnleſſe they be beſmeared, greaſed, and daubed alſo therewith. I haue my ſelfe ſeen ſome of them to annoint the very ſoles of their feet with theſe precious Baulms: and (by report) it was *M. Otho* that firſt taught the Emperor *Nero* this wanton delicacie. But I would gladly know, and ſome good body tell me, I pray, how he could feele the ſmell thereof, and what delight or contentment it might yeeld from that part of the body? I haue heard ſay beſides, by ſome of the inward familiars and ſpeciall fauorits of this prince, That he commanded the very walls of his baines and ſtouves to be perfumed with precious ointments: and that *C. Caligula* the Emperor, cauſed the very veſſels and ſeats wherein he vſed to ſit when he bathed or ſwet in his hot-houſe, to be in that manner annointed. And becauſe this might not ſeeme to H
be a ſpeciall pleaſure fit for an Emperor onely, I knew one of *Neroes* ſeruants afterwards, who vſed ſo to do as wel as his lord and maſter. But I muſe and maruell at nothing ſo much, as that this wanton delight ſhould find the way and enter ſo far as into the mids of the camp. For wot ye what? I aſſure you the very ſtandards and enſignes, the Ægles (I ſay) and Minotaures, ſo duſty as they be otherwiſe, ſo foule and ill-fauored, as being kept ſo long, and ſtanding by vnoccupied, are wont forſooth to be annointed and perfumed vpon high and feſtiuall daies. And, ſo god helpe me, I would I knew who it was that firſt brought vp this faſhion and needleſſe ſuperfluitie: Certes, I would not defraud him of his due honor: I would (I ſay) recommend his name vnto all poſterity. But thus it is (no doubt) and it cannot otherwiſe be; Our Ægles and ſtanderds (bribed, hired, and corrupted with this ſo good a reward) haue therefore in recompenſe conque- I
red the whole world. Vnder ſuch colors and pretences (indeed) we deceiue our ſelues, and cloak the vice and ryot of our times: and thus hauing ſo good a reaſon as this, to induce and draw vs on, we may not ſticke to haue precious baulmes vpon our heads, ſo it be vnder our ſallats and mourrons.

To ſay for certainty and preciſely, when this enormity entered firſt into Rome and began there to raigne, I am not able. Sure it is, as appeareth vpon record, That after the ſubduing of K. *Antiocus* and the conqueſt of Aſia, which was about the 565 yeare from the foundation of Rome, *P. Licinius Craſſus*, and *L. Iulius Cæſar* the Cenſors, publiſhed an edict, prohibiting and forbidding to ſell any forreine or ſtrange ointments within Rome: for ſo they termed theſe ſweet mixtures and compoſitions. But (beleeue me) now adaies, ſome there be ſo wanton and delicat, K
that there is no wine or other drinke good with them, nor will go downe their throat, vnleſſe it be ſpiced and aromatized with theſe baulms: and ſo little paſſe they for the bitterneſſe of theſe odours and ſmels, that they are well content to waſt and ſpend a deale therof, without and within, behind and before, aboue and beneath, to enioy the perfume thereof in all parts of the body. Well knowne it is, that *L. Plotius*, brother to *L. Plancus*, a man of great credit and authority, as hauing bin twice Conſul, and Cenſor beſides, being outlawed and proclaimed a baniſhed perſon by the decree of the * Trium virs, was diſcouered within a certaine caue at Salernum, where he lay cloſe hidden and ſure enough otherwiſe, by the very ſmel onely of a precious ointment that he had about him: and ſo by that meanes (beſides the ſhame and diſgrace that he receiued, thus to detect himſelfe and be found of his enemies) the rigor of the act and arreſt that L
paſſed againſt him, was executed and performed vpon his body. And who would euer pitty ſuch perſons, & not iudge them worthy to come to ſo bad an end? but to conclude all this diſcourſe, there is not a country in the world that yeelds ſuch plenty and varietie of drugges fit for theſe compoſitions, as Egypt: and next to it, Campaine in Italy may carry the name, for the ſtore of roſes there growing.

Antonie, Leidus, & Octauius.

Chap. IIII.

¶ *Of Dates, and Date trees: their nature and ſeuerall kinds.*

THe land of Iury is as much renowned, or rather more, for the abundance of Palms or Date M
trees which it affourdeth: the diſcourſe whereof we will now enter into. True it is, and it cannot be denied verily, that there be of them found in Europe, and namely, euery where in Italy; but ſuch, be all of them barren. Alſo in the maritime parts and ſea-coaſts of Spaine, ye ſhall meet with Palmes that beare Dates, but they are but tart and vnpleaſant, and indeed neuer

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A come to their maturity and ripenesse. Those of Africk, I must needs say, bring forth a sweet and pleasant fruit, but it will not last, and soon is gone: whereas contrariwise, in the East parts, the people make wine thereof; and in some countries they vse it for bread, yea the very fruit and four-footed beasts do ordinarily feed of Dates: and therefore we hold and conclude, that Dates may be truly called forrein fruits; and their Trees, meere strangers in this part of the world. For in Italy a man shal not find so much as one Palm tree that comes vp of it selfe, without it be set or planted by mans hand: neither in any other region whatsoeuer, vnlesse it lie vnder some hot climat: but to beare fruit ye shal neuer know it in any country, if the same be not extreme ardent and scortching. Date trees loue a light and sandy ground, and specially (for the most part) if it stand much vpon a veine of Nitre besides. And yet contented will they be to grow by some riuer side, where they may haue, as it were, one foot in the water, and be euer drinking all the yere
B long, especially in a drie season. Some thinke, that dung is as contrary and hurtfull vnto them, as to some kind of Citron trees in Assyria, vnlesse it be mingled & tempered with water, or the trees planted neere to some running riuer. Moreouer, many kinds there be of Date trees: and the first are smal, and exceed not the bigneſſe of shrubs: these in some parts are barren, and in others fruitful: they shute out little short branches round about, but very full of leaues, the which in most places serue in stead of parget & rough-cast, to defend wals of houses against the weather and drifts of rain. Howbeit a second sort there be that are much taller, and whole forrests stand only vpon those trees: they put forth leaues sharp pointed, and they grow round about disposed one close vnto another in manner of comb-teeth: and these must of necessitie be taken for wild,
C and no better: and they loue here and there as it falleth out, to be intermingled among those of the tamer kind, as if they tooke I wot not what pleasure in their company. The rest growing in the East parts, be streight, round, and tall, enuironed about the body with circles or houps made of the very barke it selfe, and they are of the thickeneſſe of a mans thumbe, set in order one aboue another like steps & greeces neere together, in such sort that the people of the East may easily climbe them, by the means of the said barke, which serueth not onely for a vestiment to the tree, but also for staires to him that would mount vp, so that it is a wonder to see how nimbly a man will run vp to the top. These Date trees beare all their branches toward the head, and their fruit comes not forth among the leaues as in other trees, but hangeth to certaine branches and twigs of the owne betweene the boughes like clusters of grapes: insomuch as it resembleth partly the nature of a grape, and partly of an apple. The leaues made in forme of a knife blade
D sharp toward the point, slit as it were and clouen in the edge along both sides, make shew at the first of certain faire and beautifull gems: and now they serue in stead of cords, and to bind vines together: also being diuided and sliued into flakes, they are good to plait for hats and light bongraces for the head, against the heat of the Sunne. Moreouer, all learned men who are deeply studied in the secrets of Nature, be of opinion & do teach vs, That in all trees and plants, nay rather in all things that proceed out of the earth, euen in the very herbs, there are both sexes. Let it suffice therefore to haue spoken thus much once for all in this place. But there is no tree whatsoeuer, in which this distinction of male and female appeareth more, than in Palme-trees: for the male putteth forth his bloome in the branch; but the female sheweth no floure at all, but sprouteth and shooteth out buds in manner of a thorne: howbeit both in the one and the
E other, the pulp or flesh of the Date commeth first, and after it the wooddy stone within, which stands in stead of the grain and seed of the Date. And this appeares euidently by a good token, for that in the same branch there be found little yong Dates without any such stone at al. Now is the said stone or kernell of the Date, in forme long, not so round and turned like a ball as that of the Oliue. Besides, along the back it hath a cut or deep slit chamfered in (as it were) betweene two pillowes; but in the mids of the belly on the other side, for the most part it hath a round specke, formed like a nauill, whereat the root or chit beginneth first to put forth. Moreouer, for the better planting of Dates, they set two together of their stones in a ranke with the bellies downward to the earth, and as many ouer their heads: for if one alone should come vp, it were not able to stand of it selfe, the root and young plant would be so feeble; but foure together so
F ioine, clasp, and grow one to another, that they do well enough and are sufficient to beare themselues vpright: the kernel or wooddy substance within the Date, is diuided from the fleshy pulp and meat thereof, by many white pellicles or thin skins between: neither lieth it close thereto; but hollow a good distance from it, saue that in the head it is fastened thereunto by a thred or

ſtring: and yet there be other pellicles that cleaue faſt and ſticke to the ſubſtance of the Date within. The Date is a yeare in ripening. Howbeit in certaine places, as namely in Cyprus, the meat or fleſhie pulp thereof is ſweet and pleaſant in taſte, although it be not come to the full ripeneſſe: [where alſo the leafe of the tree is broader, and the fruit rounder than the reſt:] mary then you muſt take heed not to eat and ſwallow down the very bodily ſubſtance of it, but ſpit it forth after you haue wel chewed & ſucked out the iuice therof. Alſo they ſay, that in Arabia the dates haue but a faint & weak ſweetnes with them: & yet K. *Iuba* makes greateſt account of thoſe which the region of the Scenites in Arabia doth yeeld, where they be called Dabula: and he commends them for their delicate and pleaſant taſt, before all others. Moreouer, it is conſtantly affirmed, That the females be naturally barren, and will not beare fruit without the company of the males among them to make them for to conceiue: yet grow they wil neuertheleſſe and come vp of themſelues, yea and become tall woods: and verily a man ſhall ſee many of the females ſtand about one male, bending and leaning in the head full kindly toward him, yeelding their branches that way as if they courted him for to win his loue. But contrariwiſe, he a grim ſir and a coy, carries his head aloft, bears his briſtled & rough arms vpright on high: and yet what with his very lookes, what with his breathing and exhalations vpon them, or elſe with a certain duſt that paſſes from him, he doth the part of an husband, inſomuch as all the females about him, conceiue and are fruitfull with his only preſence. It is ſaid moreouer, that if this male tree be cut downe, his wiues wil afterwards become barren and beare no more Dates, as if they were widows. Finally, ſo euident is the copulation of theſe ſexes in the Date trees, & knowne to be ſo effectuall, that men haue deuiſed alſo to make the females fruitful, by caſting vpon them the blooms and down that the male beats, yea, and otherwhiles by ſtrewing the pouder which he yeelds vpon them. Beſides the maner aboueſaid of ſetting date ſtones for increaſe, the trees may be replanted of the very truncheons of two cubits long, ſliued and diuided from the very brain (as it were) of the green tree in the top, and ſo couched and interred, leauing only the head without the ground. Moreouer, Date trees wil take again and liue, if either their ſlips be pluckt from the root, or their tendrils & ſmall branches be ſet in the earth. As for the Aſſyrians, they make no more adoe, but if it be a moiſt ſoile, plaſh the very tree it ſelfe whole as it ſtands, and draw it along and ſo trench it within the ground, and thus it will take root and propagate: but ſuch will neuer proue faire trees, but skrubs only. And therefore they deuiſe certain Seminaries or Nource gardens of them, and no ſooner be they of one yeares growth, but they tranſplant them; and ſo againe a ſecond time when they be two yeares old: for theſe trees loue alone to be remoued from one place to another. But whereas in other countries this tranſplantation is practiſed in the ſpring, the Aſſyrians attend the very mids and heat of Summer, and in the beginning of the Dog-daies vſe to replant them. Moreouer, in that countrie they neither cut off the heads, ne yet ſhred the branches of the yong plants with their hooks and bils; but rather bind vp their boughes, that they may ſhoot vp in height the better. Howbeit, when they are ſtrong, they cut their branches, for to make the bodies burniſh and waxe thicker, but yet in the lopping they leaue ſtumps of boughes halfe a foot long, to the very tree: which if they were cut off, in other places, would be the death of the mother ſtocke. And foraſmuch as Date trees delight in a ſalt and nitrous ſoile (according as hath bin before ſaid) the Aſſyrians therefore when they meet not with a ground of that nature, ſtrew ſalt, not cloſe about the roots, but ſomwhat farther off. In Syria and Egypt, there be ſome Date trees that diuide themſelues and are forked in twaine, riſing vp in two trunkes or bodies. In Crete, they haue three, and ſome alſo fiue. The nature of the Palme or Date tree, is to beare ordinarily when they be three yeares old: howbeit in Cyprus, Syria, and Egypt, it is foure yeares firſt ere ſome bring fruit; yea and fiue yeares before others begin: and ſuch neuer exceed a mans heigth, neither haue they any ſtone or wooddy kernel within the Date ſo long as they be young and tender: during which time they haue a pretty name for them, and call them Gelded Dates: and many kindes there be of theſe trees. As for thoſe that be barren and fruitleſſe, all Aſſyria and Perſia throughout, vſe them for timber to make quarters and pamels for ſeeling, waineſcot, and their fine ioyned workes. There be alſo of Date trees coppey woods, which they vſe to fell and cut at certaine times: and euermore they put forth a yong ſpring from the old root and ſtock. Theſe haue in the very head and top, a certain pleaſant and ſweet marow, which they terme, The braine: and therfore thoſe that loue to eat it, wil cut and take it away, & yet the tree wil liue neuertheleſſe:

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A a thing that ye ſhall not lightly ſee in any others of that kinde. As for thoſe Date trees which haue broader leaues, & the ſame ſoft and pliable, very good to make windings to bind vines and ſuch like, they be named by the Greeks Chamæropes: great abundance there is of them in Creta, but more in Sicily. The wood of Date trees yeelds coles, that in the burning will keep fire long: howbeit a dead flame it is that they make, and nothing quicke. As touching thoſe that be fruitfull, ſome beare Dates with a ſhort ſtone or kernell within; others with a longer: theſe are more ſoft, thoſe be harder. Some carry a kernell of a bony ſubſtance, like the Moon Croiſſant, which many are wont to poliſh with ſome tooth, and in a kind of religion are perſuaded, that it is good againſt witchcraft, & is of vertue to procure womens loue. Some of theſe ſtones be clad and couered with many skins or pellicles, & others with fewer: ye ſhal haue in this Date, thoſe
B tunicles thick & groſſe; in that, thinner and more fine. In ſum, if a man would ſearch into them particularly, hee ſhould find fifty ſundry ſorts of Dates ſaue one, with ſeuerall, ſtrange, and barbarous names, and as many different wines made of them. But the principall and moſt excellent of all the reſt, ſyrnamed Roiall Dates, for that they were reſerued for the kings owne mouth of Perſia, were knowne to grow no where els but in Babylon, and in one hortyard or park only of a Bagous (for ſo they vſe to call their eunuches or gelded perſons, and ſuch in times paſt reigned as KK. ouer them:) and this park was euermore annexed to the crowne, and went with the royal Scepter, as a chiefe demaine of the Empire, and paſſed from one Prince to another by ſucceſſion. But in the South-countries and meridionall parts of the world, the Dates ſyrnamed Syagri are highly commended aboue all others, and moſt eſteemed: and next to them, thoſe which be
C called Margarides, are in account and good requeſt: theſe be ſhort, white, and round, more like in form to berries and little buttons, than to maſt-fruit and Dates indeed: whereupon they took their name of Pearls, which they do reſemble. It is reported, that in the city Chora, there is one of theſe trees that bears Dates like to Pearles; as alſo another that carries the Dates Syagri. I my ſelfe verily haue heard ſtrange things of this kind of tree, and namely in regard of the bird Phœnix, which is ſuppoſed to haue taken that name of this Date tree [called in Greeke φοῖνιξ] for it was aſſured to me, that the ſaid bird died with that tree, and reuiued of it ſelfe as the tree ſprung againe. Now at the very time that I wrote this Hiſtory of Natures works, I ſaw the ſame tree with fruit vpon it: the Date that it bears is great, hard, rough in handling, and in taſt reſembling ſome harſh and wild fruit, far different from other kinds of Dates: in ſuch ſort, as I won-
D dred not at the name of Syagros, ſo like it taſted to the fleſh and veniſon of a wild Bore in the forreſt, that comes to our board. In a fourth rank of Dates for goodneſſe, are to be ranged thoſe which they call Sandalides, for the reſemblance of ſlippers or pantofles which they vſed in old time, named Sandalio. But in theſe daies they be as rare, as otherwiſe pleaſant; ſo that within the bounds of Æthyopia (a wonderfull matter) there be not aboue fiue of them to be found. After the Sandalides, the Dates Caryotæ are in greateſt requeſt; for they be not only good to eat, but alſo a wine is made of their iuice, which they yeeld in great abundance: for all the people of the Eaſt make their ſpeciall drink thereof. But true it is, that this kind of wine is hurtful to the head, and therfore the Greeks gaue it that name. Now as theſe countries aboue ſaid doe affoord plenty of Date trees, and the ſame fruitfull enough, ſo Iury alone carries the name and
E the praiſe for goodneſſe of Dates; and not all Iury neither, but the territory about Iericho eſpecially: and yet I muſt needs ſay, that there be gathered very good Dates in the vales of Iury, which be named Archelais, Phaſelis, & Liuias. And theſe Dates of Iury, haue this ſpecial property aboue all others, To be full of a fat white liquor reſembling milk, which hath a certaine taſte of wine, and is exceeding ſweet and pleaſant withall like honey. The drier kind of theſe Dates be thoſe that tooke name of one *Nicolas*, and were called Nicolai: paſſing faire and great they be aboue all others by far; for foure of them laid in a rank one at the end of another, will make a cubit in length. Other Dates there be, not ſo faire to the eie as theſe Caryotæ, but ſurely for pleaſant taſt they may be well their ſiſters, like as they be called thereupon Adelphides.
And a third kind there be of the ſame Caryotæ, which they commonly call Pateton: ouer full
F they are of liquor, and ſo drunke (as a man would ſay) with their own iuice, that they burſt euen as they hang vpon the tree their mother, yeelding their wine in that manner of their owne accord, as if they were troden with mens feet in a wine-preſſe; and thereupon they got that name. Another kind there is yet by it ſelfe, of thoſe Dates that be drier than the reſt, and they bee very long and ſlender, yea, and otherwhiles not ſtreight, but bending and crooked. As for thoſe

which we dedicate to holy vſes, and namely, when we ſacrifice and offer oblations to the gods, the Iews (a nation aboue all others noted for contempt and mockery of the gods their worſhip and diuine ſeruice) do name Chydæi [*i.* vile and of no price.] The Dates in Egypt called Thebaides, as alſo thoſe in Arabia, be all ouer-drie and withered, poore, leane, and thin. Parched as they be continually with the heat of the ſun, a man would deem they were couered with a cruſt or ſhell, rather than with a skin or pill. Go further into Æthiopia, there they be ſo dry that they will ſoon crumble into pouder like meale; and indeed they make thereof their bread, when it is tempered and wrought with water. Theſe Dates be round, and bigger than a good apple; and they grow vpon a plant or ſhrub which ſpreads branches of a cubit length: and the Greeks call them Cycæ. They hang 3 yeres before they be ripe: and euermore you ſhall ſee vpon the tree Dates ripe, when others come new forth green and ſmall. As for the Dates of Thebais in high Egypt, ſo ſoon as they be gathered, preſently they are put vp into barrels, whiles their naturall heat is in them; for if that courſe were not taken with them, it would ſoon exhale and vaniſh away: yet will they decay and rot, if they be not baked againe in the ouen. As touching all other Dates, they ſeeme to be the common and vulgar ſort, ſimply called Dates: and yet both the Syrians and K. *Iuba*, hold them for junkets and banketting diſhes. For as in ſome part of Phœnice, and Cilicia they be called Balani, [*i.* glandes or maſt] ſo we at Rome terme them by the verie name of their own country Phœnice, & by no other. And euen of them there be many kindes; and thoſe different one from another, either in forme, for that ſome be round, others long, or els in colour, whiles there be of them red and black: in which regard, a man may obſerue in them, (by report) as great variety as in figs: howbeit the whiteſt be the beſt and moſt commended. Great diuerſity there is alſo among them in quantity and bigneſſe, inſomuch as yee ſhall haue many of them that want nothing of a cubit; and other for them againe no bigger than a beane. Now as touching the Dates that be barrelled vp and kept, they be ſuch only as come from ſalt and ſandy grounds, as in Iury, and Cyrenaica in Africk: for thoſe of Egypt, Cyprus, Syria, and Seleucia in Aſſyria, will not keepe and be preſerued; and therefore they muſt be ſpent out of hand: for which they take good order to franke their ſwine and feed other cattel fat with them. The true ſigne to know a faulty or a ſtale date, is this, If a certaine white ſpecke or wart which ſtucke vpon it when it grew on the branch, be ſhed and faln off. Now to conclude this treatiſe, I thinke it not amiſſe to ſet downe for an example, what did betide the ſouldiers that were of *Alexanders* army, who with eating of green dates new ripe, were choked, and ſo died. In the Gedroſians country, this accident befell vnto them, onely by the nature of the fruit it ſelfe, eat they of it as moderatly as they could: but in other parts, their greedy and ouer liberall feeding vpon them, was their bane. For ſurely new dates as they come from the tree, are ſo exceeding pleaſant and delicious, that a man can hardly forbeare and make an end in good time, before hee ſurfet of them and catch a ſhrewd turne.

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Chap. V.

¶ *Of the trees in Syria.*

BEſides the Date tree, there be other eſpeciall trees in Syria proper vnto that countrey: for in the firſt place there are a kind of Nuts there growing, commonly knowne and called Fiſticks. And (by report) this vertue they haue, either taken as meat, or drunke in drink, To reſiſt the ſting and biting of ſerpents. Alſo out dry * Figs, and a leſſer ſort than they named Cottana come from thence. Alſo the Damaſcene prunes, growing vpon the mount Damaſcus; as alſo the fruit Sebeſten are the commodities of Syria: how ſoeuer they are now familiar here with vs in Italy. As for Sebeſten, there be wines in Egypt made thereof. Alſo the Phœnicians haue a leſſe kind of Cedars much like to the Iuniper: and two ſorts there be thereof, the Lycian and the Phœnician, which differ in the leafe: for that which hath an hard, ſharpe, and prickie leafe, is called Oxycedrus: full of branches it is beſides, and ſo knurrie, that it is troubleſome to the hand. As for the other Cedar, it hath an excellent ſmell. Both twaine doe beare a fruit of the bigneſſe of Myrtle leaues, and ſweet in taſt. Moreouer, of the greater Cedar there bee two kindes: that which doth bloſſome, beareth no fruit: and contrariwiſe, that which is fruitfull, ſheweth no bloſſome: and in this, the new fruit commeth foorth alwaies before the old of the former yere be ripe and gathered: alſo the ſeed of it is like that of the Cypreſſe. Some cal this Cedar,

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* called Lenten figs.

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A Cedar, Cedrelate: whereof commeth the beſt Roſin. And the timber of it is euerlaſting: wherfore in old time they were wont to make the images of the gods, of this wood, as it appeares by the ſtatue of *Apollo Soſianus*, made of Cedar wood, brought from Seleucia. In Arcadia there is a tree like the Cedar, but in Phrygia it is called a ſhrub.

Chap. VI.

¶ *Of the Terebinth.*

MOreouer, in Syria grows the Terebinth or Terpentine tree. The male beareth no fruit. The females be of two ſorts: the one carrieth red grains of the bigneſſe of Lentils, the other bring forth pale ſeeds. This fruit of the Terebinth ripeneth with grapes. Vpon the
B mountaine Ida neere Troas, it is as big as a beane, more pleaſant to ſmell to, and glutinous like Roſin, if a man handle it. But in Macedonie the tree is but ſhort, and ſpreadeth branches like a ſhrub: contrariwiſe, about Damaſcus in Syria, it is very great and tall. The timber of it is verie tough, continueth a long time, and neuer ſhrinks for age: of colour blacke, but paſſing faire, and reſplendent withall. It puts forth floures in cluſters after the manner of the Oliue, but it is red: and the leaues otherwiſe grow very thick. It beareth alſo certaine ſmall cods or bladders ful of a gummy and clammie moiſture (which alſo iſſueth out of the barke) and out of thoſe bladders there come forth little flies like gnats.

Alſo the male Rhus or Sumach of Syria doth beare fruit: wheras the female is barren. This plant putteth forth leaues like to the Elme, but that they be ſomewhat longer, and ful of hairs,
C and euermore the ſteles of the leaues grow contrary one againſt the other. As for the branches, they be ſlender and ſhort, good for curriers to dreſſe their skins and make leather white. The ſeed or graine thereof reſembles Lentils: and being ripe, it is red, and commonly with the grape. The which is called Rhus or Sumach, euen as the tree: a neceſſarie fruit for many medicines.

Chap. VII.

¶ *Of the Ægyptian and Cyprian Sycomores or Fig-trees.*

D IN Ægypt likewiſe there be found many trees which grow not elſ-where: and principally the Sycomore, which thereupon is called the Ægyptian Fig-tree. The tree for leafe, bigneſſe, and barke, is like vnto the Mulberry tree. It bears fruit not vpon the branches, but out of the very body of the ſtocke. And the ſame is a paſſing ſweet fig, but without any grains at all within. It doth increaſe in exceeding great abundance, ſo it be ſcraped and clawed only with yron hooks: for otherwiſe it will not ripen. Come then foure daies after to gather it, you ſhall not miſſe but find it ripe, and new comming vp in the place. Thus in euery ſummer you ſhall haue a 7 fold increaſe, and the ſame in much plenty, yeelding alſo great abundance of milke. And ſay that you do not vſe the ſcraping or paring aboue named, yet ſhal you be ſure of 4 fruits in a ſummer, one vnder another; but ſo as the new wil driue the old before it, and cauſe it to ſhed and fall before it be wel ripe, for want of that handling beforeſaid. The timber of this tree is counted right
E good and profitable; hauing one ſingular property by it ſelf. No ſooner is it hewed, but preſently it is caſt into ſtanding pooles, and there drowned. This is the only way to ſeaſon, and dry it. At the firſt (I ſay) it ſinks downe to the bottom: but afterwards it begins to flote aboue: & without all queſtion, the water which vſeth to wet and drench all other tres, ſoketh and ſuckes forth the ſap and humidity of this wood. Now when it begins once to ſwim aloft, it is a ſigne that it hath the full ſeaſoning, and is good for building and other workes.

Like to this Sycomore in ſome ſort is a certaine tree in Candy, which is called the Cyprian fig-tree. For this likewiſe beareth fruit comming out at the very ſtock, or the maine armes and boughes thereof, when they be growne to any thickneſſe: but it puts forth certain ſprigs with-
F out any leaues at all, and they reſemble roots. Now this tree is in body much like to the Poplar, but in leafe, to the Elm. It bears fruit foure times a yeare, and as often doth it bud. But the green figs will hang ſo ſtill and neuer ripen, vnleſſe they be ſcarified and skiced ſo, as the milky ſubſtance may run out. The fruit within, is made like a fig, and hath the ſame pleaſant taſt: but it is no bigger than the Soruis.

Chap. VIII.

¶ *Of the cod or fruit called Ceraunia Siliqua* [*i. Carob.*]

THere is a kind of coddy ſhrub which the Ionians call Ceraunia, not vnlike to the Egyptian Sycomore abouesaid, for the fruit thereof comes likewiſe forth of the ſtock, but yet is contained within a cod: and thereupon it is that ſome haue called it the Egyptian fig tree, but they are groſly deceiued: for it doth not ſo much as grow in Egypt, but in Syria and Ionia, alſo about Gnidos and Rhodes. The tree hath green leaues all the yeare long: it putteth forth white floures of a ſtrong ſmell. From the root there ſpring ſhoots, and about the foot of the tree it bears many yong imps, which are ſuch ſuckers of the ſap, that they draw away all the goodneſſe, and rob the parts aboue of their nouriſhment, whereby the head is yellow, and nothing freſh and green, but fadeth in the top. The fruit of the former yere is gathered about the riſing of the Dog-ſtar the yeare following: and then preſently it brings forth new. Afterwards commeth a bloſſome, and the fruit thriueth and waxeth all Winter, vntill the occultation of Arcturus.

Chap. IX.

¶ *Of a tree in Egypt called Perſica: of Cucus, and the Egyptian thorne Acacia.*

THere is found in Egypt a certain kind of tree by it ſelf called Perſica, like to a peare tree, but that it is green all the yeare long, and ſheds not the leaues: alſo it beareth fruit continually; for gather to day, and ye ſhall find new to morrow growing forth of the place. The fruit is ripe about the Canicular daies when the Eteſian winds do blow. It reſembleth a Peare, ſaue that it is longer, and incloſed with a ſhel or green husk like the Almond: but where the Almond hath an hard ſhell without as a nut, this is ſoft in manner of a peare or plum, containing the ſtone within: and yet it differs ſomewhat both in ſhortneſſe and tenderneſſe. The fruit is very good meat: and although the exceeding ſweetneſſe thereof entice one to eat ſtill and not giue ouer, yet no danger of ſurfeit enſueth thereupon. As touching the wood of this tree, it is durable, hard, ſtrong, and black withall, in which reſpects it reſembles the Lote-wood very much. They vſed in times paſt to make images and ſtatues thereof, not ſo beautifull altogether, nor of ſo fine a grain as ſome others; but for the timber thereof, which continueth ſure and laſteth long, as that of the tree which we called Balanus. Much whereof growes curbed and crooked, and therefore is good only for ſhipwrights to make keels. But contrariwiſe, the wood of Cucus is highly eſteemed.

A tree this is not vnlike to the Date tree, in this regard eſpecially, that the leaues be good to twiſt and plait for mats & ſuch like: herein is the difference, for that it ſpreads into arms and great boughs. The fruit which it beareth is as much as a man may well hold in his hand, of colour reddiſh or deep ſhining yellow, and the taſte very commendable; for it yeelds a juice between ſoure and ſweet, and therefore wholſome for the ſtomacke. The wooddy ſtone within is great, maſſie, and exceeding hard, whereof they vſe to turne for curtain rings and ſaile pullies. In the belly of it there lieth a ſweet kernell whiles it is freſh and new. But if it be once dried it paſſeth for hardneſſe, inſomuch as no tooth can chew it, vnleſſe it be ſteeped in ſome liquour many daies before. As for the wood and timber of the tree, it hath a moſt dainty, fine, and curled grain, in which regard the Perſians ſet much ſtore by it.

In the ſame country there growes a thorny plant which the inhabitants make great account of: and eſpecially that which is in colour black, becauſe it wil abide the water, & neuer rot nor putrifie in it, and therefore excellent good for the ribs & ſides of ſhips. As for the white thorn of this kind it will ſoon corrupt and be rotten. But both the one and the other is full of prickes euen to the very leaues. The ſeed lies in certain cods or husks, wherewith curriers vſe to dreſſe their leather in ſtead of galls. The floure this thorne beareth is beautifull, whereof folke make faire garlands and chaplets; profitable alſo beſides and good for many medicines. Out of the barke of this tree there comes a gum likewiſe. But the chiefeſt commoditie and profit that it yeeldeth is this, Cut it down when you pleaſe, it wil be a big tree againe within three yeres. It groweth

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A groweth plentifully about Thebes in Egypt, among Okes, Oliues, & Peach trees, for the ſpace of 300 ſtadia from Nilus: where the whole tract is all woods and forreſts, and natheleſſe well watered with fountains and ſprings among.

Chap. X.

¶ *Of the Ægyptian Plum tree, and other trees about Memphis.*

IN thoſe quarters groweth likewiſe the Egyptian Plum tree, not vnlike to the thorn of Acacia next before deſcribed: and this brings forth a fruit as big as a Medler, which neuer is ripe before mid-winter, when the daies be at ſhorteſt. The tree is alwaies greene, and ſheds
B not the leaues all the yeare long. Within the fruit aforeſaid there is a big ſtone; but the ſubſtance otherwiſe and body thereof is naturally ſo good, and ſo plenteous withall, that the inhabitants make their harueſt of it. When they haue gathered it, they clenſe it, ſtampe it, make it vp into balls and lumps, which they preſerue and keepe. The country about Memphis in times paſt was all wooddy and full of forreſts, wherein grew ſo mighty big trees, that 3 men were not able to fathom them about. But among the reſt there was one by it ſelfe moſt wonderfull, not for any ſtrange fruit that it bare, nor yet for any ſingular vſe and employment; but in regard of an accident obſerued in it, and a ſpecial qualitie that it had. For the tree (forſooth) outwardly reſembleth a thorn, but the leaues are made directly like feathers. Let a man ſhake the boughs neuer ſo little, ſhed they will and fall incontinently, but ſoon after there ſpring vp new in their
C ſteads.

Chap. XI.

¶ *Sundry ſorts of Gum. Alſo of the Cane Papyrus.*

THe beſt gum in all mens iudgement is that which comes of the Egyptian thorne Acacia, hauing veins within of checker work, or trailed like wormes, of colour greeniſh, & cleere withall, without any pieces of the bark intermingled among, and ſticking to the teeth as a man cheweth it. A pound thereof is commonly ſold at Rome for three deniers. The gumme that iſſueth from the bitter Almond trees and Cherry trees is not ſo good: but the worſt of all
D is that which the Plum tree yeeldeth. There runneth likewiſe out of vines a certaine gum that is paſſing good for the bleach, ſcabs, and ſcals in little children. And otherwhiles ye ſhall find ſome in Oliue trees, and that cureth the tooth-ache. Moreouer, the Elme growing vpon Corycus, a mountain in Cilicia, and the Iuniper there, haue a gum, but good for nothing. As for that of the Elme it breeds gnats there. Moreouer, of Sarcocolla [a tree ſo called] there diſtilleth a gum of that name, which Painters and Phyſitions both haue great vſe of. Like it is to Manna Thuris, which is the pouder of Incenſe: and therefore the white is better than the red. Sold it is at the ſame price that the other aboue named. And thus much concerning the trees growing vpon mountains and plains.

Now albeit we are not entred yet into the treatiſe of thoſe plants and ſhrubs which grow ei-
E ther in mariſh grounds or by riuers ſides; yet before we depart out of Egypt we muſt not forget the plant Papyrus, but deſcribe the nature thereof, conſidering, that all ciuilitie of this our life, the memoriall and immortalitie alſo of men after death, conſiſts ſpecially in paper which is made thereof. *M. Varro* writes, that the firſt inuention of making paper was deuiſed vpon the conqueſt of Egypt, atchieued by *Alexander* the Great, at what time as he founded the city Alexandria in Egypt, where ſuch paper was firſt made. For before that time there was no vſe at all (ſaith he) of paper, but men vſed to write in Date tree leaues firſt, and afterwards in the rines and barks of certain trees. Then in proceſſe of time they began to regiſter publique records in rolls and ſheets of lead: and ſoon after priuate perſons ſet downe their owne affaires in linnen books, or els in tables couered with wax. For we read in *Homer*, that before the warre of Troy writ-
F ting tables were vſed. And at the very time when he wrot, Egypt was not all continent & firme land, as now it is. For, as he ſaith, all the Papyrus whereof paper is made, grew in that branch or arm of Nilus, which anſwereth onely to the tract or territorie within the iuriſdiction Sebennitis: but afterward that part alſo was laid to Egypt, by the ſhelves and banks made with the inundation of the ſaid riuer. For, from the Iſland Pharos, which now ioineth cloſe vnto Alexandria,

dria by a bridge or narrow cauſey between, it was a day & nights ſailing with a good fore-wind G
at the poup, to the main land, as *Homer* hath reported. But afterwards, as *Varro* hath written, by occaſion of a certaine enuious ſtrife and emulation which aroſe betweene one of the *Ptolomees* K. of Egypt, and *Eumenes* K. of Pergamus, about the erecting of their great libraries; when *Ptolomæus* ſuppreſſed and kept in all the paper made in Egypt, there was parchment deuiſed by the ſaid *Eumenes* to be wrought at Pergamus of skins. And finally, the vſe was commonly taken vp of both, to wit Paper and Parchment, which continues the perpetuitie and euerlaſting remembrance of men and their affaires. But to returne vnto our plant Papyrus, it growes in the mariſhes of Egypt, or els in the dead ſtanding waters of Nilus, namely in certaine plaſhes and pits whereas the water did ouerflow, and remained ſtill after the riuer was fallen and down againe: and namely ſuch holes and ditches which are not aboue two cubits deep. The root is wrythen H
and crooked, of the thicknes of a mans arme: & the ſcape or ſtalk that riſeth from it hath three ſides with 3 corners trianglewiſe, not aboue 10 cubits in height, growing taper-wiſe, ſmall and ſharp in the top, where it beareth an head incloſed and round, in maner of a cabbage. Howbeit no ſeed it carrieth within, neither ſerues the floure for any purpoſe but onely for chaplets to adorne the images of the gods. The inhabitants of Egypt do vſe the root in ſtead of wood, not for fuell only, but alſo to make thereof ſundry veſſels and vtenſils in an houſe. The very bodie and pole of the Papyr it ſelfe ſerueth very well to twiſt and weaue therwith little boats, and the rinds thereof be good to make ſaile-clothes, curtains, mats, and couerlets, clothes alſo for hangings, and ropes. Nay, they vſe to chew and eat it both raw and ſodden: but they ſwallow the
iuice only down the throat, and ſpit out the groſſe ſubſtance. Moreouer, there is Papyrus found I
in Syria, about that very lake and meere whereas the ſweet Calamus aboue named grows. Neither vſed king *Antigonus* any other ropes about the tackling of his ſhips, but ſuch as were made hereof. For as yet the vſe of Spartum was not common. Moreouer, it is not long ſince that there was found growing in Euphrates about Babylon, this plant Papyrus, and knowne to ſerue for paper as well as the other in Egypt. And yet for all that, the Parthians will not leaue their old cuſtome to weaue and purfle letters in their cloathes, after the maner of embroderie. Now a touching the writing paper made of Papyrus: after they haue cut it into certaine trunkes, as long or as ſhort as the ſize of their paper, they diuide or ſliue it with the point of a needle or bodkin for the purpoſe, into very thin plates or leaues, but they driue them as broad and large K
as poſſibly they can.

Chap. XII.

¶ *Of diuers kinds of Paper, and how writing Paper is made: alſo the triall of good or bad Paper: and the glue or paſt belonging thereto.*

THe beſt ſheets or leaues of paper be thoſe which are ſet out of the very midſt or heart of the ſtem or ſtalk of Papyrus: and ſo conſequently better or worſe, according as they be nearer or farther from it. In antient time the principall paper and the largeſt was called Hieratica, [*i.* ſacred or holy] as being imployed only about religious and diuine books. But afterwards the flatterers of the Emperor *Auguſtus* named thoſe of the beſt ſort Auguſtæ: like as the ſecond Liuiæ, after the name of his wife. And hereupon it came that the paper Hieratica waſted in a third ranke. Next to them in goodneſſe was reputed the paper Amphitheatrike, which name was giuen vnto it of the place where it was made. The poliſhing and trimming of this paper *Fannius* vndertooke, who ſet vp a ſhop in Rome for the ſelling of it: and ſo skilfull was he and curious in the handling and dreſſing thereof, that by the time hee had done withall and brought it to a perfect fineneſſe, hee made the ſame of a courſe and common paper, to be royall, & fit for the beſt perſons that ſhould vſe it: in ſuch ſort, as there was none in any requeſt to ſpeak of, but it: and called after his name it was Fanniana. As for that which paſſed not thorow his hands, nor had his workemanſhip, it retained ſtill the old bare name Amphitheatrica. M
After this kind of paper followed that which they called Saitica, of a towne or city in Egypt, where great abundance was made thereof of the courſer pieces and refuſe of the ſaid Papyrus. And yet there was another paper, to wit Taniotica, ſo called of a place neere adioyning, made of the groſſer part neere to the bark and outſide: and this they ſold for the weight and no other goodneſſe that it had beſides. As for the merchant Paper or ſhop-paper, called Emporetica, it

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A was not for to write in, onely it ſerued as waſt Paper for ſarplers to wrap and packe vp wares in: alſo for coffins or coronets to lap ſpice and fruits in, and thereupon merchants and occupiers gaue it that name. And with this, the very cane it ſelfe is to be ſeene clad outwardly: and the vtmoſt coat thereof is like to a reed or bulruſh, fit for no purpoſe but to make cordage of: and not very good for that vſe neither, vnleſſe it be for the water only, which it wil abide very wel. Now the making of all theſe Papers, was in this ſort, namely, vpon a broad bord wet with the cleare water of Nilus. For the fatty and muddie liquor therof ſerues in ſtead of glew, wherwith at the firſt the thin leafe of the cane Papyrus, ſliued from the reſt, and laid vpon the bourd to the full length (in manner of the warpe) according as the trunke will giue leaue, being cut off at both ends, namely, toward the top and the root, is wet and beſmeared: then is there another laid ouer-
B thwart it, after the order of the woofe, with a croſſe graine to the other: and ſo is the web (as it were) of the Paper performed. Preſſed afterwards it is in certaine preſſes, that both leaues may ſticke together: and then the whole ſheets are dried in the Sun. Which done, they be ſo couched together, that the beſt and largeſt lie firſt, and ſo conſequently in order as they be worſe and of leſſe ſize, vntill you come to the worſt. And one ſcape or trunke lightly of the cane Papyrus, yeelds not aboue 20 ſuch ſheets. Great difference there is in them for the breadth, notwithſtanding the length be all one. The beſt, namely which were taken out of the heart of the cane, beare 13 fingers in breadth. The Hieratica Paper wants two of that number. The Fannian is but ten fingers broad. The common Paper Amphitheatrica, but nine. Saitica yet fewer, and will not beare the ſtroke of the hammer. And as for the merchants Paper, it was ſo ſhort and
C narrow, that it went not aboue ſix fingers. Moreouer, in Paper theſe 4 things muſt be conſidered, that it be fine, well compact, white, and ſmooth. Howbeit, *Claudius Cæſar* the Emperor abated the credite of the Paper Auguſta, that it was no more accounted the beſt: for indeed ſo thin it was, that it would not abide the dent of the pen: beſides, it would not hold inke, but ſhew the letters on the other ſide; and was euermore in danger of blurring and blotting, ſpecially on the back part: and otherwiſe, vnſightly it was to the eie, for that a man might ſo eaſily ſee thorough it. And therefore he deuiſed to fortifie and ſtrengthen the ſaid Paper, and laid another courſe or coat (as it were) ouer the former, in manner of a double woofe. Hee enlarged alſo the breadth of the Paper: for he cauſed it to be a foot broad, yea, and ſome a foot and an halfe, I meane that kind which was called Macrocola, or large Roiall Paper. But herin was a fault, and reaſon found
D it out: for if one leafe of this large Paper were plucked off, the more pages took harme thereby, and were loſt. And therfore the former Claudian Paper, which had but 3 leaues of Papyrus, was preferred before all the reſt. Howbeit, that which was named Auguſtane bare the name for letters miſſiue, and the Liuiane continued ſtill in the owne credite, hauing no property of the firſt and principall, but all in a ſecond degree. The roughneſſe of Paper is poliſhed and ſmoothed either with ſome tooth, or elſe with a Porcellane ſhell: but the letters in ſuch ſlick Paper, will ſoone fade and decay. For by poliſhing, it will not receiue the inke ſo deepe as when it is not ſmoothed, although otherwiſe it will ſhine the better. Moreouer, it falls out many times, that if the humor be not artificially laid, the Paper is very ſtubborn: but this fault is ſoon found out at the very firſt ſtroke of the hammer, or elſe diſcouered by the ſmell, eſpecially if good heed
E were not taken in the tempering therof. As for the ſpots and ſpeckles, the eie will quickly ſpie them: but the long ſtreaks, and veines lying cloſe couched between the paſted places, can hardly be diſcerned before that the letter runs abroad, and ſhewes how in the ſpongeous ſubſtance of the Paper wanting that paſt, the inke will ſinke thorough, and make blots, ſo deceitfull is the making of this Paper. What remedie then? but to be at a ſecond labor to paſt it new againe another way, to wit, with the common paſt that wee vſe, made with the fineſt floure of wheat, and tempered with hote ſcalding water, and a little vinegre mingled therwith. For the ioiners glue and that made of gums, is brittle, and will not abide the rolling vp of theſe ſheets into quiers. But they that wil go more ſurely to work, and make an exquiſite paſt indeed, boile the ſoft and tender crums or leauened bread in ſeathing water, and then let it run thorough a ſtrainer, which
F they vſe to this purpoſe. For beſides that the Paper hereby will be more firme, and haue leſſe flawes, it ſurmounts alſo in ſweetneſſe the water of Nilus. Moreouer, all kind of paſt whatſoeuer for this effect, ought neither to be ſtaler than a day old, nor yet freſher and vnder that age. After that it is thus paſted, they beat it thin with the hammer: and a ſecond time runne lightly ouer with new paſt: and then being thus knit & bound faſt again, it is made ſmooth and void of wrinckles,

wrinkles,and finally beaten euen with the hammer,and driuen out in length and breadth. After this manner was that Paper made,wherin were written the bookes and records of the two *Gracchi*,*Tiberius* and *Caius*,with their owne hands,long agoe: the which I ſaw in the houſe of *Pomponius Secundus*, a noble citizen of Rome, and a renowmed Poet, almoſt two hundred yeares after their death. As for the writings of *Cicero*,of *Auguſtus* late Emperour of famous memorie,and of *Virgill*,we daily ſee and handle them,by the meanes of Paper ſo good and durable.

Chap. XIII.

¶ *Of the bookes of Numa.*

WE find many examples in ſtories, which very directly and mightily do teſtifie againſt *M. Varro*,as touching Papers. For *Caſſius Hemina* (a moſt faithfull and ancient writer) in the fourth booke of his Annales,hath reported,That one * *Cn.Terentius* a ſcribe or publicke Notarie, as he digged and delued in a ground which he had neare to Ianiculum,light vpon a chiſt, wherein lay the bodie of *Numa*, ſometime king of Rome. In the ſame alſo were found the bookes of the ſaid king. And(as he affirmeth) this happened in that yeare,when *Pub. Cornelius* the ſonne of *Lucius*, ſurnamed *Cethegus*, and *M. Bœbius* ſonne of *Quintus*, ſurnamed *Pamphilus*, were Conſuls of Rome: betweene which time and the raigne of *Numa*, by juſt computation are reckoned 535 yeres. He ſaith moreouer,That thoſe books were made of the Paper abouenamed. The greater wonder it was,how ſuch kind of books ſhould laſt ſo long,eſpecially within the earth,and not putrifie? The thing therefore being ſo ſtrange,and in manner miraculous,that Paper ſhould continue all that time,I think it not amiſſe to ſet down the very words of *Hemina* likewiſe,as he deliuers them. The world made a wonder(quoth he)how theſe books could poſſibly endure ſo many yeres? but the party who found them yeelded this reaſon:That within the ſaid coffer about the mids of it, there was a ſtone foure-ſquare:lapped all about and bound euery way with [waxe] candles in manner of a ſerecloth: vpon which ſtone, the foreſaid books were laid:and therfore it was (as he ſuppoſed) that they did not rot. Moreouer,the books alſo were embaulmed with the roſin or oile of Cedar,which might be a good reaſon in his conceit,that the moths came not to them. Now theſe bookes contained the Philoſophie and doctrine of *Pythagoras*: and for that they treated of that Philoſophical argument,burnt they were, by order from *Q. Petilius* the Pretor for that time being. The ſame ſtorie in effect doth *C. Piſo Cenſorinus* (a man who had been Cenſor) report in the firſt book of his commentaries:howbeit, he ſetteth downe their number withall:and ſaith they were fourteene in all,whereof ſeuen treated of the Pontificall law, and matters of religion; and as many diſcourſed of *Pythagoras* his Philoſophie. But *Tuditanus* in the thirteeneth booke of the Annales affirmeth, That they were the decretals only of *Numa*, and contained his ordinances. As for *Varro* himſelfe, he writeth in the fift booke of Humane Antiquities, that they were in all but twelue. And *Antias* in his ſecond booke reporteth,That two of them were written in Latine, and contained the Pontificial diuinitie and church-matters:and other twaine penned in Greeke,were full of precepts in Philoſophie. He alſo affirmes in his third booke, for what cauſe the ſaid books by vertue of a publick decree were conſumed with fire. But all Hiſtoriographers agree in this,That one of the *Sibyls* brought vnto *Tarquinius* the proud three books:of which,two were burnt by her owne ſelfe: and the third likewiſe periſhed with fire,together with the Capitol,during the troubles of *Sylla*. Ouer and beſides,*Mutianus*,a man who had been thrice Conſul of Rome,hath left on record, that of late,while he was lord gouernor or Lycia,he read in a certain temple an Epiſtle written by prince *Sarpedon* in Paper,and bearing date from Troy. And I wonder the rather at this,if ſo be that when *Homer* liued and wrate his Poeme,there was no land of Ægypt as now there is: or why,in caſe there was ſuch vſe of Paper then,himſelf ſhould write,that in the very ſame Lycia, *Bellerophon* had writing tables giuen him to deliuer as touching his owne death, and not rather letters miſſiue wrot in Paper? Wel, howeuer that be, this is certaine, that there is a ſcarſitie otherwhiles of Paper alſo, as well as of other commodities: and this cane or reed Papyrus doth many times faile. For not long ſince, euen in the daies of *Tiberius* the Emperor,in a dearth and want of Paper, there were commiſſioners deputed and appointed by the Senat of Rome,for the diſpenſing and diſtribution of it among the people: otherwiſe there had been a great mutinie, and tumult at Rome about Paper.

* *L.Petilius.* Liuie.

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Chap. XIIII.

¶ *Of the trees in Æthiopia.*

AS touching Æthiopia, and namely that quarter which confineth vpon Ægypt, it hath in manner no trees at all of any name, ſaue thoſe that beare wooll or cotton, concerning the nature of which trees, we haue ſufficiently ſpoken in the deſcription of the Indians, and of Arabia: and yet in very truth, the cotton that is brought from theſe trees in Æthiopia, comes neerer to wool than any thing els; howeuer the trees be otherwiſe like to the reſt of that kinde: and the burſe or cod wherin this woollie ſubſtance lyes, is greater, and as big as a Pomegranat.
B Beſides theſe, there be Date trees alſo, like to ſuch as we haue before deſcribed. As touching other trees, and eſpecially the odoriferous woods within the Iſles that lie vpon Æthiopia round about, we haue ſaid enough in the treatiſe of thoſe Iſlands.

Chap. XV.

¶ *Of the trees growing in mount Atlas: of Citron tables: of the commendable perfections, and contrariwiſe of the defaults thereof.*

THe mountaine Atlas (by report) hath a wood in it of peculiar trees that elſewhere grow not, wherof we haue already written. The Mores that border vpon it, are ſtored with abun-
C dance of Citron trees: from whence commeth that exceſſiue expenſe and ſuperfluitie about Citron tables made thereof. And our dames and wiues at home (by way of reuenge) vſe to twit vs their husbands therwith, when we would ſeem to find fault with the coſtly pearls that they do weare. There is at this day to be ſeen a board of Citron wood, belonging ſometimes to *M. Tullius Cicero*, which coſt him ten thouſand Seſterces: a ſtrange matter, conſidering hee was no rich man: but more wonderfull, if we call to mind the ſeueritie of that age wherein hee liued. Much ſpeech there is beſides of *Gallus Aſinius* his table, ſold for eleuen thouſand Seſterces. Moreouer, there are two other, which K. *Iuba* ſold: the one was priſed at 15000 Seſterces, and the other held little vnder. Not long ſince, there was one of them chanced to be burnt, and it came with other houſhold ſtuff but from the cottages in Mauritania, which coſt 140000 Se-
D ſterces: a good round ſumme of money, and the price of a faire lordſhip, if a man would be at the coſt to purchaſe lands ſo deer. But the faireſt and largeſt table of Citron wood, that to this day hath beene ſeene, came from *Ptolomæe* king of Mauritania, the which was made of two demie-rounds or halfe circles, joined together ſo artificially, that for the cloſeneſſe of the joint (which could not be diſcern'd) it was more admirable than poſſibly it could haue been if it had been naturally of one entire peece: the diameter of it caried foure foot and a halfe, and three inches thicke it was. Likewiſe another ſuch table there was, ſurnamed Nomien, of one *Nomius* a ſlaue, enfranchiſed by *Tiberius* the Emperour: the ſquare or diametre whereof, was foure foot within 3 quarters of an inch; and the thickneſſe halfe a foot lacking ſo much. And here I cannot forget and ouerpaſſe, how that the Emperor *Tiberius* himſelfe had a table, which being two
E inches and three quarters aboue 4 foot in the diametre, and an inch and an half thick throughout, he cauſed to be plated all ouer, for that *Nomius* his freed-ſeruant had one ſo rich and magnificent, made altogether of a knot: a knot (I ſay) or a knur in the root of the tree, which is the very beautie of the wood, and giues all the grace to tables made therof; and namely, if this knot lie altogether within ground, it is without compariſon excellent, and farre more rare and ſingular than any of the timber aboue, either in the trunk and bodie, or in the armes and boughes of the tree. So that (to ſay a truth) this coſtly ware bought ſo deare, is no better than the ſuperfluous excreſcenſe of trees: the largeneſſe wherof, as alſo of their roots, may be eſteemed by the roundneſſe that they carie. Now are theſe Citron trees much like to the female Cypreſſe (eſpecially that of the wild kind) in leaf, in ſmel, and in body. A mountaine there is in high Mau-
F ritania, called Anchorarius, which was wont to yeeld the beſt and faireſt citron trees, although now it be naked and deſpoiled of them. But to returne to our tables aforeſaid; the principall be they which are either criſped in the length of the vein, or beſet here and there with winding ſpots. In the former, the wood curleth in and out along the graine, and therefore ſuch bee named Tigrinæ, [*i.* Tigre-tables.] In the other, there be repreſented ſundrie tufts as it were enfolded

folded and enwrapped round, and thoſe they call Pantherinæ, [*i.* Panther or Luzerne tables.] There be againe, whereof the worke in waineſcot reſembleth the waues of the ſea: and the better grace they haue, and be more eſteemed, if they make a ſhew of the eyes appearing in Peacockes tailes. Next in account and requeſt to theſe abouenamed, be thoſe that are friſled with ſmall ſpots ſtanding thicke, as if many graines were gathered together, which they call thereupon (of ſome reſemblance of little bees or flies) Apiatæ, as if they were ſpeckled & filed with their dung. But be the worke and graine of the wood what it will, the color makes all. Here at Rome we ſet moſt ſtore by that colour which is like to mead or honied wine, ſhining and glittering in the veines of the wood. After which conſiderations, men regard much the breadth & largenes of the whole plank, ſtanding of one entire peece which makes the table. Some take a great pleaſure to ſee in one Citron bourd many of thoſe faults which be incident to trees, to wit, the Lignum, for ſo they call the ſimple, plain, and bare wood and timber without any branched or curled graine at all, without a ſhining luſtre and glittering gloſſe, without worke to be ſeen in any order digeſted, or at the moſt (if any be) repreſenting the leaues of a Plane tree. Againe, the reſemblance either of the vein or color of a kind of Oke wood called Ilex. Moreouer, the rifts and chinks which timber is ſubject vnto, by reaſon principally of wind and Suns heat: or elſe hairie ſtreakes that be like to ſuch clifts and creuiſſes. Afterwards men were delighted with a kind of Lamprey veine trauerſing and running ouer a black croſſe way: and with an outward skin or coat marked with ſpeckes or knottie knurs, like to Poppie heads: and generally with a color all ouer, comming neer to black, or at leaſt wiſe beſpotted with ſundrie colors. The Barbarians for to ſeaſon the wood of this Citron tree, vſe to burie the green bourds or plankes thereof within the ground, and beſmeare them all ouer with wax. But the artificers and workemen do put them for 7 daies within heaps of corne, and ſtay 7 daies more ere they be wrought: & a wonder it is incredible, how much of the weight the wood loſes by this means. Meorouer, of late daies we haue found the experience by ſhipwracks, that this timber alſo wil by nothing in the world be ſooner dried nor hardened to laſt a long time without corruption, than by ſea-water. Howbeit, to maintaine theſe tables beſt, and to cauſe them for to ſhine bright, the way is to rub them with a drie hand, eſpecially after that a man is newly come out of the baines or hot houſe. Neither catch they any harme or ſtaine, if wine be ſpilt thereupon: ſo as it ſhould ſeeme they were naturally made for wine. To conclude, a tree this is ſeruing for the ornaments of this life, and the trim furniture of our houſe, few or none like to it: and therfore me thinks I do not amiſſe to continue the diſcourſe thereof ſomewhat longer than ordinarie.

Chap. XVI.

¶ *Of the tree Thya, what it is.*

WEll knowne vnto *Homer* was this tree, which in Greeke is named * θύον, but ſome call it Thya: for among other daintie odors and ſweet woods, he reports, That dame *Circe* (whom he would haue to be reputed as a goddeſſe) burnt of this Thyon. And therefore much deceiued are they, who vnderſtand by that word Thyon, perfumes and odoriferous ſpice, conſidering that in one and the very ſame verſe, the Poet maketh mention of the Cedar and Larch tree together with Thyon, whereby it appeareth plaine, that he ſpake of trees onely. *Theophraſtus*, who after the daies of *Alexander* the Great, was the firſt that wrate the hiſtorie of thoſe acts which happened about the 440 yeare from the foundation of Rome, gaue great honour euen then to this Tree, and reported, That all carpenters worke of temples in old time, was made of the ſame; as of a timber euerlaſting, and which in rouſes would continue without all putrefaction and corruption whatſoeuer. Moreouer, he writeth, That the wood of the root is ſo curled and friſled, as none more; and that of no timber beſides are more curious peeces of works made, nor of greater price. Ouer and beſides, he ſaith, That the faireſt and goodlieſt trees of this kind, doe grow about the temple of *Iupiter Hammon*: and ſome of them alſo within the countrey Cyrenaica toward the inland parts. But all this while not a word of the foreſaid coſtly tables ſpeakes he in his whole hiſtory: and verily before that of *Ciceroes*, there is no record in writers of any ſuch tables: whereby it appeareth, that they be come vp but of late daies. Another tree there is likewiſe of that name, bearing an apple or fruit, which ſome cannot abide for the ſtrong ſauor and bitternes withall, others again like and loue it as well. This tree alſo beautifieth and ſetteth out the houſe, but I purpoſe not to beſtow many more words thereof.

Chap.

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Chap. XVII.

¶ *Of the tree Lotus.*

IN the ſame coaſt of Africk which regards Italy there growes Lotos, which they cal Celtis. A notable tree it is and of ſpeciall marke: found alſo here among vs now in Italy, but together with the ſoile it hath changed the nature. The faireſt and goodlieſt of them be about the Syrtes and the Naſamones: they be as big and tall as Peare trees, howſoeuer *Nepos Cornelius* ſaith they are but little and low. The leaues be thick cut and indented: otherwiſe they are like to thoſe of the Ilex or Holme tree. Many ſorts there be of the Lote tree, and thoſe for the moſt part according to their diuers and ſeuerall fruits. Howbeit ordinarily the fruit is as big as a bean, and of yellow colour as Saffron; yet before it is full ripe it changeth into ſundry colors like as grapes do. It growes thick among the branches of the tree in manner of myrtle berries, and not like to the cherries in Italy: and in thoſe plants aboue named the meat thereof is ſo ſweet and pleaſant, that it hath giuen the name both to a nation and countrey, inſomuch as the people be called Lotophagi: and withall, ſo welcome be all ſtrangers thither, and ſo well contented with their entertainment, that they forget their owne natiue ſoile, for the loue they haue to this fruit when they haue once taken to it. By report, whoſo eats thereof is free from the diſeaſes of the belly. This fruit is counted the better which hath no kernell within: for there is another kind wherein the ſaid kernell ſeems as hard as a bone. Moreouer, out of this fruit there is preſt a wine like to Mede, which the aboue named *Nepos* ſaith will not laſt aboue ten daies: who reporteth beſides, that the inhabitants do ſtamp the berries thereof with wheat or frumentie into a paſt, and ſo put it vp in great barrels or ſuch like veſſells for the prouiſion of their food. Moreouer, we haue heard ſay that whole armies paſſing to and fro through Africke, haue fed thereof and had no other meat: the wood is blacke of colour, and much ſought for it is to make pipes and fifes: of the root whereof hafts of daggers and kniues be made, beſides other pretty deuiſes of ſmall vſe. Thus much as touching the nature of the Lote tree in thoſe parts: for there is an herb alſo of that name [called Melilote.] As for the Egyptian Lotus it is a plant bearing a ſtalke, and growes in the mariſhes of Egypt: for when the waters of Nilus are fallen which drencht the countrey, this plant comes vp in the flat and waterie leuell along the riuer, with a ſtem like to the [Egyptian] bean, with leaues thruſt cloſe and thick together, howbeit ſhorter and leſſe than thoſe of the bean: in the top of which ſtalk it bears fruit in maner of an head, for cuts and chamfers and euery thing els like thoſe of Poppy: within which be conta ned certain grains or ſeeds reſembling Millet. The inhabitants of that countrey do pile together in heaps thoſe heads, and ſo let them putrifie: afterwards they ſeparate them, waſh them faire, and when they be dry, ſtamp and mold them, and therof make their bread. A ſtrange and wonderful thing it is that is reported beſides, namely, That when the Sun goes down, thoſe heads cloſe vp and be couered with leaues, and remaine ſhut vntill the morning, at what time they open againe: and thus continné this courſe vntil they be ripe, and that the floure which is white doth fall of it ſelfe.

Chap. XVIII.

¶ *Of the very ſtalke, ſcape or ſtem, and root of Lotus.*

IT is ſaid moreouer as touching this Egyptian Lotus, That in Euphrates the very head of the ſtalk together with the floure, vſeth in the euening to be plunged & drowned vnder the water vntil midnight, and ſo deep to ſettle toward the bottom, that a man with his hand canot reach thereto, nor find any part of it: but after that time it begins to riſe by little and little, and by Sun-riſing appeares aboue water and opens the floure, and ſtill mounteth higher and higher a good height from the water. This Lotos hath a root as big as a Quince, couered with a black rinde or barke much like to the huske of a Cheſtnut. The ſubſtance within is white and delectable to eat, but more pleaſant being either ſodden in water, or roſted vnder embers, than raw: and Hogs will feed fat with nothing better, than with the pills and parings of this root.

G

Chap. XXI.

¶ *Of Paliurus, the Pomegranate, and the floure of the Pomegranat.*

THe region of Cyrenaica in Africk makes more account of their Paliurus than of Lotus: for the Paliurus ſhoots forth more twigs and branches, and hath a redder fruit than the Lotus: beſides, the fruit and the kernell be eaten apart; and in truth pleaſant it is of it ſelfe alone, but more pleaſant with wine; yea, and the iuice therof giueth a better taſt to wine if it be put into it. The inland parts of Africk, as far as to the Garamants and the deſarts, be wel planted with Date trees faire and great, bearing goodly and pleaſant dates, and thoſe eſpecially in that quarter of Barbary which lieth about the temple of *Iupiter Hammon*. But the territorie of Carthage challengeth to it ſelfe the Punick apple: ſome call it the Pomegranat, & they haue made ſeuerall kinds thereof, calling that Apyrinon, which hath no woody or hard kernell within: and indeed theſe pomegranats are naturally more white, the graines within more pleaſant, and diuided with membranes and pellicles between, nothing ſo bitter as the other: for in both ſorts they be framed and faſhioned within like to hony combs. As for thoſe pomegranats which haue ſuch kernels or ſtones, there be fiue kinds of them, to wit, ſweet, ſoure, temperat between both, ſtyptick or auſtere, and taſting of wine. But the pomegranats of Samos and Egypt haue this difference one from another, That ſome haue red floures on the head, and are therefore called Erythrocoma: others are white, and ſuch they name Leucocoma. The rind of ſoure pomegranats is better for tanners and curriors to dreſſe their leather with, than of the reſt. The floure is called Baliſteum, both medicinable and alſo good for to dyt cloth: and hereof commeth the colour of Puniceus [*i.* a light red, or a bay] taking the name of the apple Punicke, or Pomegranat.

H

I

Chap. XX.

¶ *Of the Shrubs in Aſia and Greece.*

IN Aſia & Greece there grow certain ſhrubs, to wit, Epipactis, which ſome call Elleborine, with ſmall leaues, which being taken in drink are good againſt poyſon, like as the leaues of Erice [*i.* Heath or Lings] withſtand the ſtinging of ſerpents.

K

Chap. XXI.

¶ *Of Thimelæa or Chamelæa, Tragacanth: of Tragium or Scorpio. Alſo of Myrice, Brya, and Galla.*

THe ſhrub or buſh which beares the graine Gnidium, that ſome call Linum, is after ſome writers named Thymelæa, according to others Chamelæa: there be that call it Pyrosachne: ſome again giue it the name of Cneſton, others of Cneoros. This plant howſoeuer it be named reſembleth the wild Oliue, but that the leaues be narrower and gummy to the teeth, if a man bite them: for height and bigneſſe anſwerable to the myrtle: the ſeed thereof is for colour and faſhion like to the grain of wheat, and ſerueth only for phyſicke.

L

As touching the plant Tragium, it is to be found in the Iſle Candy onely. It hath a reſemblance of the Terebinth, like as the ſeed alſo, which, by report, is moſt excellent and effectuall to heale wounds made by darts and arrowes. The ſame Iſle hath the buſh Tragacanth growing in it, the root whereof is like to that of Bedegnar: and the ſame Tragacanth is much preferred before that which growes either in Media or Achaia. A pound of Tragacanth is worth 30 deniers Roman. As for the plant Tragium or Scorpio, it grows likewiſe in Aſia. A kind of bramble or brier it is without any leaues, bearing fruit of berries much like to red grapes, whereof there is good vſe in phyſicke.

M

Touching Myrice, which others call Tamarix; and Achaia Brya the wilde; Italy brings it forth: this ſpecial propertie it hath, that the tame kind thereof only, namely that which grows in gardens, beareth fruit like galls. In Syria & Egypt this groweth plenteouſly, and the wood thereof we cal Vnhappy: but the more vnluckie and vnfortunate be thoſe of Greece: for there groweth Oſtrys, named alſo Oſtrya, a ſolitary tree about watery and moiſt rocks, hauing barke

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A and branches like to the Aſh,but Peare-tree leaues,ſaue that they be ſomwhat longer & thicker,with long cuts or lines wrinkled and riuiled thoroughout: and the ſeed in forme and color is like to barley. The wood of it is hard and ſtrong:and ſome ſay if any peece therof be brought into an houſe where a woman is in trauaile of child-birth, ſhe ſhall haue difficult labour, and hardly be deliuered: and whoſoeuer lyeth ſicke there,ſhall die a miſerable death.

Chap. XXII.

¶ *Of Euonymus or the Spindle tree of Adrachne, Congygria, and Thapſia.*

B IN the Iſland Lesbos,there groweth a tree named Euonymos, no better nor more lucky than Oſtrya beforeſaid. Much vnlike it is not the Pomegranat tree. As for the leafe that it beares, it is of a middle ſize between that of the Pomegranat and the Bay; otherwiſe for ſhape and ſoftneſſe,it reſembles that of the Pomegranat.the floure is whiter; the ſmell and taſt wherof is peſtiferous and menaces preſent death: it beares cods like to Seſama,within which be grains or ſeeds foure ſquare and thick,but deadly vnto all creatures that eat them. The leafe alſo is as venemous as the graine,yet otherwhiles there enſues therof a fluxe and gurrie of the belly,which ſaues their life, or elſe there were no way but one.

Alexander Cornelius called that tree * Eone,whereof the famous ſhip Argo was made; and like it was (by his ſaying) to the Oke that carries Miſſelto, the timber whereof neither water C wil putrifie,nor fire conſume,no more than the Miſſelto it ſelfe. But ſo far as euer I could learn, no man knew that tree but himſelfe. * Or Ἔαπλε

As for the tree Adrachne, all the Greeks in manner take Porcellaine for it; whereas indeed Porcellaine is an hearb, called in Greeke *Andrachne*;ſo as they differ in one letter:but Adrachne is a tree of the wild forreſts growing vpon mountaines,and neuer in the plaines beneath; reſembling the Arbut or Strawberrie tree, ſaue that the leaues be leſſe, and neuer fade nor fall. And for the barke,rough and rugged indeed it is not, but a man would ſay it were frozen and al an yce round about, ſo vnpleaſant it is to the eye.

Like in leafe to Adrachne, is the tree Congygria, but otherwiſe it is leſſe and lower. This propertie it hath, To loſe the fruit wholly, together with the ſoft downe that it beareth,which D they cal Pappus;a qualitie that no other tree hath,beſide it. Like to Andrachne alſo is Apharce,and beares fruit twice in one yeare,as well as it. The former is ripe,when the grape begins to bud and bloom;the latter, in the beginning of winter: but what manner of fruit this ſhould be, I haue not found written.

As touching the Ferula, it will not be amiſſe to ſpeake therof among forrain plants,yea and to range it among trees:for (as hereafter we wil diſtinguiſh in the diuiſion of trees) ſome plants are of this nature, To ſhew al the wood they haue,where the bark ſhould be;that is to ſay,without forth: and where the heart of the wood ought to be,they haue nought but a light and ſpongeous pith,as the Elder;or elſe nothing at all, as Canes and Reeds. But to come to our Ferula aboue named,it growes in hot countries beyond-ſea, with a ſtalk or ſtem full of knotty ioints. E Two kinds be knowne of them:for that which the Greeks call Marthex,groweth tall;but Narthecia is always low. The leaues that put forth at the ioints,be euer biggeſt toward the ground: this plant otherwiſe is of the nature of Dill,and the fruit is not vnlike. There is not a plant in the world lighter than it for the bigneſſe:being eaſie therfore to weld and carrie,the ſtem therof ſerues old men in ſtead of ſtaues,to reſt vpon. The ſeed of this Ferula or Fennell-gyant, ſome haue called Thapſia,but herin they be deceiued,for that Thapſia doubtleſſe is a kind of Ferula by it ſelfe, leafed like Fennel,with an hollow ſtalke,and neuer exceeds in hight the length of a walking-ſtaffe:the ſeed is like to that of the Ferula, and the root white:cut it,there iſſues forth milke;ſtampe it,you ſhall ſee it yeeld plenty of juice. Neither is the barke of the root reiected and caſt aſide, although both it,the milke, and the juice, be very poiſons: for ſurely the root is F hurtfull to them that dig it vp;and if neuer ſo little of the aire therof breath vpon them (ſo venomous it is) their bodies will bolne and ſwell, their faces will be all ouerrun with a wild fire: to preuent which miſchifes, they are forced to anoint their bodies with a cerot. Howbeit as dangerous as they be, Phiſicians make vſe thereof in the cure of many inward diſeaſes,ſo they be wel corected and tempered with other ſafe medicines. In like maner they ſay,that the juice

of Thapſia is ſingular good for the ſhedding and falling of the haire, alſo againſt the blacke & G
blew markes remaining after ſtripes: as if Nature furniſhed not Phyſicians ſufficiently with o-
ther wholſom remedies, but that needs they muſt haue recourſe to ſuch poiſonful and miſchie-
uous medicines. But this is the caſt of them all, to pretend ſuch colourable excuſes, for their
handling of poiſons: and ſo impudent and ſhameleſſe are ſome beſides, that they baſh not to a-
uow the vſe of them, bearing vs in hand, that Phyſick canot ſtand without poiſon. The Thapſia
in Affricke is the ſtrongeſt of all others. Some vſe to ſlit or cut the ſtem about harueſt, and in
the very root make an hollow trough to receiue the juice that runs downe, and when it is dried,
they take it away. Others againe do bruiſe and ſtamp in a mortar, both leafe, ſtalke, and root; and
when the juice that is preſſed there-from, is thoroughly dried in the Sun, they reduce the ſame
into certain Trochiſques. *Nero Cæſar* the Emperor in the beginning of his Empire, gaue great H
credit to Thapſia: for vſing (as he did) to be a night-walker, and to make many ryots and much
miſrule in the darke, he met otherwhiles with thoſe that would ſo beat him, as that he carried
away the marks black and blew in his face: but (as he was ſubtil & deſirous to auoid the ſpeech
of the people) an ointment he had made of Thapſia, Frankincenſe, and Waxe, wherewith hee
would anoint his face, and by the next morning come abroad with a cleare skin, and no ſuch
marks to be ſeene; to the great aſtoniſhment of all that ſaw him. To conclude, the Ferula ma-
keth the beſt matches to keep fire, by all mens confeſſion: and thoſe in Ægypt excell the reſt, for
that purpoſe.

Chap. XXIII. I

¶ *Of Capparis, or Cynosbatos, or Opheoſtaphyle: and of Sari.*

Likewiſe in Ægypt growes Capparis, a ſhrub of a harder and more wooddy ſubſtance: well knowne for the ſeed and fruit that it carries, commonly eaten with meats, and for the moſt part the Capres and the ſtalke are plucked and gathered together. The outlandiſh Capres (not growing in Ægypt) we muſt take good heed of and beware: for thoſe of Arabia be peſtilentiall and venomous: they of Affricke be hurtfull to the gumbs, and principally the Marmarike are enemies to the matrice, and breed ventoſities. The Apulian Capres cauſe vomit, and make lubricitie both of ſtomack and belly. Some call the ſhrub Cynosbatos: others Opheoſtaphyle. Moreouer, there is a plant of ſhrubs kind, called Sari, it growes along Nilus, almoſt two cubits high, it beareth an inch in thickneſſe, and hath leaues like to Papyr-reed, and men do chew and K
eat it after the ſame manner. As touching the root, it is ſingular good for Smiths cole to burne in their forges, ſo hard it is and durable.

Chap. XXIIII.

¶ *Of the Royall thorn of Babylon: and of Cytiſus.*

I May not ouer-paſſe that plant, which about Babylon is ſowed vpon Thornes only: for otherwiſe it knowes not how to liue no more than Miſſelto, but on trees: howbeit this plant that I ſpeake of, is ſowed vpon that Thorne alone called the Royall Thorne. And a ſtrange thing it is of this plant, That it ſprings and grows the very ſame day that it is ſet or ſowed. Now the L
ſeaſonable time of ſowing it, is at the very riſing of the Dog-ſtar: and notwithſtanding the Suns heat, right quickly ouerſpreads it the tree or ſhrub, onwhich it is caſt. The Babylonians vſe to aromatize their wine therwith; and for that purpoſe are they ſo carefull to ſow it. But the foreſaid Thorne tree groweth alſo about the long walls of Athens [reaching from the tower to the hauen Pyræeum.]

Noreouer, a ſhrub there is, called Cytiſus, highly commended and wondrous much praiſed by *Ariſtomachus* the Athenian, for feeding of ſheep; as alſo for fatting of ſwine, when it is drie: and he promiſeth and aſſureth, That an acre of land ſowed therwith, although it be none of the beſt ſoile, but of a meane and ordinarie rent, will yeeld yearely [*communibus annis*] 2000 Seſterces to the maſter. As great profit commeth therby, as of the pulſe like Vetches, called Ervum: M
but ſooner will a beaſt be ſatisfied therewith, and a very little therof will ſerue to fat the ſame: inſomuch as if horſes or any ſuch labouring cattell may meet with that prouender, they will not care for barley: neither is there any other graſſe or fodders, that yeeldeth more or better milke,

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A milk than it: but that which paſſeth all, the paſturage of Cytiſus, preſerueth ſheep, goats, and ſuch like cattell, ſound and ſafe from all diſeaſes whatſoeuer. Ouer and beſides, if a nourſe want milke, *Ariſtomachus* preſcribes her to take Cytiſus dry, and ſeeth it in water, and ſo to drink it in wine, whereby not onely her milke will come againe in great plenty, but the babe that ſucketh thereof will be the ſtronger and taller. He giueth it alſo to hens and pullein whiles it is green, or ſteeped and wet if it chance to be dry. *Democritus* and *Ariſtomachus* both do promiſe and aſſure vs, that Bees will neuer miſcarry nor faile, if they may meet with Cytiſus to feed vpon. And yet there is not a thing of leſſe charge to maintaine than it. Sowne it is commonly in the ſpring with barley, I mean the ſeed thereof, as they mean to ſow Leekes or Porret ſeed: or els they ſet plants and ſlips thereof from the ſtalke, in Autumne before mid-winter. If the ſeed be ſowne, it ought to be ſteeped and moiſtned before: yea, and if there fall no ſtore of raine after
B it is in the ground, it had need to be watered. As for the plants when they be a cubit long, are replanted in a trench a foot deepe. Otherwhiles the tender quicke-ſets are planted about the Equinoxes, to wit, in mid-March and mid-September. In three yeares they come to their full growth. They vſe to cut it downe in the Spring-Equinox, when it hath done flouring: a worke that a very lad or old woman may do, euen ſuch as can skill of nothing beſides. This Cytiſus is in outward hew white: and in one word, if a man would pourtray the likenes thereof, it reſembleth for all the world a ſhrub of Trifolie or Clauer-graſſe, with narrower leaues. Being thus gathered, it is euer giuen to beaſts once in three daies. And in Winter, that which is dried ought to be wet before they haue it. Ten pound of it is a ſufficient foddering for an horſe: and
C for other ſmall cattell according to the proportion. But by the way this is not to be omitted, that it is good to ſet garlicke and ſow onions ſeed betweene the rewes and rankes of Cytiſus where it groweth, and they will thriue more plenteouſly. This ſhrub was firſt diſcouered and known in the Iſland Cythnus, and from thence tranſlated into all the other Cyclades: and ſoon after brought to all the cities of Greece; whereupon followed great increaſe of milke, & plentie of cheeſe. I maruel therefore very much that it is ſo geaſon and rare in Italy: and a plant it is that feareth neither heate nor cold, no iniury of haile, nor offence by ſnow; and as *Hyginus* ſaith, it is not afraid ſo much as of the enemie; the reaſon is, becauſe the wood thereof is nothing beautifull to the eye.

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Chap. XXV.

¶ *Of ſhrubs and trees growing in our Mediterranean ſea, in the red ſea, and in the Indian ſea.*

EVen the very ſea affordeth ſhrubs and trees: but thoſe of the Mediterranean ſea be far leſſe than of other ſeas; for the red ſea and all the Levant Ocean is full of woods. That which the Greeks call φῦκος, hath no other name in any language. As for Alga, is a word appropriate rather to weeds or ſea-herbs, called Reik: but this Phycos is a very ſhrub, bearing broad leaues of a green colour, which ſome call Praſon, others Zoſter. A ſecond kind there is of Phycos, with an hairy leafe like to Fennell, and groweth vpon rockes. As for the former called Zo-
E ſter, it is found among the ſhelues and ſhallow waters not far from the ſhore: both the one and the other appeare in the Spring, and be gon in Autumne. That of this kind which groweth in Candy about rocks, is much vſed of dyers for the purple color: and namely on the North part of that Iſland, and among ſponges, for that is moſt commendable for this purpoſe. A third ſort there is like vnto the graſſe called *Coich*, or *Dent-de-chien*, hauing a root full of ioynts, and a ſtalk likewiſe in maner of a reed.

Another ſhrub there is in that ſea called Bryon, with leaues like Lettice, ſaue onely they be more wrinkled and crumpled together: but this growes more inward and farther into the ſea. Mary in the deep groweth both Fir and Oke to the height of a cubit. Among theſe branches, the Cockles and Muskles, and ſuch like ſhell fiſhes do ſettle and ſticke vnto them. As for that
F kind of ſea-Oke, ſome ſay it is of good vſe to dye wooll withall: as alſo that it beareth Maſt or Acorns in the deep: the knowledge of all which we come vnto by thoſe that diue into the bottom of the ſea, and ſuch as haue ſuffered ſhipwracke and eſcaped. Moreouer, by report, there be other exceeding great trees, and namely about Sycione. As for the ſea vine it groweth euerie where: but the fig tree there is without leaues, & hath a red bark. There be alſo date trees found

in the ſea,but as little as ſhrubs. Without *Hercules* pillers,or the ſtreight of Gebraltar, there G
are ſhrubs to be ſeen, bearing leaues reſembling leek blades : and others leaued like to the bay tree, or to the herbe Thyme : and both kinds being caſt vp a land turne into the pumiſh ſtone. But in the Eaſt parts it is a wonderous matter to thinke,that ſo ſoon as euer a man is paſt Coptus,he ſhall find nothing to grow in all the wilderneſſe,but only a kind of thorne or thiſtle,called the thirſty or dry thorne,and the ſame but here and there in very few places : whereas in the red ſea whole woods do liue,and namely of Baies and Oliues bearing their berries : alſo when it raineth,certaine Muſhromes,which no ſooner be caught with the Suns heat,but they turne into the pumiſh ſtone. As touching the ſhrubs there growing, they be commonly three cubits high,and thoſe ſo full of ſea dogs and curres, that a man ſhall hardly looke out of the ſhip in ſafety,for that many times they will take hold of the very ores and aſſaile them. The ſouldiers H
of *Alexander* the Great who ſailed into India made report,That the branches and leaues of the ſea trees,ſo long as they were vnder the water looked green,but when they be taken forth, preſently dried with the heate of the Sun,and became ſalt. Alſo,that about the ſhore they found ſtony ruſhes and reeds,like vnto naturall ruſhes indeed. Moreouer,in the deep ſea they light on certain little trees branched and full of boughes,in colour of an Ox horne, but the head or top of them was red:handle them in your hand they were as brittle as glaſſe:put them into the fire they would be red hot like iron : quench them again,they returned to their former colour. In the ſame tract there be ſome tides ſo high, that the ſea ouerfloweth and couereth the Woods growing within the Iſlands,although there be trees in them taller than the higheſt Planes or Poplars. And thoſe trees beare leaues like Lawrell,and floures for ſmel and colour reſembling I
the Violet. Their berries be like to Oliues,and thoſe of a pleaſant and ſweet ſauor, which they bring forth in the Autumne : and their leaues neuer ſhed but continue all the yeare long. The lower ſort of theſe trees the floud couereth all and whole:but the greateſt beare vp their heads aboue the ſea, whereunto the mariners do faſten and tie their veſſels at a high water : but when it is ebbe,at the very root. Moreouer,by their ſaying, they ſaw other trees in the ſame ſea,with leaues euer green vpon them,carying a fruit like to Lupines. King *Iuba* reports, That about the Iſlands of the Troglodites,there groweth a ſhrub within the ſea,called Iſidos Plocamos,[*i. Iſis haire*] reſembling coral,and void of leaues : cut a branch of it from the ſtock, it becomes hard, changeth colour,and is black : if it fall it is ſo tender that it will breake like glaſſe. He ſpeaks moreouer of another called Charito-blepharon, which is of great force in amatorious matters K
to procure loue : and thereof women (quoth he) make them carkanets and pendant ornaments to hang about their necks. To conclude,he affirmes that this ſhrub hath a certain intelligence when a man would take hold of it, and therefore waxeth as hard as an horne, inſomuch as it is able to turne the edge of a knife or bill, that vnneth or hardly it may be cut : but in caſe it be intrapped and drawne vp with cords without any edge toole,it preſently turneth to be a ſtone.

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THE FOVRTEENTH BOOK OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Containing the Treatiſe of Trees bearing Fruit.

The Proeme.

THus far forth haue we diſcourſed of all forreine and ſtrange trees in a manner, ſuch I meane as know not how to liue in any other places but where they naturally firſt did grow, and which willingly go not into other countries, nor can abide their ſoile or aire. Good leaue may I now haue to write of Plants and Trees common to all lands, and namely, to ours of Italy, which may ſeeme to be the very Hort-yard and naturall garden that bare them all. This onely would I aduertiſe the Readers and Learners to remember, that for this preſent we purpoſe to deſcribe their natures and vertues onely, leauing out the manner of husbandrie that belongeth vnto them: albeit in their tending and keeping appeareth the greateſt part of their properties, and of Natures workes. And verily, I cannot chuſe but maruell ſtill and neuer giue ouer, how it comes to paſſe, that the remembrance, yea, and the verie names of ſome trees which antient Writers haue deliuered in their bookes, ſhould be quite gone and aboliſhed. For who would not thinke, that our life ſhould ere this haue gained much by the Maieſtie of the Romane Empire; haue diſcouered all things by the meanes of the commerce we haue had with the vniuerſall world, by the traffick, negotiation, and ſocietie I ſay that we haue entered into during the bleſſed time of peace which we haue inioyed? conſidering that by ſuch trade and entercourſe, all things heretofore vnknowne, might haue come to light. And yet for all this, few or none (beleeue me) there are who haue attained to the knowledge of many matters which the old writers in times paſt haue taught and put in writing. Whereby wee may eaſily ſee, that our anceſtours were either far more carefull and induſtrious, or in their induſtrie more happie and fortunate. Conſidering withall, that aboue two hundred yeares paſt Heſiodus (who liued in the very infancie of Learning and good letters) began his worke of Agriculture, and ſet downe rules and precepts for husbandmen to follow. After whoſe good example, many others hauing trauelled and taken like paines, yet haue put vs now to greater labour. For by this means we are not onely to ſearch into the laſt inuentions of later writers, but alſo to thoſe of antient time which are forgotten and couered with oblition, through the ſupine negligence and generall idleneſſe of all mankind. And what reaſons may a man alledge of this drowſineſſe, but that which hath lulled the world aſleepe? the cauſe in good faith of all, is this and no other, Wee are readie to forgoe all good cuſtomes of old, and to embrace noueltie and change of faſhions: mens minds now a daies are amuſed and occupied about new fangles, and their thoughts be rolling; they wander and roue at random; their heads be euer running; and no arts and profeſſions are now ſet by and in requeſt, but ſuch as bring pence into our purſes. Heretofore whileſt Kings and Potentates contained themſelues within the Dominion of their owne Nations, and were not ſo ambitious as now they bee, no maruell if their wits and ſpirits kept ſtill at home: and ſo for want of wealth and riches of Fortune, were forced to employ and exerciſe the gifts of their minde: in ſuch ſort as an infinite number of Princes were honoured and renowned for their ſingular knowledge and learning. Yea, they were more braue in port, and carried a goodlier ſhew in the World for their skill in Liberall Sciences, than others with all their pomp or riches: beeing fully perſuaded and aſſured, that the way to attaine vnto immortalitie and euerlaſting Fame, was by literature and not

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by great possessions and large seignories. And therefore as learning was much honoured and rewarded in G
those dates, so arts & sciences tending to the common good of this life daily increased. But afterwards when
the way was once made to inlarge their territories farther in the world, when princes and states beganne to
make conquests and grow rich and mighty, the posterity felt the smart and losse thereby. Then began men to
chuse a Senator for his wealth, to make a iudge for his riches, and the election of a ciuill magistrate and mar-
tiall captain, to haue an eie and regard only to goods and substance, to land and liuing: when rents and reue-
nues were the chiefe and onely ornaments that made men seeme wise, iust, politicke, and valiant. Since time
that childlesse estate was a point looked into, and aduanced men into high place of authoritie and power, pro-
curing them many fauorites in hope of succession, since time I say that euery man aimed and reached at the
readiest meanes of greatest lucre and gaine, setting their whole mind, and reposing their full content and ioy H
in laying land to land, and heaping together possessions: downe went the most precious things of this life, and
lost their reputation: all those liberall arts which tooke their name of liberty and freedome (the soueraigne
good in this world which were meet for princes, nobles, gentlemen and persons of great state) forwent that
prerogatiue, and fell a contrarie way, yea, and ran quite to wracke and ruine: so as in stead thereof, base slaue-
rie and seruitude be the only waies to arise and thriue by: whiles some practise it one way, some another, by
flattering, admiring, courting, crouching, and adoring: and all, to gather good and get mony. This is the one-
ly marke they shoot at, this is the end and accomplishment of all their vowes, praiers and desires. Insomuch,
as we may perceiue euery where, how men of high spirit and great conceit are giuen rather to honor the vi-
ces and imperfections of others, than to make the best of their owne vertues and commendable parts. And
therefore we may full truly say, that life indeed is dead; Voluptuousnesse and Pleasure alone is aliue, yea and I
beginneth to beare all the sway. Neuertheless, for all these enormities and hindrances, giue ouer will not I
to search into those things that be perished and vtterly forgotten, how small and base soeuer some of them be;
no more than I was affrighted in that regard, from the treatise and discourse of liuing creatures. Notwith-
standing that I see Virgil *(a most excellent Poet) for that cause only forbare to write of gardens and hort-*
yards, because he would not enter into such petty matters: and of those so important things that he handled,
he gathered only the principall floures, and put them downe in writing. Who albeit that he hath made men-
tion of no more than 15 sorts of grapes, three kinds of Oliues, and as many of Peares, and setting aside the
Citrons and Limons, hath not said a word of any apples; yet in this one thing happy and fortunate hee was,
For that his worke is highly esteemed, and no imputation of negligence charged vpon him. But where now K
shall we begin this treatise of ours? What deserueth the chiefe and principall place, but the vine? in which
respect Italy hath the name for the very soueraignty of Vine-yards: insomuch, that therein alone, if there
were nothing els, it may well seeme to surpasse all other lands, euen those that bring forth odoriferous spices
and aromaticall drugs. And yet to say a truth, there is no smell so pleasant whatsoeuer, that out-goeth Vines
when they be in their fresh and flouring time.

Chap. I.

¶ *Of Vines, their nature and manner of bearing.*

VInes in old time were by good reason for their bigneſſe reckoned among trees. L
For in Populonia, a citie of Tuscan, we see a statue of *Iupiter* made of the wood of one entire Vine, and yet continued it hath a world of yeares vncorrupt, and without worme. Likewise at Massiles there is a great standing cup or boll to be seene of Vine-wood. At Metapontum there stood a temple of *Iuno*, bearing vpon pillars of Vine wood. And euen at this day there is a ladder or paire of staires vp to the temple of *Diana* in Ephesus, framed of one Vine-tree, brought (by report) out of the Island Cyptes, for there indeed vines grow to an exceeding bigneſſe. And to speake a truth, there is no wood more dureable and lasting than is the vine. Howbeit, for my part I would thinke that these singular pieces of worke before-named, were made of wild and sauage M
Vines: for that these our tame and gentle vines here planted among vs, are by cutting and pruning euery yere kept downe: so as all their whole strength is either drawne without-forth into branches, or els downward into the root for to put out new shoots euer fresh out of the ground: and regard is only had of the fruit and iuice that they do yeeld diuers waies, according to the temperature of the aire & climat, or the nature of the soile wherin they be planted. In the countrey of Campaine about Capua, they be set at the roots of Poplars, and (as it were) wedded

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A vnto them: and ſo being ſuffered to wind and claſpe about them as their husbands, yea, & with their wanton armes or tendrils to climbe aloft, and with their ioints to run vp their boughes, they reach vp to their head, yea, and ouertop them: inſomuch as the grape-gatherer in time of Vintage, puts in a clauſe in the couenants of his bargaine when he is hired, that in caſe his foot ſhould faile him, and he breake his neck, his maſter who ſets him a worke ſhould giue order for his funerall fire and tombe at his owne proper coſt and charges. And in truth Vines will grow infinitly: and vnpoſſible it is to part them, or rather to pluck them from the trees which they be ioined and coupled vnto. *Valerianus Cornelius* making mention of many properties and ſingularities of a vine, thought this among the reſt worthie of eſpeciall note and remembrance, that one onely ſtocke of a vine was ſufficient to compaſſe and inuiron round about a good ferme-
B houſe or country meſſuage, with the branches & pliable ſhoots that it did put forth. At Rome there is one vine growing within the cloiſtures of the Portches and galleries built by the Empreſſe *Liuia*, which running and trailing vpon an open frame of railes, couereth and ſhadoweth the ouvert allies made for to walke in: and the ſame Vine yeeldeth one yeare with another a dozen Amphores of good new wine yearely. An ordinarie thing it is, that Vines will ſurmount any Elms whereſoeuer, be they neuer ſo tall and lofty. It is reported, that *Cyneas* the embaſſador of K. *Pyrrhus*, wondring at the vines of Aricia, for that the grew and mounted ſo high; would needs taſte of the wine that came of their grapes: & finding it to be hard and tart, merrily ſcoffed and ſaid, That by good right and juſtice they had done well, to hang the mother that bare ſuch vnpleaſant wine vpon ſo high a gibbet. Beyond the riuer Po in Italy, there is a tree grow-
C ing which the peaſants there cal Rumbotinus, & by another name * Opulus; it puts forth great armes and boughs, and thoſe ſpread abroad and beare a round compaſſe; howbeit, the vines that be planted at the root of theſe trees, do fill and couer the ſaid boughes: for yee ſhall haue the very old crooked branches of the Vine (bare as they be and naked of leaues) to wind about the armes, and crawle in manner of a ſerpent or dragon along the broader and flatter baſe of the boughes, and then the new ſhoots, top-twigs, and tendrils, wil diuide themſelues to the vtmoſt branches and ſhoots of the tree, that they will lode and clog her withal. Theſe vines again grow ſomtime no taller than the ordinary height of a man of middle ſtature, and beeing ſupported and vnderpropped with ſtakes and forks, cleaue and cling thick together, and in this order fill whole vineyards. Others alſo there be, which with their exceſſiue creeping vpon frames, with
D their ouergrowne branches, and ſome artificiall help of the maſters hand, ſpred ſo far euery way, that they take vp wide and large courts, ouerſpreading not only the ſides, but the very middeſt thereof. See what ſundry ſorts of vines euen Italy alone is able to affoord! But in ſome prouinces without Italy, ye ſhall ſee a vine ſtand of it ſelfe without any prop or ſtay at all, gathering and drawing in her boughs and branches together: thus indeed ſhe groweth but ſhort, howbeit ſo cloſe couched and truſſed round, that the thickneſſe makes amends for all. And yet otherwhiles in ſome coaſts the winds are ſo big and boiſterous, that they wil not ſuffer them thus to grow vpright; as namely in Affrick, and Languedoc, the prouince of Narbon Vines being thus debarred to run vp in height, reſting vpon their owne ioints and branches, and euer like to thoſe that be laid along whiles they are a trimming, by deluing about their roots, and pruning their
E ſuperfluous branches, traile and creepe too and fro along the ground, as weeds and herbes; and all the way as they ſpread, ſuck the humor of the earth into their grapes: by which meanes, no maruell it is, if in the inland parts of Africke there be found ſome of thoſe grapes bigger than pretty babes. And in no countrie are the grapes of a thicker skin than thoſe of Africk, whereupon it may well be, that they tooke the name * *Duracina* (*i.* hauing hard skins.) For infinite ſorts there be of grapes, according to the difference obſerued in their quantity and bigneſſe, in their colour, taſte, ſtones, or kernels: and yet more ſtil, in regard of the diuers wines made of them. In one place they are of a freſh and bright purple, in another, of a glittering, incarnate, and roſate colour: and ye ſhall haue them of a faire and liuely greene. As for the white and black grapes, they be common euery where. The grapes Bumaſti haue their name, for that they be ſo ſwel-
F ling and round, like ſtrutting paps or dugs. The Date-grapes Dactyli, are long, both grape and kernel, faſhioned in manner of fingers. Moreouer, Nature ſeems to take her pleaſure and make good ſport in ſome kind of them; where ye ſhal find among them ſome that be exceeding great, others again that be as ſmall, howbeit pleaſant they are, and as ſweet as the reſt: and ſuch be called Leptorrhagæs. Some laſt al winter long, being knit in bunches together, & ſo hanged aloft

* *Opimi*

* *Quaſi duris acinis.*

arch-

arch-wiſe in manner of a vault: with others they make no more adoe, but put them vp preſently as they come from the Vine, into earthen pots, whiles they be freſh & in their vigor; and afterwards they are beſtowed, well lapped ouer with their leaues, in other greater veſſels ouer them; and for to keep them better, they be ſtopt cloſe with kernels heaped and piled vpon, ſweating round about, to condite and preſerue them in their naturall heat. Others they ſuffer to be dried in the ſmoke of ſmiths forges, wherby they get the very taſt of infumed wine, ſo ordered in the ſmoke. And in truth, *Tiberius Cæſar* the Emperor gaue eſpecial credit & name by his example to ſuch grapes dried in the furnaces of Africk. For before his time, the Rhetian grapes & thoſe that came out of the territory of Verona, were ordinarily ſerued vp to the table firſt, for the very beſt. As for the Raiſins called Paſſæ, they took that name in Latine of their patience to indure their drying & confiture. Some grapes there be that are condite in Muſt or new wine, and ſo they drinke their owne liquor wherein they lie ſoking, without any other ſeething. Others againe are boiled in Muſt aboueſaid, vntill they loſe their owne verdure, and become ſweet and pleaſant. Moreouer, yee ſhall ſee old grapes hang ſtill vpon the Vine their mother, vntill new come: but within glaſſes, that a man may ſee them eaſily through: howbeit, to make them to laſt and continue in their full ſtrength, as well thoſe which be preſerued in barrels, tuns, and ſuch like veſſels aforeſaid, they vſe the helpe of pitch or tarre, which they poure vpon the ſtalks that the cluſter hangs to, and wherewith they ſtop cloſe the mouth of the ſaid glaſſe. It it not long ſince that there was a deuiſe found, that wine of it ſelfe (as it came naturally from the grape growing vpon the vine) ſhould haue a ſmack and ſent of pitch. And ſurely this kind of * Pitch wine, brought the territory about Vienna into great name reputation: & before that this vine was known, thoſe of Auern, Burgundy, and the Heluij, were in no requeſt at all. But theſe deuiſes as touching vines & wines, were not in the daies of the Poet *Virgil*, who died about 90 yeres paſt. But behold what I haue to ſay more of the Vine tree: the vine wand is now entred into the camp, and by it our armies are ranged into battalions: nay, vpon the direction thereof depends the main eſtate of our ſoueraigne Empire: for the Centurion hath the honour to carry in his hand a Vine-rod: the good guidance and ordering whereof aduanceth after long time the centeniers (for a good reward of their valorous and faithfull ſeruice) from the leading of inferior bands, to the captainſhip of that regiment and chiefe place in the army, vnto which the maine ſtandard of the Ægle is committed: yea, and more than that, the Vine wand chaſtiſeth the treſpaſſes and lighter offences of the ſouldiers; who take it for no diſhonor nor diſgrace to be thus puniſhed at their Centurions hand. Ouer and beſides, the planting of Vineyards hath taught martiall men how to approch the wals of their enemies, to giue an aſſault vnder a frame deuiſed for the purpoſe, which therupon took the name of Vinea. Laſtly, for medicinable vertues in phiſick, the Vine is ſo profitable to mans health, that the vſe of it alone is a ſufficient remedy for the diſtemperature of mans body, cauſed by wine it ſelfe.

* *μεθύσκει γὰρ οἶνος.* Plutarch.

Chap. II.

¶ *Of the diuers kindes of vines.*

Democritus was the onely Philoſopher euer known, who made profeſſion to reduce all the ſorts and kinds of vines to a certaine number, and indeed he vaunted and made his boaſt that he had the knowledge of all things that were in Greece. All others beſides himſelfe and thoſe comming neerer to the truth (as ſhal appeare more euidently by the variety of wines) reſolutely haue ſet downe, that there be infinit ſorts of Vine-trees. Looke not therefore at my hands, that I ſhould write of them all, but onely of the principall: for that in truth there bee in manner as many and as ſundry kinds of them, as are of grounds. Wherefore I will content my ſelfe, and thinke it ſufficient to ſhew thoſe that be ſingular and moſt renowned among them, or ſuch as haue ſome ſecret propriety worthadmiration. And firſt to begin with the Aminean Vines, all the world giueth them the chiefe praiſe and greateſt name; as wel for their grapes, of ſo laſting and durable a nature, as for the wine made thereof, which in all places continues long in vigor, & is euer the better for the age. And hereof there be fiue ſundry ſorts. Of which, the kindly Vines named Germanæ, haue both leſſe grapes and grains within, but they burgen and bloom better than others: and after the floure is gon, they can abide both rain and tempeſt: but the ſecond kind (which is the greater) is not ſo hardy: howbeit, leſſe ſubiect to wind and weather

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A ther when they be planted to run vp a tree, rather than to creepe vpon a frame. A third ſort are called Gemellæ, for that their grapes grow double like twins. & they be very harſh and in taſte vntoothſome, howbeit their vertue and ſtrength is ſingular. The ſmaller ſort of theſe take harm by the South wind: but all other winds nouriſh them, as we may ſee in the mount Veſuvius, and the little hils of Surrentum: for in all other parts of Italy, ye ſhal neuer finde them but wedded to trees, and growing vpon them. As for the fift kind of theſe Amminean vines, they be called Lanatæ, ſo freezed they are with a kind of down or cotton, inſomuch as we need not wonder any more at the Seres or Indians for their cotton and ſilken trees. The firſt kind of theſe Ammineean grapes come ſooneſt to their ripeneſſe and perfection, and moſt quickly do they rot & putrifie. Next to theſe Amminean vines, thoſe of Nomentum are in moſt account: and for that their wood is red, ſome haue called them Rubellæ. Theſe grapes yeeld no great plenty of wine, but
B in ſtead thereof their ſtones and kernels, and other refuſe remaining, grow to an exceeding big cake: howbeit, this property they haue. The froſt they will indure paſſing well, leſſe harme they take alſo by raine than drought, and thriue better in cold than heat: and therefore in cold and moiſt grounds they excell and haue no fellow. Of theſe vines, they are more plentifull which beare grapes with ſmaller ſtones, and leaues with leſſe cuts and iags indented. As touching the Muſcadell vines, Apianæ, they tooke that name of bees, which are ſo much delighted in them and deſirous to ſettle and feed of them. Of two ſorts they are: and both carry cotton & down. Howbeit, this difference is between them, that the grapes of the one wil be ſooner ripe than the other, and yet there is neither of them both but be haſty enough. Theſe Muſcadell grapes like wel and loue cold countries: and yet none ſooner rot than they, if ſhowers take them. The muſ-
C cadell wines are at the firſt ſweet: but with age become harſh and hard, yea, and red withal. And to conclude, there is not a grape that ioies more to hang vpon the vine, than it doth. Thus much of the very floure of Vines, and the principall grapes that be familiar and proper vnto our countrey of Italy, as their natiue ſoile.

The reſt be ſtrangers come out of Chios or Thaſos. As for the Greeke grapes of Corinth, they be not in goodnes inferior to the Aminean aforeſaid. They haue a very tender ſtone within: and the grape it ſelfe is ſo ſmall, that vnleſſe the ſoile be exceeding fat and battle, there is no profit in planting and tending ſuch vines. The quick-ſets of the vine Eugenia were ſent vnto vs from the Taurominitane hils in Sicily, together with their ſyrname pretending a noble & gen-
D tle race. Howbeit, they are neuer in their kind with vs, but only in the Alban country: for if you tranſplant them, they proue very baſtards and changelings preſently. And in faith, ſome vines there be that take ſuch an affection and loue to a place, that all their goodneſſe and excellency they wil leaue there behind them, and neuer paſſe into another quarter whole and entire as they be in their own nature. Which euidently is to be ſeen in the Rhetian vine, & that of Savoy and Daulphnie, of which in the chapter before wee ſaid, that it gaue the taſte of pitch to the wine made thereof: for, theſe Vines at home in thoſe countries are much renowned for the ſaid taſt: but elſwhere if they be tranſplanted, they looſe it whole, and no ſuch thing may a man acknowledge in them. Howbeit, plentifull ſuch are, and for default of goodneſſe, they make amends & recompence in abundance of wine that they yeeld. As for the vine Eugenia, it takes well in hot grounds. The Rhetian likes better in a temperat ſoile. The Allobrogian Vine of Savoy and
E Daulphine delights moſt in cold quarters: the froſt it is that ripens her grapes, and commonly they are of colour black. Of all the grapes aboue rehearſed, the wines that be made, the longer they be kept, the more they change colour, and in the end become white, yea, though they came of blacke grapes, and were of a deep colour at firſt. Now for all other grapes whatſoeuer, they are reckoned but baſe in compariſon of the former. And yet this is to be noted and obſerued, that the temperature of the aire may be ſuch, and the ſoile ſo good, that both the grapes wil indure long, and the wine beare the age very well. As for example, the Vine Fecenia, and likewiſe Biturica, that bloometh with it, which beare grapes with few ſtones within: their floures neuer miſcarry, for they euer preuent and come ſo timely, that they be able to withſtand both winde
F and weather. Howbeit, they do better in cold places than in hot: in moiſt alſo, than in dry. And to ſay a truth, there is not a vine more fruitful, & yeelding ſuch ſtore of grapes growing ſo thick together in cluſters: but of all things it may not away with variable and inconſtant weather: let the ſeaſon be ſtaied and ſetled, it matters not then whether it be hot or cold, for wel it wil abide the one & the other alone, hold it neuer ſo long. The leſſer of this kind is held for the better.

Howbeit

Howbeit, in chuſing of a fit ſoile for this vine, it is much ado to pleaſe and content it: in a fat ground it ſoone rots; in a light and lean, it will not grow at all: very choiſe it is therefore, dainty, and nice, in ſeeking a middle temper betweene, and therefore it taketh a great liking to the Sabine hils, and there it loues to be. The grapes that it bears, be not ſo beautiful to the eie, but pleaſant to the tooth: if you make not the more haſt to take them preſently when they be ripe, they will fall off, although they be not rotten. This vine puts forth large and hard leaues, which defend the grapes well againſt haile-ſtones. G

Now there are beſides certain notable grapes of a middle colour between black and purple, and they alter their hue oftentimes; whereupon ſome haue named them Variæ: and yet the blacker they be, the more they are ſet by: they beare grapes but each other yeare, that is to ſay, this yere in great plenty, the next yere very little: howbeit, their wine is the better when they yeeld fewer grapes. Alſo there be 2 kinds of vines called Pretiæ, differing one from the other in the bigneſſe of the ſtones within the grape: full of wood and branches they are both: their grapes are very good to be preſerued in earthen pots: and leafed they be like to Smallach: they of Dyrrhachium do highly praiſe the Roial vine Baſilica, which the Spaniards cal Cocolobis. The grapes grow but thin vpon this plant: they can well abide all South winds, and hot weather: they trouble and hurt the head, if a man eat much of them. In Spaine they make 2 kindes of them; the one hauing a long ſtone or grain within, the other a round: theſe be the laſt grapes that are gathered in time of vintage The ſweeter grape that the Cocolobis bears, the better is it thought: howbeit that which was hard and tart at the firſt, will turne to be pleaſant with keeping; and that which was ſweet, will become harſh with age: and then they reſemble in taſt, the Albane wine; and men ſay, there is an excellent drinke made thereof, to help diſeaſes and infirmities of the bladder. As touching the wine Albuelis, it bears moſt grapes in the tops of trees, but Viſula is more fruitfull beneath toward the root: and therfore if they be ſet both vnder one and the ſame tree, a man ſhall ſee the diuerſitie of their nature, and how they will furniſh and inrich that tree from the head to the foot. There is a kind of blacke grape named Inerticula, as a man would ſay, dull and harmleſſe; but they that ſo called it, might more iuſtly haue named it The ſober grape: the wine made therof is very commendable when it is old, howbeit nothing hurtfull* for neuer makes it any man drunke: and this property hath it alone by it ſelfe. As for other vines, their fruitfulneſſe doth commend them; and namely aboue all, that which is called Heluenaca; whereof be two kinds, the greater, which ſome name The long: and the ſmaller called Arca: not ſo plentifull it is as the former, bat ſurely the wine thereof goes downe the throat more merily. It differs from the other in the perfect and exquiſit roundneſſe of the leafe, as it were drawn by compaſſe: but both the one and the other is very ſlender, and therefore of neceſſitie they muſt be vnderpropped with forkes, for otherwiſe they will not beare their owne burden, ſo fruitfull they be. They delight greatly to grow neare the ſea ſide, where they may haue the vapors of the ſea to breath vpon them: and indeed their very grapes haue a ſent and ſmell of a brackiſh dew. There is not a vine can worſe brooke Italy. Her grapes are ſmall, they hang thin and rot euen vpon her: and the wine made thereof, will not laſt aboue one Summer: and yet on the other ſide there is not a vine that liketh better in an hungry and lean ground. *Græcinus* (who otherwiſe compiled his worke out of *Cornelius Celſus* in manner word for word) is of this opinion, That this Vine could loue Italy well enough, and that of the owne Nature it miſlikes not the Countrey; but the cauſe why it thriueth no better there, is the want of skil and knowledge to order and husband it as it ought to be; for that men ſtriue to ouercharge it with wood, and load it with too many branches: and were it not that the goodneſſe of a fat and rich ſoile maintained it ſtill, beginning to faint and decay, the fruitfulneſſe thereof were enough to kill it. This vine (by report) is never blaſted: a ſingular gift verily of Nature, if it be true, That any plant or tree ſhould be ſo exempt from the juriſdiction (as it were) of the Heauens, that they had no power to doe it harme. The Vine Spionia, which ſome call Spinea, feareth no extremitie of heat: her grapes proſper well in Autumne and much abundance of rain: This is the only grape that is nouriſhed with foggie miſts, and therfore it likes no place well but the territorie of Rauenna. The vine Venicula (which is counted one of the beſt for kindly blooming & ſhedding the floures, and for grapes moſt meet to be preſerued and kept in pots) the Campaines rather name Sirculus; others Stacula: and they of Tarracina call it Numiſiana: and as they ſay, the grape therof hath no ſingularity nor vertue in it ſelf, but only according to the ſoile where

* Amethyſtos, *Cglumell.*

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A it groweth: howbeit thoſe that grow about Surrentum, haue the moſt ſtrength, and are excellent to be preſerued in veſſels; I mean, as far as vp to the hill Veſuvius: for there alſo is the vine Murgentina, the beſt of all thoſe that come out of Sicily, which ſome call Pompeiana, of Pompeij, a town within the kingdome of Naples: & being got once into Latium, it beares grapes abundantly: like as the vine Horconia in Campaine, yeeldeth plenty of grapes with the beſt, but good they are for nothing ſaue onely to be eaten at the table. As for the grape Mærica, it will laſt and indure a long time; it feareth neither winde nor tempeſt, nor any blaſt of planet: blacke it is, and hath black ſtones: howbeit the wine that it maketh, waxes red with age, namely, if it be long kept.

B

Chap. III.

¶ *Of the diuers kindes likewiſe of Vines, according to the propertie of the places and regions where they grow.*

Hitherto we haue treated of the ſundry ſorts of vines in general: now wil we write of them according to the nature of the places and regions, which are proper and familiar vnto them; or, as they be mingled one with another, by tranſplanting or graffing. And firſt and formoſt, the vine Tudernis, alſo Florentia (bearing the name of the city Florence) are peculiar to the Tuſcans: but about Aretium, there is no talke both for plenty and goodneſſe, but of the Talpana, Eteſiaca, and Conſeminia. The Talpane grape is blacke as the Mouldwarpe,
C whereof it taketh the name, but yet doth it yeeld a white wine. The Eteſiacke vine (ſo called of the wines Eteſiæ) is a deceitfull plant, and often miſſeth and faulteth; but the more grapes it beareth, the better wine it yeeldeth and more commendable: mary this is ſtrange and wonderfull in it, In the mids of this fruitfulneſſe of hers, ſhe giueth ouer ſuddenly and dieth. The vine Conſeminia, bringeth blacke grapes: the wine will not laſt, but the grapes will keepe and continue paſſing long: the vintage thereof is fifteene daies after all other: it beareth ordinarily her full burden, but the fruit is onely good for meat to be eaten, and not for wine to be drunke. The leaues of this vine (in manner of the wilde vine Labruſca) before they fall, become as red as bloud. This property happeneth to ſome others beſides; but take it for a certaine token of the worſt vines. The vine and grape Irtiola, is proper vnto Vmbria, to the territorie of the Meue-
D nates, and the Picene countrey: like as that which they call Pumula, to the Amiternine region. They haue among them alſo another kinde, named Bannanica: and although it oftentimes doth not take, yet they loue the plant and cheriſh it. There is a grape which they call the Borrough or Burgeois grape, after the name of the burrough town Pompeij; and yet there is more plenty of them about the city Cluſium: the Tiburtins alſo, named their grapes after their town Tybur: yet of late daies they haue found another ſort, which of the reſemblance of oliues, is called the Oliue grape: and in truth, this is the laſt grape of any account, to this day known to haue bin found out. The Sabins and Laurentines only are acquainted with the grape Vinaciola: for wel I wot, that the vines Gauranæ came firſt out of the territory of Falerij, and thereupon were named Falernæ: but tranſplant them from thence whitherſoeuer you will, they wil very quick-
E ly degenerat in all places, and proue baſtard. Moreouer, ſome haue made a ſeueral kind by it ſelf of the Tarentine vine, which brings forth an exceeding ſweet grape. As for the grapes called Capnias, Bucconiatis, & Tarrupia, there is no vintage of them in the vineyards of the hils about Thurinum, before the cold froſt. As for the citizens of Piſæ, they ſet great ſtore by the grapes Phariæ: like as Modenna by thoſe called Pruſiniæ; which are very black ſtone & al: yet the wine thereof with 4 yeres wil turn to a paller and whitiſh colour. A ſtrange thing it is which men report of a certaine grape, that euermore will turne with the Sunne: and thereupon it is called Streptos: as alſo that we in Italy are delighted with the French grapes: and they in France beyond the Alpes, are as much in loue with ours in the Picene countrey. *Virgil* hath made mention of other grapes, namely, Thaſiæ, Mareotides, and Lageæ, beſides many other outlandiſh
F plants, not at this day to be found throughout al Italy: howbeit there be yet many vines of good mark & wel accepted of, not for any wine that they yeeld, but only for their grapes which they carry: to wit, Ambroſiaca, and Duracina, which may be kept hanging ſtill vpon the vine, without any veſſell to incloſe them: ſo durable be they and hardy, againſt cold, heat, wind, and raine, or any weather whatſoeuer. As for the vine Orthampelos, it needs neither tree to climb on, nor

forkes to ſupport it,but is able to maintain and vphold it ſelfe vpright.But the Dactylides(ſo G
called for that they beare not wood aboue a finger thicke)cannot ſo do: for they muſt be ſho-
red and vnderpropped. Of all vines,the Columbines yeeld moſt gleaning,for that the gatherers
leaue behind them greateſt ſtore of ſmall grapes:and ſo do the purple grapes, named alſo Bi-
mammiæ(as one would ſay,with two teats or bigs)more than the reſt; ſeeing that they beare
not ſmall grapes,but put forth new great ones indeed,after the other be gathered and gone. In
like manner,the vine Tripedanea,which took that name of the meaſure of 3 foot. Semblably
the vine Scirpula,the grapes wherof ſeem as if they were Raiſins of the ſun,dried already. More-
ouer in the maritime Alps toward the ſea-ſide,there is a kind of Rhetian vine,but far inferior to
that other aboue-mentioned and ſo much commended for the relliſh of pitch that it giueth to H
the wine made of her grapes:for theſe about the Alps be little and ſmall;and albeit they beare
grapes thick,yet the wine thereof comes far ſhort of the other,and is more degenerat:howbeit
the skin of the grapes is of all other the thinneſt,hauing but one kernel within,which they call
Gigarton,and the ſame very ſmall; and a man ſhall not find a bunch, without one or two paſ-
ſing great grapes aboue the reſt:there is alſo a kind of black Aminean grape,which ſome name
Syriaca:likewiſe the grape of Spain,which of the baſe and common kinds carries the greateſt
credit,and is moſt commended. As touching both vines and grapes that run and traile vpon
frames;there be thoſe which are called Eſcariæ,good only for to eat, and namely thoſe which
haue grains or ſtones like to Ivie berries,as well white as black. Grapes reſembling great dugs,
named therupon Bumaſti,both black and white,are carried vpon frames in like ſort. But al this I
while we haue not ſpoken of the Ægyptian and Rhodian grapes, ne yet of the Ounce-grapes,
whereof euery one weighes a good ounce,and thereupon tooke that name. *Item*, the grape Pu-
cina,the blackeſt of all others:the Stephanitis alſo,wherein Nature hath ſeemed to diſport her
ſelfe,for the leaues run among the grapes in manner of a garland plaited with them. Moreouer,
the market-grapes called Forenſes,they grow and are ripe with the ſooneſt;vendible at the very
firſt ſight,and ſold with the beſt,and moſt eaſie to be carried from market to market. But con-
trariwiſe,the aſh-coloured grape Cinerea,the ſilk-ruſſet grape Ravuſcula, the aſſe-hued grape
Aſiniſca,pleaſe not the eie,but are preſently reiected: and yet the Fox-tailed grape Alopecis,
(for that it reſembles Rainards taile) is not ſo diſpleaſant nor ſo much diſcommended as the K
former. About a cape or creſt of the hill Ida,which they call Phalacra,there is a vine named A-
lexandrina,ſmal of growth, and puts forth branches of a cubit in length:the grapes be black, as
big as beans;the pepin or kernell within,ſoft,tender,and exceeding ſmall;the bunches are croo-
ked,full of grapes,paſſing ſweet;and finally the leaues little,round,and not cut or iagged at all.
Within theſe ſeuen yeres laſt paſt,about Alba Eluia,a city in Languedock or the prouince of
Narbon,there was found a vine,which in one day both floured and ſhed her floures: by which
meanes moſt ſecured it was from all dangers of the weather. They call it Narbonica, or the
vine of Languedock: and now it is commonly planted all that prouince ouer, and euery man
deſireth to ſtore his vineyard therewith.

L

Chap. IIII.

¶ *Notable conſiderations about the husbandrie and ordering of Vineyards.*

THat noble and worthy *Cato*,the firſt of that name,renowned among other dignities for his
honorable triumph,and the incorrupt adminiſtration of his Cenſorſhip, and yet more fa-
mous and renowned to poſterity for his ſingular knowledge and learning: and namely for
the good precepts and ordinances tending to all vertues and commendable parts,which he left
in memory for the people of Rome:& principally touching agriculture[as he was by the com-
mon voice and generall accord of that age wherein he liued reputed for an excellent husband- M
man,and one who in that profeſſion had neither peere nor ſecond that came neere vnto him.]
This *Cato* (I ſay)hath in his workes made mention but of a few kinds of vines:and yet ſome of
them already be growne out of knowledge, ſo as their verie names are quite forgotten. Yet
neuertheleſſe his opinion and judgement would be ſet downe in particular,as it may be gathe-
red out of his whole treatiſe: to the end that we might both know in euery kind of vine which
were of moſt account in his daies(to wit,in the 600 yere after the foundation of Rome, about
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A the time that Carthage and Corinth were forced and woon, when he departed this life:) and alſo learn how much we haue profited and proceeded in good husbandry and agriculture, from his death vnto this preſent day, namely for the ſpace of 230 yeares. As concerning vines and grapes therefore, thus much hath *Cato* deliuered in writing, and in this manner following. *All places or grounds* (quoth he) *expoſed to the Sun-ſhine, and which in other regards ſhall be found good for to plant vineyards in, ſee they bee employed for the leſſe Aminean, for both the Eugenian Vines, and the ſmaller Heluine. Item, In euery tract that is more groſſe, thicke, and miſtie, looke that you ſet the greater Aminean, or the Murgentine: the Apician alſo, and the Lucane Vine. All other vines, and the common mingled ſort eſpecially, will agree well enough with any ground. The right keeping of grapes, is in a ſmall thinne wine of the ſecond running. The grapes Duracinæ, and the greater Amineans, are*
B *good to be hanged, or elſe dried before a blacke-ſmithes forge, and ſo they may be well preſerued and goe for Raiſins of the Sun.* Loe what the precepts of *Cato* be; neither are there any of this argument more antient, left vnto vs written in the Latine tongue. Whereby we may ſee, that we liue not long after the very firſt rudiments and beginnings of knowledge in theſe matters. [But by the way, the Amineans laſt named, *Varro* calleth Scantians.] And in very truth, few there be euen in this our age, who haue left any rules in forme of Art, as touching the abſolute skill in this behalfe. Yet ſuch as they be, and how few ſoeuer, we muſt not leaue them behinde, but ſo much the rather take them with vs; to the end it may be knowne, what reward & profit they met with, who trauelled in this point of husbandry: reward, I ſay, and profit, which in euery thing is all in all.

C To begin therefore with *Acilius Sthenelus* [or *Stelenus*,] (a mean commoner of Rome, deſcended from the race of Libertines or Slaues newly infranchiſed) he attained to the higheſt glory and greateſt name of all others: for hauing in the whole world not aboue 60 acres of land lying all in vineyards within the territory of Nomentum, he plaied the good husband ſo well therein, that he ſold them again at the price of 400000 Seſterces. There went a great bruit and fame likewiſe of one *Verulenus Aegialus*, in his time a man but of baſe condition by birth, and no better than the former, (namely, come of the ſtocke of freed-men) who by his labor & husbandry, greatly inriched a domain or liuing at Liternum in Campaine: and the more renowned he was by occaſion of the fauour of ſo many men affectionate vnto *Africanus*, whoſe very place of exile he held in his hands and occupied ſo well: for vnto *Scipio*, the aboueſaid Liternum, appertained. But the greateſt voice and ſpeech of men was of *Rhemnius Palæmon* (who otherwiſe by
D profeſſion was a famous and renowned Grammarian) for that he by the means and helpe of the foreſaid *Sthenelus*, bought a ferme within theſe twenty yeares for 600000 Seſterces in the ſame territorie of Nomentum, about ten miles diſtant from Rome, lying ſomewhat out of the high way. Now is it well knowne farre and neare, of what price and account all ſuch fermes are, and how cheape ſuch ware is lying ſo neere to the city ſide: but amongſt the reſt, this of *Palæmons* in that place was eſteemed moſt cheap and loweſt priſed, in this regard eſpecially, That he had purchaſed thoſe lands, which through the careleſneſſe & bad husbandry of the former owners, lay neglected and fore-let, & were not of themſelues thought to be of the beſt ſoile, choſen and piked from among the worſt. But being entred once vpon thoſe grounds as his owne liuelode
E and poſſeſſion, he ſet in hand to husband and manure them, not ſo much of any good mind and affection that he had to improue and better any thing that he held, but vpon a vaine glory of his own at the firſt, whereunto he was wonderouſly giuen: for he makes fallows of his vine-plots anew, and delueth them all ouer again, as he had ſeen *Sthenelus* to do with his before: but what with digging, ſtirring, and medling therewith, following the good example and husbandry of *Sthenelus*, hee brought his vineyards to ſo good a paſſe within one eight yeares, that the fruit of one yeares vintage was held at 400000 Seſterces, and yeelded ſo much rent to the lord: a wonderfull and miraculous thing, that a ground ſhould be ſo much improoued in ſo ſmall a time! And in very truth, it was ſtrange to ſee what numbers of people would run thither, onely to ſee the huge and mighty heaps of grapes gathered in thoſe vineyards of his: and ill idle neigh-
F bors about him, whoſe grounds yeelded no ſuch increaſe, attributed all to his deepe learning, and that he went to it by his book, & had ſome hidden ſpeculation aboue other men; obiecting againſt him, that he practiſed Art Magicke, and the blacke Science. But laſt of all, *Annæus Seneca*, eſteemed in thoſe daies a ſingular clerke, and a mighty great man (whoſe ouermuch Learning and exceeding power coſt him his ouerthrowing in the end) one who had good skill and

judgement in the world,and vſed leaſt of all others to eſteeme toies and vanities, brought this ferm into a greater name and credit:for ſo far in loue was he of this poſſeſſion, that hee bought out *Palæmon*,and was not aſhamed to let him go away with the pricke and praiſe for good huſbandry,and to remoue him into other parts where he might ſhew the like cunning: and in one word, paid for theſe foreſaid vineyards of his fourfold as much as they coſt,not aboue ten yeres before this good husbandry was beſtowed vpon them. Certes,great pity it is,that the like induſtry was not ſhewed and imploied in the territories about the hils Cecubus,& Setinus, where (no doubt) it would haue well quit all the coſt,conſidering that many a time afterwards, euery acre of vineyard there,yeelded ſeuen Culei,that is to ſay,140 Amphores of new wine one yere with another. But leſt any man ſhould thinke, that wee in theſe daies haue ſurpaſſed our anceſtors in diligence,as touching good husbandrie;know he, that the aboue named *Cato* hath left in writing, How of an acre of vineyard there hath ariſen ordinarily * ten Culei of wine by the yeare. Certainly theſe be effectuall examples and pregnant proofes, that the hardy and aduenturous voiages by ſea,are not more aduantageous; ne yet the commodities and merchandiſe, and namely Pearls,which be fet as far as the red ſea and the Indian Ocean, are more gainefull to the merchant,than a good ferm and homeſtall in the countrey,well tilled and carefully huſbanded.

*15 according to *Ful. Vrſinus.*

As touching the wines in old time,*Homer* writes,that the Maronean wine made of the grapes growing vpon the ſea coaſts of Africk,was the beſt,& moſt excellent in his daies. But my meaning is not to ground vpon fabulous tales & variable reports,as touching the excellency or antiquitie of wine. True it is,that *Ariſtæus* was the firſt, who in that very nation mingled honey with wine;which muſt needs be a paſſing ſweet and pleaſant liquor,made of two natures ſo ſingular as they be of themſelues. And yet to come againe to the foreſaid Maronean wine, the ſame *Homer* ſaith,That to one part therof,there would be but 20 parts of water:and euen at this day,that kind of wine continues in the ſaid land of the ſame force,and the ſtrength thereof will not be conquered nor allaied. For *Mutianus* who had bin thrice conſul of Rome,& one of thoſe that lateſt wrote of this matter,found by experience(being himſelfe perſonally in that tract) that euery ſextar or quart of that wine,would beare 8 of water: who reporrs moreouer,that the wine is of colour blacke,of a fragrant ſweet ſmell, and by age comes to be fat and vnctious. Moreouer,the Pramnian wine(which the ſame *Homer* hath ſo highly commended) continueth yet in credit and holds the name ſtill:it comes from a vineyard in the countrey about Smyrna, neere to the temple of *Cybele* the mother of the gods. As for other wines, no one kind apart excelled other.

One yere there was,when all wines proued paſſing good;to wit,when *L. Opimius* was Conſul, at what time as *C. Gracchus* a Tribune of the Commons (practiſing to ſow ſedition within the city among the common people)was ſlaine:for then ſuch ſeaſonable weather happened,and ſo fauorable for ill fruit,that they called it (Coctura) as a man would ſay, the ripening time; ſo beneficiall was the Sun to the earth:and this fell out in the yere after the natiuity and foundation of the city of Rome, 634.

Moreouer,there be ſome wines ſo durable,that they haue beene knowne to laſt two hundred yeares;and are come now by this time to the qualitie and conſiſtence of a rough, ſharpe, and auſtere kind of hony: and this is the nature of all when they bee old: neither are they potable alone by themſelues,vnleſſe the water be predominant; ſo tart they are of the lees, and ſo muſty withall,that they are bitter againe. Howbeit a certaine mixture there is of them in a very ſmall quantity with other wines,that giues a prety commendable taſt vnto them. Suppoſe now that according to the price of wine in thoſe daies of *Opimius*,euery Amphore were ſet but at an hundred Seſterces,yet after the vſurie of ſix in the hundred yearly (which is the ordinary proportion and a reaſonable intereſt among citizens, for the principall that lieth dead and dormant in ſtock)by the hundred and ſixtieth yere after the ſaid Amphor was bought (which fell out in the time that *C. Caligula Cæſar* the ſon of *Germanicus* was Emperor)no maruell if an ounce in meaſure of the ſame wine(to wit,the twelfth part of a Sextarius) coſt*ſo many Seſterces: for as we haue ſhewed by a notable example,when we did ſet downe the life of *Pomponius Secundus* the Poet,and the feaſt that he made to the ſayd Prince *Caligula*, there was not a * Cyathus of that wine drawne,but ſo much was paied for it. Loe what a deale of mony lieth in theſe wine-cellars,for keeping of wine! And in very truth,there is nothing more gainfull nor groweth to a better

* *Bud.* 22. Seſt.

* 1. an ounce and a halfe.

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A better reckoning than it, for twenty yeres ſpace after it is laid vp: neither is there greater loſſe againe by any thing, if ye paſſe that terme, by reaſon that the price will not grow and ariſe accordingly: for ſeldom hath it bin knowne to this day (and neuer but at ſome exceſſiue riot and ſuperfluous expence of wine) that an Amphore hath beene ſold for a thouſand Seſterces. True it is indeed, that they of Vienna only haue made better reckoning of their wines, and ſold them deerer; I meane thoſe that giue a taſte of pitch (the ſeuerall kinds whereof wee haue deliuered before:) but they are thought ſo to do among themſelues only, and for the loue of their countrey, that it might haue the names of wines, ſo deere and coſtly. To conclude, this wine of Vienna, is reputed colder than the reſt; when the queſtion is of cold drinke, and that the body is to be cooled.

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Chap. V.

¶ *Of the Nature of Wine.*

THe nature and property of wine, is to heat the bowels within, if it be drunke; and to coole the exterior parts, if it be applied outwardly. And here it ſhall not be amiſſe to rehearſe in this very place, that which *Androcydes* (the noble, ſage, and wiſe Philoſopher) wrote vnto K. *Alexander* the Great, for to correct and reforme his intemperate drinking of wine, whereto he was very prone and ouermuch giuen. *My good Lord* (ſaith he) *remember when you take your wine, that you drinke the very bloud of the earth: Hemlock (you know ſir) is poiſon to man, euen ſo is wine to Hemlock.* Now if that Prince had bin ſo wiſe as to haue obeied theſe precepts of his, certes, he could ne-
C uer haue killed his beſt friends as he did, in his fits of drunkenneſſe. In ſum, this may be truely ſaid of wine, that being taken ſoberly and in meaſure, nothing is more profitable to the ſtrength of the body; but contrariwiſe, there is not a thing more dangerous and pernicious, than the immoderate drinking thereof.

Chap. VI.

¶ *Of kindly Wines made of the beſt Grapes.*

WHo doubteth, that ſome Wines be made more pleaſant and acceptable than others? nay out of the very ſame vat ye ſhall haue wines not alike in goodneſſe, but that ſome
D go before their brethren, preſſed though they be at one time, and from the ſame kinde of grape: which may be long either of the veſſell whereinto they be filled, or of ſome accidentall occaſion: and therefore as touching the excellency of wine, let euery man be his own taſter and judge. The Empreſſe *Iulia Auguſta* would commonly ſay, That ſhe was beholden to the Pucine wine for liuing as ſhe did 82 yeares: for ſhe neuer vſed to drink any other. This wine came of the grape that grew along the Adriaticke ſea, or Venice gulfe, vpon a ſtony and raggie hill, not far from the ſource or ſpring of the riuer Timavus, nouriſhed with the vapors breathed from the ſea; and many Amphores there were not drawne thereof at a vintage: and by the iudgement of all men, there is not a wine more medicinable than it is. I would thinke verily therefore, that the wine Pyctanon (which the Greekes ſo highly praiſe) is the very ſame; for it commeth from
E the coaſts of the Adriaticke ſea. The Emperor *Auguſtus Ceſar* preferred the Setine wine before all others: and after him in manner, all the Emperors his ſucceſſors, for the ordinary experience they found thereby, That lightly the liquor of that wine would not hinder digeſtion nor breed raw humors in the ſtomack: and this wine commeth of the grape about the towne Forum Appij. Before that time, the wine Cæcubum was in beſt account; and the vines which yeelded it, grew to the Poplars in the mariſh grounds within the tract of Amyclæ. But now is that Wine cleane gone, as well through the negligence of the peiſants of that countrey, as the ſtreights of the place: and ſo much the rather, by reaſon of the ditch or trench which *Nero* cauſed to be made nauigable, beginning at the lake or gulfe Baianus, and reaching as far as to Oſtia. In the ſecond degree of excellency, are ranged the wines of the Falerne territorie, and principally that which
F came from the vineyards Fauſtian: and this excellency it grew vnto by paſſing good order and carefull husbandry. Howbeit this wine alſo in theſe daies beginneth to grow out of name and requeſt, whiles men loue rather to haue plenty from their vines, than otherwiſe lay for the goodneſſe thereof. Now theſe Falerne vineyards, begin at the Campaine bridge on the left hand as men go to the city-colony erected by *Sylla*, and lately laid to Capua, & vnder the iuriſdiction thereof.

therof. But the Fauſtian vineyards lie about 4 miles from a village neere Cediæ, which village G
is from Sinueſſa ſix miles diſtant. And to ſay a truth, this Fauſtian wine is inferiour to none in
reputation: ſo piercing and quicke it is, that it will burne of a light flame; a propertie that you
ſhall not ſee in any other wine. Three ſorts there be of theſe Falerne wines: the firſt be hard and
harſh; the ſecond ſweet and pleaſant; the third, thin and ſmall. But ſome haue diſtinguiſhed
them in this wiſe: thoſe that come from the top of the hills, be called Gaurane wines; from the
mids, Fauſtian; and laſt of all from the bottom and foot thereof, the Falerne. But by the way
this would not be forgotten, That the grapes whereof be made theſe wines ſo ſingular and ex-
cellent, are nothing pleaſant to the taſt for to be eaten. As touching the Albane wines from a-
bout Alba neere the city of Rome, they reach to the third ranke in goodneſſe, for a certain va-
rietie they haue in their taſt: ſweetiſh they be, and yet otherwhiles they haue an vnripe & harſh H
relliſh of the wood, & taſt like the hedge-wine. In like maner the wines of Surrentum, & name-
ly thoſe of grapes growing only in vineyards, are excellent good for weak perſons that be new-
ly recouered of ſickneſſe, ſo ſmall they are, and wholeſome withal. And in truth, *Tyberius Cæſar*
was wont to ſay, That the Phyſitians had laid their heads together, and agreed to giue the Sur-
rentine wine ſo great a name; for otherwiſe it was no better than a very mild and pleaſant vine-
gar: and *C. Caligula* (his ſucceſſor in the Empire) vſed to ſay of it, That for a wine that had loſt
the heart and was a going, it was very good. The Maſſike wines, which come from the Gaurane
hils looking toward Puteoli and Bajæ, come nothing behind the reſt, but ſtriue to match them
euery way. For as touching the Statane vineyards, that confine and border vpon the Falerne,
their wines doubtleſſe are now come to be the principall and chiefe of all the reſt: whereby it is I
euidently ſeen, that euery territory and vine-plot hath their times and ſeaſons, like as all other
things in the world, one while riſe and another while fall. For in times paſt the Calene wines
made of the grapes growing hard by Rome, were wont to go before all others: as alſo the Fun-
dane vines had their time, as well thoſe that are planted in vineyards, as they which runne vpon
trees: like as thoſe of the other ſide, neere alſo to the city of Rome, & namely from Veliternum
and Priuernum. For as touching the wine of Signia, it is held for a medicine only; and by rea-
ſon of an aſtringent verdure that it hath, it is excellent good to ſtay the flux of the belly. In the
fourth place of this race of vines, *Iulius Cæſar* (late Emperor of famous memory) hath raunged,
(for to ſerue the publick and ſolemne feaſts of the city) the Mamertine wines, from about Meſ-
ſana in Sicily: for he was the firſt (as appears by his letters miſſiue) that gaue credit and autho-
rity vnto them. And of thoſe, the Potulane wines (ſo called of them who firſt planted the vines K
whereof they came) are moſt commended, and namely thoſe that are vpon the next coaſt of Ita-
ly. Within the ſame Sicily, the Tauromenitane vines are highly eſteemed, inſomuch, as many
times they go for Meſſana wine, and are ſo ſold by whole pottles. Now for all other wines from
about the coaſt of the Tuſcane ſea Northward, good reckoning is made of the Prætutian and
ſuch as come from Ancone: alſo of the Palmeſian wines, which haply tooke that name, for that
the firſt plant of that vine came from a palme or Date tree. But in the midland parts of Italie
within the firme land, good regard there is of the Ceſenatian and Mecænatian wines. Within
the territory of Verona, the Rhetian wine carrieth the price: which *Virgill* ranged next after the
Falerne wines. Anon you come to the wines Adriane, and thoſe that grow far within the tract L
of the Venice gulfe. Now from the nether ſea about Lions, ye haue the Latinienſian, the Gra-
uiſcane, and the Statonian wines. Throughout all Tuſcane, the wines about Luna beare the
name: like as thoſe of Genes, for Liguria. Betweene the Pyrenean hills and the Alpes, Maſſiles
hath the commendation for wines of a double taſte: for the vines there, do yeeld a certain thick
and groſſe wine, which they call Succoſum, [*i.* full of juice and liquor] good to ſeaſon other
wines, and to giue them a prety taſt. When ye are paſſed once into France or Gaule, the wine of
Beterræ is in chiefe requeſt. As for the reſt within Languedoc and the Prouince of Narbon,
I am not able to auouch any thing for certainty, ſuch a brewing and ſophiſtication of them
they make, what with fuming, perfuming, and colouring them: and would God they put not
in ſome herbes and drugs among, that be not good for mans body. For certaine it is that they M
commonly buy Aloe to giue the wine both another taſt and alſo a counterfeit color. Moreouer
in the farther and more remote coaſts of Italy toward the Auſonian ſea, there be wines which
are not without their praiſe and commendation, and namely thoſe of Tarentum, Seruitium,
and Conſentia: likewiſe of Tempſa, Bauia, and Lucania: howbeit the Thurine wine goeth be-

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A fore them all. As for the wines of Lagaria, which be made of the grapes not farre from Grumentum, there goes a right great name of them, by reaſon that *Meſſala* vſed ordinarily to drink thereof, and thereby was ſuppoſed to preſerue his health ſo well. Of late daies there be certaine wines in Campaine growne into credit (like as they haue gotten new names) by good ordering and husbandrie, or by chance, I know not whether; namely, thoſe of Tribellia, foure miles from Naples, of Caulium neare to Capua: and laſt of all, the Trebulaine wines within their own territorie: for before time they were euer counted no better than common wines for euery man to drink, no more than the Triſolines, from whence they vaunt of their deſcent. As for the wine of Pompeij, a towne in the kingdome of Naples, neither it nor the vine whereof it commeth, will laſt aboue ten yeres at the moſt: after which tearme, the elder they both be, the worſe they
B are. Beſides, they are found by experience to cauſe the head-ach, inſomuch, as if a man drinke thereof ouer-night, he ſhall be ſure not to haue his head in good tune vntill noone the morrow after. By which examples aboue rehearſed, it is plaine in my conceit, that the goodneſſe of the wine ſtandeth much vpon the ſoile and the climate, and not in the grape: ſo as a needleſſe and endleſſe matter it is to reduce all kind of wines to a certaine number, conſidering that one and the ſelfe ſame Vine planted in diuerſe plaçes, hath ſundrie operations, and maketh varietie of wines. Now as concerning the wines of Spaine, the Laletane vineyards are much ſpoken of for the plentie and abundance of wine that they yeeld: but thoſe of Tarracon, Arragon, and Laurone, are much praiſed and renowned for the fine and neat wines which they make. As for the wines that come out of the Iſlands, and namely, the Baleares, they are comparable to the very
C beſt in Italie.

I am not ignorant, that moſt men who ſhall read this Treatiſe, will thinke that I haue omitted and ouerpaſſed many wines: for euery man likes his own; and as ones fancie leadeth, ſo goes the voice and the cry, and there runs the Hare away. It is reported, that one of *Auguſtus Cæſars* freed men (reputed for the fineſt taſter that he had about his court, and who knew beſt what would content his pallat, and pleaſe his tooth) vpon a time when he taſted the wine that was for the Emperors bourd, at what time as he made a feaſt, ſaid to one of the gueſts at the table, That the ſaid new wine indeed had a new and ſtrange taſt, and was none of the beſt, and thoſe that were in name, howbeit (quoth he) this is for the Emperors cup, and willingly wil he drink of no other, notwithſtanding it be but a homely wine made hereby in the countrey, and not far
D fetched. And now for a finall concluſion of this matter, I cannot denie but that there bee other wines which deſerue to be numbred among thoſe that are right good and commendable, howbeit, ſuffice it ſhall to haue written of theſe, which by the common opinion and conſent of the world are held for the better.

Chap. VII.

¶ *Of Wines beyond-ſea.*

IT remaineth now to ſpeake of outlandiſh Wines beyond the ſea. Firſt and formoſt therfore next to thoſe wines renowned by the Poet *Homer*, and whereof we haue written before, beſt
E eſteemed alwaies were the wines of the Iſlands Thaſos and Chios: and namely that of Chios which they call Aruſium or Aruiſium. *Eraſiſtratus* the moſt famous Phyſician of his time, matched with theſe the Lesbian wine; and his authoritie gaue credite vnto it: and this was much about the ſix hundred yeare after the foundation of Rome. But in theſe daies there is no wine to that of Clazomene, euer ſince that they began to put therto leſſe ſea-water for to ſeaſon it, than their cuſtome was. As for the wine of Lesbos, it hath a ſent and reliſh of the ſalt water naturally of it ſelfe. Neither is the wine that comes from the hil Tmolus in any regard, as a wine to be drunke alone, but it ſerues as a ſweet cuit to mingle wiith other wines that be hard: for thereby their greene verdure wil ſeeme more mild and pleaſant, yea, and withall to haue their ripeage: for no ſooner is it tempered therwith, but they taſt preſently elder than they be. Next to theſe
F in goodnes, follow in their courſe the wines of Sycione, Cypres, Telmeſſus, Tripolis, Berytus, Tyrus, and Sebennys. As for this wine laſt rehearſed, it is made in Ægypt, a countrey much renowned for three kinds of grapes there, to wit, Thaſia, Æthalos, and Peuce. Next in price & account be theſe following, the Hippodomantian, the Myſtick, Cantharite, & the Gnidian wine of the firſt running and vnpreſſed, alſo that of Catacecaumene, a region ſo called, for that it ſeemeth

meth all burnt; of Petra, and Mycone. As for the wine Mesogites, it is knowne to make head-ach: neither is the wine of Ephesus holesome and healthfull, because it is sophisticated with a kind of cuit halt sodden, called Defrutum, and sea-water. As for the wine of Apamea, by report it comes very neare to a kind of Mede, and will very well agree withall, like as Prætutium in Italy. For otherwise, this is the property in generall of al sweet wines, that they will not well sort together, & be good still. Touching the wine Protagium, it is now grown out of remembrance: and yet the Physicians of *Asclepiades* his sect and schoole, gaue praise vnto it next the Italian wines. The learned Physician *Apollodorus*, in his treatise that he compiled of good wines, which he recommended vnto King *Ptolomæus* for to drinke, as meet for the health of his person, (for default of Italian wines then vnknown) highly praised the wines in Pontus, & principally that which is called Naspercenites: next to it the Oroeotik; the Oeneates, that of Leucadia, of Ambracia; and (which he preferreth aboue all the rest) the wine of Peparethus: and yet he said, that there went the lesse name and opinion of it, because after sixe yeares it loseth the strength and pleasant tast that it had.

Chap. VIII.

¶ *Seuen kinds of salt wine.*

THus far forth haue we discoursed of the very floure of good wines, according to the regions where naturally they come of the grape. Now are we to treat of wines compounded. And first, among such wines is that, which they call Bixon (an inuention of the Greeks) which aboue all others is most esteemed: and great reason, for deuised it was for the cure of many maladies, as we shall shew hereafter in our treatise of Physick. The making wherof is in this manner: Take grapes gathered somwhat before they be ripe: let them lie to drie and parch in the hot Sunne for three daies, and be turned duly thrice a day: vpon the fourth day presse them forth for wine, put the liquor vp in barrels, and so let it worke in the Sun. Howbeit, hereto they put a good quantity of salt sea-water. But this deuise was learn'd first of a false theeuish knaue who hauing robbed his maister and drunk vp a good deale of his wine, filled vp the vessel again and made just measure with sea-water. White wine if it be ordered in this sort, is called Leucochrum by the Greekes: but in other nations the like wine so made is named Tethalassomenon. As for Thalassites, it is a kind of wine so called, for that the vessels when the wine is new tunned, be cast into the sea, and there let to remaine for a time, by which means the wine will soon seeme old and readie to be drunke. Furthermore, Cato also here among vs hath shewed the way how to make the Greekish Wine Coum, of our owne Italian Wine: but aboue all he hath set down an expresse rule, to let it first take the maturitie and perfection 4 yeres in the Sun. As for the wine of Rhodes, it is much like to that of Coos. But the Phorinean wine is more salt than the wine of the Isle Coos. Finally, all transmarine or beyond-sea wines are thought in seuen or six yeares at the least, to come vnto their middle age.

Chap. IX.

¶ *Fourteene sorts of sweet wines.*

ALwaies the sweeter that they be in tast, the lesse fragrant & odoriferous they be: the thinner and smaller that they be, the more euer they smell to the nose. Of wines there be four principall colours, white, yellow, red, and blacke. As for Psythium and Melampsythium, they be certaine kinds of cuit, hauing a seuerall tast apart by themselues, not resembling wine indeed. And for Cicibelites made in Galatia, it tasts alwaies like new wine: so doth Halyntium in Sicily. For as touching Syræum, which some call Hepsema, & we in Latine Sapa [*i.* Cuit] it is a meer artificiall thing, the deuise of mans wit, and no worke of Nature: namely, when new wine is sodden away a third part: for when it boiles to the halfe, we then call it Defrutum. And in very deed, all these be inuentions to sophisticate and counterfeit honie. But those beforenamed retaine the naturall tast of the grape and the soile, whereof they doe consist. Next to these cuit-wines of Candie, those of Cilicia, Affrick, Italy, and the prouinces confronting therupon, are held for the best. Certain it is, That they be made of one grape, which the Greekes call Stica, and we Apiana [*i.* the Muscadell] and of another named Scirpula: the which haue been suf-

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A fered a long time to hang in the Sunne vpon the Vine vntill they be ſcorched and parched; or elſe ouer the vapor of ſcalding oile. Some there be that make them of any ſweet grapes whatſoeuer, ſo that they be let to concoct before in the Sun, vntil they be white and drie, ſo farre forth, as little leſſe than half of their weight be conſumed: which done, they ſtamp them and ſo gently preſſe them. Then looke how much liquor they haue preſſed foorth, ſo much pit water they put to the cake that is preſſed, that thereof they may haue a cuit of a ſecond running. But they that be more curious & take vpon them to make a daintier cuit, dry the grapes in maner aforeſaid, but they take forth the ſtones and graines within: they ſtrip them alſo from the ſteeles and railes that they hung by: and ſo after they be well drenched and infuſed in ſome excellent wine vntill they be ſwelled and plumpe, they preſſe them. And certainly this faſhion is ſimply the beſt of all others. Put to the cake thereof, water as before, and after the ſame manner yee ſhall
B haue a cuit of a ſecond ſort. Now there is a kind of wine which the Greeks call Aigleuces, that is to ſay, alwayes ſweet like new wine, of a middle nature between the common ſimple wine and the ſweet: and this commeth not vnto it by kind, but by heed taken in the boiling; for it is not ſuffered to ſeeth and work: and this is the term, whereby is ſignified the alteration of new Muſt into wine. To hinder therfore that it work not, (as naturally it will) they haue no ſooner tunned or filled it out of the Vat, but immediatly they douſſe the veſſels full of new Muſt in the water, and let them there continue till mid-December be paſt, and that the weather be ſetled to froſt and cold, and likewiſe the time expired of the working within the ſaid veſſells. Moreouer, there is another kind of wine naturally ſweet, which in Prouance and Languedoc is called Dulce [i. ſweet] & namely, in the territorie of the Vocontians. For this purpoſe they let the grapes hang
C a long while vpon the Vine, but firſt they wryth the ſteele that the bunch hangs to. Some make inciſion into the very Vine branch, as far as to the pith and marrow within (to diuert the moiſture that feeds the grape:) others lay the cluſters a drying vpon tile-houſes: and all this is done with the grapes of the Vine Heluenaca. There be that range in a ranke of theſe ſweet wines, that which they cal Diacyton. For which effect, they drie the grapes againſt the Sun (howbeit in a place well encloſed) for 7 daies together, vpon hardles, 7 foot likewiſe from the ground: in the night ſeaſon they ſaue them from all dewes, and ſo on the eight day they tread them in the wine preſſe: and thus they draw forth a wine of an excellent ſauor and taſt both. A kind of theſe ſweet wines, is that which they name Melitites, [in manner of a Braget, Meade, or Metheglin.]
D Howbeit, different it is from the mead or honied wine which the Latines call Mulſum, made of old wine that is hard, and a little honie: whereas the foreſaid Melitites conſiſts of 5 gallons of new tart wine ſtill in the verdure, whereto is added one gallon of honie, and a *cyath of ſalt, and ſo boiled all together. But I muſt not forget to place among theſe ſundry kinds of drinke, the liquor Protropum, for ſo ſome call new wine running it ſelf from the grapes, before they be troden and preſſed. But to haue this good, and ſo to ſerue the turne, ſo ſoon as it is put vp into proper veſſells for the purpoſe, it muſt be ſuffered to work: and afterwards to reboile and work againe for fortie daies ſpace the Summer following, euen from the very beginning of the dog daies, and ſo forwards

*an ounce and a halfe.

E

Chap. X.

¶ *Of weake and ſecond Wines, three kinds.*

THe ſecond wines, which the Greeks call Deuteriæ, *Cato* and we Romans name Lora) cannot properly and truly be called Wines, being made of the skins and ſeeds of grapes ſteeped in water: howbeit, reckoned they are among courſe houſhold wines for the hines and meinie to drinke. And three kinds there be of them. For ſomtime to the tenth part of the new wine that hath beene preſſed out, they put the like quantity of water, and ſuffer the foreſaid refuſe of the grapes to ſoke therin a day and a night: which done, they preſſe it forth againe. A ſecond ſort there is, which the Greeks were wont to make in this manner: They take a third part
F of water in proportion of the wine that was preſſed forth, and after a ſecond preſſing, they ſeeth it to the waſting of the third part. The third is that which is preſſed out of the wine lees, and this *Cato* cals Phœcatum, [i. Wine of lees.] But none of theſe wines or drinks will endure aboue one yeare.

G

Chap. XI.

¶ *What neat wines began of late to be in requeſt in Italie.*

IN this treatiſe of wines I cannot omit this obſeruation: That whereas all the good wines, properly ſo called and known in the whole world, may be reduced in fourſcore kinds or therabouts; two parts of three in this number, may well be counted wines of Italie: which in this regard farre ſurpaſſeth all other nations. And hereupon ariſeth another thing more deepely to be noted, That theſe good wines were not ſo rife nor in ſuch credit from the beginning, as now they be.

H

Chap. XII.

¶ *Obſeruations touching wine.*

TO ſay a truth, Wines began to grow in reputation at Rome, about ſixe hundred yeares after the foundation thereof, and not before. For king *Romulus* vſed milk when he ſacrificed to the gods, and not wine: as may appeare by the cerimonial conſtitutions by him ordained, as touching religion; which euen at this day be in force, and are obſerued. And king *Numa* his ſucceſſor made this law Poſthumia in his later daies, *Let no man beſprinckle the funerall fire with wine.* Which edict no man doubteth, but he publiſhed and enacted in regard of the great want and ſcarſitie of wine in thoſe daies. Alſo by the ſame Act he expreſſely did prohi-
I
bite to offer in ſacrifice to the gods, any wine comming of a Vine-plant that had not beene cut and pruned: intending by this deuiſe and pretence of religion, to enforce men to prune their Vines, who otherwiſe would ſet their minds on husbandrie only and plowing ground for corne, and be ſlow enough in hazarding themſelues for to climbe trees, whereunto Vines were planted. *M. Varro* writeth, That *Mezentius* the king of Tuſcane aided the Rutilians of Ardea in their warres againſt the Latines, for no other hire and wage but the wine and the vines which then were in the territorie of Latium.

Chap. XIII.

¶ *Of the ancient vſage of wine: and the wines in old time.* K

IN ancient time, women at Rome were not permitted to drink any wine. We read moreouer in the Chronicles, That *Egnatius Mecennius* killed his owne wife with a cudgell, for that hee tooke her drinking wine out of a tun; and yet he was cleared by *Romulus*, and acquit of the murder. *Fabius Pictor* in his Annales reports, That a certaine Romane dame, a woman of good worſhip, was by her owne kinsfolke famiſhed and pined to death, for opening a cupbord, wherein the keis of the wine-ſellar lay. And *Cato* doth record, that hereupon aroſe the manner and cuſtome, That kisfolk ſhould kiſſe women when they met them, to know by their breath whether they ſmelled of Temetum: for ſo they vſed in thoſe daies to tearme Wine: and thereof drunkenneſſe was called in Latine Temulentia. *Cn. Domitius* (a judge in Rome) in the like caſe pro-
L
nounced ſentence judicially againſt a woman defendant, in this forme, *That it ſeemed ſhe had drunke more wine without her husbands knowledge, than was needfull for the preſeruation of her health*, and therefore afterward definitiuely, That ſhe ſhould loſe the benefit of her dowrie. Certes, the Romanes for a long time made great ſpare of wine. *L. Papyrius* lord Generall of the Romane armie, when he was at the point to joyne battell with the Samnites, made no other vow, but this, That he would offer vnto *Iupiter* a little cup or goblet of wine, in caſe he atchieued the victorie and woon the field. Ouer and beſides, we find in hiſtories, that among donatiues and preſents, certaine ſextars or quarts of milke haue beene many times giuen, but neuer any of wine. The fame *Cato* abouenamed, after his voiage into Spain (from whence he returned with a notable victorie, and in a triumphant manner) in a ſolemne ſpeech that hee made vnto the people,
M
proteſted in theſe words and ſaid, *No other wine I haue drunke ſince I went, than the very marriners haue.* How farre vnlike was he to men in theſe daies, who ſitting at the table, haue their cup of ſtrong wine by themſelues, and giue vnto their gueſts, for the moſt part, other ſmall wines to drinke: or if they ſuffer them to drinke all one and of the beſt at the beginning of the feaſt, they will

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A will be ſure to change and to ſerue them with worſe ſoon after. In old time, the beſt wines vſed at feaſts were aromatiſed and ſpiced with ſweet Myrrh, as appeares in the Comedie of *Plautus*, entituled Perſa. And yet it ſhould ſeeme there, that ſweet Calamus was to be added beſides. And hereupon it commeth, that ſome haue thought, how our forefathers in times paſt tooke moſt delight in ſuch ſpiced cups and Ippocras wines. But *Fabius Dorſenus* the Poet ſufficiently declareth and decideth this point in theſe verſes, when he ſaith,

Mittebam vinum pulchrum, Murrhinum.

I ſent neat wine,
Which hight Myrrhine.

B And againe in his Comedie *Achariſtio*:

Panem & Polentam, vinum Murrhinam.

Both bread and grewell I did preſent,
And Myrrhine wine of pleaſant ſent.

I ſee moreouer, that *Scævola*, *Lælius*, and *Atteius Capito* were of the ſame mind. For in the Comedie of *Plautus* entituled *Pſeudolus*, thus it is written:

Quod ſi opus eſt vt dulce promat
Indidem, ecquid habet? (Char.) *Rogas?*
C *Murrhinam, paſſum, Defrutum, mella.*

Of dulcet wine if there be need,
What hope is there from thence to ſpeed?
Char. Why aske you that? he furniſh'd is
With Murrhin, Cuits, and Meade ywis.

By which a man may ſee euidently, that Murrhina was not onely counted a wine, but reckoned alſo among the ſweet and delicate wines.

D

Chap. XIIII.

¶ *Of wine ſtore-houſes: and of Opimian wine.*

THat there were wine ſellars at Rome, and that they vſed there to tun vp Wine in the 633 yeare after the foundation thereof, appeareth plaine by a good proofe of the Opimian wine: and euen in thoſe daies Italy knew her owne good, and what it was to maintaine vineyards. Howbeit, as yet were not thoſe wines in credit, which now are ſo rife and in ſo great account. And therfore it is, that all the wines of that time bear the only name of that one Conſull, and be called Opimian. And thus afterwards alſo in proceſſe of time, the wines that came from beyond the ſeas for a long ſpace, were in much requeſt, euen vntil our grandfathers daies:
E yea, and after that, the Falern wines were in name and called for, as may appeare by that Verſe of the Comicall Poet;

Quinque Thaſij vini inde depromam, Falerni bina.

To meaſures fiue of Thacian wine,
I will draw twain of Falerne fine.

In the 675 yeare after the foundation of Rome, *Pub. Licinius Craſſus*, and *L. Iulius Cæſar*, Cenſors for the time being, publiſhed an Edict, and proclaimed, *That no man ſhould ſell any Greek*
F *wine, or Aminean, but after eight Aſſes the Amphor or Quadrantum.* For theſe be the verie expreſſe words of the ſaid Edict. Now was Greeke Wine of ſo great price and eſtimation, that a man was but allowed one draught thereof at a meale, were the cheare neuer ſo great, and the feaſt right ſumptuous. But what wines were in requeſt ordinarily at the boord, *M. Varro* doth ſhew in theſe words: *L. Lucullus* (quoth hee) while he was a boy, neuer ſaw at his fathers bord

Greeke

Greeke wine ſerued vp but once at a meale, how good ſoeuer the fare was otherwiſe. Howbeit, himſelfe when he returned out of Aſia, in a congiarie or largeſſe that he gaue vnto the people, made a dole and diſtribution of more than an hundred thouſand meaſures of gallons apiece. *C. Sentius*, whom of late daies we ſaw Pretor of Rome, teſtified, that he neuer ſaw any wine of Chios brought into his houſe, before the Phyſition preſcribed and ſet it down for the *Cardiaca paſſio*, or the trembling of the heart, whereto he was ſubiect. But contrariwiſe *Hortenſius* when hee died left aboue ten thouſand barrels full of that Wine vnto his heire. And thus much out of *M. Varro*.

Chap. XV.

¶ *Of Cæſars bountie and liberalitie in Wine.*

BVt what ſhould we ſay of *C. Iulius Cæſar* Dictator? In that ſolemne feaſt of his which hee made at his triumph, did not he diſtribute among his gueſts Falerne wines by whole barrels, and Greek wine of Chios by the rundlets? After his returne out of Spain with victorie and triumph, he likewiſe gaue away a largeſſe of wine as well Chian as Falern. But at the royall dinner which he made when he entred vpon his third Conſulſhip, he cauſed all the Hall to be ſerued thorowout with Falern, Chian, Lesbian, and Mamertine wines: which was the firſt time that euer any man ſaw the ſeruice of 4 ſeuerall wines at one feaſt. Now in farther proces of time, and namely about 700 yeares after Rome cities foundation, all other Wines began to beare a name and come in requeſt.

Chap. XVI.

¶ *Of Artificiall or made Wines.*

COnſidering all that hath bin written, I nothing maruel at ſuch an infinite number of compound and artificiall wines deuiſed in old time, all for the vſe of Phyſick, wherof we will now treat in more ample maner. To begin therefore with wine-Verjuice, called Omphacium, how it ſhould be made, for perfumes and odoriferous ointments, we haue ſhewed in the former booke. As for the wine named Oenanthinum, it is made of Labruſca, that is to ſay, the wild Vine, in this wiſe: Take two pound of the floures of the wild vine aforeſaid, let the ſame be ſteeped in a meaſure of new wine containing about 12 *gallons, for the ſpace of 30 dayes, and then be changed out of that veſſell into another. Moreouer, the root and grapes of the ſayd wild Vine are good for curriers to dreſſe their leather. The ſame grapes a little after they haue done blooming are taken to be a ſingular remedie for to coole thoſe that be troubled with hot and ardent diſeaſes, for naturally they be, as men thinke, exceeding cold: and indeed many of theſe grapes die in the hot time of Summer before the reſt which are called Solſtitiales: but all of them neuer come to full and perfect ripeneſſe. Now if you would keep Pullein from pecking grapes, take theſe of the wild Vine before they be throughly ripe, mingle and ſeeth them with their meat: for this will take away all their appetite that way, and breed a loathing after all grapes.

*12 congios.

To come now vnto the artificiall wines beforenamed: the firſt of them, namely that which they call Adynamon [*i.* without ſtrength] is made of very wine in this ſort: Take of new white wine 20 Sextars [*i.* quarts:] of water halfe as much: let them boile together vntill the meaſure of water beforeſaid be conſumed. Some take of ſea water ten Sextares, of raine water as much: and when they be mingled together, ſuffer them to worke in the hot Sun for the ſpace of fortie daies. This drinke they vſe to giue vnto patients, for ſuch maladies as they feare wine would be hurtfull to. A ſecond made wine there is called Millet Wine, after this ſort: Take of Millet ſeed that is ripe, huske, head, and all, a pound and a quarter, put it into two gallons of Muſt, or new wine: after that it hath lien there infuſed ſeuen moneths, let the liquor run from it into another veſſell, and keepe it for your vſe. As touching the wines of Lotus, as well the tree and ſhrub, as the herbe, we haue ſhewed ſufficiently how they ought to be made. Moreouer, there be many wines made of ſundry fruits, which we will write of hereafter more at large: with a ſupplement and addition of ſuch interpretations only as be neceſſarie. And in the firſt place commeth the date wine, which the Parthians, Indians, and all the Nations of the Eaſt in generall

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A nerall do ordinarily vſe. A Modius or pecke of ripe and ſweet dates, which they call Chideæ, they let lie to ſteep in 3 gallons of water, and ſo preſſe for a liquor for the Date wine. Alſo the Fig-wine Sycites, of the fig which ſome cal Palmiprimum (as a man would ſay, Dates fellows, or next to Dates) others Catorchites, is made after the ſame faſhion. But if a man liſt not to haue it ſo ſweet, in ſtead of water they vſe to put ſo much of the ſtones, skins, & ſeeds of grapes. Of the Fig of Cypres there is an excellent Vinegre made, yea and a better than it of the Alexandrine Figs, to wit, growing vpon the Sycomore. Likewiſe a wine is made of the fruit in Syria called Siliquæ; as alſo of peares and all kind of apples. As for the wine of Pomegranates, the Greeks name it Rhoites: beſides the fruit of the Corneil or wild Cherry tree, Medlars, Seruices, dry Mulberries, and Pine-nuts, doe yeeld ſeuerall ſorts of wine. As for thoſe pine nuts,
B they muſt lie ſteeped in new wines, before the wine be preſſed out of them. The reſt all be pleaſant enough of themſelues, and will ſerue alone for to make wines. The maner of making Myrtle wine, according to the receit and preſcription of *Cato*, we will declare ſoon hereafter. For the Greekes haue another way of their owne, to wit, when they haue ſodden in white Muſt or new wine the tender branches of the Myrtle, together with the leaues, and then ſtamped the ſame, they put a pound thereof in three gallons more of Muſt, and cauſe it to boile vntill ſuch time as a third part of the wine be conſumed. Now that which is made after the ſame maner of the wild Myrtle berries, they call Myrtidanum; and this will colour and ſtaine ones hands blacke.

Furthermore, the herbs of the garden do afford vs many wines, namely Radiſh, Sperage, Sa-
C vory, & Majoran, Origan, Smallach ſeed, Southernwood, wild Mints, Rue, Nep, or Calaminth, running Thyme, or Horehound. To make theſe wines, take of the herbes aboueſaid two handfulls, and when they be ſtamped, put them into a little barrell of new Wine containing twelue or thirteen gallons, together with a wine quart of Cuit ſodden to the thirds, and a pint of ſea-water. But for the wine of Navews, you muſt take eleuen drams of them, and two quarts of new wine, and ſo put them together in maner aforeſaid. In like ſort alſo the wine Squilliticum is made of the root of Scilla, or the ſea Onion.

To proceed vnto wine made of floures, you haue firſt and formoſt wine Roſat, after this man-
ner: Take the weight of 40 deniers [*i.* fiue ounces] of Roſe leaues well ſtamped, put them into a linnen cloth, together with a little weight, that they may ſettle downward, & not flote aloft;
D let them hang thus in 20 Sextars [*i.* three gallons] and two wine quarts of Muſt; keep the veſſell cloſe ſtopped in any caſe for 3 moneths, then open it and ſtrain the ſaid floures vnto the liquor. In like maner is there a wine made of the Celtick Spikenard, as alſo of the Nard ſauage. I find alſo, that they vſe to make a kind of ſpiced wine or Ipocras, not for ſweet perfumes and ointments only, but alſo for to drinke. At firſt (as I haue ſhewed) they made theſe aromaticall wines with myrrh only, but ſoone after they added thereto Nard Celticke, ſweet Calamus, and Aſpalathus, either ſlicing theſe drugs, or putting them by gobbits into new Muſt or ſome dulcet wine. Some aromatiſe their wine with Calamus, Squinanth, Coſtus, Spikenard, Amomum, Caſia, Cinamon, Saffron, Dates, and Azara-bacca, put therto in like maner by gobbets. Others take Spikenard and Malabathrum, of each halfe a pound to two gallons of new wine. Much af-
E ter the ſame maner we ſpice our wines now adaies alſo, but that we adde pepper and hony therto: which ſome call Condite, others Pepper wines. Moreouer, there is deuiſed a Wine called Nectarites, made of Elecampane, named by ſome Helenium, of others Medica, Symphyton, Idæa, Oreſtion: and there be alſo that term this herb Nectarea. Now the order of it is to take of the root forty drams, to ſix Sextars of Muſt or new wine, and hang it in a cloth together with a weight in maner aboue ſaid. Moreouer, there be wines made of other herbs, to wit, of wormwood, in this ſort: Take of Ponticke Wormwood one pound, ſeeth it in forty Sextars [about ſix gallons and a halfe] of new Wine, vntill a third part be conſumed: or without boiling, put certain handfulls or bunches thereof into a veſſell of Wine, and ſo let it lie infuſed. After the
F ſame ſort is Hyſſop wine made, to wit of three ounces (which is a quarter of a pound) of Cilician Hyſſope caſt whole as it is into two gallons of Muſt, and ſo let them worke together: or elſe ſtampe the Hyſſop, and ſo put it into wine. But both theſe wines are made another maner of way, namely by ſowing or ſetting wormwood & Hyſſop at the very root of the Vine-plant: for ſo *Cato* teacheth vs to make Ellebore wine, of blacke Ellebore or Beare-foot growing at the Vine root. And in like maner alſo is made the Scammonite wine. A wonderfull nature and

propertie theſe vines haue,to draw and ſucke into them the very taſte of other herbs and plants that are ſet neere vnto them: for euen ſo all the grapes about Padua haue a relliſh of the Willows and Oſiers that grow there in the mariſh grounds. Thus the men of Thaſos do plant and ſow either Ellebore,or wild Cucumber,or els Scammonea,about their Vines,to make thereof their diuelliſh wine Pthorium,ſo called,becauſe it cauſes a ſleep,and procures vntimely birth. Of more herbs beſides there be other wines made,the vertues of which herbs we wil ſet downe elſewhere in place conuenient: and namely of Stœchos, the root of Gentian, of Tragoriganum,of Dictamum,Aſarabacca,of Daucus,or yellow Carot,Sauge,Panace,Acorus, or Galangal,Conyza,or Cunilago,Thyme,Mandragoras, and Squinanth. More ſuch wines there were yet,which the Greeks called Scyzinum,Itæomelis, and Lectiſpagites; but as they be growne now out of vſe,ſo the manner of making is vnknown. G H

As touching wines made of trees & ſhrubs,their maner was to ſeeth the berries of the green wood of both the Cedars,the Cypres,the Bay,Iuniper,Terebinth,Pine,Calamus,and Lentisk, in new wine. In like maner,the very ſubſtance of Chamelæa,Chamæpithys, and Germander. Laſt of all,the floures alſo of the ſaid plants ſerue to make wines,namely,by putting into a gallon of new wine in the vat,the weight of ten deniers or drams of the floures.

Chap. XVII.

¶ *Of Hydromel and Oxymel,* [i.*Honied water, and Honied vineger.*]

THere is a wine called Hydromel,made of water and hony onely: but to haue it the better, ſome do preſcribe rain water,and the ſame kept fiue yeares for that purpoſe. Others who are more wiſe and skilfull herein,do take raine water newly fallen,and preſently ſeethe it vntill a third part be boiled away: then they put therto a third part alſo of old hony in proportion to it: and ſo let them ſtand together in the Sun for forty daies together, from the riſing of the Dog-ſtar. Others,after they haue remained thus mingled and incorporate together ten daies,put it vp & reſerue it cloſe ſtopped,for their vſe; and this is called Hydromel,which being come to ſome age hath the very taſt of wine, & no place affords better than Phrygia. I

Moreouer,Vineger was wont to be tempered with hony, [See how curious men haue bin to try concluſions in euery thing!] which they called Oxymel; and that in this manner: *Recipe,* of hony ten pounds or pints: of old vineger fiue pints; of ſea ſalt one pound;of rain water fiue Sextares[*i.*a gallon within one quart:]boile them al together at a ſoft fire,vntil they haue had ten plawes or walmes: which done,poure them out of one veſſell into another,and ſo let the liquor ſtand and ſettle a long time vntil it be ſtale. All theſe wines & compoſitions thus brued, *Themiſon* (an Author highly renowned) hath condemned and forbidden expreſſey to be vſed. And to ſay a very truth,it ſeems that the vſe of them was neuer but in caſe of neceſſity: vnleſſe a man would beleeue and ſay,that Ipocras,ſpiced wines,& thoſe that be compounded of ointments,are Natures work; or that ſhe brought forth plants and trees to no other end, but that men ſhould drink them down the throat. Howbeit,the knowledge ſurely of ſuch experiments be pleaſant and delectable vnto men of great wit and high conceit, whoſe noble ſpirits cannot be at reſt,but euer inuentiue and ſearching into all ſecrets. Now to conclude this point,certain it is and paſt all queſtion,that none of all theſe compoſitions, vnles it be thoſe which come to their perfection by age and long time, will laſt one yeare full out, nay moſt of them will not keep good one moneth to an end. K L

Chap. XVIII.

¶ *Certaine ſtrange and wonderfull ſorts of wine.*

WIne alſo hath prodigious and miraculous effects: for, by report, in Arabia there is a wine made,which being drunk will cauſe barren women to beare children; and contrariwiſe driue men into madnes. But in Achaia principally about Carynia,the wine makes women fall into vntimely trauell: nay if a woman great with childe do eat but the verie grapes, they will ſlip the fruit of their wombe before their time: and yet both grape and wine differ not in taſt from others. They that drinke the wine comming from the cape Trœzen,ate thought vnable for generation. It is reported,that the Thaſiens do make two kinds of wine of M

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A contrarie operations; the one procures ſleep, the other cauſeth watching. Among them there is a vine called Theriace, the grape whereof, as alſo the wine, cureth the ſtings and biting of ſerpents, as it were a moſt eſpeciall Treacle. As for the vine Libanios, it carrieth the odour and ſmell of Frankincenſe, and therefore is vſed in ſacrifices to the gods. But contrariwiſe another named Aſpendios is vtterly condemned for that purpoſe, and no wine thereof is imployed at the altar: they ſay alſo that no fowle will touch the grapes thereof. There is a kind of grape in Egypt which they call Thaſia, exceeding ſweet it is, and looſeth the belly. But contrariwiſe there be in Lycia that binde as much and cauſe coſtiueneſſe. The grapes Ecbolides in Egypt if they be eaten, cauſe women with child to be deliuered before their time. Some wines there be that as they lie in the very cellar will turn and proue ſoure about the riſing of the Dog-ſtar; but afterward wil recouer their verdure and become quick and freſh again. In like maner there
B be wines which vpon the ſea will change: howbeit the agitation thereof cauſeth thoſe Wines which endure it to the end to ſeem twice as old as they be indeed.

Chap. XIX.

¶ *What Wines they be that may not be vſed in ſacrifices: and what waies there are to ſophiſticate new wines.*

FOraſmuch as our life ſtands much vpon religion and diuine ſeruice, wee are to vnderſtand, That it is held vnlawfull to offer vnto the gods before ſacrifice, the Wine of any vine that hath not bin cut and pruned; or that hath bin ſmitten or blaſted with lightening, or ſtan-
C ding neere to a jebbit or tree whereon a man hath hanged dead; or the grapes whereof haue bin troden by men whoſe legs or feet haue been wounded; neither is that wine allowable for this purpoſe, which hath bin preſſed and run from the refuſe of grape ſtones and skins once bruiſed and cruſhed in the preſſe; or laſt of all, if the grapes haue bin filed by any ordure or dung fallen from aboue thereupon. Moreouer, Greeke Wines are reiected from this holy vſe becauſe they haue water in them. Furthermore, the vine it ſelf is holden good to be eaten, namely, when the burgens and tendrils be firſt ſodden, and afterwards preſerued and kept in vineger, brine, or pickle. Ouer and beſides, it were very meet and conuenient to ſpeake alſo concerning the manner of preparing and ordering of wine, ſeeing that the Greeks haue trauailed in that point ſeuerally, and reduced the rules belonging therto, into the form of an Art; and namely, *Euphronius*,
D *Ariſtomachus*, *Coniades*, & *Hiceſias*, are therein great profeſſors. The Africans vſe to mitigate and allay the tartneſſe of their wines with plaſtre, yea and in ſome parts of their country with lime. The Greeks contrariwiſe do fortifie and quicken them with clay, with pouder of marble, with ſalt or ſea water: and in ſome places of Italy they vſe to the ſame effect, the ſhauings and ſcrapings of ſtone-pitch. Alſo it is an ordinary thing in Italy and the prouinces thereto confining, for to condite their new wines & to ſeaſon them with roſin: yea and in ſome places they mingle therewith the lees of other old wine or vinegre. Oftentimes alſo they make ſliber-ſauces of it ſelfe without any other mixture; namely, when they boile new wine ſufficiently to the proportion of the ſtrength, vntill the hardneſſe do euaporate, and that it wax mild and ſweet: but being thus ordered, it will not laſt, they ſay, aboue one yere. In ſome countries they vſe to ſeeth
E their new wine to the conſumption of a third part, and make it Cuit, with which they are wont to delay the ſharpnes and ſtrength of other wines, & make them pleaſant. But both in this kind of wine and in all other, the veſſels ought to be prepared for the purpoſe, & ſeaſoned with pitch: the treatiſe of which we will put off vnto the next booke, where we purpoſe to treat thereof, and the manner of making it.

Chap. XX.

¶ *Of diuers kinds of Pitch and Roſins: the manner of the ſeaſoning and confecture of new Wines. Alſo of Vineger and ſalt.*

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AMong trees that yeeld from them a liquid ſubſtance, ſome there be in the Eaſt countries, and others in Europ, which ingender Pitch and Roſin. Aſia likewiſe between both, hath of either ſide it ſome ſuch trees. As for the Eaſt, the Terebinths put out Turpentine, the beſt and cleereſt Roſin of all others: next to them, the Lentiskes alſo haue their Roſin, which

they call Maſtick. After which, the Cipres brings forth a third roſin, but it is of a moſt ſharpe G
and biting taſte. All theſe trees (I ſay) carry roſin only, and the ſame thin and liquid: but the
Cedar ſendeth forth a thick ſubſtance, and good to make pitch & tar. As for the roſin or gum
Arabick, it is white in colour, ſtrong of ſmell, vntoward and troubleſom to him that ſhall boile
it. That of Iury is harder, yea, and of a ſtronger ſauor than Turpentine. The Siriack gum reſem-
bleth the hony of Athens. The Cyprian excelleth all others: of a fleſhy ſubſtance it is, & like
in colour to hony. The Colophonian is deeper of colour, and reddiſh: beat it to pouder in a
mortar it proueth white: but it carieth a ſtrong ſmel with it, which is the reaſon that the per-
fumers and makers of ointments haue no vſe thereof. As for that which the pitch trees of Aſia
do yeeld, it is paſſing white, and the Greeks call it Spagas. All roſins generally will diſſolue in
oile. Some think verily, that Potters clay will likewiſe do the ſame. But I am abaſhed & aſha- H
med to report, how in theſe daies the ſame pitch whereof we ſpeake, ſhould be in ſo great ac-
count as it is, for making of pitch plaiſters, to fetch off the haire of mens bodies, & all to make
them more ſmooth and effeminat. Howbeit, the maner of ſeaſoning new Muſt therewith (that
when it is perfect wine, it may ſmell of pitch, and bite at the tongues end) is to beſtrew it with
the pouder of pitch at the firſt working, the heate whereof is commonly paſt and gone in nine
daies. And ſome think that the wine will be the ſtronger, if the raw and green floure of the Ro-
ſin, as it iſſueth freſh out of the tree, be put therein; for it will quicken a ſmall and weak wine.
Now this mixture and medicine of wine [called Crapula] made thus of roſin, hath contrary ef-
fects: for if the wine be ouer-heady and ſtrong, it allaieth & mortifieth the hurtful force ther-
of: but if it be too weak, or drink dead & flat, it reuiueth againe, and giueth it a ſtrong taſte. In I
Liguria, and principally along the Po, they vſe to ſeaſon their wines, and bring them al to their
ſeuerall perfections in this maner. If the wine when it is new be mighty and ſtrong, they put in
the more of this medicine or confection called Crapula: if it be mild and ſmall, then the leſſe
goes into it: and keeping this gage with their hand, they make both good. Some would haue
one wine brued with another, the weaker with the ſtronger, and ſo (forſooth) there muſt needs
ariſe a good temperature of both together: and verily there is not a thing in the world againe
which hath in the nature thereof ſo great varietie.

In ſome countries, if new wine worke of it ſelfe a ſecond time, it is thought to be a fault and
means to corrupt it: and indeed vpon ſuch a chance & vnhappy accident, it loſeth the verdure
and quick taſt: whereupon it gets the name of Vappa, and is clean turned to be dead or ſoure: in K
which regard alſo we giue a man that name by way of ſcorne and reproch, calling him Vappa,
when he is heartleſſe, void of reaſon and vnderſtanding. If it were vineger indeed it were ano-
ther matter: for ſurely though wine degenerate into it by way of corruption and putrefaction,
yet a vertue and force it hath good for many ſpeciall vſes, and without which it were not poſſi-
ble to liue ſo delicatly at our table as we do. Moreouer, the world is ſo much giuen to keepe a
bruing, tempering, and medicining of wines, that in ſome places they ſophiſticate them with
aſhes, as it were with plaiſter: in other, they fortifie, recouer, and make them againe by ſuch de-
uiſes as are before ſpecified. But to this purpoſe they take the aſhes to chuſe, of vine cuttings,
or of the oke wood, before any other. And forſooth if there be occaſion to occupie ſea water
for this purpoſe, they preſcribe them to fetch ir far from land in the deep ſea; & kept alſo from L
mid-March or the Spring Equinox, or at leaſtwiſe from mid-Iune, or ſummer Sunne-ſtead, and
drawn in the night, & when the North wind blowes: but if it be got neere the time of vintage,
then it ought to be wel boiled before it wil ſerue the turn. As for the pitch in Italy, that of Bru-
tium or Calabria is reputed for the beſt, to trim thoſe veſſels which are to keep wine. There is
made of the roſin of the tree Picea (as alſo in Spain there comes from the wild Pines) a certain
pitch which is the very worſt; for the roſin of thoſe trees is bitter, dry, & of a ſtrong ſauor. The
difference and ſundry kinds of pitch, as alſo the manner of making the ſame, we will declare in
the booke next following, in the treatiſe of wild and ſauage trees. The faults and imperfections
of pitch, ouer and beſides thoſe euen now rehearſed (to wit, bitternes, drynes, & ſtrong ſent) are
known by the ſourneſſe, ſtinking ſmoke, and the very aduſtion thereof. But ye ſhall know good M
pitch by theſe experiments, if the pieces broken from it do ſhine, if between the teeth it relent
and be clammy like glew, and haue a pleaſant ſharpnes and ſoure taſt withall of the vineger. In
Aſia the pitch is thought beſt which comes of the trees in mount Ida. The Greeks eſteem the
trees of the hil Pieria chief for this purpoſe: and *Virgil* commends that of Narycia before all.

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A But to returne againe to our brewing and ſophiſtication of wines, they that would ſeeme to be cunninger, or at leaſtwiſe more curious than their fellowes, do mingle therwith blacke Maſticke, which is engendred in Pontus, and is like to Bitumen; and therto adde the root of Iris or the floure de luce, and oile. For this is found by experience, That if the veſſells be ſered with wax, the wines therin will not hold, but turne ſoure quickly. Moreouer, we daily ſee, that better it is to put vp wine into thoſe veſſels, wherin vinegre hath been kept afore, than into ſuch as had dulcet or homied wine. *Cato* ſets downe a receit to trim and concinnate wine (for that is the very tearme which he vſes) in this manner: Take of lie aſhes ſodden with cuit boiled to the halfe; one fortieth part, temper it with a pound and a half of penniroyall, or ſalt: and otherwhiles with marble braied & beaten into pouder among. He makes mention alſo of brimſtone, but roſin he
B names with the laſt. But aboue al he wills to refreſh and renue the wine when it now begins to come to maturity and perfection, with new wine which he calls Tortivum; and I take it, that he means that which ran laſt out of the wine-preſſe: which he preſcribeth alſo to be put vnto new wines for to get them a freſher color, as the very tincture of wine: and ſo it wil be alſo of a more fattie ſubſtance, and goe down more glib and merrily. See, ſee, how many deuiſes of medicines and ſlibber ſauces the poore wine is forced to endure, and all to pleaſe our pallat, our eye, and other ſences: and yet ywis we marueil that it is ſo hurtfull to our bodies. Well, would you haue an experiment to know when wine is going, or enclining to be dead and ſoure; dip therein a thin plate of lead; if it change color, take it for a ſigne, that it is in the way of decaying. Of all liquors, wine hath this propertie to vinew, to pal, & into change in vinegre. But a thouſand me-
C dicines it doth affoord, and books of Phyſick are full thereof. Moreouer, wine-lees being dried, will ſerue as a match to keep fire: and without any other fewell to feed it, ye ſhall haue it burne and flame of it ſelfe. The aſhes thereof is of the nature of Nitre, and hath the ſame vertues: and in this regard ſomewhat more, for that it is found to be more fattie and vnctuous.

Chap. XXI.

¶ *Of wine-cellars.*

NOw when wine is made and tunned vp in maner aforeſaid, there is as great difference and diuerſitie in the beſtowing of it in cellars. They of Piemont about the Alpes, doe put vp
D their wines in woodden barrels, bound well with hoopes, for warmth: and moreouer, if the winter be very cold, they make fires in their cellars or butteries, to keep them for being frozen. I will tell you a ſtrange wonder, yet true and to be verified, not by heareſay but plaine eie ſight. There were ſeen vpon a time whole heaps & huge lumps of wine congealed into ice, by occaſion that the hoopes of the hogſheads burſt that contained the wine: and this was held for a prodigious token. For indeed wine of it owne nature will not congeale and freeze, only it will loſe the ſtrength, and become apalled in extremitie of cold. In warmer climats and more temperat, they fil their wines into great ſtands and ſteanes of earth, which they ſet into the ground, either ouer the head all whole, or elſe by halfe; deeper or ſhallower, according to the ſituation & temperature of the region. Likewiſe they giue the wine open aire in ſome places: whereas in other
E they keep it cloſe within houſe in tauernes and cellars. And thereto belong theſe and ſuch like rules. Firſt, that one ſide of the wine-cellar, or at leaſtwiſe the windows, ought to ſtand open to the North, or to the Eaſt in any wiſe, where the Sunne riſeth at the time of the Æquinoctiall. *Item*, that there be no muckhils nor priuies neer: no roots of trees, nor any thing of a ſtrong and ſtinking ſauor: for that wine is of this nature, to draw any ſmell very quickly into it: and aboue all, Fig trees (as well the wild as the tame) be hurtfull to wine-cellars. *Item*, as touching the order of placing the wine-veſſels, they ought to ſtand a pretty diſtance one from another: for fear of contagion, for that wine is alwaies moſt apt to catch infection very ſoon. Moreouer, it matters much of what proportion and faſhion the pipes, tubs, and ſuch veſſels be made. Thoſe with great bellies and wide mouths, are not ſo good. Alſo they muſt be nealed with pitch, preſently
F vpon the riſing of the dog-ſtar: afterwards douſed and waſhed all ouer either in the ſea or elſe ſalt water, then to bee ſeaſoned and ſtrewed with vine aſhes or cley, and being ſcoured, they ought to ſweeten them with a perfume of Myrrhe; which were good to be done alſo to the very cellars oftentimes. Furthermore, if the wines be weak and ſmal, they had need to be kept in tubs and hogſheads, let downe within the ground: but the ſtrong and mighty wines may lie aboue

ground in the open aire. Prouided alway, that wine veſſels be neuer filled top full: but the void G
part that is left, and ſtands aboue the wine, would be thoroughly dight with thicke wine made of withered grapes, or ſodden wine to the halfe, and ſaffron mingled withall, yea, and old pitch, together with cuit. Thus alſo ought the lids and bungs of the veſſels to be ordered, with an addition beſides of maſtick and pitch. In the deep of Winter they muſt not be vnſtopped and opened in any caſe, vnleſſe the weather be faire and cleare: Neither when the wind is Southerly, or the Moon in the full. This alſo is to be noted, that the floure or mantle which the wine caſts vp to the top, is good when it is white, if it be red, it is a very bad ſigne, vnleſſe the wine it ſelfe be of that color. Moreouer, if the veſſels be hote, or the lids do ſweat, it is no good ſigne. Note alſo, that the wine which ſoone begins to mantle and caſt vp a floure incontinently, or to veeld another ſmell than the own, wil not continue long good. As for the cuits, whether they be ſod- H
den to the half or the thirds, they ought to be boiled & made when the skie is without a Moon, that is to ſay, in the change, and vpon no day elſe. Moreouer, the decoction muſt be in leads, and not in coppers; with walnuts among to receiue al the ſmoke, which otherwiſe might infect the cuit. In Campaine they let their beſt wines lie abroad in veſſells, euen in the open aire, to take the Sun, the Moone, raine, and wind, and all weathers that come: and this is thought to bee beſt for them.

Chap. XXII.

¶ *Of auoiding Drunkenneſſe.*

IF a man marke and conſider well the courſe of our life, we are in nothing more buſie and I
curious, nor take greater paines, than about wine: as if Nature had not giuen to man the liquor of water, which of all others is the moſt wholſom drink, and wherwith all other creatures are wel contented. But we thinking it not ſufficient to take wine our ſelues, giue it alſo to our Horſes, Mules, and labouring beaſts, and force them againſt Nature to drink it. Beſides, ſuch pains, ſo much labor, ſo great coſt and charges we are at, to haue it, ſuch delight and pleaſure we take in it; that many of vs think, they are borne to nothing elſe, & can skill of no other contentment in this life: notwithſtanding, when all is don, it tranſports & carries away the right wit & mind of man, it cauſes fury and rage, and induces, nay, it caſts headlong as many as are giuen thereto, into a thouſand vices and miſdemeanors. And yet forſooth, to the end that we might take the more cups, and poure it downe the throat more luſtily, we let it run thorough a ſtrainer, for to a- K
bate and gueld (as it were) the force thereof: yea, and other deuiſes there be to whet our appetite thereto, and cauſe vs to quaffe more freely. Nay, to draw on their drinke, men are not afraid to make poiſons, whiles ſome take hemlocke before they ſit downe, becauſe they muſt drinke perforce then, or els die for it; others, the powder of the * pumiſh ſtone, & ſuch like ſtuff, which I am abaſhed to rehearſe and teach thoſe that be ignorant of ſuch leaudneſſe. And yet wee ſee theſe that be ſtouteſt and moſt redoubted drinkers, euen thoſe that take themſelues moſt ſecured of danger, to lie ſweating ſo long in the baines and brothel-houſes for to concoct their ſurfet of wine, that otherwhiles they are carried forth dead for their labour. Ye ſhall haue ſome of them again when they haue been in the hot houſe, not to ſtay ſo long as they may recouer their beds, no not ſo much as to put on their ſhirts: but preſently in the place, all naked as they are, L
puffing & laboring ſtill for wind, catch vp great cans and huge tankards of wine (to ſhew what luſtie and valiant champions they be) ſet them one after another to their mouth, pour the wine downe the throat without more adoe, that they might caſt it vp againe, and ſo take more in the place; vomiting or revomiting twice or thrice together that which they haue drunke, and ſtill make quarrell to the pot: as if they had been borne into this world for no other end but to ſpill and mar good wine: or, as if there were no way els to ſpend and waſt the ſame, but thorow mans body. And to this purpoſe, were taken vp at Rome theſe forreine exerciſes, of vaulting and dancing the Moriſk; from hence came the tumbling of wraſtlers in the duſt and mire together; for this, they ſhew their broad breaſts, beare vp their heads, and carrie their neckes far backe. In all which geſticulations, what do they elſe but profeſſe that they ſeek means to procure thirſt and M
take occaſion to drink? But come now to their pots that they vſe to quaffe and drink out of: are there not grauen in them faire pourtrais think you of adulteries? as if drunkenneſſe it ſelf were not ſufficient to kindle the heart of luſt, to pricke the fleſh, and to teach them wantonnes. Thus is wine drunke out of libidinous cups: and more than that, he that can quaffe beſt and play the drun-

* *Vide lib. 36. cap. 21.*

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A drunkard moſt, ſhal haue the greateſt reward. But what ſhal we ſay to thoſe (would a man think it?) that hire one to eat alſo as much as he can drink, and vpon that condition couenant to yeeld him the price for his wine drinking, and not otherwiſe. Ye ſhall haue another that will inioine himſelfe to drinke euery denier that he hath won at dice. Now when they are come to that once and be throughly whitled, then ſhall yee haue them caſt their wanton eies vpon mens wiues; then fall they to court faire dames and ladies, and openly bewray their folly euen before their jealous and ſterne husbands; then (I ſay) the ſecrets of the heart are opened and layed abroad. Some ye ſhal haue in the mids of their cups, make their wils, euen at the very board as they ſit: others againe caſt out bloudy and deadly ſpeeches at randon, and cannot hold but blurt out thoſe words which afterwards they eat againe with the ſwords point: for thus many a man by a lauiſh tongue in his wine, hath come by his death and had his throat cut. And verily the world
B is now growne to this paſſe, That whatſoeuer a man ſaith in his cups, it is held for ſooth; as if Truth were the daughter of Wine. But ſay they eſcape theſe dangers: certes ſpeed they neuer ſo well, the beſt of them all neuer ſeeth the Sun-riſing, ſo drowſie and ſleepy they are in bed euery morning, neither liue they to bee old men, but die in the ſtrength of their youth. Hence comes it, that ſome of them looke pale, with a paire of flaggie blabd-cheekes; others haue bleared and ſore eies: and there be of them that ſhake ſo with their hands, that they cannot hold a full cup, but ſhed and poure it downe the floore. Generally they all dreame fearfully (which is the very beginning of their hell in this life) or els haue reſtleſſe nights: & finally, if they chance to ſleep (for a due guerdon and reward of their drunkenneſſe) they are deluded with imaginary conceits of *Venus* delights, defiled with filthy and abominable pollutions: and thus both ſlee-
C ping and waking they ſin with pleaſure. Well, what becomes of them the morrow after? they belch foure, their breath ſtinketh of the barrell, and telleth them what they did ouer night; otherwiſe they forget what either they did or ſaid, they remember no more, than if their memory were vtterly extinct and dead. And yet our iolly drunkards giue out and ſay, That they alone inioy this life, and rob other men of it. But who ſeeth not, that ordinarily they loſe not onely the yeſterday paſt, but the morrow to come? In the time of *Tiberius Claudius* the Emperor, about 40 years ſince, certaine out-landiſh Phyſitians and Monte-banks, who would ſeem to ſet themſelues out by ſome ſtrange nouelties of their own, & ſo get a name, brought vp at Rome a new deuiſe and order, to drink faſting, and preſcribed folk to take a good hearty draught of wine be-
D fore meat, and to lay that foundation of their dinner. Of all nations, the Parthians would haue the glory for this goodly vertue of wine-bibbing: and among the Greeks, *Alcibiades* indeed deſerued the beſt game for this worthy feat. But here with vs at Rome *Nouellius Torquatus* a Millanois, wan the name from all Romans & Italians both. This Lombard had gone through all honourable degrees of dignity in Rome, he had bin Pretor, and attained to the place of a Proconſull. In all theſe offices of ſtate he woon no great name: but for drinking in the preſence of *Tiberius*, three gallons of wine at one draught and before he tooke his breath again, he was dubbed knight by the ſyrname of *Tricongius*, as one would ſay, * The three gallon knight: and the Emperor, ſterne, ſeuere, and cruell otherwiſe though he was, now in his old age (for in his youthfull daies he was giuen ouermuch to *drinking of wine) would delight to behold this renowned and worthy knight, with great wonder and admiration. For the like rare gift and commendable
E qualitie, men think verily that *C. Piſo* firſt riſe; and afterwards was aduanced to the Prouoſtſhip of the city of Rome, by the ſaid *Tiberius*; & namely, for that in his court being now emperor, he ſat 2 daies and 2 nights drinking continually, and neuer ſtirred foot from the boord. And verily *Druſus Cæſar* (by report) in nothing more reſembled his father *Tiberius*, than in taking his drink. But to return again to noble *Torquatus*, herein conſiſted his excellency, That he did it according to art (for this you muſt take withall, there is an art of Drinking, grounded vpon certain rules and precepts.) *Torquatus* (I ſay) drank he neuer ſo much, was not known at any time to falter in his tongue, neuer eaſed himſelf by vomiting, neuer let it goe the other way vnder boord: how late ſoeuer he ſat vp at the wine ouer night, he would be ſure to relieue the morning watch
F & ſentinel. He drunk moſt of any man at one entire draught before the pot went from his head: and for ſmaller draughts beſides, he went before all other in number; his winde he neuer tooke while the cup was at his mouth, but iuſtly obſerued the rule of drinking with one breath; he was not known to ſpit for all this: & to conclude, he would not leaue in the cup, ſo much as would daſh againſt the pauement, & make the leaſt ſound to bee hard: a ſpecial point and preciſe law

to

* not the thrice gallant knight * Whereupon he was called *Biberius Mero*, for *Tiberius Nero*.

to preuent the deceit of thoſe that drinke for a wager. A ſingular glory no doubt in him, and a G
rare felicity. *Tergilla* challenged *M. Cicero* the younger, ſon to that *M. Cicero* the famous Orator,
and reproched him to his face, that ordinarily he drunk 2 gallons at once: and that one time a-
boue the reſt when he was drunke, he flung a pot at *M. Agrippa* his head. And truly this is one of
the fruits and feats of drunkenneſſe. But blame not young *Cicero*, if in this point yet he deſired
to ſurmount him that ſlew his father, *M. Antonius* I mean; for he before that time ſtrained him-
ſelfe, and ſtroue to win the beſt game in this feat, making profeſſion thereof, as may appeare by
a booke that he compiled and ſet forth with this title, *Of his owne drunkenneſſe*: wherein hee was
not aſhamed to avow and juſtifie his exceſſe and enormities that way: and thereby approoued
(as I take it) vnder pretence and colour of his drunkenneſſe, all thoſe outrages of his, all thoſe
miſeries and calamities that he brought vpon the whole world. This treatiſe he vomited and H
ſpued out a little before the battell of Actium, wherein he was defeated: whereby it may ap-
peare very plainly, that as he was drunken before with the bloud of citizens, ſo ſtill hee was the
more bloud-thirſty. For this is a property that neceſſarily followeth this vice, That the more a
man drinketh, the more he may, and is alwaies dry. And herein ſpake to good purpoſe a certain
Embaſſadour of the Scythians, ſaying, That the Parthians the more they drunke, the thirſtier
they were.

As touching the nations in the Weſt part of the world, they haue their drinks alſo by them-
ſelues made of * corn ſteeped in water, whereof they will drinke to the vtterance, and be drunk:
and namely in Spaine and France, where the manner of making the ſame is all one, howſoeuer I
they haue * diuers names: and in Spain they haue deviſed means that theſe drinks (Ale or Beer)
wil abide age, & continue ſtale. In Egipt likewiſe they haue inuented ſuch kind of drinks made
of corn: ſo that no part or corner of the world there is, but drunkenneſſe reigneth. And verily
theſe liquors howſoeuer they be named, they vſe to drinke entire as they bee, and made of the
very ſtrength of Malt: neuer delaying the ſame with water, as we do wines. But it may be ſayd,
That Nature hath endowed & inriched thoſe countries with abundance of corn, and therefore
they may wel do it. Oh how induſtrious we are to maintain our vices! There is a deuiſe found,
(would euer any man haue thought it?) how water alſo ſhould make men drunke. Two liquors
there be, moſt pleaſing and acceptable to mens bodies, wine within, & oile without. Both pro-
ceed from two ſpeciall trees, howbeit, of the twaine, Oile is neceſſary, and Wine may be better K
ſpared. And verily, men haue not bin idle in the making of good oile: howbeit, they haue beene
more addicted and giuen to make Wines for drink; as may appeare by this, that reckoning but
the generall kinds thereof, a man may find 195 ſorts of wine: but if a man would ſubdiuide and
deſtribute thoſe heads into their branches, he ſhould meet almoſt with twice as many: but of
Oyles there bee not ſo many kindes by farre. Whereof we purpoſe to treat in the booke next
following.

* *i.* Malt.

* Zythus and Curm, Ale and Beere.

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THE FIFTEENTH BOOK OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I.

¶ *The natures of trees that beare Fruit.*

THere were no oliue trees grew in Italy, but vpon the coaſt ſide, and that within 40 miles of the ſea, about the 440 yere after the foundation of the city of Rome; if it be true that *Theophraſtus* ſaith, who was one of the moſt famous and renowned Authors among the Greeks. *Feneſtella* writeth moreouer, and affirmeth, that during the raigne of *Tarquinius Priſcus* (which was much about the 183 yeare from the foundation of the city of Rome) there were no Oliue trees at all to be found, either in Italy, Spaine, or Africke: whereas now at this day they are ſeene all Italy ouer, yea and be come as far as the regions beyond the Alps, euen into the mids and very heart of France and Spaine. Indeed, in the yeare after the foundation of Rome 505 (which was when *Appius Claudius*, the nephew of that great *Appius Claudius* ſyrnamed the Blind, and *L. Iunius* were Conſuls together) a pound of the oile was ſold for twelue Aſſes: and not long after (namely, in the 680 yeare) *M. Seius* the ſon of *Lucius* (one of the Ædiles Curule for the time beeing) brought downe the market ſo well, that a man might haue bought ten pound for one As; and at that price he ſerued the people of Rome throughout all that yeare. Leſſe cauſe therefore a man hath to maruell hereat, who knoweth how not paſt 22 yeares after that (namely when *Cn. Pompeius* was the fourth time Conſull) Italy was able to furniſh other nations and prouinces with oile of Oliues. *Heſiodus* alſo (who was eſpecially addicted to the ſtudy of husbandry, and of all things thought it moſt neceſſarie to be taught and publiſhed for the good of mankinde) wrote thus much concerning the Oliue, That neuer a man was knowne to that day for to haue gathered the fruit of that Oliue tree, which himſelfe had planted: ſo late of growth were thoſe trees in his time, and ſo ſlowly came they forward. But now adaies they come vp of kernels and ſtones ſet in plots of ground for the purpoſe: and being tranſplanted againe, they beare Oliues the ſecond yeare after. *Fabianus* ſaith, That Oliues loue not to grow either in the coldeſt or the hotteſt grounds.

Virgill hath ſet downe 3 kind of Oliues, to wit, Orchitæ [*i.* the great round Oliues:] Radij, [*i.* the long Oliues:) and thoſe which are called Pauſiæ. He ſaith moreouer, That the Oliue trees require no tending or dreſſing at all, and need neither the hooke to be pruned, nor the rake and harrow to be moulded; ne yet the ſpade to be digged about. Doubtleſſe, the goodneſſe of the ſoile, and the temperature of the climat eſpecially, are very requiſit and much materiall alone, without farther helpe: howbeit they vſe to be cut and pruned, yea, they loue alſo to be ſcraped, poliſhed, and clenſed between where the branches grow ouer-thicke, euen as well as vines, and at the ſame ſeaſon.

The time of gathering Oliues enſueth preſently vpon the vintage of grapes; but greater induſtry and skil is required to the making and tempering of good oile, than about new wine: for ye ſhall haue one and the ſelf ſame kind of oliue to yeeld a different juice, and diuers oiles: firſt and formoſt, of the greene oliue and altogether vnripe, there is drawne the Oile-oliue; which hath of all other the beſt verdure, and in taſt excelleth the reſt: and of this oile, the firſt running that commeth from the preſſe, is moſt commended: and ſo by degrees better or worſe, as the

oile

oile is drawn before or after,out of the preſſe:or,according to a late inuention,by treading them G
with mens feet in little panniers,and vpon hardles made of ſmall and fine oziers. This is a rule, The riper that the oliue is,the fatter will the oile be,and more plentifull; but nothing ſo pleaſant in taſt. And therefore the beſt ſeaſon to gather Oliues, both for goodneſſe and abundance of oile,is when they begin to ſhew black. And ſuch halfe-ripe Oliues we in Latine call Drupæ, and the Greekes Drypetæ. To conclude,it skilleth very much whether the berries be ripe vpon the tree,or mellow within their preſſe:alſo whether the tree be watered,that is to ſay,the oliues hanging thereupon be drenched and refreſhed with ſprinkling water,or haue no other moiſture than their owne,and that which they receiue by dews and raine from heauen.

Chap. II. H

¶ *Of Oyle.*

OIle-Oliue commeth to haue a rank and vnpleaſant taſt if it be old kept and ſtale,contrary to the nature of wine,which is the better for age. And the longeſt time that oile will continue good,is but one yere. Wherein ſurely if a man would well conſider,he may obſerue the great prouidence of Nature. For ſeeing that wines are made to ſerue for intemperance and drunkenneſſe,there is not that neceſſitie to drinke much thereof, and to ſpend them out of hand: and more than ſo,the daintie taſt that they haue when they be ſtale, induceth men to lay them vp and keep them long. But contrariwiſe,ſhe would not haue vs make ſuch ſpare of oile: and therefore by reaſon of the generall vſe and need thereof, ſhe hath made it vulgar and com- I
mon to all.

As touching this benefit and gift of Nature beſtowed vpon mankind, Italy of all other nations in the world carrieth the name for the goodneſſe thereof: but principally the territory or county of Venafrum,and namely,that quarter lying toward Licinia,which yeelds the oile called Licinianum:wherupon there be no oliues comparable to them of Licinia,both for to ſerue the perfumers,in regard of the pleaſant ſmel which that oile doth giue,ſo appropriat vnto their ointments:as alſo to furniſh the kitchin and the table(as they ſay that be fine-toothed,& haue a delicate taſte:)which is the cauſe(I ſay)that this oile carrieth the only name. And yet theſe oliues of Licinia haue this priuiledge beſides,that birds loue not to come neere them. Next to theſe Licinian oliues,the queſtion is between them of Iſtria & Bætica,whether of them ſhould K
go away with the price for their goodneſſe? and hard it is to ſay,which is the better of the two. A third degree there is vnder theſe twoaboue named,namely,of the Oliues that come from all other prouinces,ſetting aſide the fertile ſoile of that tract in Africke,which yeeldeth ſo great increaſe of corn. For it ſhould ſeeme that Nature hath ſet it apart for graine onely, ſeeing it ſo fruitfull that way: and hath not ſo much enuied it the benefit of wine and oile,which ſhe hath denied thoſe parts,as thought it ſufficient that they might glory, and haue the name for their haruеſts. As for other points belonging to oliues,men haue erred and bin deceiued very much: neither is there in any part concerning our life,to be found more confuſion, than is therein:as we will ſhew and declare hereafter,

Chap. III. L

¶ *The nature of the Oliue berries: alſo of yong Oliue Plants.*

THis fruit called the Oliue,conſiſts of a ſtone or kernell, of oile,a fleſhy ſubſtance,and the lees or dregs:now by theſe lees (called in Latine Amurca) I mean the bitter liquor of the grounds that the oile yeelds. It comes of abundance of water: and therefore as in time of drought there is leaſt thereof, ſo in a rainy and watery conſtitution, you ſhall haue ſtore and plenty. As for the proper juice of the oliue,it is their oile;and the chiefe is that which comes of thoſe that are vnripe,like as we haue ſhewed before,when we treated of Omphacium, or the Oliue verjuice. This oilie ſubſtance doth increaſe and augment within the Oliue vntill the ri- M
ſing of the ſtar Arcturus,to wit, 16 daies before the Calends of October;after which time,their ſtones and carnous matter about them do rather thriue. But marke, when there followes a glut of raine and wet weather preſently vpon a dry ſeaſon,the oile in them doth corrupt and turn all (well neare) into the lees abouеſaid,which may eaſily be perceiued by the colour: for it cauſeth

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A ſeth the Oliue berrie to looke blacke. And therefore when this blackneſſe begins to appeare, it is a ſign that they haue ſomwhat (although very little) of the lees; but before that, they had non at all. And herein men are foulely deceiued taking this marke for the beginning of their ripeneſſe: which blacke hew indeed is a ſigne of their corruption, and betokens that then they are in the way to be ſtark naught. They erre alſo in this, that they ſuppoſe an Oliue the more grown it is in carnoſitie, to be the fuller of oile: whereas in very truth, all the good juice in them is converted then into the groſſe and corpulent ſubſtance thereof, and thereby alſo the ſtone and kernell come to be big and maſſie: which is the cauſe, that they had need of watering at that time, moſt of all. Which being done by great paine and labour of man, or happening through raine and plenty of ſhowers; vnleſſe there inſue a drie ſeaſon & faire weather to extenuate that groſſe
B ſubſtance into which the Oliue had turned the foreſaid iuice and humor, all the oile is conſumed and loſt. For it is heat & nothing els (as *Theophraſtus* ſaith) which ingendreth oile: & therfore both about the preſſe at firſt, & alſo in the very garners where Oliues be laid after, they vſe to keep good fires, by that means to draw the more oile forth. A third default there is in oile, and that comes of two much ſparing and niggardiſe: for ſome men there are, who being loth to be at coſt to pluck and gather Oliues from the tree, wait ſtill and looke that they ſhould fal of themſelues. And ſuch folke as would ſeeme yet to keepe a meane herein, namely, to take ſome paines and be at a little coſt; beat and pell them downe with perches and poles: whereby they do offer wrong to the poore trees, yea, and hinder themſelues not a little the yeare following, when they ſhall find how much it is out of their way, thus to break their boughes and branches.
C Whereupon the law in old time prouided well for this inconuenience, by an expreſſe inhibition to all gatherers of Oliues, in theſe words, *No man ſo hardie as to breake, ſtrike, and beat the Oliue tree.* But they that go moſt warily and gentl to worke, ſtand vnder the tree, and with ſome canes ſhake the boughes and branches therewith, or lightly ſmite them: but in no caſe let driue and lay at them either with full down-right or croſſe-blowes. And yet as heedfull as they be in ſo doing, this good they get by ſtriking and knapping off the young ſhootes and ſprigs which ſhould beare the next yeare, that they haue the trees carry fruit but once in two yeares for it. The like hapneth alſo, if a man ſtay till they fall of themſelues: for by ſticking on the tree beyond their due time, they rob the oliues to come after, of all their nutriment wherewith they ſhould be fed, and detaine the place likewiſe where they ſhould come forth and grow. An eui-
D dent proofe hereof is this, That oliues vnleſſe they be gathered before the ordinary & yearely weſtern winds do blow, they gather heart again vpon the tree, & wil not ſo eaſily fall as before. Men vſe therefore to gather the Pauſian Oliues firſt after Autumne, which are fulleſt of carnoſity, not ſo much by nature, as by miſgouernement and diſorder: ſoone after, the round Orchite, which haue plenty of oile, & then the oliues Radij: and theſe, foraſmuch as they be moſt tender, and ſooneſt ouercome with abundance of the lees (which we called before Amurca) are therby forced to fal. Howbeit, ſuch oliues as be thick skinned and hard; tough alſo and admitting no wet & rain (by which means they are the leaſt of all others) wil abide on the tree til March: and namely, the Licinian Oliues, the Cominian, Contian, & Sergian, which the Sabins call roial: all which change not colour & look black before the foreſaid Weſtern wind blowes, that is, about
E the 6 day before the Ides of February; for by that time folk think they begin to ripen. Now for as much as the beſt & moſt approued oile is made of them, it ſeems that reaſon alſo being conformable to this defect of theirs, juſtifies, & aproues the ſame in the end. And this is commonly receiued and held among them, that cold winters breed ſcarcity and dearth: but ful maturity brings plenty, namely when they haue leiſure to ripen on the tree: howbeit this goodnes is not occaſioned by the time, but by the nature rather of thoſe kind of oliues, which be long ere they turn into the foreſaid dregs Amurca. Men are alſo as much deceiued in this, that when Oliues be gathered, they keep them vpon borded floors in ſellars and garners, & will not preſſe them before they haue ſwet: whereas, in truth, the longer they lie, the leſſe oile they yeeld, & the more dregs of lees. For by this means the ordinary proportion they ſay is, to preſſe out of euery Mo-
F dius of Oliues, not aboue 6 pound of oile. But no man makes any reckoning of the lees, how much it increaſes in meaſure day by day, in one & the very ſame kind of Oliues, the longer that they be kept ere they be preſſed. In one word, it is a common error ſetled euery where, that men do think the abundance of oile is to be eſteemed according to the bignes of the oliues: conſidering that the plenty of oile conſiſts not in the greatnes of the fruit: as may appeare by thoſe that

of

of ſome are called Roiall, of others Majorinæ, and Phauliæ, which euery man knoweth, are the biggeſt and faireſt Oliues to ſee to, & yet otherwiſe haue leaſt oile in them of any others. Likewiſe in Ægypt the oliues are moſt fleſhie & ful of pulp, howbeit, leaſt oleous. As for the country Decapolis of Syria, the oliues indeed be very ſmal there, & no bigger than Capers: yet commended they are for their carnoſity. And for that cauſe, the oliues from the parts beyond ſea are preferred before the Italian, for goodneſſe of meat, and as better to be eaten; yet thoſe of Italy yeeld more oile. And euen within Italy, the Picene and Sidicine oliues ſurpaſſe the reſt. For in truth, theſe are firſt confected and ſeaſoned with ſalt: or els (as all others) prepared & condite either with lees of oile, or wine cuit. Some oliues there be, which they ſuffer to ſwim alone as they be, in their owne oile, without any help and addition of other things; and ſuch be called Colymbades. And the ſame they vſe otherwhiles to bruiſe and cleanſe from their ſtones, and then confect them with green herbs, which haue ſome pleaſant & commendable taſte. Others there are, which being otherwiſe very green and vnripe, are preſently brought to maturity, and made mellow, by lying infuſed and ſoking in hot ſcalding water. And a wonder it is to ſee, how Oliues wil drink in a ſweet liquor, and how by that means they may be made toothſome, yea, and to carry the taſt of any thing that a man would haue them. Among oliues there be alſo that are of colour purple, like to thoſe grapes which change colour when they begin to ripen. Moreouer, beſides the aboue named ſorts of oliues, there be ſome named Superbæ [*i.* proud.] Alſo there are Oliues to be found, which being dried by themſelues onely, are paſſing ſweet, yea, and more delicate than raiſins: mary theſe are very geaſon, and yet ſuch are in Africke and about the city Emerita in Portugall.

As touching the very oile it ſelf, the way to preſerue it from being ouerfat and thick, is with ſalt. If the barke of an Oliue tree be ſlit and cut, it will receiue the rellice and ſmell of any medicinable ſpice, and the oile thereof wil ſeem aromatized: otherwiſe pleaſant in taſt it is not, like as wine is: neither is there ſuch difference in ſo many kinds of oliues as there is in wine: for ſurely we cannot at the moſt obſerue aboue three degrees in the goodneſſe of oiles, namely, according to the firſt, ſecond, and third running out of the preſſe. Finally, the thinner that oile is, and the more ſubtill, the finer and daintier is the ſmell thereof: and yet the ſame ſame ſent, in the very beſt of them all, continueth but a ſmall time.

Chap. IIII.

¶ *The nature of Oile Oliue.*

THe property of oile is to warm the body, and to defend it againſt the iniuries of cold: and yet a ſoueraigne thing it is to coole and mitigate the hot diſtemperature of the head. The Greekes, whom wee may count the very fathers and foſters of all vices, haue peruerted the true and right vſe thereof, to ſerue for all exceſſe and ſuperfluitie; euen as far as to the common annointing of their wraſtlers with it, in their publick place of exerciſe. Known it is for certain, that the gouernors and wardens of thoſe places, haue ſold the oile that hath beene ſcraped from the bodies of the ſaid wraſtlers for 80 Seſterces at a time.

But the ſtately maieſty of Rome contrariwiſe hath done ſo great honour to the Oliue tree, that euery yere in Iuly, when the Ides come, they were wont to crowne their men of armes and gentlemen marching by their troups and ſquadrons in ſolemne wiſe, with chaplets of oliue, yea and the manner was of captains likewiſe to enter ouant in pety triumphes into Rome, adorned with Oliue coronets. The Athenians alſo honoured their conquerors with Oliue garlands. But generally the Greekes did ſet out their victors at the games of Olympia, with branches of the wild-oliue.

Chap. V.

¶ *The manner how to order Oliues.*

NOw will I report the precepts and rules ſet down by *Cato*, as touching oliues. His opinion is, that the greater long Oliue Radius of Salentum, the big Orchites, the Pauſia, the Sergiana, Cominiana, and the Albicera, ſhould be planted in hot and fat grounds. He addes moreouer (as hee was a man of ſingular dexterity and prudent ſpirit) which of them in the neigh-

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A neighbour territories and places adioining, were taken for the beſt. As for the Licinian Oliues, he ſaith, They would be planted in a weely and cold hungry ground: for if it be a fat ſoile and a hot, the oile wil be corrupt and naught, and the very tree it ſelf wil in ſhort time be killed with ouermuch fertility and bearing too great a burden. Moreouer, they will put forth a red kind of moſſe, which eateth and conſumeth the tree. To conclude, his mind is, that Oliue hort-yards ſhould be expoſed to the ſun, yet ſo, as they regard the Weſt wind alſo in any caſe, for otherwiſe he commendeth them not.

Chap. VI.

¶ *How to keep Oliues, and the way to make oile of them.*

B *Cato* alloweth of no other means to keep and preſerue oliues (and ſpecially the great ones, made like cullions, named thereupon Orchita, and the Pauſiæ) but either in brine and pickle when they are greene, or elſe among Lentisk branches when they are bruiſed and broken. The beſt oile is made (ſaith he) of the greeneſt and foureſt oliues. Moreouer, ſo ſoon as euer they be faln, they muſt be gathered from off the ground; and if they be fouled and beraied with the earth, they ought to be waſhed clean, and then laid to dry three daies at the moſt. Now if it fall out to be weather diſpoſed vnto froſt, they ſhould be preſſed at 4 daies end. He giueth order alſo, to beſtrew and ſprinkle them with ſalt: ſaying moreouer, that if they be kept in borded ſollors or garners, the oile will be both leſſe in quantitie, & worſe withal. So it wil be alſo, if it be let lie long in the lees, or together with the cake and grounds, when they be bruiſed and
C beaten: for this is the very fleſhie and groſſe ſubſtance of the Oliues, which cannot chuſe but breed filthy dregs. And therfore he ordaineth, that oftentimes in a day it ſhould be poured out of one veſſell into another, & ſo by ſetling clarified from the grounds, & then to put it vp afterwards into pans and panchions of earth, or els into veſſels or kimnels of lead, for braſſe mettall wil mar oile. All this ſhould be done within cloſe preſſes and rooms, and thoſe kept ſhut, where no aire or wind may come in, that they might be as warm and hot as ſtouves. He forbids alſo to cut any wood or fuel there, to maintain fire; for that the fire made of their ſtones and kernels, is moſt kindly of any other. To the end alſo that the grounds & lees ſhould be liquified and turn into oile, euen to the very laſt drop, the oile ſhould be let run out of thoſe veſſels or kimnels a-
D foreſaid into a vat or ciſtern; for which purpoſe the veſſels are often to be cleanſed, & the ozier paniers to be ſcoured with a ſponge, that the oile might ſtand moſt pure & clear. But afterward came vp the deuiſe to waſh oliues firſt in hot water, & then immediatly to put them whole as they are, into the preſſe; for by that means they ſquize forth lees & all: and then anon to bruiſe and cruſh them in a mil, & ſo preſſe them in the end. Moreouer, it is not thought good to preſſe the ſecond time aboue 100 Modij, which is the full proportion of one preſſure, & it is called Factus. That which after the mil comes firſt, is named the floure of the oile, or the Mere-gout. Laſtly, to preſſe 300 Modij, is thought to be foure mens work ordinarily in one night and a day.

Chap. VII.

E ¶ *Of Oile Artificiall*

IN *Cato* his time there was no artificiall Oiles, I meane, no other but that of the Oliue; and therefore I ſuppoſe it was, that he made no mention thereof: but now adaies there be many kinds. Firſt will we treat of thoſe that are made of trees, and principally before all the reſt, of the oile of the wild oliue: thin it is, and much more bitter than that of the other gentle & true Oliue, but good for medicines onely.

Very like to it, is that which is made of Chamelæa, an herb or ſhrub growing in ſtony places to the heigth of a ſpan & no more, with leaues and berries reſembling thoſe of the wild oliue.

The next is that which commeth of Cici, or Ricinus, [*i*, Palma Chriſti] a plant which groweth plentifully in Ægypt, which ſome call Croto, others Trixis or wild Seſam; but long it hath not been there. In Spaine likewiſe this Ricinus is found of late to riſe ſuddenly to the heigth of an Oliue tree, bearing the ſtalke of Ferula or Fennel-Geant, clad with leaues of the vine, and repleniſhed with ſeed reſembling the graines or kernels of ſmall and ſlender grapes, and of a pale colour withall: we in Latine call it Ricinus, of the reſemblance that the ſeed hath to a ticke,

which is a vermin that annoies ſheepe. For to gather an oile thereof, the manner is to ſeeth the ſeeds in water; the oile wil ſwim aloft, and ſo it is ſcummed off. But in Egypt (where there is abundance thereof) they neuer vſe any fire or water about it; only they corn it well with ſalt, and then preſſe out the oile, which is very fulſome and naught to be eaten, good only for lamps. G

The oile of Almonds, which ſome cal Metopium, is made of the bitter Almonds, dri'd ſtamped, and reduced into a maſſe or lumpe, which being ſprinkled and ſoked with water, and then beaten againe in a mortar, is put into a preſſe or mill, and the oile drawne therout.

There is an oile made alſo of the Bay, together with the oile of ripe oliues ready to drop from the tree. Some take the Bay berries only, and thereout preſſe oile de-Baies: others vſe the leaues and nothing els: and there be againe, who with the leaues take alſo the rind of the Bay berries; yea and put thereto Storax Calamita, and other ſweet odors. Now for this purpoſe, the Laurell with broad leaues, growing wild, and bearing blacke berries, is the beſt. H

Like vnto this oile, is that which they make of the blacke Myrtle; and the broad leafed kind thereof is the better: the berries of it ought to lie infuſed firſt in hot water, and afterwards to be boiled. Some ſeeth the tendereſt leaues that it hath in Oile-Oliue, and then preſſe them forth. Others put the leaues firſt in the oile, & then let them ſtand confected in the ſun, and there take their ripening.

After the ſame manner is the oile made of the garden Myrtle; but that of the wilde which hath the ſmaller ſeed is the better: and this Myrtle ſome call Oxymyrſine, others Chamæmyrſine; and ſome againe name it for the ſmalneſſe, * Acaron, for ſhort it is and full of little branches. I

* Indiuiſible, or, ſo ſmal that it cannot be cut.

Moreouer, there be oiles made of the Citron and Cypreſſe trees: likewiſe of wall nuts which they call Caryinon: alſo the fruit of the Cedar, named Cedrelæon.

Semblably of the graine called Gnidium, to wit, the ſeed of Chamelæa and Thymelæa, well clenſed and ſtamped. In like manner of the Lentisk. As for the oile Cyprinum, how it ſhould be made of the Egyptian nut and of Ben for to ſerue perfumers, hath bin ſhewed before. The Indians (by report) do make of Cheſt-nuts, of Seſame ſeed, & Rice. The people Ichthyophagi as they liue by eating fiſh only, ſo they make oile of fiſhes. And in caſe of neceſſity, otherwhiles men vſe to draw an oile out of the berries of a Plane tree alſo, beeing ſteeped in water and ſalt, which ſerues for lamp oile. Yea and there is an oile made of the wild vine Oenanthe, as we haue ſaid already in the treatiſe of Ointments. K

As touching the oile which the Greeks call Gleucinum, it is made with new wine and oile-oliue, boiled at a ſoft fire. Others there be that let the wine conſume all into oile, and without any fire at all, do compaſſe the veſſell wherein this compoſition is made, with the cake and the refuſe of grapes when they be preſſed, and couer it all ouer for the ſpace of 22 daies, ſo as twice a day they be all mixed throughly together. Some there be who put therto not only Majoram, but alſo the moſt precious and exquiſite odors that they can meet withal: and our common fencing-halls, and places of publick exerciſes be perfumed with theſe ſweet oiles, and do ſmell of them; but ſuch they be as are the cheapeſt of all other.

Ouer and beſides, there is made an oile of Aſpalathus, ſweet Calamus, Balme, Iris or Flour-de-lis, Cardumome or grains of Paradiſe, Melilot, French Nard, Panace, Marjoram, Elecampane, and the root of Cinamon, taking all theſe and letting them lie infuſed in oile, and ſo preſſing out the iuice thereof. So is oile Roſat made of Roſes: the oile of Squinanth of the ſweet ruſh, which is moſt like to the Oile Roſat. Likewiſe of Henbane, Lupines, and the Daffadil: the Egyptians get great ſtore of oile out of Raddiſh ſeed, or the graſſe called Gramen (which is Dent-de-chien or Quich-graſſe) and this oile they call Chortinon. After the ſame manner the Seſame-ſeed doth yeeld an oile; as alſo the Nettle, which in Greeke they call Cnecinon, or rather Cnidinum. As for the oile of Lillies, it is made in ſome places, where they feare not to let it ſtand abroad in the aire infuſed to take both Sun and Moon-ſhine, yea and froſty weather. L

They that inhabit between Cappadocia and Galatia, do compound a certain oile of herbes growing among them, which is a ſoueraigne remedy for ſinewes either wounded or otherwiſe grieued, and they call it Selgiticum: it is much in effect like to that oile which is made in Italie of Gums, by the people Eguini.

Now for the oile of Pitch, which they call Picinum, it is made of the vapors and ſmoke that ariſe from Pitch whiles it boileth, and receiued in fleeces of wooll ſpread ouer the pots mouth wherein

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A wherein the ſaid Pitch is ſodden: which fleeces afterwards are well wrung, and the oile is preſſed out thereof. The beſt oile is that which commeth from the Brutian or Calabrian pitch: the ſame is moſt fat of all others, and fulleſt of Roſin. The colour of the oile is reddiſh.

Vpon the coaſts and maritime parts of Syria, there is an oile engendereth of it ſelfe, which the Greeks call Elæomeli: a fatty and greaſie ſubſtance it is, thicker than honey, and thinner than Roſin, of a ſweet taſt, iſſuing out of trees; and is onely medicinable and good in Phyſicke.

As touching old oile, it ſerues in right good ſtead for ſundry ſorts of maladies. It is thought alſo very ſingular for to preſerue Iuory from putrefaction, for this is certaine, that the image of *Saturne* at Rome is full of oile-oliue all within.

B

Chap. VIII.

¶ *Of the lees or dregs of Oile-oliue, called Amurca.*

Cato hath highly commended aboue all, the lees of Oile-oliue: for he would haue the barrels, hogſheads, and other veſſels which hold oile, to be therewith beſmeared, that they ſhould not drink vp the oile. He deuiſed alſo, that the threſhing floors ſhould be wrought and tempered with oile lees, that they might not chawn & gape, nor no Ants breed within the chinks and cranies thereof. Moreouer, he thinks it very good that the mortar, plaiſter, and parget vſed about the wals of corn barns, as alſo their floors, ſhould be well ſprinkled and tempred with the ſaid lees; yea, and the preſſes and wardrobes where apparell is kept, ought to be rub-
C bed therewith to keep out mothes, worms, ſpiders, and ſuch vermine that do hurt to cloths. He affirmeth beſides, that is good againſt certain diſeaſes of four-footed beaſts, as alſo to preſerue trees, yea and excellent for inward vlcers of a mans body, but eſpecially thoſe of the mouth. Being ſodden, it is ſingular good (as he ſaith) for to annoint and make gentle and ſupple all bridle reins, leather thongs, ſhooes, and axletrees of carts and wagons; likewiſe to keepe all veſſels of braſſe from ruſt, and alſo to giue them a bright and pleaſant colour: moreouer, all the woodden implements of an houſe generally throughout, and veſſels made of earth and clay, wherein one would keep dry figs in their verdure, would be annointed therewith: or if one were deſirous to preſerue the Myrtle, leaues, fruit, and all, vpon the branches, or any ſuch thing, there is nothing
D better than the ſaid Amurca. Laſt of all, he ſaith, that what wood ſoeuer for fewell is dipped in theſe lees, it will burne cleare without any ſmoke.

M. Varro affirmeth, that if a Goat chance to licke with his tongue, or to brouſe an oliue when it buddeth the firſt ſpring, the ſame tree will ſurely be barren and lie in great danger to miſcary and die. Thus much of the Oliue tree, and of the oile of Oliues.

Chap. IX.

¶ *All kinds of Fruit good to eat, and their Nature.*

E AS for all other fruits of trees, they are hardly to be numbred and reckoned by their forme and figure; much leſſe by their ſundry taſts and diuers juices that they yeeld, ſo intermingled they are together by varietie of graffing one into another.

Chap. X.

¶ *Of Pine-nuts, or Pine-apples, foure ſorts.*

THe Pine nuts (which are tht biggeſt of that kind and hanging higheſt vpon the tree) doe contain and nouriſh ſlender kernels encloſed within certaine hollow beds ful of holes, and beſides clothed and clad with another coat or husk of a dark murrey colour: wherein may be ſeen the wonderfull care and prouidence of Nature, to beſtow the ſeedes ſo ſoft. A ſecond kinde there be of theſe Nuts called Terentines, hauing a ſhell or huske verie brittle and eaſie to be cruſhed between ones fingers; and as ſoon are they pecked through with birds bils, who after
F that manner filch and ſteale them from off the tree. A third ſort yet there is of them, that come of the gentle pitch trees, hauing their kernels couched within a thin husk or skin more like than a ſhell, and the ſame ſo ſoft, that it may be chewed and eaten together with the kernell. Now there is a fourth fruit growing of the wild Pine, and called thoſe nuts are of the Grecians, Pity-

dia;and theſe be ſingular good againſt the cough. The Taurines in Calabria, haue a deuice to G
confect Pine-nut kernels,by ſeething them in hony;and being thus condite,they call them A-
quiceli. To conclude,at the ſolemne and feſtiuall games holden at Iſthmus, they who win the
beſt prize,are woont to be crowned with a chaplet of the Pine .

Chap. XI.

¶ *Of the Quince.*

NExt to Pine apples,for big and large,are the Quinces which we call Cotonea,the Greeks
Cydonea,becauſe they were firſt brought out of Candy. So heauy and maſſie they be,that
they bend the boughs to the ground as they hang vpon the tree, and will not ſuffer their H
mother to grow.

Many kinds there be of Quinces,to wit,Chryſomela,of a colour inclining to gold,and diui-
ded by certain cut lines. Secondly,there be the quinces of our own country, & ſo called : theſe
be whiter,and of an excellent ſmell. They alſo that come out of the realm of Naples,be highly
eſteemed. Now there be a ſmaller ſort of the ſame kind called Struthea (*i.* the Peare-quince)
and thoſe do caſt a more odoriferous ſmell:late they be ere they come to ripeneſſe or perfecti-
on;whereas contrariwiſe the green quinces called Muſtea,be as haſty and ſoon melow. Now if a
man do graffe the great quinces vpon the Struthea,the tree wil bring forth a kind of quinces by
themſelues called Muluiana;and theſe are the quinces alone of all other that may be eaten raw.
In ſum,all the ſort of theſe are come now adaies to be entertained within the waiting or pre- I
ſence chambers of our great perſonages, where men giue attendance to ſalute them as they
come forth euery morning;and in bed-chambers alſo they are to garniſh the images ſtanding
about the beds-head and ſides.

There are beſides ſmall wild quinces,next to the Peare quince Struthea, for pleaſant and o-
doriferous ſmell;and they grow commonly in hedge-rowes.

Moreouer,as wel Peaches as Pomegranats,notwithſtanding they be of a diuers kind,yet wee
call Mala(*i.*apples.) As for the Pomegranats,we haue ſpoken of nine ſorts of them in our trea-
tiſe of their trees,and others in Africk:and theſe are full of certaine graines or kernels lying in-
cloſed vnder their rinde; whereas Peaches haue in ſtead thereof,a groſſe ſtone or wooddy ſub-
ſtance within the carnous pulpe of the fruit. To conclude,there be certaine peares weighing a K
pound,in regard of which poiſe and bigneſſe that they beare,called they are Libralia.

Chap. XII.

¶ *Of the Peach,and foure kinds thereof.*

OF all Peaches,the principall be thoſe which are named Duracina, for the ſolid ſubſtance
of the meat within them. As for the French and Aſiaticke Peaches,they beare the name
of the regions and nations from whence they come. This fruit ordinarily waxeth ripe af-
ter the fall of the leafe,or Autumne:but the Abricocts are ready to be eaten in Summer. Theſe
haue not bin known full 30 yeares,and at their firſt comming vp,were ſold for Roman deniers a-
peece,whereof there be two ſorts; Supernatia,which we haue from the high countries,& name- L
ly the Sabines;and Popularia,which grow common euery where. Theſe fruits be harmleſſe,and
much deſired of ſicke folke : and for that they are in ſuch requeſt, there would be giuen other-
whiles 30 Seſterces for one of them; which is a price as high as of any other fruit whatſoeuer:
whereat we may maruell the rather,for that there is not any ſooner gone,and laſteth leſſe while
than they:for being once gathered from the tree,they will not be kept aboue two daies at the
moſt,and therefore muſt of neceſſitie be ſold and ſpent out of hand.

Chap. XIII.

¶ *Of the Plum-tree,eleuen kinds of them.* M

TO come now to Plums,there is a world of them:ſome of ſundry colours,others black, and
ſome againe white. There be that are called Hordearia,becauſe they be ripe in barly-har-
ueſt:and ſome there be of the ſame colour, yet later ere they ripen, and bigger beſides;

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and for that they be of ſmall reckoning, named they are Aſinina [i. *Aſſe-plums.] Ye ſhal haue of them that be black, howbeit the yellow wheat-plum like virgin-wax, and the purple, are better eſteemed. Moreouer, there are a kind of Abricots come from a forraine nation, and they be called thereupon Armeniaca, which alone for their ſmell alſo are commendable. But there is a peculiar brauerie and a ſhameleſſe, which thoſe Plums haue by themſelues that are graffed in Nut-tree ſtocks; they retain the face and forme ſtill of the mother graffe, but they get the taſte of the ſtock wherein they are ſet, as it were by way of adoption: of them both they carry the name, and are called nut-plums. Now, as wel theſe, as Peaches, yellow wheat-plums, & the wild Bullaiſe, may be kept and preſerued as grapes in Autumn, within certain barrels or earthen veſſels, and ſo they will continue good till new come. As for all other plums, as they be ſoon ripe, ſo they are as ſoone gone. *As our horſ plums.

B It is not long ſince, that in the realm of Granado and Andaluſia, they began to graffe plums vpon apple-tree ſtocks, and thoſe brought forth plums named Apple-plums: as alſo others called Almond-plums, graffed vpon Almond-ſtocks; theſe haue within their ſtone a kernel like an Almond: and verily there is not a fruit again wherein is ſeene a wittier deuiſe to conioine and repreſent in one and the ſame ſubiect, two diuers ſorts.

As for the Damaſcene-plums (taking name of Damaſco in Syria) we haue ſufficiently ſpoken thereof in our treatiſe of ſtrange trees: and yet long ſince they haue bin knowne to grow in Italy: which although they haue a large ſtone and little carnoſity about them, yet they neuer wither into wrinkles and riuels when they be dry, for that they want the ful ſtrength of the kind Sun which they had in Syria.

C We ſhould do wel to write together with them, of the fruit Sebeſten, which alſo come from the ſame Syria, albeit now of late they begin to grow at Rome, being graffed vpon Soruices. As touching peaches in generall, the very name in Latine, whereby they are called Perſica, doth euidently ſhew that they were brought out of Perſis firſt; and that it is a fruit not ordinary either in Greece or Natolia, but a meere ſtranger there. Contrariwiſe wilde plums (as it is well knowne) grow euery where. I maruell therefore ſo much the more, that *Cato* made no mention thereof, conſidering that of purpoſe he ſhewed the maner, how to preſerue and keep diuers wild fruits, till new came: for long it was firſt ere Peach trees came into theſe parts, and much adoe there was before they could be brought for to proſper with vs, ſeeing that in the Iſland Rhodes
D (which was their place of habitation next to Ægypt) they beare not at all, but are altogether barren. And whereas it is ſaid, That Peaches be venomous in Perſia, & do cauſe great torments in them who do eat therof; as alſo that the KK. of Perſia in old time cauſed them to be tranſported ouer into Ægypt by way of reuenge to plague that country; and notwithſtanding their poiſonous nature, yet through the goodnes of that ſoile they became good and holeſom: all this is nothing but a meere fable & a loud lie. True it is indeed, that the beſt writers who haue been painful aboue others to ſearch out the truth, haue reported ſo much concerning the tree Perſea; which is far different from the Peach tree Perſica, & beareth fruit like to Sebeſten, of color red, and willingly would not grow in any country without the Eaſt parts: and yet the wiſer & more learned Clerkes do hold, That it was not the ttee Perſea which was brought out of Perſis into
E Egypt, for to annoy and plague the country, but that it was planted firſt by K. *Perſeus* at Memphis. Whereupon it came, that *Alexander* the Great ordained, That all victors who had won the prize at any game there, ſhould be crowned with a chaplet of that tree, to honor the memoriall of his great grandſires father. But how euer it be, certaine it is that this tree continueth greene all the yere long, and beareth euermore fruit one vnder another, new and old together. And to returne again to our Plum-trees, euident it is that in *Cato's* time they were not knowne in Italy, but all the Plum-trees which we now haue, are come ſince he died.

Chap. XIIII.

F ¶ *Of nine and twenty kinds of Fruits, contained vnder the names of Apples.*

OF Apples (that is to ſay, of fruits that haue tender skins to be pared off) there bee many ſorts. For as touching Pome-citrons, together with their tree, we haue already written. The Greekes call them Medica, according to the name of the country from whence they firſt came in old time. As for Iujubes, as alſo the fruit Tuberes, they bee likewiſe ſtrangers as

well as the reſt; and long it is not ſince they arriued firſt in Italy; the one ſort out of Africk, G
the other, namely Iujubes, out of Syria: & *Sextus Papinius* (whom my ſelf in my time ſaw Conſul of Rome) was the firſt man that brought them both into theſe parts; namely in the later end of *Auguſtus Cæſar* the Emperor, and planted them about the rampiers of his campe, for to beautifie the ſame. Howbeit, to ſay a truth, their fruit reſembled rather berries than apples; yet they make a goodly ſhew vpon the rampiers: and no maruell, ſince that now adayes whole groues of trees begin to ouertop and ſurmount the houſes of priuat perſons.

Concerning the fruit Tuberes there be two ſorts thereof, to wit, the white and the reddiſh, called alſo Sericum, of the colour of ſilke.

The Apples named Lanata are held in manner for ſtrangers in Italy, and are knowne to grow but in one place thereof, and namely within the territory of Verona. Couered they be all ouer H
with a kind of down or fine cotton, which albeit both quince and peach be clad and ouergrown with in great plenty, yet theſe alone cary the name thereof: for otherwiſe, no ſpecial propertie are they known by to commend them.

A number of apples there are beſides, that haue immortaliſed their firſt founders and inventers, who brought them into name, & cauſed them to be known abroad in the world; as if therin they had performed ſome worthy deed beneficiall to all mankinde. In which regard, why ſhould I think much to rehearſe & reckon them vp particularly by name? for if I be not much deceiued, thereby will appeare the ſingular wit that ſome men imployed in graffing trees; and how there is not ſo ſmall a matter, ſo it be wel and cunningly done, but is able to get honor to the firſt author, yea, and to eterniſe his name for euer. From hence it comes, that our beſt apples I
take their denominations of *Matius*, *Ceſtius*, *Manlius*, & *Claudius*. As for the quince-apples, that come of a quince graffed vpon an apple ſtock, they are called Appiana, of one *Appius* who was of the *Claudian* houſe, and firſt deuiſed and practiſed that feat. Theſe apples cary the ſmel with them of quinces: they beare in quantitie the bigneſſe of the Claudian apples, and are in color red. Now leſt any man ſhould think that this fruit came into credit by reaſon only of partiall fauor, for that the firſt inuentor was a man deſcended from ſo antient & noble a family, let him but think of the apples Sceptiana, which are in as great requeſt as they for their paſſing roundneſſe; and they beare the name of one *Sceptius* their firſt inuentor, who was no better than the ſon of a ſlaue lately infranchiſed. *Cato* maketh mention of apples called Quiriana, as alſo of Scantiana, which he ſaith the maner is to put vp in veſſels and ſo keep them. But of all others, K
the laſt that were adopted, and tooke name of their patrons and inuentors, be Petiſia: though they be little, yet are they paſſing ſweet and pleaſant to be eaten.

Other apples there are that haue ennobled the countries from whence they came, and caried their names, to wit, Camerina and Græcula. All the reſt took name either vpon ſome occaſion or propertie that they haue: to wit, of brotherhood, as the twin-apples Gemella, which hang one to another by couples, and neuer are found ſingle, but alwaies grow double: of their color, as the Serica, which for their freſh hew are ſo called: of kinred and affinitie, as the Melapia: for their reſemblance and participation of apples and peares together, as a man would ſay, Peare-apples, or pom-poires: of their haſty ripeneſſe, as the Muſtea [*i.* haſty apples;] which now of their ſweet taſt of hony, are called Melimela [*i.* hony apples:] alſo of their exquiſit roundneſſe L
like a bal, as the Orbiculata [*i.* the round apples.] That theſe apples came firſt from their natiue country Epirus, appeareth by the Greeks, who call them Epirotica. Again, ſome there be that take their denomination of their forme, reſembling womens paps or breaſts, as namely Orthomaſtica, [*i.* the Breſt-apples.] Others, for that their condition is to haue no pepins or ſeed within them, be called of the Belgians, Spadoma, as one would ſay, Guelded apples. As for the Melofolia, [*i.* the leafe apples] they be ſo called, becauſe they haue one leafe and otherwhile twain breaking forth of their ſide in the very mids. The ragged apples Pannucea take this name, for that of all others they ſooneſt be riueled. The Puffes named Pulmonea are houen fooliſhly, and ſwell I cannot tell how, with little or nothing in them. Some in colour reſemble bloud, they are ſo red, becauſe at firſt they were graffed vpon a mulberry. But all apples ordinarily are red M
on that ſide that regardeth the Sun.

As for wildings and crabs, little they be all the ſort of them, in compariſon: their taſt is well enough liked, and they cary with them a quick and ſharp ſmel: howbeit this gift they haue for their harſh ſourene ſſe, that they haue many a foule word and ſhrewd curſe giuen them, and that they

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A they are able to dull the edge of any knife that ſhal cut them. To conclude, the Dacian Apples are of all others in manner leaſt accepted, notwithſtanding they be firſt mellow, and would be gathered betimes.

Chap. XV.

¶ *Of Peares. And of the varietie of graffing.*

VPon the ſame cauſe there be Peares alſo reproched with the name of Pride, and are called the Proud-peares: little they are, but quickley ripe, and as ſoone gone. Of all others the Cruſtumine peares be moſt delicate and pleaſant in taſt. Next to them in requeſt are the
B Falern peares, ſo called for their great abundance of liquor, as it were wine, wherof they be full. And theſe are likewiſe named the milk-peares: but ſuch of them as are of color black, be called the Syrian pears. As for other pears, they haue ſundry names according to the countries wherein they grow. Howbeit theſe peares following, retain their name ſtill in all places, and repreſent alwaies the memoriall of thoſe that firſt planted or graffed them, to wit, Decimiana of one *Decimus*, a known citizen of Rome: of which is alſo a baſtard kind which they call Pſeudodecimiana. Likewiſe, the Dolobellian peare, of one *Dolobella*: and thoſe are of all other the longeſt tailed. As touching the Pompeian peares, which be alſo called the Pap or Teat-peares, the Licerian, the Seuerian, and of their race the Tyrannian, they differ one from another in the length of their ſteale. The red Fauonian peares be ſomwhat greater than the abouenamed Proud-pears.
C As for the Laterian and Anitian, which be not gathered nor ripen vntill Autumne be paſt, they haue a prettie tart and ſouriſh taſt, but natheleſſe pleaſant ynough. The Tyberian peares beare the name of *Tiberius* the Emperor, for that of all others he loued that fruit beſt: they might go for Lycerians well ynough, ſo like they be vnto them, ſaue onely that they grow big, and are more deeply coloured with the Sunne.

Moreouer, there are peares which are knowne by no other name than of the countries where they grow, namely, thoſe of Ameria which be more lateward than any other: the Picentine, Numantine, Alexandrine, Numidian, Grecian, and among them the Tarentine. Alſo the Signine peares, which many call Teſtacea, of the color of earthen pots that they reſemble; like as others be named Onychium, for that they repreſent the Onyx ſtone, or a mans naile; as likewiſe thoſe
D which be called Purple-peares.

Furthermore, peares take their name of the odour which they yeeld: thus there be Myrapia, to wit, Aromaticall-peares, Laurell, and Nard-pears. Of the time alſo when they be ripe, as the Barley-pears: of the forme of their neck, as the Bottle-peares called Ampullacea: of their thick skin, as the Coriolana. As for the Gourd-pears, they are by nature of a brutiſh or ſauage kind; ſo harſh, ſo ſoure and eager a liquor they doe yeeld

Many ſorts of peares there are, whereof we can giue no certain reaſon for their denomination, namely, the Barbarian and Venerian peares, which alſo be called Colored: likewiſe, the roiall peares, which hang or rather ſticke flat to the tree, ſo ſhort a ſteele they haue. The Patritian alſo and Voconian peares, which are both green and long. Moreouer, *Virgil* hath ſpoken of the
E Volemian peares or wardens, which he had from *Cato*, who alſo nameth the Sementine or the haſty and ſoon ripe peares. So as in this point verily the world is growne alreadie to the higheſt pitch, inſomuch, as there is not a fruit, but men haue made trial and many experiments, for euen in *Virgils* daies the deuiſe of graffing ſtrange fruits, was very rife: conſidering that he ſpeakes of the Arbute tree graffed on Nut-trees, the Plane vpon Apple-trees, and the Elme vpon Cherrie ſtockes. In ſuch ſort, as I ſee not how men can deuiſe to proceed farther. And certes for this long time, there hath not beene a new kind of Apple or other fruit heard of.

And yet as induſtrious as men haue been that way, they are not permitted to graffe all manner of trees indifferently one in another, no more than it is lawfull to graffe vpon buſhes and thornes: ſeeing that it is not ſo eaſie a matter to appeaſe lightenings: for looke how many ſorts
F of trees are thus engraffed contrarie to nature, ſo many kinds of lightenings and thunderbolts by report, are flaſhed and ſhot at once.

Peares naturally are more ſharpe-pointed at one end than Apples. And among them, the Greeke peares, the Gourd and Laurell peares are laſt of all others ripe, for they hang vpon the tree vntil Winter, and they mellow with very froſt: like as the Amerine and Scantiane apples.

Furthermore, peares are kept and preſerued as grapes, and after ſo many waies: but none of them

them are put in barrels as plums be. Finally, Peares and Apples both, haue the properties of wine: and in like sort Physicians be wary how they giue them to their patients. Howbeit, when they be sodden in wine and water, they serue in stead of a broth or grewell: & so do no fruit els but Pome and Peare-Quinces. G

Chap. XVI.

¶ *The manner how to preserue Apples.*

THe generall rules to keep and preserue Apples, are these, *Imprimis*, That the solars be wel planked and boorded in a cold and drie place; prouided alwaies, that the windows to the North do stand open, especially euery faire day. *Item*, to keep the windows into the South H shut, against the winds out of that corner: and yet the North winds also where they blow, doe cause Apples to shrink and riuell illfauouredly. *Item*, That Apples be gathered after the Æquinox in the Autumne: and neither before the full of the Moone, nor the first houre of the day. Moreouer, that all the Apples which fell, be seuered from the other by themselues, and laid apart: also that they be bedded vpon straw, mats, or chaffe vnder them: that they be so couched as that they touch not one another, but haue spaces between to receiue equall aire for to bee vented. To conclude, this is well knowne, that the Amerine Apples doe last and keepe good long, whereas the honie Apples will abide no time.

Chap. XVII. I

¶ *How to keep Quinces, Pome-granats, Peares, Sorvises, and Grapes.*

FOr the good keeping and preseruing of Quinces, there must be no aire let into them where they are enclosed: or else they ought to be confected in sodden honey, or boiled therein.

Pomegranats should be plunged into sea-water boiling, and so hardened therein: and after that they be dried in the Sun three daies, (so as they be not left abroad in the night to take dew) they would be hanged vp in a solar, and when a man list to vse them, then they must be wel washed in fresh water. *M. Varro* sets downe the manner to keep them within great earthen vessels, in sand. And if they be not ripe, he would haue the earthen pots bottomes broke off, and so the Pomegranates to be put in, and couered all ouer with mould: but the mouth therof must be K well stopped for letting any aire in; prouided alwaies, that the steele and the branch wherto the fruit groweth, be pitched. For so (quoth he) they will not giue ouer to grow still, yea, and proue bigger than if they had remained vpon the tree. As for other Pomegranats [*i.* that are ripe] they may be wrapped and lapped one by one in fig-leaues, such as are not fallen, but plucked from off the tree greene, and then to be put into twigge paniers of oifiers, or else daubed ouer with potters blay.

He that would keep Peares long, must put them in earthen vessels turned with the bottomes vpward, well varnished or annealed within, couered also with saw dust or fine shauings, and so enterred. As for the Tarentine Peares, they abide longest on the tree ere they be gathered. The Anitian Peares be well preserued in cuit-wine. L

As for Soruisses, they are kept also in trenches within the ground, but the couer of the vessel whereinto they are put, ought to be well plastered all ouer, and so stand two foot couered with earth: also they may be set in a place exposed open to the Sun, with the bottome of the vessells vpward: yea, and within great barrels they may be hung vp with their branches and all, after the manner of grape-clusters.

Some of our moderne writers handle this argument more deepely than others, and fetch the matter farre off, giung out rules in this manner, saying, That for to haue Apples or Grapes *de garde*, that is to say, fit to be preserued, and to last long; the trees that beare the one and the other, ought to be pruned and cut betimes, in the waine of the Moone, in faire weather, and when the winds blow drie. Likewise they affirme, That fruits to be preserued, would be chosen from M drie grounds: gathered before they be full ripe: and this would be looked vnto in any hand, that the Moon at the gathering time, be vnder the earth, and not appearing in our hemisphære. And more particularly, for Grape bunches they would be gathered with a foot or heele from the old hard wood, and the Grapes that are corrupt and rotten among the rest, be clipped off with a

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A paire of ſheers, or plucked out with pincers: then to be hung vp within a great new earthen veſſell well pitched; with the head or lid thereof thoroughly ſtopped and plaſtered vp cloſe, to exclude all aire. After which manner, they ſay Soruiſſes and Peares may be kept, but ſo, as in any caſe the twigs ond ſteeles whereby they hang, be well beſmeared with pitch. Moreouer, order would be giuen, that the barrels and veſſells wherein they are kept, be far ynough from water. Some there be again who keep Grapes together with their branch, after the ſame maner in plaſter: but ſo, as both ends of the ſaid branch ſticke in the head of the ſea-Onion Squilla: and others let Grape-cluſters hang within hogſheads and pipes hauing wine in them: but ſo, as the Grapes touch not the wine in any caſe. There be alſo that put Apples and ſuch fruits in ſhallow pans or pancheons of earth, and let them ſwim and flote aloft vpon the wine within their
B veſſels: for beſides that this is a way to preſerue them, the wine alſo (as they think) will thereby get a pleaſant & odoriferous taſt. Others ye haue beſides, that chuſe rather to preſerue al theſe fruits, as well Apples, Pears, &c. as Grapes, couered in Millet ſeed. Howbeit, the moſt part dig a trench or ditch two foot deep in the ground, they floore it with ſand in the bottome, and lay their fruits thereupon; then they ſtop the top with an earthen lid, and afterwards couer al with earth. Some there are which ſmeare their bunches of Grapes all ouer with potters clay; and when they are dried in the Sun, hang them vp in ſolars for their vſe: and againſt the time that they ſhould occupie them, ſteep them in the water, and ſo waſh off the foreſaid clay. But for to keep Apples that are of any worth, they temper the ſame clay with wine, and make a morter, thereof, wherein they lap the ſaid Apples. Now if thoſe Apples be of the beſt kind and right
C ſoueraigne, after the ſame ſort they couer them with a cruſt of the like paſt or morter, or elſe clad them within a coat of wax: and if they were not fully ripe afore, they grow by that meanes and break their cruſt or couer what euer it be. But this would not be forgotten, that they vſe alwaies to ſet the Apple or fruit vpright vpon the taile, howſoeuer they be kept. Some there are who gather Apples and ſuch like fruit with their ſlips and ſprigs, hide them within the pith of an Elder tree, and then couer them in earth, as is before written. And others there are, who for euery Peare or Apple, haue a ſeuerall earthen pot, and after that their lids be well cloſed and ſtopped with pitch, then they encloſe them again with great veſſels or tuns. Nay ye ſhal haue ſome to lap them with flocks and wooll, and ſo put them in caſes, and them they ſee wel luted with morter made of clay and chaffe tempered together. Some order them in the ſame ſort,
D but they put them in earthen pans: and others make no more adoe, but dig a hole in the ground, floore the bottom with a courſe of ſand, put the Apples or fruit within, & then anon when they are thus buried, couer all with mould. Theſe be that vſe Quinces in this wiſe; they take them, anoint them with wax comming out of Pontus, and let them afterwards to ly couered in hony.

Columella mine Author reporteth, That fruits will keep well in earthen pots thoroughly pitched, and afterwards ſet in pits, and drenched in ceſternes of water. In the maritime coaſts of Liguria next to the Alpes, they vſe to take Grapes after they be dried in the Sun & wrap them within bands of ruſhes and reeds, put them vp in little barrels, and ſtop them cloſe with plaſter. The Greeks haue the ſame faſhion: but they take for that purpoſe, the leaues of the Plane-tree, of the vine it ſelfe, or elſe the fig-tree, after they be dried one day in the ſhade: and when
E they be in the barrell, betweene euery bed of grape cluſters, they couch a courſe of grape kernels, and ſuch refuſe remaining after the preſſe. And in this manner are the grapes of Coos and Berytus preſerued: and for ſweetneſſe and pleaſant taſt, there are no better to be found. And ſome there be, that for to counterfeit theſe excellent Grapes, beſmeare them with lie aſhes ſo ſoon as euer they be pulled from the Vine, and preſently drie them in the Sunne: which done, they enwrap them within leaues, as hath been ſaid before, and ſo couch them cloſe within the cake of preſſed grapes. Neuertheleſſe, there be diuers that chuſe rather to keepe Grapes in the ſaw duſt or ſhauings of Firre-wood, Poplar, or Aſh. Some are afraid to let grapes hang neer to Apples, Pomegranates, and ſuch like fruit, and therefore giue in charge to let them preſently after they be gathared, for to be hung vp in garners or bourded lofts: ſuppoſing that the duſt
F which they gather from aboue, is the beſt couer to defend and preſerue them. The remedie to keepe Weſpes from them, is to ſpurt or ſquirt oile out of a mans mouth vpon them. And thus much concerning the way to preſerue Grapes and other fruits aforeſaid. As for Dates, we haue ſpoken ſufficiently before of them.

CHAP.

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Chap. XVIII.

¶ *Of Figs, 29 ſorts of them.*

OF all other fruits that haue tender pils or skins, and are called in Latine, Poma, Figges are the biggeſt: for ſome of them are found to be as great as Peares. As touching the Sycomores of Ægypt and Cypres, and of their admirable fruit we haue written ynough in the treatiſe of forraine Trees. The Idæan Figs that come from the mountaine Ida, are of color red, of the bigneſſe of Oliues, only rounder they be, & in taſt reſemble Medlars. In the region about Troas neare to the ſaid hill Ida, they call that fig-tree Alexandrina. It is as thicke as a mans arme about at the cubite or elbow, and full of branches: the wood thereof is tough and ſtrong, howbeit, pliable to wind and bend which way a man would haue it. Void of milky ſubſtance it is, clad with a green barke, bearing leaues like the Tillet or Linden tree, but that they be ſoft. *Oneſicritus* writes, that the Fig-trees in Hyrcania beare more pleaſant fruit than ours in Italie, without all compariſon: alſo that they carrie a greater burden, and be farre more plentifull, inſomuch, as one of them ordinarily yeelds 270 Modij of Figs. We haue here alſo in Italie many Fig-trees brought out of other forrain countries, to wit, from Chalcis and Chios: wherof there be many ſorts. For both our Lydian Figs which are of a reddiſh purple color, and alſo the Mamillane or teat-Figs, haue a reſemblance of the ſaid Chalcidian and Chian Figs, yea, and the Caliſtruthion Figs beyond others not a little, in goodnes of taſt: and theſe of all the reſt are the coldeſt. As touching the Affricane Figs, which many men preferre before all others, they hold the name of Affricke, as if it were their natiue countrey: and yet there is a great queſtion thereabout, and I wot not well what to ſay thereof, conſidering that it is not long agoe that Affrick begun firſt to haue Fig-trees. For the Alexandrine Figs are of the blacke kind, hauing a white rift or chamfre, and are ſurnamed Delicate. The Rhodian Fig is likewiſe blacke of hue: and ſo is the Tiburtine, which alſo is of the haſtie kind, and ripe before others.

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Moreouer, there be certaine Figs which beare the names of thoſe that brought them firſt into Italy: namely, the Liuian and Pompeian, and ſuch are fitteſt to be dried in the Sun and ſo to be kept all the yeare long for a mans vſe: like as the illfauoured, fooliſh and gaping Figs Mariſcæ: as alſo thoſe that are ſpeckled with ſpots like the leaues of Laconian reeds.

There are beſides the Herculanean, Albicerate and Aratian white Figges, which of all other are moſt flat and broadeſt, and withal haue the leaſt taile or ſteele wherby they hang. The Porphyrite Figs firſt ſhew vpon the tree, and ordinarily be longeſt tailed. The ſmalleſt Figs called the popular Figs, which alſo are of al others the baſeſt & of leaſt account, come next after and beare the Porphyrites companie. Contrariwiſe, the Chelidonian Figges be the laſt: and ripen againſt Winter.

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Moreouer, certain Figs there be which are both early, & alſo lateward: namely, ſuch as bear twice a yeare: and be both blacke and white: for they are ripe firſt in haruеſt, and afterwards, in time of vintage. Late alſo it is before the Duracinæ be ripe, ſo called of the hard skin which they haue. Alſo ſome there be of the Chalcidian kind which beare thrice a yeare. At Tarentum there grow none but ſuch as are exceeding ſweet, and thoſe they call Omas [or rather Oenadas, taſting of wine.]

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Cato in his treatiſe of Figs writes thus, The vnſauorie Fig dotes, Mariſcæ, would be ſowne in an open, light, and chalkie ground. But the Affricane, Hirculane, and the Winter Saguntine Figges, as alſo the Telliane (which are blacke and long tailed) loue a fatter ſoile, or elſe well dunged.

After this, Figges haue changed into ſo many kinds, and altered their names very often: in ſuch ſort that by this point it is euident, how the world is altered, and to what varietie this life is ſubject. In ſome prouinces, as namely in Mœſia, there be winter Figs that hang all Winter long: but they come to be ſuch, more by art and cunning, than naturally of themſelues. For ſo ſoone as Autumne is paſſed, and Winter approches, they vſe to couer with dung certaine little Fig-trees which they haue, and together with them the green yong Figs that they find on them in Winter: and when they haue continued ſo the ſharpe time of dead Winter, ſo ſoone as the weather beginnes to be more warme and temperate, they diſcharge both fruit and tree of their dung: which being thus let out again (as it were) where they ſeemed buried, and now comming

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A to light; they no ſooner find the freſh aire, & another kind of nouriſhment differing from that, whereby they liued, but doe embrace and receiue the comfort of the new Sun moſt greedily, as if they were new born and reuiued: in ſuch ſort, as that in Mœſia, notwithſtanding it be a moſt cold region, ye ſhall haue the figs of theſe trees to ripen, when others begin to bloſſom, and by this means become early and haſty figs in another yeare.

Now forasmuch as we are fallen to mention the figs in Africk, which were in ſo great requeſt in the time of *Cato*, I am put in mind to ſpeake ſomewhat of that notable opportunity and occaſion which by the means of that fruit he took for to root out the Carthaginians, & raſe their very city. For as he was a man who hated deadly that city, and was otherwiſe carefull to prouide for the quiet and ſecuritie of his poſteritie, he gaue not ouer at euery ſitting of the Senat, to importune the Senators of Rome, and to cry out in their eares, That they would reſolue
B and take order to deſtroy Carthage: and in very truth one day aboue the reſt, he brought with him into the Senat houſe an early or haſty fig which came out of that country, and ſhewing it before all the lords of the Senat, I would demand of you (quoth he) how long ago it is (as you think) ſince this fig was gathered from the tree? And when none of them could deny but that it was freſh and new gotten: Lo (quoth he) my maſters all, this I do you to wit, It is not yet full three daies paſt ſince this fig was gathered at Carthage: ſee how neere to the walls of our citie we haue a mortall enemie. Vpon which remonſtrance of his, preſently they concluded to begin the third and laſt Punick war, wherein Carthage was vtterly ſubuerted and ouerthrown. Howbeit *Cato* ſuruiued not the raſing and ſaccage of Carthage, for he died the yeare immediately
C following this reſolution? But what ſhall we ſay of this man? whether was more admirable in this act, his prouident care and promptneſſe of ſpirit; or the occaſion preſented by the ſudden obiect of the fig? was the preſent reſolution and forward expedition of the Senat, or the vehement earneſtneſſe of *Cato*, more effectuall to this enterpriſe? Certes, ſomewhat there is aboue all, & nothing in mine opinion more wonderful, that ſo great a ſigniory and ſtate as Carthage, which had contended for the Empire of the world for the ſpace of 120 yeres, and that with the great conquerours the Romanes, ſhould thus be ruined and brought vtterly to nought, by occaſion of one fig. A deſigne that neither the fields loſt at Trebia and Thraſymenus, nor the diſgrace receiued at the battell of Canna, wherein ſo many braue Romans loſt their liues, and left their dead bodies on the ground to be interred, could effect: nay not the diſdain that they
D took to ſee the Carthaginians incamped and fortified within 3 miles of Rome, ne yet the brauadoes of *Annibal* in perſon, riding before the gate Collina, euen to dare them, could euer bring to paſſe. See how *Cato* by the means of one poore fig, preuailed to bring and preſent the forces of Rome to the very walls of Carthage.

There is a fig tree called Navia, honoured with great reuerence, in the common Forum and publique place of juſtice at Rome, euen where the ſolemne aſſemblies are held for election of Magiſtrats, neere to the Curia, vnder the old ſhops called Veteres: as if the gods had conſecrated it for that purpoſe: neere (I ſay) it is to the Tribunal named Puteal Libonis, & there planted by *Actius Navius* the Augur, where the ſacred reliques of his miracle, to wit, the Raſor and the Whetſtone, were ſolemnely interred: as if it came of the owne accord from the ſaid Curia
E into the Comitium, and had not bin ſet by *Navius*. This tree if it begin at any time to wither, there is another replanted by the prieſts, who that way are very carefull and ceremonious. But a greater reſpect is had of another in remembrance of the firſt fig tree named Ruminalis (as it were) the nurſe of *Romulus* and *Remus*, the two yong princes fondlings, and founders alſo of the city of Rome: for that vnder it was found a ſhe wolfe, giuing to thoſe little babes the teat (in Latine called Rumen:) and for a memoriall hereof there is a monument of braſſe erected neere vnto it, repreſenting that ſtrange and wonderfull ſtory. There grew alſo a third fig tree before the temple of *Saturne*, which in the yeare 260 after the foundation of the city of Rome, was taken away, at what time as a chappell was builded there by the Veſtal nuns, and an expiatory ſa-
F crifice offered, for that it ouerthrew the image of *Sylvanus*. There is a tree of the ſame kind yet liuing, which came to grow of it ſelf, no man knows how, in the midſt of the Forum Romanum, and in that very place where was the deepe chinke and gaping of the ground, that menaced the ruine of the Roman empire; which fatall and portentuous gulfe the renowned knight *Curtius* filled vp with the beſt things that were to be found in the city, to wit, his Vertue and Piety incomparable, teſtified by a moſt braue & glorious death. In the very ſame place likewiſe there is

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an Oliue and a Vine,which came thither by as meere a chance,but afterwards well looked and trimmed by the whole people,for to inioy the pleasure and shade thereof. And there also stood an altar,which afterward was taken away by occasion of the solemne shew of sword-fencers, which *Iulius Cæsar* late Emperor,exhibited to do the people pleasure, which were the last that plaied their prizes,and fought at the sharp in the said Forum. To conclude,wonderfull it is to see,how the fruit of this tree maketh hast to ripe: a man would say that Nature therein sheweth all her skill and force to ripen figs altogether at once. G

Chap. XIX.

¶ *Of the wilde Fig trees: and of caprification.*

There is a kind of wild Fig trees,which the Latines call Caprificus,that neuer brings any fruit to maturitie; but that which it selfe hath not, it procureth to others, and causeth them to ripen. For such is the interchangeable course & passage of causes in nature,that as this thing putrifieth,that ingendreth; and the corruption of one is the generation of another. By this it comes to passe,that the wild fig tree breedeth certaine flies or gnats within the fruit thereof: which wanting nourishment, and not hauing to feed vpon in those figs, because they become rotten aud putrified as they hang vpon the tree, they flie vnto the other kinde of gentle and tame fig-trees,where they settle vpon the figs, and greedily nibble thereupon, vntill they haue made way and pierced into them; and by that means let in at first the breath of the warme Sun,and that comfortable and vegetatiue aire besides that helpeth to ripen them. Soon after they suck vp and spend the milky humor which they find there, and which keeps the figs still as it were in their infancie,and hindreth their speedy and timely maturitie. True it is,that the figs in time would ripen of themselues by the power and benefit of Nature only: howbeit skilfull and industrious husbandmen take order alwaies to set these wild fig trees neere to the place where other fig trees grow,but with due regard of the winde side, that when the foresaid gnats breake forth and are ready to fly out,a blast of wind might carry them to the other. And hereupon came the deuise and inuention to bring whole swarms & casts of them, as they hang one to another,from other places,that they might settle vpon the figs to consume the raw moisture within. Now if the soile be lean and hungry, and the fig trees growing therupon exposed to the North wind,there is no such need of this help: for the figs will dry sufficiently of themselues,by reason as well of the scituation of the place,as the clifts and rifts in them,which will effect that which the gnats or flies aboue named might performe. The like effect is to be seen also where much dust is,namely,if a fig tree grow neere vnto a high-way much frequented and trauelled by passengers. For the nature of dust is to dry and soke vp the superfluous moisture of the milke within figs. And therefore when they are thus dried,whether it be by the meanes of dust,or of the said flies feeding,which is called Caprification,they fall not from the tree so easily,by reason they are discharged of that liquid substance which maketh them both tender, and also ponderous,weighty,and brittle withall. H I K

All figs ordinarily are tender and soft in handling. Those which be ripe haue small graines within them: their succulent substance besides,when they begin to ripen, is white like milke: but when they are perfectly ripe it is of the colour of hony. They will hang vpon the tree vntil they be old,and when they are aged,they yeeld a certain liquor which distilleth from them in maner of a gum,and then in the end become dry. L

The better sort of figs haue this honor and priuiledge,to be kept in boxes and cases for the purpose: and chiefly those which come from the Isle Ebusus, which of all others are the very best and largest: yea,and next to them those that grow in the Marrucines country. But where they are in more plenty they put them vp in great vessels called Orcæ, as namely in Asia: also in barrels & pipes,as at Ruspina a city in Barbary. And in very truth,the people of those countries make that vse of them when they be very dry,that they serue both for bread and meat. For *Cato* setting downe an order for dyet and victuals fit and sufficient for labourers,ordained,that they should be cut short of their other pittance,when figs are ripe,and make vp their ful meals with it. And it is not long since the manner came vp to eat fresh new figs with salt and poudered meats, in stead of cheese. And for to be eaten in this sort,the figs called Coctana (whereof we haue written before) and the dried figges Caricæ are commended: as also the Caunæ, M

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A which when *M. Craſſus* ſhould imbarque in that expedition againſt the Parthians (wherein he was ſlain) preſaged ill fortune, and warned him not to go forward: namely, when at the very inſtant that he was ready to ſet foot a ſhip-bord, there was a fellow heard to cry thoſe figs for to be ſold, pronouncing aloud, Cauneas, Cauneas: which word in ſhort ſpeaking was all one with *Cave ne eas* [*i.* Beware of this voiage, and go it not.] All theſe ſorts of figges *L. Vitellius* brought out of Syria, into his ferm or manor that he had neere Alba, hauing L. Gouernor or Lieutenant generall in thoſe parts, namely, in the later end of *Tiberius Cæſar* the Emperor: and the ſame *Vitellius* was afterward Cenſor at Rome.

Chap. XX.

¶ *Of Medlars: three kinds of them.*

B MEdlars and Seruices may well and truely be ranged in the ranke of Apples and Peares: Medlars be of three ſorts; namely, Anthedon, Setania, and the third which they call Gallicum, [*i.* the French Medlar] which is of a baſtard nature, yet it reſembles the Anthedon rather than the other. As for the Setanian Medlar, the fruit is greater and whiter than the reſt; alſo the kernels or ſtones within are of a more ſoft ſubſtance, and not altogether ſo wooddy and hard. The reſt are ſmaller than theſe Setania or common Medlars, but they haue a better ſmell and more odoriferous, and withall will laſt longer. The tree it ſelfe that beareth Medlars is reckoned among the greateſt ſort: the leaues before they fall wax red: the roots be many in number, and run downe right deep into the ground: by which meanes, vnneth or verie C hardly they be quite rooted vp. This tree was not known in Italy by *Cato's* dayes.

Chap. XXI.

¶ *Of Services, foure kinds.*

OF Seruices there be foure ſundry ſorts, differing one from another: for ſome of them are round like apples, others pointed at the end as Peares; a third kinde are faſhioned like egs, as ſome long or tankard apples: and theſe are apt to be ſoon ſoure. For ſweet ſent and pleaſant taſt the round excell all others: the reſt haue a relliſh of wine. The beſt kinde of them are they that haue ſoft & tender leaues about their ſteles whereby they hang. The fourth D ſort they call Torminale, allowed onely for the remedie that they affoord to mitigate the torments and wringing of the colique. This tree is neuer without fruit, howbeit the ſmalleſt of all the reſt, and differeth from the other, for it beareth leaues very like to the Plane. There are none of them that beare fruit before they be three yeares old. Laſtly, *Cato* would haue Seruiſes to be preſerued and condite in Cuit.

Chap. XXII.

¶ *Of the Wall-nut.*

E THe next place to theſe for bignes, the Walnuts doe challenge, which they cannot claime for their credit and authoritie; and yet they are in ſome requeſt among other licentious and wanton Feſcennine ceremonies, at weddings: for leſſe they be than Pine nuts, if a man conſider the groſneſſe of the body outwardly; but in proportion therto they haue a much bigger kernel within. Moreouer, Nature hath much graced and honoured theſe nuts with a peculiar gift ſhe hath endued them with, namely, a double robe wherewith they are clad: the firſt is a tender and ſoft husk; the next, a hard and wooddy ſhel: which is the cauſe that at mariages they ſerue for religious ceremonies, reſembling the manifold tunicles and membranes wherin the infant is lapped and enfolded within the womb: and this reaſon foundeth more probable, than that they ſhould be ſcattered, becauſe in their fall they rebound and make a ratling [to drowne (forſooth) all other noiſes from the bride-bed or chamber.] That theſe Nuts alſo were F brought out of Perſis firſt by commandement of the Kings, is euident by their Greeke names; for the beſt kind of them, they call Perſicon, and Baſilicon; as one would ſay, the Perſian and Royall nut: and theſe indeed were the firſt names. Afterwards, the nut came to be named Caryon, (by all mens confeſſion) for the heauineſſe of head which it cauſeth, by reaſon of the

ſtrong ſmell. Their outward husk ſerues to die wooll: and the little nuts when they come new forth are good to giue the haire of the head a reddiſh or yellow colour. The experiment therof was firſt found by ſtaining folks hands as they handled them. The elder that nuts be & longer kept, the more oleous and fatty they are. The only difference in the ſundry kinds conſiſteth in the ſhel, for that in ſome it is tender and brittle, in others hard; in one ſort it is thin, in another thick: laſtly, ſome haue ſmooth and plain ſhells, others again be as full of holes and cranies. G

Walnuts be the fruit alone that Nature hath incloſed with a couer parted in twaine, and ſo is ioyned and ſet together; for the ſhell is diuided and cleft iuſt in the middle, and each halfe reſembleth a little boat. The kernell within is diſtinguiſhed into foure parts, and between euerie of them there runneth a membrane or skin of a wooddy ſubſtance. As for other nuts, their meat is ſolid and compact, as we may ſee in Filberds and Hazels, which alſo are a kind of nuts, and were called heretofore Abellinæ, of their natiue place, from whence came good ones at firſt. They came out of Pontus into Natolia and Greece, and therefore they be called Pontick nuts. Theſe Filberds likewiſe are couered with a ſoft bearded huske, and as well the ſhell as the kernell is round and ſolid, all of one entire piece. Theſe nuts alſo are parched for to be eaten, and within their belly they haue in the mids a little chit or ſpirt as if it were a nauill. H

As for Almonds, they are of the nature of nuts, and are reckoned in a third ranke. An vpper husk they haue like as Walnuts, but it is thin: like as alſo a ſecond couerture of a ſhell. The kernell differeth ſomewhat, for broader it is and flatter, and their skin more hard, more ſharpe, and hoter in taſte than that of other nuts. Now whether the Almond tree were in Italy during the life of *Cato*, there is ſome doubt and queſtion made; becauſe he nameth the Greeke nuts, which ſome do hold for a kind of walnut. Mention maketh he beſides of the Hazel nuts or filberds, as well the * Galbæ, as the Preneſtine, commended by him aboue all others, which hee ſaith are put vp in pots, and kept freſh and green within the earth. Now adaies the Thaſian and Albeuſian nuts be in great account; and two ſorts beſides of the Tarentine; whereof the one hath a tender and brittle ſhell, the other as hard: and thoſe are the biggeſt of all other, and nothing round. He ſpeaketh alſo of the ſoft ſhaled Filberds Molluſcæ, the kernels whereof doe ſwell and cauſe their ſhels to breake in ſunder. I

* or *Caluæ*, i. Bsld.

But to return again to our Walnuts: ſome to honor them interpret their names Iuglandes, as a man would ſay, the nuts of *Iupiter*. It is not long ſince I heard a knight of Rome, a gentleman of high calling, and who had bin Conſul, profeſſe and ſay, that he had certain walnut trees that bare twice a yeare. As for Fiſticks we haue ſpoken already of them. To conclude, theſe kind of nuts the aboue named *Vitellius* brought firſt into Italy at the ſame time, namely, a little before the death of *Tiberius* the Emperor: and withall, *Flaccus Pompeius* a knight of Rome, who ſerued in the wars together with him, caried them ouer into Spain. K

Chap. XXIII.

¶ *Of Cheſtnuts eight kindes.*

WE entitule Cheſtens alſo by the name of Nuts, although indeed they are more aptly to be called a kind of Maſt. This fruit what euer it be is incloſed within a huske, and the ſame defended and armed all ouer with a rampier and paliſade (as it were) of ſharp pricks like the skin of an vrchin; whereas the Acorn and other Maſt is but half couered, and that defence in them is begun only. And certes, a wonderfull matter it is that we ſet ſo little ſtore by this fruit, which Nature is ſo carefull to hide and defend. Vnder one of theſe husks ye ſhall find ſomtime three Cheſtnuts, and thoſe hauing certain tough pils or ſhells very pliable. But the skin or filme within, and which is next to the body or ſubſtance of the fruit, vnleſſe it be pilled off and taken away, marreth the taſte of it, like as it doth alſo in other nut-kernells. Cheſtnuts if they be roſted are better and more pleaſant meat than otherwiſe. They vſe alſo to grind them to meale, and thereof is made a kind of bread, which poore women for hunger will eat. The firſt Cheſtnuts were known to grow about Sardis, & from thence were brought, wherfore the Greeks call them Sardinian nuts: but afterwards they came to be named Διὸς βαλανοι, [*i. Iupiters* nuts] when as men began to graffe them; for thereby they became more excellent. And this day there be many ſorts of them. The Tarentine be gentle and not hard of digeſtion, and in forme flat and plaine. That which they call Balanitis, is rounder, it will ſoone be pilled and cleanſed, L M

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A cleanſed,and of it ſelfe will leape out of the skin. And of this kind, the Salarian is more neat, flat,and ſmooth: the Tarentine not ſo eaſie to be handled and dealt withall: the Corellian is more commended than the reſt; as alſo the Meterane, which commeth of it by graffing: the manner whereof we will ſhew when we come to treat of graffes. Theſe haue a red pilling, in which regard they are preferred before either the three cornered, or the blacke common ones, which be alſo called Coctiuæ,[*i.* Cheſtnuts to be boiled.] The beſt Cheſtnuts are they which grow about Tarentum, and Naples in Campaine. All the reſt are good in manner for nothing but to feed ſwine,* ſo cloſe ſticketh the pill or inner skin alſo,as if it were ſoudered to the kernell within, and ſo hard it is to ſeperate the one from the other.

* *Scrupuloſa corticis interioris circa nucleos quoque ferrumination.*

CHAP. XXIIII.

B

¶ *Of Carobes: of fleſhie and pulpous fruits: of Mulberries: of liquid kernels or graines, and of berries.*

THe fruit called Carobes or Caracts, may ſeeme to come neare vnto the foreſaid Cheſtnuts,(ſo paſſing ſweet they be) but that their cods alſo are good to be eaten. They bee as long as a mans finger,and otherwhiles hooked like a faulcheon,and an inch in bredth. As for maſt,it cannot be reckoned among fruit properly called Poma,and therefore we will ſpeak of them apart,according to their nature.

Now are we to treat of the reſt which are of a carnous ſubſtance: and thoſe are diuided into fruits that be ſoft and pulpous,and into berries. The carnoſity in Grapes and Raiſons,in Mul-
C berries,and the fruit of the Arbut tree,differs one from the other. Againe, the fleſhy ſubſtance in Grapes between the skin and the liquid juice, is one,and that in Sebeſten is another. Berries haue a carnoſity by themſelues,as namely Oliues. Mulberies yeeld a juice or liquor within the pulpe thereof,reſembling wine. They be ordinarily of three colours: at the beginning, white; ſoone after,red;and when they be ripe, blacke. The Mulberrie tree bloometh with the laſt,but the fruit ripeneth with the firſt. Mulberries when they be full ripe,ſtaine a mans hand with the juice thereof, and make them blacke: but contrariwiſe being vnripe,they ſcoure them cleane. There is not a tree againe, wherein the wit of man hath bin ſo little inuentiue, either to deuiſe names for them,or to graff them,or otherwiſe,ſaue only to make the fruit fair and great. There
D is a difference which we at Rome doe make, betweene the Mulberries of Oſtia and Tuſculum. There is a kind of Mulberries growing vpon the bramble,but their skin is much harder than the other. Like as the ground-ſtrawberries differ in carnoſitie from the fruit of the Arbut tree, and yet it is held for a kind of Strawberrie, euen as the tree it ſelfe is tearmed the Strawberrie tree. And there is not a fruit of any other tree, that reſembleth the fruit of an hearb growing by the ground,but it.

The Arbut tree it ſelfe ſpreadeth full of branches: the fruit is a whole yeare in ripening: by which means a man ſhall find alwaies vpon the tree,yong and old fruit together one vnder another; and the new euermore thruſts out the old. Whether it be the male or female that is barren,writers are not agreed. Surely the fruit is of baſe and no reckoning at all: no maruell therefore if the Latines gaue it the name Vnedo,for that one of them is enough to be eaten at once.
E And yet the Greeks haue two names for it, to wit, Comarum & Memecylon: whereby it appeareth, that there be as many kinds among the Latines alſo, although it be tearmed by another name, Arbutus. K. *Iuba* ſaith,that theſe trees in Arabia grow to the heigth of fiftie cubites.

As touching Graines and liquid Kernels, there is great difference betweene them: for firſt and formoſt, among very grapes, there is no ſmall diuerſitie in the skin, either for tendernes or thickneſſe: in the inner ſtones or pepins,which in ſome grapes are but ſingle,or one alone; in others double,and thoſe commonly yeeld not ſo much wine as the others do. Secondly,thoſe of Iuie and Elder differ very much,yea and the graines within a Pomegranat are not like to others in their forme, for they alone be made cornered and angle-wiſe; and ſeuerall as they bee,they
F haue not a particular skin of their own,but they are altogether clad within on, which is white: and yet they ſtand all wholly of a liquor and pulpous carnoſitie, eſpecially thoſe which haue within them but a ſmall ſtone or woodie kernell.

Semblably, there is as much varietie in berries: for oliues differ much from Bay berries: likewiſe thoſe of a Lote tree are diuers from them which the Corneil tree beares. The Myrtle alſo differeth

differeth from the Lentisk in the verie berrie. As for the huluer or hollie berries, and the hawes of the white-thorn, they are without any juice or liquor: wheras Cherries be of a middle kind, betweene berries and graines. This fruit is white at the first, as lightly all berries be whatsoeuer: but afterwards some waxe greene, as Oliues and Baies; others turn red, as Mulberies, Cherries, and Cornoiles; but in the end they all become blacke, as Mulberries, Cherries, and Oliues. G

Chap. XXV.

¶ *Of Cherries, eight kinds.*

BEfore the time that *L. Lucullus* defeated K. *Mithridates*, there were no cherrie-trees in Italy: but after that victorie (which was about the 680 yeare from the foundation of the citie of Rome) he was the man that brought them first out of Pontus, and furnished Italie so well with them, that within sixe and twentie yeres, other lands had part therof, even as far as Britain beyond the ocean. Howbeit (as we haue before said) they could neuer be brought to grow in Ægypt, for all the care and industrie employed about them. Of Cherries, the reddest sort bee called Apronia; the blackest, Actia: the Cæcilian be round withall. The Iulian Cherries haue a pleasant tast, but they must be taken new from the tree and presently eaten; for so tender they be otherwise, that they will not abide the carriage. Of all other, the Duracine Cherries be the soueraign, which in Campaine are called Pliniana. But in Picardie, and those low countries of Belgica, they make most account of the Portugall Cherries: as they do also who inhabite vpon the riuer Rhene. They haue a hew with them composed of three colors, between red, black and green, and alwaies look as if they were in ripening still. It is not yet full 5 yeres since the Cherries which they call Laurea, were known: so called they be, because they were graffed on a Bay-tree stocke, and thereof thy take a kind of bitternes, but yet not vnpleasant to the tast. There be moreouer Macedonian Cherries, growing vpon a small tree seldome aboue three cubits high: and yet there be certain dwarfe Cherries not full so tall, called Chameceraſti, [*i.* ground cherry-shrubs.] The Cherry-tree is one of the first that yeelds fruit to his master, in token of thankfulnesse & recognisance of his paines all the yeare long. It delights to grow in cold places and exposed to the North. The Cherrie wil drie in the sun, and may be kept in barrels like Oliues. H I

Chap. XXVI.

¶ *Of the Corneile and Lentiske tree.* K

THe same care is had in conditing the berries of the Corneil and the Lentiske, as in preseruing Oliues: so curious are men to content their tooth, as if all things were made to serue the belly. Thus we see, how things of diuers relishes are mingled together, and one giues a tast vnto another, and causeth to be pleasant at the tongues end. Nay we entermingle all climats and coasts of heauen and earth to satisfie our appetite: for to one kind of meat wee must haue drugs & spices fetcht as far as from India: to another, out of Ægypt, Candie, and Cyrene: and in one word, for euery dish we haue a seuerall land to find vs sawce. To conclude, wee are growne to this passe, that we cease not to sophisticate our viands, euen with hurtfull things, so they tast well: yea and to make dishes of very * poisons, because we would deuoure and send all downe the throat. But more plainely hereof, in our professed discourse of the nature and vertue of Hearbs. * Mushroms: L

Chap. XXVII.

¶ *The diuersitie of tasts and sauours.*

IN the meane time, as touching those things which are common as well to all fruit, as iuices and liquors: first and formost we find of tasts 13 seuerall kinds; to wit, sweet, pleasant, fattie, bitter, harsh and vnpleasant, hot and burning at the tongues end, sharpe and biting, tart or astringent, sowre, and salt. Ouer and besides all these, there be three others of a most strange and wonderfull nature. The first is that, wherin a man may haue a smacke of many tasts together, as in wines: for in them a man shall find an harsh, sharpe, sweet, and pleasant relliſh all at once; and yet these all differ from the natiue verdure of wine. A second sort there is besides, which caries a strange & different tast verily from the thing it self, and yet it hath besides the proper and peculiar M

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A culiar taſt of the owne ſubſtance,as the Myrtle : for it carrieth a ſeuerall taſt by it ſelfe,proceeding from a certaine kind, mild, and gentle nature, which cannot truly be called either ſweet, fattie,or pleaſant,if we would ſpeake preciſely. Laſt of all,water hath no taſt at all of any juice or liquor whatſoeuer, and yet therein is a flat taſt by it ſelfe, which is called wateriſh, that nothing elſe beſides hath : for if a man do taſt in water a relliſh of any ſap or liquor, it is reputed for a bad and naughtie water.

Furthermore,a great and principall matter of all theſe taſts, lyeth in the ſauour and ſmell; which is connaturall vnto the taſt,and hath a great affinitie with it : and yet in water,is neither one or other to be perceiued:or if any be felt either by tongue or noſe, it is faultie, that is certaine.Finally, a wonderfull thing it is to conſider, that the three principall Elements whereof
B the world is made,namely,Water, Aire,and Fire,ſhould haue no taſt,no ſauor,nor participation of any ſap and liquor at all.

Chap. XXVIII.

¶ The juice and ſap of Fruits and Trees : their colours and odours : the nature of Apples,and ſuch ſoft Fruits : and the ſingular commendation of all Fruits.

TO begin withall,The Peare,The Mulberry,& the Myrtle-berrie, haue a juice or ſap within them,reſembling wine, * no maruell then,of Grapes,if they haue the like. Oliues,Bay-
C berries,Walnuts and Almonds,haue a fattie liquor in them. The Grape, the Fig, and the Date,carie a ſweet juice with them. Plums haue a wateriſh taſt.

There is no ſmall difference in the colour alſo that the juice of fruits do beare : Mulberries, Cherries,and Corneils, haue a ſanguine and bloudie liquor:ſo haue the blacke grapes;but that of the white grapes,is likewiſe white. The juice of Figs toward the head or neck of the fruit, is white like milke;but of another color in all the bodie beſides. In Apples, it is in manner of a froth or fome:in Peaches,of no colour;and yet the Duracina of that kind,be full of liquor; but who was euer able to ſay,what colour it was of?

The odor and ſauor likewiſe of fruits,is as ſtrange and admirable : for the ſmell of Apples is ſharpe and piercing;of Peaches,weake and wateriſh. As for ſweet fruits,they haue none at all:
D for verily we ſee, that ſweet wines likwiſe haue little or no ſmell,wheras the ſmall and thin are more odoriferous : and all things in like manner of a ſubtill ſubſtance, do affect the noſthrills more, than the thicke and groſſer doe:for whatſoeuer is ſweet in ſent, is not by and by pleaſant and delicate in taſt;for ſent and ſmacke are not alwaies of like ſort: which is the reaſon that Pomecitrons haue a moſt piercing and quick ſauor, wheras in relliſh they are rough and harſh: and ſo it fares in ſome ſort with Quinces. As for Figs,they haue not any odor. And thus much may ſuffice in generall, for the ſundrie kinds and ſorts of fruits which are to be eaten,it remaineth now to ſearch more narrowly into their nature.

To begin then with thoſe that are encloſed within cods or husks:yé ſhal haue ſome of theſe cods to be ſweet,and the fruit or ſeed contained within,bitter, and contrariwiſe,many of thoſe
E graines or ſeeds are pleaſant and toothſome enough ; but eaten with the huskes, they be ſtarke naught and loathſome.

As touching berries, there be that haue their ſtone or wooddie ſubſtance within,and the fleſhy pulp without,as Oliues,and Cherries:and there be again,that within the ſaid woody ſtone haue the carnoſitie of the berry as ſome fruits in Ægypt,whereof we haue alreadie written. As for berries carnous without-forth, & pulpous fruit called Apples,they be of one nature. Some haue their meat within,& their woodie ſubſtance without,as nuts:others,their carnoſity without,and their ſtone within,as Peaches and Plums. So that in them we may ſay,That the faultie ſuperfluity is enuironed with the good fruit, wheras fruit otherwiſe is ordinarily defended by the ſaid imperfection of the ſhell. Walnuts and Filberds are encloſed with a ſhell:Cheſtnuts
F be contained vnder a tough rind, that muſt be pulled off before they be eaten; wheras in Medlars,the cornoſitie and it be eaten together. Acornes,and all ſorts of maſt,be clad with a cruſt ; Grapes with a skin, Pomegranats with a rind and a thin pannicle or skin beſides. Mulberies do conſiſt of a fleſhy ſubſtance and a liquor. Cherries,of a skin and a liquid juice. Some fruits there be,the ſubſtance whereof will ſoon part from their woodie ſhell without,or ſtone within,

* *Minimæ quod miremur uvis.* Others diſtinguiſh thus, *Minimæ (quod miremur) uvis*, to this ſenſe: whereas in grapes (and that may be a wonder) there is none ſuch.

as nuts and Dates: others ſticke cloſe and faſt thereto, as Oliues and Bay berries. And there be againe that participate the nature of both, as Peaches: for in thoſe that be called Duracina, the carnous ſubſtance cleaueth hard to the ſtone, ſo as it cannot be plucked from it, wheras in the reſt, it commeth eaſily away. Now ye ſhall meet with ſome fruits, that neither without in ſhell, nor within-forth in kernell, haue any of this woodineſſe, as a kind of Dates [named Spadones.] And there be againe whoſe very kernell and wood is taken for the fruit it ſelfe, and ſo vſed; as a kind of Almonds, which (as we ſaid) doe grow in Ægypt. Moreouer, yee ſhall haue a kind of fruits furniſhed with a double ſuperfluity of excrement to couer them without-forth, as Cheſtnuts, Almonds, and Walnuts. Some fruits haue a ſubſtance of a threefold nature, to wit a bodie without; then, a ſtone or wood vnder it; and within the ſame, a kernell or ſeed, as Peaches. Some fruits grow thick and cluſtred together vpon the tree, as Grapes, and likewiſe Seruiſes, which claſpe about the branches and boughes, bearing and weighing them downe as well as grapes. Others for it, hang here and there very thin, as Peaches. And there be againe that lye cloſe, contained (as it were) within a wombe or matrice, as the kernells of the Pomegranates. Some hang by ſmal ſteles or tailes, as Peares: others in bunches, as Grapes and Dates. Ye ſhall haue ſome fruit grow by cluſters, and yet hang by a long taile, as the Berries of Iuie and Elder: and others againe cleaue faſt to the branch of the tree, as Bay berries: ſome both waies, as Oliues, for there bee of them that haue long ſteles, and others againe ſhort tailed. Some fruits there be alſo, that are formed like cups or mazers, as Pomegranats, Medlars, the Egyptian bean or Lote, and that which groweth about the riuer Euphrates. G H

As for the ſingularities and commendable parts in fruits, they be of diuers ſorts, Dates are moſt ſet by for their fleſhie ſubſtance, and yet they of Thebes aboue in high Ægypt, are eſteemed onely for their outward coat or cruſt that they haue. Grapes, and the Dates called Caryotæ, are in great account and eſtimation for their iuice and liquor: Peares and Apples be moſt accepted for their callous ſubſtance next vnto their skin or paring; but the honey-apples Melimela, are liked for their carnoſitie and fleſhie pulpe within: Mulberies content the taſt with their griſtle or cartilage ſubſtance: and the beſt part of the nut, is the very graine of the kernel. In Ægypt, ſome fruits are regarded only for their vtmoſt skin, as drie Figs: when Figges bee green, the ſame is pilled off and caſt aſide like a ſhell; but be they once drie, the ſaid skin is paſſing good. In all kind of Papyr-reeds, Ferula plants, and the white thiſtle Bedegnar, the verie maine ſtemme is the fruit to be eaten. The ſhoots alſo and tender ſprigs of the Frg-tree, are reputed for good meat, and alſo medicinable. To come vnto the ſhrubs kind, the fruit of Capres is eaten together with the ſtalke. As for Carobe, what is it elſe but a meere woodie ſubſtance that folke do eat? (and yet the ſeed and graines within them, are not altogether to be deſpiſed for the propertie that they haue) although to ſpeak preciſely, it cannot properly be caled eith er fleſh, wood, or griſtle; neither hath it found any other conuenient name to be tearmed by. I K

Chap. XXIX.

¶ *Of the Myrtle, eleuen kinds thereof.*

NAture hath ſhewed her wonderfull power and bounty, eſpecially in the iuice of the Myrtle, conſidering that of all fruits, it alone doth yeeld two ſorts both of oile and wine: likewiſe the mixture or compoſition called Myrtidanum, as we haue ſaid before. Alſo there was another vſe in old time of Myrtle berries: for, before that Pepper was found and vſed as it is, they ſerued in ſtead thereof: from whence tooke name that exquiſite and daintie diſh of meat, which euen at this daie is called Myrtatum. And hereof came that excellent ſauce ſo highly commended for the brawne of the wild Bore, when for the moſt part Myrtle berries are put thereto to dip the meat therein, for to giue a better taſt to that kind of veniſon. L

As for the very tree it ſelfe, the firſt that euer was ſeen within the compaſſe and precincts of Europe (which beginneth at the mountaine Ceraunia) was about Circeij, where ſtood the tombe ſometimes of *Elpenor*; and ſtill it retains the Greeke name: whereby we may well judge, that it is a ſtranger. Howbeit there grew a Myrtle tree in old time, when Rome was firſt founded, euen in that plot of ground where the citie now ſtandeth. For thus goeth the hiſtorie: That vpon a time the Romanes and Sabines being raunged in battaile array, and at the point M

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A to fight a field, and to try the quarell (for the wrong which the Sabines pretended, was done to them, in regard that the Romans had rauiſhed their daughters being yong maidens) were reconciled and made friends: and thereupon laid downe their armes and weapons, and were there purified with the ſacred branches of Myrtle, in that very place wherein now the temple & image of *Venus Cluacina* ſtandeth: which therupon tooke the name (for that *Cluere* in old Latin, ſignified to purge or cleanſe.) Beſides, that tree otherwiſe doth affoord a kind of ſweet perfume to be burned. Now was this tree choſen for that purpoſe then to make attonement and to ratifie the mariage betweene the Romans and the Sabine Virgins, becauſe *Venus* is the preſident and mother of carnall copulation, and the patroneſſe withall of the Myrtle tree. I will not confidently auouch, but me thinks I may preſume to ſay, that the Myrtle was of all other trees firſt planted
B in the publick places of Rome for ſome memorable preſage and fore-tokening of future euents and things to come. For whereas the temple of *Quirinus* (*i.* of K. *Romulus*) is reputed for one of the moſt antique buildings now extant, there grew euen before it for a long time two old and ſacred Myrtle trees: the one named Patritia (*i.* the Myrtle of the Nobility:) and the other Plebeia; that is to ſay, the Myrtle of the Comminalty. The Patritian proſpered and flouriſhed many yeares together, whiles the Plebeian began to fade and wither. And to ſay a truth, ſo long as the Senate was able to maintaine and vphold their authority, the Myrtle of the Nobles continued freſh and greene, and ſpread her boughes at large; whereas that other of the Commons ſeemed as it had beene blaſted, dried, and halfe dead: but after that the ſtate of the Senat began to quaile and droupe (which was about the time of the war with the Marſyans) as their tree de-
C caied and waſted, ſo the Plebeians Myrtle held vp the head againe: and ſo by little and little, as the Maieſty of the Senatours was taken downe and abated to nothing, ſo their Myrtle waxed poore and barren vntill it became dry and ſtark dead. Moreouer, there ſtood an old chappel and an altar conſecrated to *Venus Myrtea*, whom now at this day they call Murtia.

Cato in his time wrote of three kinds of Myrtle: to wit, the white, the blacke, and the Conjugula (ſo called haply of wedlock or mariage:) & peraduenture it may come of the race of thoſe Myrtles belonging to *Venus Cloacina* aboue named. Howbeit, in theſe daies wee diſtinguiſh our Myrtles otherwiſe; for ſome we repute wild and ſauage, others tame and gentle: and theſe both are likewiſe of two ſorts, to wit, either broader or narrower leaued. To the wilde kind properly belongeth the prickie Myrtle Oximyrſine. As for the tame and gentle Myrtles, they be thoſe
D that are planted in hort-yards and gardens, wherewith gardeners make arbours, knots, and diuers deuiſes. Whereof be ſundry kindes. The Tarentine with ſmall leaues; ours of Italy with broader; and the Myrtle * Hexaſtica, which is very ful of leaues, and ordinarily each branch hath ſix rankes thereof. But theſe are altogether out of requeſt: both the other are full of boughes and branches. As touching the aboue named Conjugula, I ſuppoſe it be the ſame that our common Myrtle here in Italy. But the moſt odoriferous Myrtle of all others, is that which groweth in Ægypt.

* not Exotica, *Turneb.*

Now concerning the wine of Myrtles, *Cato* hath ſhewed vs the manner how to make it: namely, to take the black Myrtle berries, to dry them in the ſhade vntill they haue loſt all their wateriſh humidity, & ſo to put them in Muſt or new wine, & let them lie there infuſed, or in ſteep.
E For certainly, if the berries be not dried before, they would yeeld an oile from them. Howbeit, afterward there was a deuiſe found out to make a white wine of the white Myrtle in this maner. Take of Myrtles wel beaten or ſtamped, the quantity of two * Sextares, ſteep the ſame in three hemires or pintes of wine, and then ſtraine and preſſe forth the liquor.

* i. wine quarts

Moreouer, the very leaues of the Myrtle tree, being dried and reduced into a kinde of meale, are ſingular good for to cure the vlcers in mens bodies: for certaine it is, that this powder doth gently eat away and conſume the ſuperfluous humours that cauſe putrifaction. And beſides, it ſerueth well to coole and repreſſe immoderate ſweats. Ouer and beſides, the Oile alſo of Myrtles (a ſtrange and wonderfull thing to tell) hath a certaine relliſh and taſte of wine: and withall, the fat liquor thereof is indued with a ſpeciall and principall vertue to correct and clarifie Wines; if the bagges and ſtrainers where-through the wine runneth, bee firſt ſooked and
F drenched therewith: for the ſaid oleous ſubſtance retaineth and keepeth with it all the lees and dregges, and ſuffereth nothing but the pure and cleare liquour to paſſe through, and more than that, it carrieth with it the commendable odour and principall vertue of the ſaid oile. Furthermore, it is ſaid, That if a wayfaring man that hath a great journey for to goe on foot, carrie

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in his hand a ſticke or rod of the Myrtle tree, he ſhall neuer be weary, nor thinke his way long G
and tedious. Alſo *rings made of Myrtle twigs, without any edged iron toole, keep downe and
cure the ſwelling bunch that riſeth in the groine. What ſhould I ſay more? The myrtle inter-
medleth in war affaires: for *Poſthumius Tubertus*, being Conſull of Rome (who was the firſt that
entred in a petty triumph, ouant into the city, becauſe he had eaſily conquered the Sabines,
and drawne in manner no bloud of them) rode triumphant in this manner, to wit, crowned with
a chaplet of Myrtle, dedicated to *Venus Victoreſſe*; and from that time forward the Sabines (euen
his very enemies) ſet much ſtore by that tree, and held it in great reuerence. And euer after, they
that went but ouant into the city after a victory, ware this kind of garland only, except *M. Craſ-
ſus*, who after he had vanquiſhed the fugitiue ſlaues, and defeated *Spartanus*, marched in a coro-
net of Lawrel. *Maßurius* writeth, how Generals when they entred triumphant into Rome, riding H
in their ſtately chariots (which was the greateſt honor of all others) ware vpon their heads, cha-
plets of Myrtle. *L. Piſo* reporteth, That *Papyrius Maßo* (who firſt triumphed in mount Albanus
ouer the Corſians) vſed euer after to come vnto the games Circenſes, and to behold them, crow-
ned with a garland of myrtle. This *Papyrius* was grandfather by the mothers ſide, to the ſecond
Scipio Africanus. Finally, *M. Valerius*, according to a vow that he made in his triumphs, vſed to
weare coronets as well of Lawrell as Myrtle.

* *Virgei annuli.* But *Turnebus* readeth *Virgæ Faculi*, *i.* ſtaues or Iauelines made of their ſtreit boughs. And *Expertes ferri*, *i.* not headed with yron.

Chap. XXX.

¶ *Of the Lawrell or Bay tree, thirteene kinds thereof.*

LAwrel is appropriate vnto triumphs, and beſides groweth moſt pleaſantly before the gates I
of the Emperors court, and biſhops pallace; giuing attendance there as a dutifull portreſſe
or huiſſer, moſt decently. This tree alone both adorneth their ſtately houſes, & alſo keepes
watch and ward duly at the dores. *Cato* ſetteth down two kinds of Lawrel, to wit, the Delphick,
and the Cyprian. Hereunto *Pompeius Lenæus* hath ioined a third, which he called Muſtacea; be-
cauſe in old time they vſed to lay the leaues therof vnder certain cakes or March-panes (which
in thoſe daies they called Muſtacea) as they were in baking: this third kind hath leaues of all o-
thers largeſt, flaggy, hanging, and whitiſh withall. As for the Delphick, it carieth leaues of one
entire colour, greener than the reſt: the baies or berries thereof likewiſe are biggeſt, and of a red-
diſh green colour. With this Lawrell were they wont to be crowned at Delphos, who won the
priſe at any tournoy or ſolemne game; as alſo the victorious captains who triumphed in Rome. K
The Cyprian Lawrell hath a ſhort leafe, black, criſped, or curled, and about the ſides or edges
thereof it turneth vp hollow like a gutter or creſt-tile. Howbeit, afterwards there were ranged in
the rank of Lawrels other trees, to wit, the Tinus, which ſome take to be the wild Lawrel, others
ſay it is a kind of tree by it ſelf: indeed, it differeth from other Lawrels in the colour of the fruit;
for it beareth blew berries. Then came the roiall Lawrel in place, which began to be called Au-
guſta or Imperial. This is a very tal and big tree, with leaues alſo as large in proportion, and the
Baies or berries that it beareth are nothing ſharp biting and vnpleaſant in taſt. But ſome there
be that think this roiall Bay, is not a Lawrel, but a ſeuerall tree apart, as hauing longer & broa-
der leaues than the reſt of the ordinary ſort. And theſe writers ſpeaking of other kinds, call our
common Bay tree, Baccalia, and namely that which is ſo fruitful and beareth ſuch a ſort of ber- L
ries: as for the fruitleſſe and barren of that ſort they name Triumphal, which is, as they ſay, vſed
in triumphs. Whereat I maruell very much, vnleſſe this ordinance and cuſtom began of *Augu-
ſtus Cæſar*, by occaſion of that Lawrell which came to him as ſent from heauen (as I wil ſhew a-
non more at large;) and of all others it is for height loweſt, in leaf ſhort and frizled, very geaſon
and hard to be found. Now there is another kind of Lawrell named Taxa, very fit for greene ar-
bors, and to be wrought into knots. Out of the middeſt of the leafe there growes forth another
little one, in manner of a skirt, tongue, or lappet of the leafe. Alſo without any ſuch excreſſence
there is that, which they name Spadonia, as one would ſay, the guelded Bay, that cares not how
ſhadowie the place be where it grows: for be it neuer ſo remote out of the Sun, or ouerſhadow-
ed howſoeuer, yet it ceaſes not to grow & ouerſpread the ground where it ſtandeth. Moreouer, M
in this rank is to be reckoned the wild ſhrub called Lowrier or Chamædaphne. There is beſides
the Lawrell Alexandrina, which ſome call Idæa, [*i.* Mountaine Lawrel] others Hyppoglottion,
[*i.* Horſe tongue] ſome Daphnitis, others Carpophyllon or Hypelate. This plant putteth forth
branches

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A branches immediatly from the root, of a ſpan or nine inches long: very proper and handſom to draw workes, or to clad arbors withall in a garden, alſo to make garlands and chaplets. The leaues are more ſharp and pointed, ſofter alſo and whiter than thoſe of the Myrtle, yea, & haue within them a bigger grain or ſeed, of colour red. Great plenty therof groweth vpon the mountaine Ida, likewiſe about Heraclea in Pontus: and in one word, neuer but in hilly and mountain countries.

As for the herb Daphnoeides or Laureola, it hath many names: for ſome terme it Pelaſgum, others Eupetalon, and there are again who would haue it to be Stephanos Alexandri (*i. Alexanders* chaplet.) This plant alſo is full of branches, carrying a thicker and ſofter leafe than the common Lawrell: and if a man taſt therof, it will ſet both the mouth & alſo the throat on a fire:
B the beries that it beareth be blackiſh, inclining to a kind of red. It hath bin noted and obſerued in antient writers, that no kind of Lawrel in old time was to be found in the Iſland Corſica: and yet in theſe daies it is there planted, and thriueth well enough. The Lawrell betokeneth peace: inſomuch, as if a branch therof be held out among armed enemies, it is a ſigne of quietnes and ceſſation from armes. Moreouer, the Romans were wont to ſend their miſſiue letters adorned with Lawrell, when they would giue aduertiſement of ſome ſpecial good newes or ioiful victory: they vſed beſides to garniſh therewith their lances, pikes, and ſpears. The knitches alſo and bunches of rods, born before grand captains and generals of the army, were beautified & ſet out with Bay branches. Herewith they ſtick and bedecke the boſome of that moſt great and gracious *Iupiter*, ſo often as there commeth glad tidings of ſome late & freſh victory. And all this
C honor is don to the Lawrell, not becauſe it is alwaies green, nor for that it pretendeth and ſheweth peace (for in both theſe reſpects the oliue is to be preferred before it) but in this regard, that the faireſt and goodlieſt of them grow vpon the mountain Pernaſſus: and therefore alſo is it ſo acceptable to *Apollo*, for which cauſe (as may appeare by *L. Brutus*) the Roman kings in old time were accuſtomed to ſend great preſents and oblations thither to the temple of *Apollo*: or peraduenture it was in memoriall of that ground that bare Lawrell trees, and which according to the Oracle of *Apollo*, the ſaid *L. Brutus* kiſſed, when he intended the publicke freedom of the city, and minded to deliuer it from the yoke and ſeruitude of the kings: or haply, becauſe it alone either ſet with the hand before the dores, or brought into the houſe, is not blaſted and ſmitten with lightning. And theſe reaſons verily induce me to beleeue, that in times paſt they choſe the
D Bay tree for their triumphs, before any other: rather than as *Maſſurius* would haue it, becauſe the Lawrell ſerued for a ſolemne perfume, to expiate and aſſoile the carnage and execution don vpon the enemies. And ſo far were men in old time from common vſing either Lawrell or oliue, and polluting the ſame in any prophane vſe, that they could not be permitted to burne thereof vpon their altars when they ſacrificed or offered Incenſe, although it were to doe honour to the gods, and to appeaſe their wrath and indignation. Euident it is, that the Bay tree leaues, by their crackling that they make in the fire, do put it from them, and ſeem to deteſt and abhor it. It cureth moreouer the diſeaſes of the guts [the matrice and the bladder] alſo the laſſitude and wearineſſe of the ſinews. It is reported, that *Tiberius Cæſar* the Emperor vſed euer to weare a chaplet thereof when it thundered, for feare of being ſtrucken with lightening.

E Moreouer, certaine ſtrange and memorable euents as touching the Bay tree, haue happened about *Auguſtus Cæſar*. For *Liuia Druſilla* (who afterwards by mariage with the ſaid *Auguſtus*, became Empreſſe, and was honored with the title of *Auguſta*) at what time as ſhe was affianced and eſpouſed to *Cæſar*, chanced as ſhe ſat ſtill, to haue an exceeding white hen to light into her lap (which an Ægle flying aloft, let fall from on high) without any harme at all to the ſaid pullet. Now when this lady or princeſſe aduiſed & conſidered wel the hen, without being aſtonied and amazed at ſo ſtrange & miraculous a ſight, ſhe perceiued that the hen held in her bill a lawrell branch full of Bay berries. The Wiſards and Soothſaiers were conſulted withall about this wonderful occurrent, and gaue aduiſe in the end to preſerue the bird and the brood therof: likewiſe to ſet in the ground the foreſaid branch, and duly to tend and look vnto it. Both the one and the other was done and excecuted accordingly, about a certain houſe in the country belon-
F ging to the *Cæſars*, ſeated vpon the riuer Tyberis, neere the cauſey or port way Flaminia, about nine miles from Rome: which houſe therupon was called, Ad Gallinas, as a man would ſay, The ſigne of the Hens. Well, the foreſaid branch mightily proſpered, and proued afterwards to be a groue of Laurels, which all came from the firſt ſtock. In proceſſe of time, *Auguſtus Cæſar* when

he

he entred in Triumph into Rome, caried in his hand a branch of that Bay tree, yea, and wore a chaplet vpon his head of the same: and so did all the Emperors and *Cæsars* his successors after him. Hereof also came the custome to set againe and replant those branches of Lawrel that emperors held in their hands when they triumphed; & therof continue whole woods & groues distinguished each one by their seuerall names, and perhaps therefore were they named Triumphall. This is the only tree known in the Latine tongue, whereof a man beareth the name. Againe, there is not another tree besides that hath the leafe to cary in the Latine tongue a denomination and name by it selfe apart, as well as the tree: for whereas the plant is named Laurus, the leafe we call Laurea. Moreouer, there is a place likewise within the city of Rome on mount Aventine, retaining stil the name Loretum, which first was imposed vpon it by reason of a lawrell groue which grew there. The Bay tree also is vsed in solemne purifications before the gods: and to conclude, this would be resolued and agreed vpon by the way, That if a branch therof be set, it will prosper and become a tree; although *Democritus* and *Theophrastus* make some doubt thereof. Thus much of Lawrels and other domesticall and natiue trees: it remaineth now to write of those that be wild and sauage, and of their natures.

THE SIXTEENTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proeme.

HItherto haue we treated of those Trees that beare Apples and such like fruits: which likewise with their mild iuice and sweet liquors made our meats first delightsome, and taught vs to mingle together with the necessarie food for sustentation of our liues, that which maketh it delicate and pleasant to content our taste: as well those trees that naturally were so in the beginning, as those which through the industry and skill of man, what by graffing and what by wedding them (as it were) to others, became toothsome, and delectable to our tongue: whereby also we haue gratified in some sort wild beasts, and done pleasure to the foules of the aire. It followeth now by order, that we should discourse likewise of trees that beare Mast, those trees (I say) which ministred the first food vnto our forefathers, and were the nources that fed and cherished mankind in that rude wild age and poore infancie of the world: but that I am forced to break the course of mine history, and preuented with a deep study and admiration arising from the truth and ground of experience, to consider, What maner of life it might be, to liue without any trees or shrubs at all growing out of the earth.

Chap. I.

¶ *Of Nations that haue no Trees nor Plants among them. Of wonderfull trees in the Northerly regions.*

WE haue shewed heretofore, that in the East parts verily toward the maine Ocean, there be many countries in that estate, to wit, altogether destitute of trees. In the North also I my selfe haue seene the people called * Cauchi, as well the greater as the lesse (for so they be distinguished) where there is no shew or mention at all of any tree whatsoeuer. For a mightie great compasse, their Country lieth so vnder the Ocean, and

*1. The Low-countries of Zeland, &c.

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A and ſubiect to the tide, that twice in a day & night by turns, the ſea ouer floweth a mighty deale of ground when it is floud, and leaues all dry again at the ebbe & return of the water: inſomuch, as a man can hardly tell what to make of the outward face of the earth in thoſe parts, ſo doubtfull it is between ſea and land. The poore ſilly people that inhabit thoſe parts, either keep together on ſuch high hils as Nature hath afforded here and there in the plain: or els raiſe mounts with their own labor and handy work (like to Tribunals caſt vp and reared with turf, in a camp) aboue the height of the ſea, at any ſpring tide when the floud is higheſt; and thereupon they ſet their cabbins and cottages. Thus dwelling as they do, they ſeeme (when it is high water, & that all the plain is ouerſpread with the ſea round about) as if they were in little barks floting in the midſt of the ſea: againe, at a low water when the ſea is gone, looke vpon them, you would take
B them for ſuch as had ſuffered ſhipwracke, hauing their veſſels caſt away, and left lying ato-ſide amid the ſands: for ye ſhall ſee the poore wretches fiſhing about their cottages, and following after the fiſhes as they go away with the water: they haue not a four-footed beaſt among them; neither inioy they any benefit of milk, as their neighbour nations do: nay, they are deſtitute of all meanes to chaſe wild beaſts, and hunt for veniſon; in as much as there is neither tree nor buſh to giue them harbor, nor any neare vnto them by a great way. Sea-weeds or Reike, ruſhes and reeds growing vpon the waſhes and meers, ſerue them to twiſt for cords to make their fiſhing nets with. Theſe poore ſouls and ſilly creatures are faine to gather a ſlimy kinde of fatty mud or oaſe, with their very hands, which they drie againſt the wind rather than the Sun: and with that earth, for want of other fuell, they make fire to ſeeth their meat (ſuch as it is) and heat the
C inward parts of their body, ready to be ſtarke and ſtiffe againe with the chilling North winde. No other drink haue they but rain water, which they ſaue in certain ditches after a ſhower, and thoſe they dig at the very entry of their cottages. And yet ſee! this people (ſs wretched and miſerable a caſe as they be in) if they were ſubdued at this day by the people of Rome, would ſay (and none ſooner than they) that they liued in ſlauerie. But true it is, that Fortune ſpareth many men, to let them liue ſtill in paine and miſery. Thus much as touching want of woods and trees.

On the other ſide, as wonderfull it is to ſee the mighty forreſts at hand thereby, which ouerſpread all the reſt of Germany: and are ſo big, that they yeeld both cooling and ſhade to the whole countrey: yea, the very talleſt woods of all the reſt are a little way vp higher in the coun-
D trey, and not farre from the Cauchi aboueſaid: and eſpecially thoſe that grow about the two great loughes or lakes in that tract. Vpon the banks wherof, as alſo vpon the ſea-coaſts, there are to be ſeene thick rows of big Okes, that loue their ſeat paſſing wel, and thriue vpon it in growth exceeding much: which trees happening to be either vndermined by the waues and billowes of the ſea vnder them, eating within their roots, or chaſed with tempeſtuous winds beating from aboue, carry away with them into the ſea (in manner of Iſlands) a great part of the Continent, which their roots doe claſpe and embrace: wherewith being counterpoiſed and ballaiſed, they ſtand vpright, floting and making ſaile (as it were) amid the waues, by the means of their mighty armes which ſerue in ſtead of tackling. And many a time verily, ſuch Okes haue frighted our fleets and armadoes at ſea, and eſpecially in the night ſeaſon, when as they ſeemed to come di-
E rectly againſt their proes ſtanding at anker, as if of purpoſe they were driuen vpon them by the waues of the ſea: inſomuch, as the ſailers & paſſengers within, hauing no other means to eſcape them, were put to their ſhifts, and forced for to addreſſe themſelues, and range a nauall battell in order, and all againſt trees, as their very enemies.

Chap. II.

¶ *Of the huge and great Foreſt Hercynia*

IN the ſame North climat is the mighty forreſt Hercynia. A huge and large wood this is, ſtored with tall and big Okes, that neuer to this day were topt or lopt. It is ſuppoſed they haue been euer ſince the creation of the world, and (in regard of their eternall immortality) ſur-
F mounting all miracles beſides whatſoeuer. And to let paſſe all other reports which happely would be thought incredible, this is knowne for certain, That the roots of the trees rhere, run and ſpread ſo far within the ground, that they encounter and meet one another: in which reſiſtance they ſwell and riſe vpward, yea, and raiſe vp mounts of earth with them to a good height

in

in many places: or, where as the earth followes not, a man shal see the bare roots embowed archwise, and mounting aloft as high as the very boughes: which roots are so interlaced, or els rub one against the other, striuing (as it were) not to giue place, that they make a shew of great portailes or gates standing open so wide, that a whole troupe or squadron of horsmen may ride vpright vnder them in ordinance of battell. G

Chap. III.

¶ *Of trees bearing Mast.*

MAst tres they were all, for the most part, which the Romanes euer so highly honoured and held in best account. H

Chap. IV.

¶ *Of the Ciuicke garland: and who were honoured with chaplets of Tree-leaues.*

FRom Mast trees (and the Oke especially) came the Ciuicke coronets. And in very truth, these were the most honorable badges and ornaments that could possibly be giuen vnto souldiers and men of war, in regard of their vertue and man-hood: yea, and now for a good while, our Emperors haue had this chaplet granted vnto them, in token and testimony of clemency: euer since that by our prophane and vnkind ciuill wars the world is grown to this passe, that it is reputed a singular demerit and gracious act, not to kill a citizen of Rome, but to let him liue. To this kind of garland, none other be comparable: for the Murall and Vallare coronets (bestowed vpon them that either skaled the walls, or entred the breach first into an enemy city, or els mounted ouer the rampier of a camp) albeit they were of gold, and of greater price by far, yet they gaue place to these. Yea, the very Nauall coronets, fashioned like the three forked pikes of ship beake-heads (wherewith they were honored, who had performed some braue seruice at sea) came behind these Ciuicke garlands, due to them who haue rescued citizens and saued them out of the enemies hands: and yet in these our daies there haue bin knowne two in that kind most renowned aboue the rest; whereof the one was bestowed vpon. *M. Varro* by *Pompey* the Great, for defeating the pyrats, and for scouring and clearing the seas of them: the other likewise giuen to *M. Agrippa*, by [*Augustus*] *Cæsar*, for vanquishing the Sicilians, who also were no better than rouers. I K

Now forasmuch as we are light vpon the mention of Naual or Rostrate coronets, this would be noted, That in old time the said brasen beake-heads of ships woon from the enemies, and set vpon the front of the Tribunall or publick pulpit in Rome, serued for an ornament to beautifie the Forum or common place of the city; so as the very body of the people of Rome seemed to be crowned and honored thereby. But after that the Tribunes in making seditious orations began to stamp and fare like mad men there, to trample (I say) vnder foot, and to pollute that sacred place and those goodly ensignes; after that they sel once euery man to make his priuat and particular profit of the common good, without regard to aduance the weale publick; after that each one sought to strengthen and arm himself by the benefit of authority, and that to the weakening of the main state, insomuch as they who were reputed by their place sacrosanct and inviolable, polluted and prophaned all: then the said ornaments of beak-heads, which beautified the place vnder their feet, serued to adorne the heads of Roman citizens. So as, to returne again now to the aboue named *Agrippa*, *Augustus Cæsar* gaue vnto him a Nauall coronet for subduing the Sicilian Pyrats: and himselfe receiued of mankind a Ciuick chaplet, for sparing the bloud, and sauing the liues of so many citizens. L

In antient time they vsed to crowne none but the gods. And hereupon it is, that the Poet *Homer* speaketh of no garlands and chaplets but due to the celestiall & heauenly wights, or at leastwise in the name of a whole army, for victory atchieued in some notable battell: for to one man alone he alloweth not any, no not in regard of the better hand in combate or single fight. And to say a truth, the first that euer set a Garland vpon his owne head, was prince *Bacchus*, and the same was made of Iuie: but afterwards, those that sacrificed to the honour of gods, not only ware chaplets themselues, but also adorned therwith the heads of the very beasts which were appointed to be killed for sacrifice. In the end, the custome was taken vp to honour them with M

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A garlands,who wan prizes at thoſe ſacred and ſolemne games,Olympia,Iſthmia,Pythia,and Nemœa. Howbeit the manner was then,and ſo continueth to this day,To giue chaplets to the ſaid victors,not in their own name,but in the behalfe of their natiue country,which by open proclamation they pronounce to be crowned and honored thereby. And hereof it came alſo,that ſuch coronets and chaplets were granted to them that ſhould triumph, yea and ſoone after to thoſe alſo who had won the priſe in any publick games,vpon condition to dedicate them to the temple of the gods.

To diſcourſe what Roman citizen receiued this honor firſt of a chaplet or coronet, were a long peece of worke,and nothing pertinent to our purpoſe and matter in hand;conſidering that they were acquainted with none at all,but in regard of ſeruice performed in the wars. Yet thus
B much I may auer for certain, That no nation vnder heauen,nay put them all together, can ſhew ſo many ſorts of chaplets and coronets,as this one ſtate and people of Rome. K. *Romulus* crowned *Hoſtus Hoſtilius* with a garland of bare greene leaues,for that in the forcing and ruining of Fidena,he brake firſt into the city and made way for the reſt. This man was grandſire to *Tullus Hoſtilius* king of Rome. Semblably in the war againſt the Samnites,wherein *Cornelius Coſſus* the Conſull was L. Generall,the whole army crowned *P. Decius* the father with a chaplet of green leaues,who then was a martiall Tribune or Colonell ouer a regiment of ſouldiers, for that hee had ſaued and deliuered the ſaid army.

But now to come againe to our Ciuicke garland, it was made at firſt of the Ilex or Holme tree leaues: afterwards men tooke a better liking to make it of the Æſculus,a tree conſecrated to *Iupiter*. They ſtaied not there,but changed ſoone after with the common oke; neither made
C they any preciſe choiſe,but tooke the leaues of that which came next hand, whereſoeuer they found it growing;prouided alwaies that it bare acorns: for all the honor of theſe garlands conſiſted principally in the maſt. Moreouer,there belong to theſe Ciuick garlands ſtreight laws and ordinances,in which regard theſe chaplets be proud and ſtately: and we may be bold to compare them with that Paragon-coronet of the Greeks,which paſſeth al others,giuen ſolemnly and publiſhed in the preſence of *Iupiter*, and made of the wilde Oliue dedicated vnto him: comparable (I ſay) to any crowne or chaplet whatſoeuer; euen to that, for which a city in token of ioy,would not ſtick to lay open a * breach in their very wall to receiue it when it ſhould enter in. The lawes ordained in this behalfe run in this forme: *Imprimis,He that is to enioy the honour of a Ciuicke chaplet, ought, firſt to haue reſcued a citizen, and withall to kill the enemie in whoſe*
D *danger hee was. Item, It is required, That the enemies the ſame day held the verie ground and were Maſters hereof,wherein the reſcue was made and the ſeruice performed. Item, That the partie himſelfe ſo ſaued,doe confeſſe the thing, for otherwiſe all the witneſſes in the World auaile not in this caſe. Item, the man thus deliuered, muſt bee a free Citizen of Rome in anie hand: for ſet caſe that hee were a King which was thus reſcued, if hee were a ſtranger, and came onely amongſt the auxiliaries to aide the Romanes, it would not boot, nor gaine any man this honour for to ſaue his life. Item, Say that the Generall himſelfe were reſcued and deliuered out of danger, the partie for his good ſeruice ſhould haue no more honour done vnto him, than if hee had preſerued but a ſimple common ſouldier, ſo hee were a Romane Citizen: for the makers of theſe ordinances aimed chiefely at the life of a Citizen whoſoeuer hee was, without regard of any other circumſtance. Item, Hee that was once crowned with this garland, was endued alſo with*
E *theſe priuiledges: That hee might weare it alwaies after, whenſoeuer it pleaſed him: That ſo often as hee came in place of publicke playes or games, men ſhould accuſtomably riſe vp vnto him, yea, and the verie Senatours themſelues, doe him honour in that ſort: That hee ſhould haue his place allowed him to ſit next vnto thoſe of Senatours degree: That both himſelfe, and alſo his father and grandſire by the fathers ſide, ſhould euer after bee exempt from all ciuile charges, and inioy full immunitie.* Thus much concerning the lawes and priuiledges attending vpon the Ciuicke garland. *Siccius Dentatus* (as wee haue ſpecified before) receiued foureteene of theſe chaplets for his good ſeruice: [*Manlius*] *Capitolinus* ſix,and hee verily had one of them for reſcuing *Seruilius* beeing Generall of the Armie. As for *Scipio Africanus*, hee refuſed this honour when it was offered and preſented vnto him, for ſauing the life of his owne father at the iourney and battaile of Trebia. O the excellent orders and cuſtomes of thoſe times, worthie of immortalitie and euerlaſting memorie!
F O the wiſdome of men in thoſe daies, who aſſigned no other reward for ſo braue exploits and ſingular workes,but honour onely? And whereas all other militarie coronets they enriched and adorned with gold, they would not ſet the life of a citizen at any price. A plaine and euident

* As the manner was to receiue the *Hieronicæ*.

profeſſion of our anceſtors and predeceſſors, That it is an vnlawfull and ſhameful thing to ſeem G
for to ſaue a mans life, in hope of any gaine and profit thereby.

Chap. V.

¶ *Of Maſt, thirteene kinds.*

MAny nations there be euen at this day, and ſuch as inioy peace and know not what warre meaneth, whoſe wealth and riches lyeth principally in Maſt: yea and elſwhere in time of dearth and for want of other graine, folke vſe to dry their maſt, grind it into meale, temper it with water, and thereof make dough for bread. Moreouer, euen at this day throughout Spaine, the manner is to ſerue vp acornes and maſt to the table for a ſecond ſeruice: and ſweeter it is being roſted vnder the cinders and aſhes, than otherwiſe. Ouer and beſides, prouided it H
is by an expreſſe act and law of the twelue tables in Rome, that a man may gather the maſt that falleth from his owne trees into another mans ground.

Diuers and ſundry ſorts there be of Maſt, and their difference conſiſteth in the forme and faſhion of the fruit, in the ſite and ſcituation of the place, in the ſex, and in the taſte: for the maſt of the Beech tree is of one figure and making, the Acorne (which is the maſt of the Oke) another; and the maſt of the Holme or Ilex, differeth from them both: yea & in euery one of theſe kinds, they do vary one from another. Alſo, ſome are of trees growing wild; others more milde and gentle, louing places well tilled and ordered by husbandry. Some like the hilly countries, others the champaine and the plains. Semblably there is maſt comming from the male trees: there is againe that groweth on the female. In like maner, the relliſh & taſt maketh a difference I
and diuerſity in maſt. The ſweeteſt of all, is the Beech maſt: for *Cornelius Alexander* reporteth, That the inhabitants of Chios, when they were ſtreightly beleaguered, indured the ſiege a long time by the benefit & ſubſtance only of that maſt. We are not able diſtinctly to ſpecifie name by name, the ſundry ſorts of maſt and the trees which beare the ſame, conſidering that in euery countrey they alter their names: for we ſee the Robur and the Oke to grow commonly euerie where, but the Eſculus is not ſo rife in all countries. A fourth ſort there is of the ſame kind, that is not known ordinarily in moſt places of Italy. We will therefore diſtinguiſh them according to their nature and properties: yea and when need ſhall require, by their Greeke names alſo.

Chap. VI. K

¶ *Of the Beech maſt, and other Maſts: of Charcole; and the feeding of Hogs.*

THe Beech maſt is like to the kernell of a Cheſtnut, incloſed within a three cornered skin. The leafe of the tree is thin and very light, reſembling that of the Poplar: it turneth yellow paſſing ſoone. In the middle whereof, for the moſt part, and in the vpper ſide, it bringeth forth a little green berrie, pointed ſharpe at the toppe. The maſt of Beech, Rats and Mice are much delighted in: mark therfore when there is ſtore of that maſt, ye ſhal haue as great increaſe of that vermin. It will feed alſo Reremice or Dormice fat: and the Ouſels or Blackbirds take a great liking thereto, and wil flie vnto it. Lightly, all trees are moſt fruitful one yere than another, and beare moſt euery ſecond yeare; but aboue all, Beeches keepe this courſe. As touching L
Maſt (which properly is ſo called) it groweth vpon the Robur, the common Oke, the Eſculus, Cerrus, Ilex, and Cork tree. All kinds of maſt are contained more or leſſe, within a rough cup, which lieth cloſe to the vtmoſt skin rhereof, & claſpeth it about. The leaues of all theſe maſt trees, except the maſt-Holme Ilex, be heauy, fleſhie, large, waued or indented along the ſides, neither be they yellow when they fall, as the Beech leaues are; longer alſo or ſhorter, according to the diuers trees whereupon they grow.

Of the Ilex or maſt-Holme tree, there be two ſorts. Thoſe in Italy differ not much in leafe from the Oliue. Some Greeks call them Smilaces, but in other prouinces Aquifoliæ. The maſt of Ilex, both the one and the other, is ſhorter and ſlenderer than of the reſt. *Homer* calleth it Acylon, by which name he diſtinguiſheth it from other maſt. The male Holmes (men ſay) beare M
no fruit. The beſt maſt and the biggeſt, is the Acorn growing vpon the common Oke: next to it is that of the Eſculus: as for that of the Robur, it is but ſmall. The Cerrus carieth a maſt vnpleaſant to the eie, and rough to be handled, for clad it is with a cup beſet with ſharpe prickes like

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A to the Cheſtnut ſhell. Among the ver / Acornes, ſome haue a ſweeter taſt than others: the female Oke beareth thoſe that be more ſoft and tender; the male, tough, thick, and maſſie: and the beſt ſimply are thoſe that come of the broad leafed Oke, for ſo it is called by reaſon of the large leaues. Moreouer, there is another difference in maſt and acornes, for ſome be bigger than others; againe, there are that haue thin and fine skins incloſing the kernel; and ye ſhal find others for them as thick skinned; likewiſe many of them are couered with a rough and ruſtie tunicle; and as many againe do ſhew immediatly their bare white skin and naked fleſhy ſubſtance. Furthermore, that maſt is accounted good, which at both ends (taking it long-waies) groweth hard in manner of a ſtone: howbeit that which hath an hard ſhell without, and a ſoft body within, is better than that which is hardened in the carnous ſubſtance of the body; and lightly neither of both theſe qualities happeneth to any but the male kind. Ouer and beſides, ſome you ſhall find
B faſhioned long like an egge, others as round as a ball, and a third ſort ſharp pointed. The outward colour alſo yeeldeth variety: for ſome be blacker than other, but the whiter commonly be the better ſet by. Some are bitter toward the ends, and ſweet in the mids. The length alſo & the ſhortneſſe of the ſtele or taile whereto they hang, maketh a difference. The very tree it ſelf cauſeth diuerſity of the fruit: for that Oke which beareth the biggeſt maſt, is named Hemeris. A ſhorter tree this is than the reſt, with a round head, and putting forth many hollow arm-pits (as it were) of boughes and branches. The wood or timber of the ordinary and common Oke is tougher and harder than that of others, and leſſe ſubiect to putrifaction: ful of arms & boughes it is, as the other, but it groweth taller and is thicker in the body. The higheſt of all, is the Ægilops, which loueth to grow in wild and deſart places. Next to it for talneſſe, is the broad leafed
C Oke, but the timber therof is not ſo good and profitable for building, how ſoeuer it be imploied for to make charcole: yet being once ſquared to that purpoſe, & cleft, it is ſubiect to the worm, and will ſoon rot: and for this cauſe, being in quarters, they vſe not to make cole of it clouen, but of the ſolid and round boughs or branches thereof. And yet this kind of charcole ſerueth only the Bloom-ſmithies and furnaces; the hammer-mills alſo of braſſe and copper-ſmithes, whom it ſtandeth in great good ſtead and ſaueth them much fewell; for it burneth and conſumeth no longer than the bellowes goe: let them leaue blowing once, preſently the cole dieth; and ſo it laſteth long: for at euery new blaſt it is renewed againe and refreſhed: otherwiſe it ſparkleth very much and yeeldeth many cinders. But the charcole made of yong trees is the better.
D Now the maner of making them is this: when the wood is cut into many clefts & ſplents, freſh and green, they are heaped vp on high, and hollow, in manner of a furnace or chimney, and then well luted with clay in the top, and all about: which done, the pile of truncheons aforeſaid, is ſet on fire within; and as the outward coat or cruſt of clay beginneth to wax hard, the workemen or colliers pierce it with poles and pearches, and make diuers holes therein for vent, and to let out the ſmokie vapor that doth ſweat and breath from the wood. The worſt of all other for timber or cole, is the oke named Haliphleos; a thicke barke it hath, and as big a body, but for the moſt part hollow and light like a ſpunge or muſhrom: and there is not another beſides it of all theſe kind of trees, that rotteth as it ſtands aliue. Beſides, ſo vnfortunate it is, that the lightning ſmiteth it, as low as it groweth; for none of them ariſeth to any great height: which is the cauſe that it is not lawfull to vſe the wood thereof about the burning of any ſacrifice. Seldome beareth it
E any Acorns, and thoſe few that it hath, be exceeding bitter, ſo as no other beaſt will touch them but ſwine again; nor they neither, but for pure hunger, when they can meet with no other food. Moreouer, in this regard alſo reiected it is, and not emploied in any religious vſe, for that without blowing at the wood and cole thereof continually, it will not burne cleare and conſume the ſacrifice, but goeth out and lieth dead.

But to returne vnto our maſt againe: that of the Beech tree feedeth ſwine quickely, maketh their fleſh and lard faire and pleaſant to the eie, tender to be ſoone ſodden or roſted, light and eaſie of digeſtion, and good for the ſtomacke. The maſt of the Holme cauſeth hogs to gather a more faſt and compact fleſh, their bodies to be neat, ſlender, lanke, and ponderous. Acornes doe engender a fleſhy ſubſtance, more ſquare and ſpreading, and the ſame alſo moſt heauy and har-
F deſt of digeſtion, and yet they are of all other kinds of maſt, moſt ſweet and pleaſant. Next to them in goodneſſe (by the teſtimony of *Nigidius*) is that of the tree Cerrus, neither is there bred of any other a courſer fleſh, howbeit hard it is, faſt, and tough. As for the maſt of Ilex, hogs are endangered by eating thereof, vnleſſe it be giuen them warily by little and little. Hee ſayth

moreouer,that of all other it falleth laſt. Moreouer,the maſt of Eſculus, Robur,and the Corke, G
cauſeth the fleſh to be ſpungeous and hollow. To conclude,what trees ſoeuer beare maſt, carry alſo certaine nuts called Galls:and lightly they are full of maſt but each other yeare. But the oke Hemeris beareth the beſt gals,and fitteſt for the curriors to dreſſe their leather. The broad leafed Oke hath a kinde of Galls like vnto it, but lighter in ſubſtance,and not ſo good by far: it carrieth alſo blacke galls(for 2 ſorts there be)and this is better for the dier to colour wooll.

Chap. VII.

¶ *Of the Gall-nuts : and how many other things Maſt-trees doe beare beſides Maſt.*

THe nuts called Galls,do euer breake out all at once in a night, and namely about the be- H
ginning of Iune,when the Sun is ready to goe out of the ſigne Gemini. The whiter ſort thereof commeth to the growth in one day : and if in the firſt ſpring and breaking foorth thereof it be hot weather,it drieth and withereth out of hand,and commeth not to the full bigneſſe and perfection,namely to haue a kernell as much as a bean. The blacke of this kind continueth longer freſh and green,and groweth ſtill, to the bigneſſe otherwhiles of an apple. The beſt galls be thoſe of Comagena : the worſt is that of the oke called Robur,which are knowne by the holes they haue,that may be ſeen through. The common oke Quercus,ouer and beſides the fruit(which is the maſt)beareth many other things;for it carieth both ſorts of gal,the black and the white:certaine berries alſo like Mulberries, but that they be dry and hard, reſembling I
for the moſt part a buls head,containing within them a fruit much like the kernels of the oliue. Moreouer,there grow vpon it certain little bals not vnlike to nuts,hauing ſoft flox within good to make candle-wiek or matches for lamps;for burn they wil without any oile,like as the black Gals. It beareth alſo other little pils or balls good for nothing,couered ouer with haire, & yet in the ſpring time they yeeld a certain juice or liquor like hony. Furthermore, there breed in the hollow arm-pits(as it were)of the boughes,other ſmall pills ſetled or ſticking cloſe to the wood,and not hanging by any ſteles,which toward the nauill or bottome thereof are whitiſh; otherwiſe they be ſpeckled all ouer with black ſpots, ſaue that in the mids between they are of a ſcarlet red colour:open them,and hollow they are within,but very bitter. Somtimes alſo this oke engendreth certain hard calloſities,like Pumiſh ſtones;yea and other round balls made of the leaues folded one within another : on the backeſide alſo of the leafe where it is reddiſh, yee K
ſhal find ſticking certain wateriſh pearls,white and tranſparent or cleare within,ſo long as they be ſoft and tender,wherein there breed little flies or gnats : howbeit in the end they ripen and wax harder,in manner of Galls.

Chap. VIII.

¶ *Of the Catkin called Cachrys : the graine of Scarlet : of Agaricke,and Corke.*

THe Oke called Robur,bringeth forth likewiſe a certaine pendant chat or catkin,named in Greeke Cachrys:for ſo they terme the little pill,which is of a burning and cauſticke Na- L
ture,and whereof there is vſe in Phyſick for potentiall cauteries. The like groweth vpon Firres,Larch trees,Pitch trees,Lindens or Tillets,Nut-trees,and Planes,namely after that the leaues be falne;and abideth vpon the tree in winter time. Theſe chats haue a kernel within like to thoſe of the Pine-nuts. It beginneth to grow in winter,& by the ſpring time al of it openeth and ſpreadeth to the proofe;but when the leaues begin to bud and put forth,it falleth off. Thus you ſee how fruitfull theſe okes be,and how many things beſides maſt,they do bring forth:and yet they ceaſe not nor giue ouer thus, for many times a man ſhall ſee certaine excreſcences growing forth about their roots,ſuch as toadſtools & muſhroms;the laſt deuiſes that our gluttons haue inuented to whet their appetite and ſtomacke,and to maintaine gourmandize. The common Oke breedeth the beſt of this kind : as for thoſe that grow about the Oke Robur, the M
Cypreſſe,and Pine-tree,they are hurtfull to be eaten,and venomous. Moreouer, *Heſiodus* ſaith, that the Okes Robora do beare Miſelto,and yeeld hony. True it is indeed, that the hony-dewes called Manna,falling from heauen(whereof we haue ſpoken before) light not vpon any other

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A leaues more than of thoſe okes. Moreouer, this is known for certain, that the aſhes of this Oke when it is burnt, hath a quality or taſte of nitre or ſalt-peter.

Howbeit for all the riches and fruit that the Oke affourdeth, the Scarlet grain alone which commeth of the Ilex, challengeth yea and ouermatcheth it. This graine is no other than a very excrement or ſuperfluity ariſing about the ſtem of the ſmall ſhrub called Ilex Aquifolia, ſcraped and pared off from it, like ſuch refuſe as they Cuſculium or Quiſquilium: but of ſuch price it is, that the poore people of Spaine gather it, & make a good part of their reuenew thereby, euen as much as will pay halfe their tribute. As touching the commendable vſe thereof in dying, we haue ſufficiently ſpoken in the diſcourſe of the purple tincture. This ſcarlet grain is ingendred alſo in Galatia, Africa, Piſidia, and Cicilia. But the worſt of all other is that which
B commeth out of Sardinia.

As for Agaricke, it groweth in France principally vpon trees that beare maſt, in manner of a white muſhrom: of a ſweet ſauor, very effectuall in Phyſicke, and vſed in many Antidotes and ſoueraigne confections. It groweth vpon the head and top of trees: it ſhineth in the night, and by the light that it giueth in the darke, men know where and how to gather it.

Of all Maſt-trees, the Oke called by the Greeks Ægylops, beare certaine drie excreſcences ſwelling out like Touch-wood, couered all ouer with a hoary & hairy moſſe, and theſe not only beare out from the bark of the fruit, but alſo hang downe from the boughes a cubit in length: and odoriferous they are, as we haue ſhewed in our treatiſe of Ointments.

Now concerning Corke, the wooddy ſubſtance of the tree is very ſmall, the maſt as bad, hol-
C low, ſpungeous, and good for nothing. The barke only ſerueth for many purpoſes, which will grow again when the tree is barked, & that of ſuch a thicknes, that it will beare 10 foot ſquare. Much vſe there is of it in ſhips, & namely for boys to anere cables; alſo for flotes to trainels or dragnets that fiſhers do occupy: moreouer in bungs & ſtoppels of barrels, bottles, and ſuch like veſſels. Finally, our gentlewomen and dainty dames haue the ſoles of their pantofles & winter-ſhooes vnderlaid therewith. In regard of which barke, the Greeks call it by a pretty name, and not improperly, The bark tree, or the tree all barke. Howbeit ſome would haue it to be the female Ilex or Maſt-Holm, and ſo they name it: and where there groweth no Ilex, in ſtead thereof they take Corke, eſpecially in Carpentry, and cart-wrights worke, as about Elis and Lacedæmon. Neither groweth it in all parts of Italy, ne yet in any one quarter of France.
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Chap. IX.

¶ *What trees they be that carry barke good for any vſe.*

THe peiſants of the countrey and the ruſticall people employ much, the barke alſo of Beeches, Lindens or Tillets, Firs, and Pitch trees; for thereof they make ſundry veſſells, as paniers, baskets, and certain broad and wide hampers for to carry their corn and grapes in time of harueſt and vintage, yea and otherwhiles they couer their cottages therewith. Moreouer, ſpies vſe to write in barks (when they be freſh and greene) intelligences to their captaines, grauing and drawing their letters ſo, as that the ſap and iuice thereof couereth them. To con-
E clude, the bark of the Beech tree is vſed in certain religious ceremonies of ſacrifice: but when the tree is ſpoiled of the bark, it ſoone fadeth and dieth.

Chap. X.

¶ *Of Shindles: of the Pine tree, the wilde Pine, the Fir, Pitch tree, Larch tree, Torch tree, and the Yew.*

THe bourds or ſhindles of the wild Oke called Robur, be of all others ſimply the beſt: and next to them, thoſe which are made of other maſt-trees, and eſpecially of the Beech. The ſhindles are moſt eaſily rent or clouen out of all thoſe trees which yeeld Roſin, but ſetting
F aſide the Pine-wood only, none of them are laſting. *Cornelius Nepos* writeth, that the houſen in Rome were no otherwiſe couered ouer head but with ſhindles, vntil the war with K. *Pyrrhus*, to wit, for the ſpace of 470 yeres after the foundation of the city: and of a truth, the chiefe quarters of Rome were diuided & diſtinctly named by certain woods and groues neere adioining. And euen at this day there remaineth the quarter of *Iupiter Fagutalis*, where ſometime ſtood a tuft or

groue of Beeches: also the gate Querquetulana, bearing the name of an Oke row: likewise the G
hill Viminalis, from whence they vsed to fetch windings and bands of Osiers: and many other groues, whereof some were set double, and were two of a name. We reade in the Chronicles, that *Q. Hortensius*, Dictator for the time being, (when as the commons arose, and in that mutinie or insurrection forsooke the city and withdrew themselues to the fort Ianiculum) made a law & published it within a certain groue hard by, called Esculetum, where there grew a number of trees named Esculi: and the said statute ran in this forme, That whatsoeuer ordinance should be enacted by the said Commonaltie, it should bind all Citisens of Rome whomsoeuer to obserue and keepe.

In those daies the Pine and Fir, and generally all trees that yeeld pitch, were held for strangers and aliéns, because none of them were knowne to grow neere vnto the city of Rome: wher- H
of now we will speak, the rather because the beginning & whole maner of confecting and preseruing wines might be thereby throughly knowne. First and formost, some of the trees aforesaid in Asia or in the East parts do bring forth pitch. In Europe there be six sorts of trees, seeming all of one race, which yeeld the same. Of which, the Pine and the Pinaster cary leaues thin and slender in manner of haires, long also and sharp pointed at the end. The Pine beareth least rosin of all others, howbeit otherwise some it hath in the very fruit thereof, which we call Pine nuts or apples (wherof we haue already written) yet so little it is, that hardly a man would reckon the Pine among those kinde of trees that yeeld rosin. The Pinaster is nothing els but the wild Pine: it growes wonderful tall, putting forth arms from the mids of the trunk or body vpward; wheras the other Pine brancheth only in the head. This of the twain is more plentifull I
in rosin, whereof we will speake more anon. These wild Pines grow also vpon plains. There be trees vpon the coast of Italy, which men cal Tibuli, and many think they be the same, although they carry another name: slender they are and shorter, altogether without knots, and little Rosin they haue in them or none: but they serue well for shipwrights, to build frigats & brigandines.

The Pitch tree loueth the mountains and cold grounds, a deadly and mournful tree it is, for they vsed in old time to sticke vp a branch thereof at the dores of those houses where a dead corps was, to giue knowledge therof abroad: and commonly it grew green in churchyards and such places, where the maner was to burn the bodies of the dead in funeral fires: but now adays it is planted in courtyards and gardens neer our houses, because it may be easily kept with cutting and shredding, it brancheth so well. This tree puts forth great aboundance of rosin, with K
white grains or kernels comming between, so like vnto frankincense, that if it be mixt therwith, vnneth or hardly a man may discern the one from the other by the eye. And hereupon it commeth, that Druggists and Apothecaries do sophisticate frankincense, and deceiue folk with it. All the sort of these trees are leaued with short thick and hard pricky bristles in manner of the Cypres. The Pitch tree beginneth to shoot forth branches euen from the very root almost, and those be but small, bearing out like armes, and sticking one against another in the sides. Semblably do the Fir trees, which are so much sought for to serue shipping: and yet this tree delighteth in the highest mountains, as if it fled from the sea of purpose, and could not away with it: and surely the form and maner of growing is all one with the pitch tree. The wood thereof is principal good timber for beams, and fitteth our turn for many other necessaries of this life. L
Rosin if it be found in the Fir is thought a fault in the wood, whereas the only commoditie of the pitch tree is her rosin; and yet somtime there frieth and sweateth out a little thereof in the extreme heate of the sun. The timber of them both is not alike, for that of the Fir is most faire and beautifull; the pitch tree wood serueth only for clouen lath or rent shindles, for coopers to make tubs and barrels, and for some few other thin boords and painels.

As for the Larch tree, which is the fift kind of those that beare rosin, like it is to the rest, and loueth to grow in the same places: but the timber is better by ods, for it rots not, but will last and endure a long time: the tree wil hardly be killed: besides, it is red of colour, & caries an hoter and stronger smel than the other. There issueth forth of the tree as it growes, good store of liquid rosin, in colour like hony, somwhat more clammy, which will neuer grow to be hard. M

A sixt sort there is of these trees, and it is properly called Teda [*i.* the Torch tree:] the same yeelds more plenty of moisture and liquor than the rest: lower it is of growth than the Pitch-tree, but more liquid and thin: very commendable also to maintain fire at sacrifices, & to burn in torches for to giue light. These trees, I mean the male only, bring forth that strong and stinking

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A king roſin,which the Greeks call Syce. Now if it happen that the Larch tree proue Teda, [i. to be Torch-wood] it is a ſigne that it doth putrifie and is in the way of dying.

The wood of all theſe kinds before named,if it be ſet a fire,maketh an exceeding groſſe and thick ſmoke,and preſently turneth into a cole,ſpitting and ſparkling a far off; except that only of the Larch tree,which neither burneth in light flame,nor maketh cole,ne yet conſumeth in the fire otherwiſe than a very ſtone.

All theſe trees whereof we ſpeake continue greene all the yeare long: and very like they are in leafe,that men otherwiſe of cunning and good experience, haue enough to do to diſcern one from the other by it,ſo neere of kin they be,and their race ſo much intermingled. But the pitch tree is not ſo tall as the Larch: for the Larch is thicker in body, of a thinner and lighter barke, more ſhag leaued,and the ſaid leaues fattier,growing thicker,more pliable, and eaſier to wind
B and bend: whereas the leaues of the pitch tree hang thinner, they be of a drier ſubſtance,more ſlender and ſubiect to cold: and in one word, the whole tree is more rough and hideous to ſee to,and withall,full of roſin: the wood alſo reſembleth the Firre,rather than the Larch.

The Larch tree, if it be burnt to the very ſtumpe of the root, will not ſpring againe and put forth new ſhoots: whereas the pitch tree liueth ſtil for all the fire,and wil grow afreſh: the experience whereof was ſeen in the Iſland Lesbos, at what time as the Forreſt Pyrrhæum was ſet on fire,and clean burnt to the ground.

Moreouer,euery one of theſe kinds differ in the very ſex: for the male of each kind is ſhorter and harder: the female taller,hauing fattier leaues,and the ſame ſoft and plain, & nothing ſtif and rugged. The wood of the male is tough,and when it is wrought keepeth not a dire & grain,
C but windeth and turneth,ſo as the carpenter muſt goe euery way about it with axe and plaine: contrariwiſe that of the female is more frim and gentle. And commonly the axe or the hatchet wil tell the difference of male and female in any tree; for what wood ſoeuer it be,it will ſoone find and feele the male: for hardly is it able to enter,but either turnes edge,or rebounds again: and whether a man hew or cleaue withall, it maketh more craſhing and a greater noiſe where it ſetleth and taketh hold; it ſticketh alſo faſter,and with more ado is plucked forth. Moreouer, the very wood of any male tree is of a more brown and burnt colour,yea,and the root of a blacker hew.

About the forreſt Ida within the territory of Troas, there is another diſtinction of trees in the ſame kind: for ſome grow vpon the mountaines,others toward the coaſt on the ſea ſide. In
D Macedony,Arcadia,and about Elis,theſe trees eftſoons change their names, ſo that the Greek writers are not agreed how to diſtinguiſh their ſeueral ſorts,and range them in their due kind. I therefore haue expreſt them according to the iudgment of Roman and Latine Authors.

Of al the trees aboue named,the Firs ſurpaſſe for bigneſſe,and the femals are the taller. The timber alſo is more frim and ſoft,more profitable alſo,and eaſier to be wrought: the tree it ſelf rounder, and ſo it brancheth archiwiſe: the boughes as they reſemble wings ſtretched out and diſplaied,ſo they ſtand ſo thicke with leaues,that they will beare off a good ſhower, inſomuch as no rain is able to pierce through. In ſum, the female Firre is far more louely and beautifull euery way than the male.

All the ſort of theſe foreſaid trees,ſaue onely the Larch,beare certain knobs like Catkins or
E Chats,compoſed (as it were) of many ſcales wrought one ouer another, and thoſe hang downe dangling at the branches. Theſe knobs or clogs in the male Firre haue in the vpper end a kernel within: but thoſe of the femal haue no ſuch thing. Moreouer,the pitch tree as it hath ſuch catkins leſſe and ſlenderer; ſo all within,from one end to the other,the kernels be paſſing little and black withall,like to lice or fleas,which is the reaſon that the Greekes call it Phthiropho-ros. The ſaid catkins of the male pitch trees are more flat,and nothing ſo round as thoſe of the females,leſſe gummie alſo,and not ſo moiſt of the roſin.

To come now to the Yugh,becauſe we would ouerpaſſe none: it is to ſee to like the reſt,but that it is not ſo green; more ſlender alſo and ſmaller, vnpleaſant and fearefull to looke vpon,as a curſed tree,without any liquid ſubſtance at all: and of theſe kind of trees,it alone beares ber-
F ries. The fruit of the male is hurtful: for the berries in Spain eſpecially haue in them a deadly poiſon. And found it hath bin by experience, that in France the wine bottles made thereof for wayfaring men and trauellers,haue poiſoned and killed thoſe that drunke out of them. *Seſtius* ſaith, That the Greekes call it Smilax: and that in Arcadia it is ſo venomous, that whoſoeuer

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take either repose or tepast vnder it, are sure to die presently. And hereupon it commeth, that those poisons wherewith arrow heads be invenomed, after some were called in times past Taxica, which wee now name Toxica. But to conclude, it is seen by good proose, that if a brasen wedge or spike be driuen into the very body of the tree, it loseth all the venomous nature, and becommeth harmlesse. G

Chap. XI.

¶ *How to make all kinds of Pitch. The maner how Cedrium is made. Also, of thicke Pitch, how it is made; and in what sort Rosin is boiled.*

THe liquid Pitch or Tar throughout all Europe is boiled out of the Torch tree: and this kind of pitch serueth to calke ships withall, and for many other vses. Now the manner of drawing Tarre out of this tree, is, to cut the wood thereof into pieces, and when they are piled vp hollow into an heape, to make a great fire within, as it were vnder a furnace, being claied without-forth: thus with the heate of the fire it doth fry and seeth again. The first liquour that sweateth and issueth forth runneth cleare as water, in a channell or pipe made for the purpose, and this the Syrians cal Cedrium: which is of such force and efficacy, that in Egypt they vse to embalme the dead bodies of men and women departed, and keep them from putrefaction. At the next running it is thicker, and this second liquor is very pitch. Howbeit this is cast again into certaine coppers or cauldrons of brasse, and together with vineger sodden a second time, vntill it come to a thick * consistence: and when it is thus thickened, it taketh the name of Brutian pitch, good only for tuns, barrells, and other such vessels. Much like it is to the former pitch, but that it is more glutinous and clammy, redder also of colour, and more fatty. And thus much concerning the pitch made of the Torch tree. H I

* *Palimpissa, i.* Stone-pitch.

As for that which comes of the pitch tree, the rosin thereof is drawne with red hot stones in certain vessels made of strong and thick oken planks: or in default thereof, the wood is clouen into pieces, and piled together after the order of a charcole hearth, & so the pitch boiles forth. The vse hereof when it is beaten into a kind of meale or pouder, is to be put into wine, and it is of a blacker colour than the rest. The same pitch-rosin, if it be boiled more lightly with water, and be let to run through a strainer, comes to a reddish colour, and is glewie: and thereupon it is called stilled Pitch. And for this purpose lightly, is set by the more grosse and faultie substance of the rosin, together with the bark of the tree. But there is another composition and maner of making of pitch, that serueth for heady wine, called Crapula. For the floure of the Rosin is taken green and fresh, as it distilleth from the tree, together with a good quantitie of small, thin, and short spils or chips of the tree plucked away with the same: the same are minced or shred so small, as they may passe through a sieue or a riddle: which don, all is put into scalding water, and there boileth vntill it be incorporate with the water. The fat substance that is strained and pressed from hence, is the excellent pitch Rosin, hard to come by, and not to be found in Italy, vnlesse it be in few places vnder the Alps, and very good it is in physick. Now to make it passing white, there must be taken one galon of the rosin, & sodden in two gallons of rain water. But some think it the better way to seeth it a whole day together at a soft fire, without any matter at all, in a pan or vessell of Latton. Others there be likewise that boile Turpentine in a hot frying pan, and are of opinion, that this is the best of all others. And the next to it in goodnesse is the Lentiske rosin, called Mastich. K L

Chap. XII.

¶ *Of the Pitch Zopissa, which is scraped from ships: and of Sapium. Also what trees are in request for their timber.*

IT would not be forgotten, that the Greeks haue a certaine Pitch, scraped together with wax from the ships that haue lien at sea, which they Zopissa (so curious are men to make experiments and try conclusions in euery thing:) and this is thought to be much more effectuall for all matters that pitch and rosin are good for, by reason of the fast temperature that it hath gotten by the salt water. M

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A For to draw roſin out of the * Pitch-tree, it muſt be opened on the Sun ſide, not by giuing a ſlit or gaſh in the bark, but by cutting out a peece therof, ſo that the tree may gape and lie bare two foot at the moſt: and from the earth, this wound to be at leaſt a cubite. Neither doe they ſpare the entire bodie and wound of the tree, as they do in the reſt: for there is no danger therof, conſidering that the very chips of the wood being cut out, are ful of liquor, and do ſerue to make pitch. But the nearer that the ſaid ouerture or hole is made to the earth, the better is the roſin that iſſues forth: for if it be higher it is better. When this is don, all the humor afterwards runneth to the vlcer or inciſion aforſaid, from euery part of the tree. The like it doth in the Torch pine. When it hath left running to the firſt hole, there is a ſecond likewiſe made on another ſide, and ſo ſtill is the tree opened euery way: vntill at length tree and all is hewn downe, and the
B very pith and marrow thereof ſerueth for Torch wood to burne. Semblably, in Syria they vſe to plucke the barke from the Terebinth: yea, and they pill the boughes and roots too for Terpentine, howſoeuer in other trees the roſin iſſuing out of thoſe parts, is not counted good, in Macedonie the manner is to burne the male Larch, but the roots onely of the female for to draw out pitch. *Theopompus* wrate, that there is found in the territorie of the Apolloniats, a kind of minerall pitch, called Piſſaſphaltum, nothing inferiour in goodneſſe to the Macedonian.

The beſt pitch in all countries, is that which is gathered from trees, ſtanding vpon the North wind, and in places expoſed to the Sunne-ſhine. As for that which commeth from ſhadowie places, it is more vnpleaſant to the eie, and carieth beſides a ſtrong and ſtinking ſauor. If it bee a cold and hard winter, the pitch then made is the worſe, there is alſo leſſe ſtore of it, & nothing
C is it ſo well coloured. Some are of opinion, That the pitch iſſueth in more abundance out of trees in the mountaines, alſo that it is better colored, ſweeter in taſt, more pleaſant alſo in ſmell; namely, while it is raw pitch-roſin, and as it runneth from the tree: but if it be boiled, it yeelds leſſe plentie of pitch than that which commeth of trees in the plain, and runneth all into a thin liquor in manner of whey, yea, and the very trees themſelues are ſmaller. But both the one and the other, as wel the mountain pines and pitch-trees, as thoſe of the plaines, yeeld not ſo much pitch in a faire and drie ſeaſon, as when the weather is rainy and full of clouds. Moreouer, ſome there be of theſe trees that yeeld forth fruit (which is their roſin) the very ſame yere that immediately followeth their inciſion; others, two yeares after; yea, and ſome again in the third yeare. As for the inciſion or open wound that is made, it filleth vp with roſin: for neither doth it ſou-
D der or vnite in manner of a skar, ne yet cloſeth the barke againe: for in this tree, being once diuided it will neuer come together and meet.

Among theſe trees, ſome haue reckoned one kind by it ſelfe named Sapium, becauſe it is replanted and groweth of ſome of the ſions or imps of the ſaid trees, in maner as hath been ſhewed before in our treatiſe of nut-kernells. The neather parts of which tree they call Teda [*i.* Torch-wood:] whereas indeed this tree is no other than the Pitch-tree, brought to a more mild and gentle nature by tranſplanting. As for that which the Latines call Sapinus, it is nothing elſe but the wood or timber of theſe kinde of trees, being hewed or cut downe, as well * herafter declare in place conuenient. * Chap 39. of his booke.

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Chap. XIII.

¶ *Of the Aſh, foure kinds thereof.*

THere be many trees beſides that Nature hath brought forth, only for their wood and timber: and among them the Aſh, which of all others, growes moſt plentifully in euery place. A tall tree this is & grows round, bearing leaues ſet in maner of feathers or wings; much ennobled by the praiſe and commendation that the Poet *Homer* giueth it, as alſo for the ſpeare or launce of *Achilles*, made thereof. And in very truth, the wood ſerueth right well for many vſes. As for the timber of the aſh, growing vpon the forreſt Ida in Troas, it is ſo like the citron-wood, that when the barke is off, a man may hardly diſcerne the one from the other, inſomuch, as the merchants and chapmen are deceiued therewith.

F The Greekes haue made two kinds of the Aſh: the one runneth vp tall and euen without a knot: the other is lower, more tough and hard, and withall, of a more browne and duskiſh color: and the leaues reſemble the Lawrell. In Macedony they haue an Aſh, which they cal Bumelia, which of all other is the talleſt and biggeſt, the wood thereof is moſt pliable and bending. Others

thers haue put a difference betweene Asshes, according to the places: for that of the plaine and champion countrey, hath a more curled or frisled graine than the other of the mountaines, but contrariwise, the wood of this is more compact and harder than the other. The leaues of this tree, according to the Greeks, are hurtfull, venomous and deadly to Horses, Mules, and such laboring garrons; but otherwise to beasts that chew the cud, they be harmlesse. Howbeit, in Italy if horses, &c. do brouse of the leaues, they take no harme thereby. Moreouer, they be excellent good, and nothing so soueraigne can be found against the poison of serpents, if the juice therof be pressed forth and giuen to drinke; or to cure old vlcers, if they be applied and laid thereto in manner of a Cataplasme: nay, so forcible is their vertue, that a serpent dareth not come neare vnto the shadow of that tree, either morning or euening, notwithstanding at those times it reacheth fartheſt; you may be sure then they will not approch the tree it selfe, by a great way. And this am I able to deliuer by the experience which I haue seene, that if a man doe make a round circle with the leaues thereof, and enuiron therwith a serpent and fire together within, the serpent will chuse rather to go into the fire, than to flie from it to the leaues of the Ash. A wonderfull goodnesse of dame Nature, that the Ash bloometh and flourisheth alwaies before that serpents come abroad; and neuer sheddeth leaues, but continueth greene, vntill they be retired into their holes, and hidden within the ground.

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Chap. XIIII.

¶ *Of the Line or Linden tree, two sorts thereof.*

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GReat difference there is euery way between the male & female Linden tree: for, the wood of the male is hard and knottie, of a redder colour also, and more odoriferous than the female. The barke moreouer is thicker, and when it is plucked from the tree, it is stiffe, and will not bend. It beareth neither seed nor floure, as the female doth: which also is rounder and bigger in bodie, and the wood is whiter, more faire and beautifull by farre than is the male. A strange thing it is to consider, that there is no liuing creature in the world will touch the fruit of the Linden tree, and yet the juice both of leaf and barke is sweet ynough. Between the bark and the wood of this tree there be thin pellicles or skins lying in many folds together, whereof are made bands & cords called Brazen ropes. The finest of these pellicanes or membrans serued in old time for to make labels and ribbands belonging to chaplets, and it was reputed a great honor to weare such. The timber of the Linden or Tillet tree will neuer be worm-eaten.* The tree it selfe is nothing tall, but of a meane height, howbeit the wood is very commodious.

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* *Pliny* herin is deceiued. For the Line Tree with vs is cõparable to the highest Okes in talnesse.

Chap. XV.

¶ *Ten kinds of the Maple tree.*

THe Maple in bignesse is much about the Linden tree: the wood of it is very fine and beautifull, in which regard, it may be raunged in the second place, and next to the very Citron tree. Of Maples there be many kinds: to wit, the white, and that is exceeding faire and bright indeed, growing about Piemont in Italie, beyond the riuer Po, & also beyond the Alps, and this is called the French Maple. A second kind there is, which hath a curled graine running too and fro with diuers spots; the more excellent worke whereof, resembling the eies in the Peacockes taile, thereupon took also the name. And for this rare and singular wood, the countries of Istria and Rhætia be chiefe. As for that which hath a thicke and great graine, it is called Crassiuenium of the Latines, and is counted to be of a baser kind. The Greekes distinguish Maples by the diuerse places where they grow. For that of the champion or plaine countrey (which they name Glinon) is white, and nothing crisped: contrariwise, the wood of the mountaine Maple is harder and more curled, and namely, the male of that sort, and therefore it is in great request for most exquisite and sumptuous workes. A third sort they name Zygia, which hath a reddish wood, and the same easie to cleaue: with a barke of a swert colour, and rough in handling. Others would haue it to be no Maple, but rather a tree by it selfe, and in Latine they call it Carpinus.

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Chap. XVI.

¶ *Of the Boſſes, Wennes, and Nodoſities, called Bruſcum and Molluſcum: Of the wild Fiſticke or Bladder nut-tree called Staphylodendron: alſo three kinds of the Box tree.*

THe bunch or knurre in the Maple, called Bruſcum, is paſſing faire, but yet that wich is named Molluſcum, excelleth it. Both the one and the other ſwell like a wen out of the Maple. As for the Bruſcum, it is curled and twined after a more crawling and winding manner; whereas the Molluſcum is ſpread with a more direct and ſtrait courſe of the grain. And
B certes, if there might be plankes hereof found broad enough to make tables, doubtleſſe they would be eſteemed and preferred before thoſe of the Citron wood. But now it ſerueth only for writing tables, for painels alſo and thin bords in wainſcote work, to ſet out beds heads and ſeelings, and ſuch are ſeldome ſeen. As for Bruſcum, there be tables made of it inclining to a blackiſh color. Moreouer, there be found in Alder trees ſuch nodoſities; but not ſo good as thoſe, by how much the wood of the Alder it ſelfe is inferior to the Maple, for beauty and coſtlines. The male Maples do put forth leaues and flouriſh before the female. Yea, and thoſe that grow vpon dry grounds are ordinarily better eſteemed than thoſe of moiſt and wateriſh places, in like ſort as the aſhes.

Beyond the Alps there is a kind of bladder Nut-tree; whereof the wood is very like to the
C white white Maple, and the name of it is Staphylodendron. It beareth certain cods, and within the ſame, kernels in taſt like the Filberd or Hazell-nut.

Now for the Box tree, the wood thereof is in as great requeſt as the very beſt: ſeldom hath it any grain criſped damask-wiſe, and neuer but about the root, the which is dudgin and ful of work. For otherwiſe the grain runneth ſtreight and euen without any wauing: the wood is ſad enough and weighty: for the hardneſſe thereof and pale yellow colour much ſet by and right commendable. As for the tree it ſelfe, gardeners vſe to make arbors, borders, and curious works thereof. Three ſorts there be of the Box tree: the firſt is called the French Box, it groweth taper-wiſe, ſharp pointed in the top, and runneth vp to more than ordinarie height. The ſecond is altogether wild, and they name it Oleaſtrum, good for no vſe at all, and beſides carieth a ſtrong
D and ſtinking ſauor with it. The third is our Italian box, and ſo called. Of a ſauage kind I take this to be alſo: howbeit by ſetting and replanting brought to a gentle nature. This ſpreadeth and brancheth more broad, and herewith a man ſhall ſee the borders and partitions of quarters in a garden, growing thick and green all the yeare long, and kept orderly with cutting and clipping. Great ſtore of box trees are to be ſeen vpon the Pyrenæan hils, the Cytorian mountains, and the whole Berecynthian tract. The thickeſt and biggeſt Box trees be in Corſica, and they beare a louely and amiable floure, which is the cauſe that the hony of that Iſland is ſo bitter. there is not a beaſt that will eat the fruit or grain thereof. The Boxes of Olympus in Macedonie are more ſlender than the reſt, and but low of growth. This tree loueth cold grounds, yet lying vpon the Sun. The wood is as hard to burn as iron: it will neither flame nor burn cleare
E it ſelfe, nor ſerue to make charcole of.

Chap. XVII.

¶ *Of the Elme foure kinds.*

BEtween theſe wild trees aboueſaid, and thoſe that bear fruit, the Elm is reckoned of a middle nature, in regard of the wood and timber that it affords, as alſo of the friendſhip & acquaintance that it hath with vines. The Greekes acknowledge two ſorts thereof, namely, one of the mountains, which is the taller and the bigger; and the other of the plaines & champion, which is rather more like a ſhrub, the branches that it ſhooteth forth are ſo ſmal and ſlen-
F der. In Italy men hold the Elmes about Atinum to be the talleſt, and of thoſe they prefer them which grow in dry grounds, and haue no water comming to them, before thoſe by riuers ſides. A ſecond ſort of them, which are not all out ſo great, they call the French Elmes. The third kinde be the Italian Elmes, thicker growne with leaues than the reſt, and thoſe proceeding in greater number from one ſtem. In the fourth place be ranged the wilde Elmes. The Atinian

Elmes

Elmes aboueſaid beare no Samara (for ſo they cal the ſeed or grain of the Elme.) All the kind of them are planted of ſets taken from the roots, whereas others come of ſeeds. G

Chap. XVIII.

¶ *The nature of trees as touching the place where they grow.*

HAuing thus diſcourſed in particular of the moſt famous and noble trees that are, I think it not amiſſe to ſay ſomewhat of their natures in generall. And firſt to beginne with the mountain high countries: the Cedar, the Larch, and the Torch-tree loue to grow among the hills; like as all the reſt that ingender roſin: ſemblably, the Holly, the Box tree, the Maſt-Holme, the Iuniper, the Terebinth, the Poplar, the wilde Aſh Ornus, the Cornell tree, and the Carpin. Vpon the great hill Apennine there is a ſhrub named Cotinus, with a red or purple wood, moſt excellent for in-laid works in Marquetry. As for Firs, the wild hard okes (Robora) Cheſtnut trees, Lindens, Maſt-holmes, and Cornell trees, they can away with hills and vallies indifferently. The Maple, the Aſh, the Seruis tree, the Linden, and the cherry tree, delight in the mountains neere to waters. Lightly a man ſhall not ſee vpon any hills, Plum trees, Pomegranat trees, wild Oliues, Walnut trees, Mulberry trees, and Elders. And yet the Cornel tree, the Haſel, the common Oke, the wild Aſh, the Maple, the ordinary Aſh, the Beech, and the Carpin, are many times found to come downe into the plaines: like as the Elme, the Apple tree, the Peare tree, the Bay tree, the Myrtle, the Bloud ſhrubs, the Holme, and the Broome (which naturally is ſo good for to dry clothes) do as often climbe vp the mountains. The Servis tree gladly groweth in cold places, ſo doth the Birch, and more willingly of the twaine. This is a tree which is meere French, and came firſt out of France: it ſheweth wonderfull white, and hath as fine and ſmall branches or twigs, which are ſo terrible to the offenders, as wherewith the Magiſtrates rods are made for to execute juſtice. And yet the wood of this tree is paſſing good for hoopes, ſo pliable it is and eaſie to bend: the twigs thereof ſerue alſo for to make paniers and baskets. In France they vſe to boile the wood, and thereof draw a glutinous and clammy ſlime in maner of Bitumen. In the ſame quarters there loueth to grow for company the white thorn, which in old time they were wont to burne for torches at weddings, and it was thought to be the moſt fortunate and lucky light that could be deuiſed, becauſe (as *Maſſurius* reporteth) the Romane ſhepheards and heardmen who rauiſhed the Sabine maidens, were furniſhed euery one with a branch thereof to make them torches. But now adaies the Carpine and Hazel are commonly vſed for ſuch nuptial lights. The Cypres, walnut, Cheſtnut trees, and the Laburnum, cannot in any wiſe abide waters. This laſt named is a tree proper to the Alps, not commonly known: the wood thereof is hard and white: it beares a bloſſom of a cubit long, but Bees will not ſettle vpon it. The plant likewiſe called Iouis Barba, ſo handſom to be cut in arbors and garden works, which groweth ſo thicke and round withall, full of leaues, and thoſe of a ſiluer colour, hates waterie places. Contrariwiſe, Willows, Alders, Poplars, and Oſiars, & the Privet which is ſo good for to make dice, will not grow well and proſper but in moiſt grounds. Alſo the Vacinia or Whortles, ſet and ſowed in Italy for the Fowlers to catch birds withall; but in France for the purple colour, wherewith they vſe to die clothes for their ſeruants and ſlaues. H I K

To conclude, this is a generall rule, What trees ſoeuer will grow indifferently as well vpon hills as plaines, ariſe to be taller, bigger, and carry a fairer head to ſee to in the low champion grounds: but timber is better, and caries a more beautifull grain vpon the mountaines, except only Apple trees and Pyrries. L

Chap. XIX.

¶ *A diuiſion of Trees according to their generall kinds.*

MOreouer, ſome trees loſe their leaues, others continue alwaies green. And yet there is another difference of trees before this, and whereupon this dependeth. For trees there be which are altogether wild and ſauage: there be again which are more gentle and ciuil: and theſe names me thinks are very apt to diſtinguiſh them. Thoſe trees therefore which are ſo kind and familiar vnto vs, as to ſerue our turns either with their fruit which they bear, or ſhade which they yeeld, or any other vertue or property that they haue, may be very aptly and fitly be called ciuill and domeſticall. M

Chap.

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Chap. XX.

¶ *Of Trees that neuer ſhed their leaues: alſo of Rhododendron.*

AMong theſe trees and plants which are of the gentle kind, the Olive, the Lawrel, the Date tree, Myrtle, Cypres, Pines, Ivy, and the Oleander, loſe not their leaues. As for the Oleander, although it be called the Sabine herb, yet it commeth from the Greeks, as may appeare by the name Rhododendron. Some haue called it Nerion; others Rhododaphne: it continueth alwaies green leafed, beareth floures like roſes, and brancheth very thicke. Hurtfull it is and no better than poiſon, to Horſes, Aſſes, Mules, Goats, and Sheepe; and yet vnto man it ſerueth for a countrepoyſon, and cureth the venom of ſerpents.

B

Chap. XXI.

¶ *What trees ſhed not their leaues at all: which they be that loſe them but in part: and in what countries all trees are euer greene.*

OF the wild ſort, the Fir, the Larch, the wilde Pine, the Iuniper, the Cedar, the Terebinth, the Box tree, the Maſt-holme, the Holly, the Cork tree, the Yew, and the Tamariske, be green all the yeare long. Of a middle nature betweene theſe two kinds aboue named, are the Adrachne in Greece, and the Arbut or Strawberry tree in all countries: for theſe loſe the leaues of their waterboughs, but are euer green in the head. Among the ſhrubs kind alſo there
C is a certain bramble and Cane or Reed, which is neuer without leaues. In the territorie of Thurium in Calabria, where ſomtime ſtood the city Sybaris, within the proſpect from the ſaid Citie, there was an Oke aboue the reſt to be ſeen, alwaies green and ful of leaues, and neuer began to bud new before Midſummer: where by the way I maruel not a little, that the Greek writers deliuered thus much of that tree in writing, and our countrymen afterwards haue not written a word thereof. But true it is, that great power there is in the clymat, inſomuch as about Memphis in Egypt, and Elephantine in the territorie of Thebais, there is not a tree, not ſo much as the very Vine, that ſheddeth leaues.

Chap. XXII.

D

¶ *The nature of ſuch leaues as fall from trees: and what leaues they be that change colour.*

ALl trees without the range of thoſe before rehearſed (for to reckon them vp by name particularly were a long and tedious piece of work) do loſe their leaues in winter. And verily this hath bin found and obſerued by experience, that no leaues doe fade and wither, but ſuch as be thinne, broad, and ſoft. As for ſuch as fall not from the tree, they be commonly thick skinned, hard, and narrow: and therefore it is a falſe principle and poſition held by ſome, That no trees ſhed their leaues which haue in them a fatty ſap or oleous humiditie: for who could euer perceiue any ſuch thing in the Maſt-holme? a drier tree there is not, and yet it hol-
E deth alwaies green. *Timæus* (the great Aſtrologer and Mathematician) is of opinion, that the Sun being in the ſigne Scorpio, he cauſeth leaues to fall, by a certain venomous and poyſoned infection of the aire, proceeding from the influence of that maligne conſtellation. But if that were true, we may wel and iuſtly maruell, why the ſame cauſe ſhould not be effectuall likewiſe in all other trees. Moreouer, we ſee that moſt trees do let fall their leaues in Autumne: & ſome are longer ere they ſhed, continuing green vntill winter be come. Neither is the timely or ſlow fall of the leafe long of the early or late budding: for wee ſee ſome that burgen and ſhoot out their ſpring with the firſt, and yet with the laſt ſhed their leaues and become naked: as namely the Almond trees, Aſhes, and Elders. And contrariwiſe the Mulberry tree putteth forth leaues with the lateſt, and is one of them that ſooneſt ſheddeth them again. But the cauſe hereof lies
F much in the nature of the ſoile: for the trees that grow vpon a leane, dry, and hungry ground, do ſooner caſt leafe than others: alſo old trees become bare before yonger; and many of them alſo loſe their leaues before their fruit be fully ripe: for in the Fig tree, that commeth and beareth late, in the winter Pyrry, and Pomegranate, a man ſhall ſee in the later end of the yere fruit

only,and no leaues vpon the tree. Now as touching thoſe trees that continue euer greene, you must not think that they keep ſtill the ſame leaues,for as new come,the old wither & fal away: which hapneth commonly in mid-Iune about the Summer Sunne-ſtead. For the moſt part,the leaues in euery kind of tree do hold one and the ſame colour,and continue vniform, ſaue thoſe of the Poplar, Ivy, and Croton,which wee ſaid was called alſo Cici [*id eſt*, Ricinus, or Palma Chriſti.] G

Chap. XXIII.

¶ *Three ſorts of Poplar: and what leaues they be that change their ſhape and figure.*

H

OF Poplars there be found three ſundry kinds,to wit,the white,the blacke,and that which is named * Lybica, or the Poplar of Guynee: this hath leaſt leaues, and thoſe of all other blackeſt: but mow commendable they are for the fungous meazles (as it were) that come forth thereof. As for the white Poplar leafe,the leaues when they be yong,are as round as if they were drawn with a paire of compaſſes, like vnto thoſe of Citron before named: but as they grow elder,they run out into certain angles or corners. Contrariwiſe,the Ivy leaues at the firſt be cornered,and afterwards become round. All Poplar leaues are full of downe: as for the white Poplar (which is fuller of leaues than the reſt) the ſaid downe flieth away in the aire like to moſſie chats or Thiſtle-downe. The leaues of Pomegranats and Almond trees ſtand much vpon the red colour. But very ſtrange it is and wonderfull which hapneth to the Elme,Tillet,or Linden,the Oliue tree,Aſpe,and Sallow or Willow: for their leaues after Midſummer turn about vpſide downe,in ſuch ſort,as there is not a more certaine argument that the Sun is entred Cancer,and returneth from the South point or Summer Tropicke, than to ſee thoſe leaues ſo turned. I

* Taken by ſome to be our Aſpe.

Chap. XXIIII.

¶ *What leaues they be that vſe to turne euery yeare. Of Palme or Date tree leaues, how they are to be ordered and vſed. Alſo certain wonderfull obſeruations about leaues.*

K

THere is a certain general and vniuerſal diuerſitie & difference obſerued in the very leaf: for commonly the vpper ſide which is from the ground,is of greene graſſe colour, more ſmooth alſo & poliſhed. The outſide or nether part of the leaf hath in it certain ſtrings, ſinues or veins,brawns and ioynts,bearing out like as in the back part of a mans hand: but the inſide cuts or lines in maner of the palme of ones hand. The leaues of the oliue are on the vpper part whiter and leſſe ſmooth; and likewiſe of the Ivy. But the leaues of all trees for moſt part,euery day do turn and open to the Sunne, as deſirous to haue the inner ſide warmed therewith. The outward or nether ſide toward the ground of all leaues, hath a certaine hoary downe more or leſſe here in Italy,but in other countries ſo much there is of it, that it ſerueth the turn for wooll and cotton. In the Eaſt parts of the world they make good cordage and ſtrong ropes of date tree leaues (as we haue ſaid before) and the ſame are better, & ſerue longer within than without. With vs theſe Date leaues are pulled from the tree in the Spring, whiles they are whole and entire; for the better be they which are not clouen or diuided. Being thus plucked, they are laid a drying within houſe foure daies together. After that,they be ſpred abroad and diſplaied open to the Sun,and left without dores to take all weathers both day and night, and to be bleached,vntil they be dry and white: which done,they be ſliued and ſlit for cord-work. But to come again to other leaues,the broadeſt are vpon the Fig-tree, the Vine,and the Plane; the narroweſt vpon the Myrtle,Pomegranat,and oliue: as for thoſe of the Pine and cedar,they be hairy: the Holly leaues and all the kindes of Holme be ſet with ſharpe prickes. As for the Iuniper,in ſtead of leafe it hath a very pointed thorne. The Cypreſſe and Tamariske carrie fleſhie leaues: thoſe of the Alder be moſt thick of all other. The Reed and the Willow haue long leaues: the Date tree hath them double. The leaues of the Peare tree are round, but thoſe of the Apple tree are pointed; of the Ivie cornered: of the Plane tree diuided into certaine inciſions; of the Pitch tree and the Fir cut in,after the maner of comb-teeth; of the wild L M

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A hard Oke, waued and indented round about the edges; of the brier and bramble, ſharpe like thornes all the skin ouer. Of ſome, they be ſtinging and biting, as of Nettles: of others ready to pricke like pins or needles, as of the Pine, the Pitch tree, the Larch, the Firre, the Cedar, and all the ſorts of Holly. The leaues of the Oliue tree, and the Maſt-Holme, hang by a ſhort ſtele, the Vine leaues by a long. The Poplar or Aſpen leaues doe ſhake and tremble, and they alone keep a whiſtling and ruſtling noiſe one with another. Moreouer, in the very fruit it ſelfe, and namely in a certain kind of Apples, ye ſhall haue ſmall leaues breake out of the very ſides in the mids; in ſome ſingle, in others double and two together. Furthermore, there be trees that haue their leaues comming forth about their boughs and branches, others at the very end and ſhoot of the twig: as for the wild Oke Robur, it putteth leaues forth of the trunk and maine ſtock. Ouer
B and beſides, the leaues grow thicker or thinner in ſome than in others; but alwaies the broad and large leaues, are more thinne than others. In the Myrtle tree, the leaues grow in order by ranks; thoſe of the Box tree turn hollow; but in the Apple trees they are ſet in no order at al. In Pyrries & Apple trees both, ye ſhal ſee ordinarily many leaues put forth at one bud, hanging at one and the ſame taile. The Elme, and the Tree-trifolie, are full of ſmall and little branches. *Cato* addeth moreouer and ſaith, That ſuch as fall from the Poplar or the Oke, may bee giuen as fodder to beaſts, but he wils that they be not ouer drie: and he ſaith expreſſely, that for kine and oxen, Fig-leaues, maſt Holm leaues, and Iuie, are good fodder: yea and ſuch kind of beaſts may well brouſe and feed of Reed leaues and Bay leaues. Finally, the Seruiſe tree looſeth her leaues al at once, others ſhed them by little and little one after another. And thus much for the leaues
C of trees.

Chap. XXV.

The order and courſe obſerued in Nature as touching plants and trees, in their conception, flouring, budding, knotting, and fructifying. Alſo in what order they put forth their bloſſomes.

THe manner and order of Nature yeare by yeare, holdeth in this wiſe: firſt, trees and plants do conceiue by the meanes of the Weſterne wind Fauonius, which commonly beginneth to blow about ſixe daies before the Ides of Februarie: for this wind is in ſtead of an huſ-
D band to all things that grow out of the earth, and of it they deſire naturally to be conceiued, like as the Mares in Spaine, of which we haue written heretofore. This wind is that ſpirit of generation which breathes life into all the world; which the Latines call thereupon Fauonius, *à fauendo*, [*i.* of cheriſhing and nouriſhing euery thing] as ſome haue thought. It blowes directly from the Æquinoctiall Sun-ſetting, and euermore beginneth the Spring. This time, our ruſti-call peaſants call the Seaſoning, when as Nature ſeemeth to goe proud or aſſaut, and is in the rut and furious rage of loue, deſirous to conceiue by this wind, which indeed doth viuifie and quicken all plants and ſeeds ſowne in the ground. Now of all them conceiue not at once, but in ſundry daies: for ſome are preſently ſped in a moment, like as liuing creatures: others are not ſo haſtie to conceiue, but long it is firſt ere they retaine, and as long againe before their vitall ſeed
E putteth forth; and this is therupon called their budding time. Now are they ſaid to bring forth and be deliuered, when in the Spring they bloome, and that bloſſome breaketh forth of certain matrices or ventricles. After this, they become nources all the while they cheriſh and bring vp the fruit: and this time alſo the Latines call Germinatio, [*i.* the breeding ſeaſon.] When trees are full of bloſſomes, it is a ſigne that the Spring is at the height, and the yeare become new againe. The bloſſom is the very ioy of trees, and therein ſtandeth their chiefe felicitie: then they ſhew themſelues freſh and new, as if they were not the ſame; then be they in their gay coats; then it ſeemeth they ſtriue avie one with another in varietie of colours, which of them ſhould excell and exceed in beautifull hew. But this is not generall, for many of them are denied this pleaſure, and enjoy not this delight; for all trees bloſſome not: ſome are of an heauie and ſad
F countenance, neither cheare they at the comming of this new ſeaſon and gladſome Spring: for the maſt-Holme, the Pitch tree, the Larch, and the Pine doe not bloome at all, they are not arrayed in their robes, they haue not their liueries of diuers colors to fore-ſignifie (as meſſengers and vantcourriers) the arriuall of the new yeare, or to welcome and ſolemnize the birth of new fruits. The Figge trees likewiſe both tame and wild, make no ſhew of floures: for they are not

too ſoon bloomed (if they bloom at all) but they bring forth their fruit. And a wonderful thing G
it is to ſee what abortiue fruit theſe Figge-trees haue, and how it neuer commeth to ripeneſſe.
Neither doe the Iunipers bloome at all. And yet ſome writers there be who make two kinds
thereof: and they ſay, that the one flowreth, and bears no fruit, as for the other which doth not
bloſſome, it brings forth fruit vpon fruit, and berrie vpon berrie, which hang two yeres vpon the
tree before they come to maturitie. But this is falſe, for in very truth all Iunipers without ex-
ception, haue euermore a ſad looke, and at no time ſhew merie. And this is the caſe and condi-
tion verily of many a man, whoſe fortune is neuer in the floure nor maketh any outward ſhew
to the world. Howbeit there is not a tree but it buddeth, euen thoſe that neuer bloſſome: And
herein the diuerſitie of the ſoile is of great power: for in one and the ſame kind, ſuch as grow in
mariſh grounds, do ſhoot and ſpring firſt; next to them, thoſe of the plaines; and laſt of all they H
of the woods and forreſts. And generally the wilde Pyrries growing in woods doe bud later
than any other. At the firſt comming of the weſtern wind Fauonius, the Corneil tree buddeth;
next to it, the Bay; and ſomewhat before mid-march or the ſpring Æquinoctiall, the Tillet or
Linden, and the Maple, the Poplar, Elme, Willow, Alder, and Filberds or Hazell nut trees, bud
with the firſt. The Palme alſo maketh haſt and is loth to come behind. All the reſt at the point
Ex Theophr. and prime of the ſpring, namely the Holly, the Terebinth, the Paliurus, the Cheſton, and the
Walnut-trees, or Maſt-trees. Apple trees are late ere they bud, but the Corke tree longeſt of
any other. Trees there be that put forth bud vpon bud, by reaſon that either the ſoile is exceed-
ing battill and fat, or elſe the weather faire and pleaſant: and this happeneth more to be ſeene
in the blades of corne. But trees if they happen to be ouer rancke in new ſhoots and buds, they I
waxe wearie and grow out of heart.

Moreouer, ſome trees there be that naturally do ſprout at other ſeaſons beſides the ſpring,
according to the influence of certaine ſtarres, whereof the reaſon ſhall be rendred more conue-
niently, in the third booke next enſuing after this. Meane time this would be obſerued, That
the winter ſpring of trees is about the riſing of the Ægle-ſtar: the Summer budding at the riſing
of the Dog-ſtar: and a third, when the ſtar Arcturus is vp. And for the two later, ſome would
haue them verily to be common to all trees, but moſt euidently ſeen, in Fig-trees, Vines, Pome-
granate trees: and they yeeld a cauſe, For that in Theſſalie and Macedonie the Fig tree about
theſe times putteth forth moſt plenteouſly: and in Ægypt this reaſon is to be ſeene moſt appa-
rantly. As for all other trees, certaine it is, that when they begin once to bud, they hold on and K
ſhoot forward continually without intermiſſion. The wild Oke, the Fir, and the Larch tree, haue
their ſeuerall ſhoots in one yere, and ſpring at three ſundrie times, giuing ouer between whiles;
and therefore they put forth the ſprouts between the skales of their barks: a thing vſually hap-
ning to all trees in their budding & breeding time: for after they be once conceiued, their rind
or bark burſteth withall. Now their firſt budding is in the prime & beginning of the ſpring, and
continueth much about 15 daies. They bud a ſecond time in the moneth of May when the ſun
paſſes thorough the ſigne Gemini: by which time it is euidently to be ſeen, how the bud heads
that came firſt, are driuen and thruſt vp higher by thoſe that follow after; & that appeares more
plainly by the encreaſe of the knots & joynts. As for the third budding, it is very ſhort, name-
* Solſtitium. ly at * midſummer, and laſteth not aboue a ſeuen-night: and euen then alſo may a man perceiue L
manifeſtly by the knots and joynts of the ſhoots how much they are put forth and grown. The
Vine alone ſhooteth twice, to wit, when ſhe firſt beginneth to burgen & put forth a grape; and
a ſecond time, when ſhe formeth and digeſteth or concocteth the ſame. As for thoſe trees that
bloſſome not, they haue no more to doe but only to bring forth their fruit, and ſo proceed to ri-
pen it. Now there are ſome trees, which no ſooner bud, but they ſhew alſo a bloſſom; and yet as
haſty as they be that way, they take their leiſure afterwards, and long it is ere their fruit come
to be ripe: and ſuch are the Vines. Others again be as backward and ſlow both to bud and bloſ-
ſome; but they make ſpeed to ripen their fruit, as the Mulberry tree, which of ciuile and dome-
ſticall trees, is the laſt that buds, and neuer before all the cold weather is paſt; and therfore ſhe
is called the wiſeſt tree of all others: but after that ſhe begins once to put forth buds, ſhe di- M
ſpatches her buſines out of hand, inſomuch as in one night ſhe hath done; and that with ſuch a
force, that in the breaking forth a man may euidently heare a noiſe. Of thoſe trees that conceiue
in winter, about the riſing of the Ægle-ſtar, (as we haue before ſaid) the Almond tree is the firſt
that bloſſometh in the moneth of Ianuarie, and by March the Almond is ripe. The next that
bloſſome

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A bloſſome after it, be the Peach Plum-trees of Armenia, then the Iujube trees called Tuberes, and the Abricots. As touching the former, they be meere ſtrangers, but theſe Abricots are forced by Art and induſtrie of man. As for wild and ſauage trees, by courſe of nature the Elder floures firſt, and hath of all other moſt plentie of pith or marrow within, wheras the male Corneil hath none at all. But of domeſticall and ciuile trees, the Apple tree beginneth to bloſſome, and ſoone after the Pyrry, Cherrie tree, and Plum tree, inſomuch as they ſeeme all to floure together. Next to them, is the Lawrell; anon after it, the Cypreſſe; and then the Pomegranat, and the Fig tree: Vines and Oliue trees do but then burgen and bud, when thoſe other be in their floure: for in truth they conceiue late, namely, at the riſing of the Vergiliæ or Brood-hen; for this is the proper ſtar to the influence whereof theſe trees be ſubject: and it is Iune firſt and
B the ſummer Sun-ſtead, before the vine bloomes; and ſo it is with the Oliue tree, but that it commeth ſomewhat later. All trees be ſeuen daies at the leaſt in their bloſſoming; and ſome be longer ere they giue ouer, but none paſſe a fortnight: and done they haue euer by the eight day before the Ides of Iuly; which are forerunners of the Eteſian winds. Finally, ſome trees there are which doe not knit nor ſhew their fruit immediatly vpon their blooming.

Chap. XXVI.

¶ *Of the Corneil tree. Alſo, what is the proper time wherein euery tree beareth: which trees be they that beare not, and which be reputed vnluckie. Alſo of thoſe trees which ſooneſt loſe their fruit. Laſt of*
C *all, what trees ſhew fruit before leafe.*

AS for the Corneil tree, it is about midſummer or the ſummer Sun-ſtead, before it putteth forth any fruit, which at firſt is white, afterwards red as bloud. But the female of this kind beareth after Autumne, ſowre berries, and ſuch as no beaſt will abide to taſt. The wood thereof alſo is ſpungeous, hollow, and good for nothing; whereas that of the male is counted among the hardeſt that be: ſo great difference there is in trees of one and the ſame kind. Moreouer, the Terebinth, Maple, and Aſh, yeeld their fruit or ſeed in harueſt time: Walnuts, Apples, and Peares (vnleſſe they be ſome winter fruits, or of the haſtie kind) ordinarily are readie to be gathered in the Autumn. All maſt trees be later ere they render their fruit, to wit, about the go-
D ing downe of the Vergiliæ or beginning of the winter, ſaue only the Æſculus, which paſſeth not the Autumne. As for certain Apple trees and Peare trees both, as alſo the Corke tree, their fruit is not to be gathered before winter begin. The Firre putteth forth a bloſſome of a yellow color like Saffron, about mid-Iune or the ſummer ſun-ſtead; but the Brood-hen ſtar is downe before the fruit be ripe. The Pine, and Pitch tree, do bud before the Firre ſome fifteen daies, or thereabout; and it is winter firſt, and the foreſaid Vergiliæ or Brood-hen is likewiſe ſet, before their fruit is ripe. Citron trees, Iunipers, and maſt-Holmes, are counted trees that beare all the yeare long, and the old fruits of the former yeare tarieth on the tree vntill new come, and they hang both together. But aboue all other trees, the Pine is a wonder in nature; for a man ſhall euer find vpon it ſome of the fruit readie to be ripe; and ſome againe that will remaine vnto the
E next yeare, and the third yere before it will be readie: and there is not another tree that is more forward and greedie (as it were) to put forth it ſelfe, and giue greater hope of increaſe, than it doth: for look in what month ſoeuer the Pine-nuts are gathered from the tree, in the very ſame others are in good forwardneſſe of ripening; and in ſuch ſort ſhe ordereth the matter, that euery month a man ſhall haue ripe fruit on her. Thoſe Pine-apples or nuts which cleaue and open vpon the tree, bee called Zamiæ; and well may they be ſo named, for vnleſſe they be plucked, they hurt and corrupt the reſt. The only trees that bear no fruit at all, that is to ſay, not ſo much as ſeed, are theſe; the Tamariske, good for nothing but to make Beeſoms of; the Poplar, Alder, Atinian Elme, and the Alaternus, which hath leaues reſembling the Holme, and partly the Oliue. As for ſuch trees which neither at any time are ſet or planted, nor yet beare fruit, they bee
F holden for vnfortunate, accurſed, and condemned, in ſuch ſort, as there is no vſe of them in any ſacrifice or religious ſeruice. *Cremutius* writeth, That the (Almond) tree whereon ladie *Phyllis* hanged her ſelfe, had neuer (after) greene leaues on it. Such trees as yeeld gum, after they haue put forth their bud, do cleaue and open: howbeit the gum that iſſueth out, neuer commeth to any thickneſſe, vntill the fruit thereof be gathered. Yong trees commonly beare not ſo long as

they ſhoot and grow. The Date tree, the fig tree, the Almond tree, the Apple tree, and the Pyrie, do ſooneſt of all other let their fruit fall before it be fully ripe. Semblably, the Pomegranat tree, which is ſo tender beſides, that with euery thicke and heauie dew, white froſt, and foggie time, ſhe wil be bitten & ſhed the bloſſom: which is the cauſe that folk vſe to bend the boughs thereof downeward to the ground, that both dew and rime may ſooner fall off which lights vpon them, and otherwiſe would ouer-load and hurt them. The Pyrrie and the Almond tree cannot abide cloſe and cloudie weather, eſpecially if the wind be Southerly, although no raine do fall: for in ſuch daies, if they chance to bloſſom, they not only ſhed their flowre, but loſe their fruit new knit. But the Sallow or Withie tree, is of all others moſt tickliſh, and ſooneſt forgoes the ſeed or chats that it beareth before it commeth to any ripenes: for which cauſe, called it is of *Homer* * Looſe-fruit, or Spill-fruit. Howbeit the age enſuing (naught as it was) hath interpreted that Epithet of his, in another ſenſe, according to the wicked experience they had of it, whereby it was found, that the ſeed therof cauſeth barraineſſe in women, and hindreth conception. But in this regard, Nature hath well done alſo to preuent this miſchiefe and inconuenience, in that ſhe hath not been very carefull to preſerue the ſeed: and yet for the maintenance of the whole kind, ſhe hath endued it with this gift, To grow very quickly, if a man do pricke into the ground but a cutting or twig thereof. And yet (by report) there is one Willow in Candie, and namely about the very deſcent of *Iupiters* caue, which is wont ordinarily to carie the graine or ſeed thereof vntill it be full ripe, and then is it of a rough and writhen ſhape, of a wooden and hard ſubſtance, and withall, of the bigneſſe of a cich peaſe.

* Ὀλιγοκάρπους, *Frugiperda.*

Moreouer, ſome trees there be that proue barraine and fruitleſſe by the occaſion of the imperfection of the ſoile and territorie where they grow: and namely in the Iſle Paros, there is a whole wood or coppiſe that vſually is lopt and cut, but it neuer beareth any fruit. The Peach trees in the Iſland Rhodos bloſſome only, and otherwiſe are fruitleſſe. Ouer and beſides, this difference of trees (that ſome be fruitfull and others barraine) ariſeth of the ſexe alſo; for commonly the males beare not: how ſoeuer ſome affirme cleane contrary, and ſay, They are the male only that be fruitfull, and the female barren. Furthermore, it falleth out many times that trees be fruitleſſe, either becauſe they grow too thick one by another, or elſe are ouercharged and too ranke with boughes and branches: but of ſuch as do beare, ſome bring forth their fruit both at the ſides, and alſo at the very tips and ends of their branches; as the Peare tree, Pomegranate tree, Figge tree, and Myrtle. As for others, they are of the nature of corne and pulſe; for the one grows in the eare or ſpike alone, the other by the ſides, & not otherwiſe. The Date tree onely (as hath been ſaid before) containeth fruit within certain pellicles, and the ſame hangeth down in cluſters after the manner of grapes. Other trees beare their fruit vnder the leafe for their ſafeguard and defence, except the Fig tree, which hath her Figs aboue the leaf, becauſe it is ſo large and ouerſhadowie. Moreouer, the leafe of the fig tree commeth forth after the Figge. One notable thing is reported of a kind of figge-trees in Cilicia, Cyprus, and Hellas, to wit, that they haue this propertie ſingular by themſelues, To bring forth their perfect Figs vnder leafe, and their greene abortiue Figs that come to no proofe, after the leafe. The Fig tree beareth moreouer certain haſtie Figs, which the Athenians call Prodromos, *i.* vant-courriers or forerunners, becauſe they be long ripe before others. The Laconian Figge trees bring the faireſt and greateſt Figs.

Chap. XXVII.

¶ *Of trees that beare twice and thrice in one yeare. Alſo what trees ſooneſt wax old: and of their ages.*

IN the ſame countries aboue-named, there be Figge trees alſo that beare Figges twice in one yeare. And in the Iſland Cea, the wild Figge trees beare thrice in the ſame yeare: for the ſecond increaſe is put forth on the firſt, and the third vpon the ſecond: and by this third fruit, the Figges of the tame Figge tree receiue their maturitie by way of caprification: and thoſe wild greene Figges of theirs come forth aboue the leafe. Moreouer, there be ſome Pyrries and Apple trees that bring forth fruit twice a yeare: as alſo there be others of the haſtie kind, which do beare both Peares and Apples betimes in the yeare. There is a kinde of Crab tree alſo or Wilding, that in like manner beareth twice a yeare; and the later fruit is ripe preſently after

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A after the midſt of September, eſpecially in places lying well vpon the Sun. As touching Vines, there be of them alſo, that after a ſort beare three times in the yeare, which thereupon men call Inſanas, [*i.* The mad or fooliſh vines:] for whiles ſome of the grapes be ripe, others begin to ſwel and wax big, and a third ſort againe are but then in the flower. *M. Varro* writeth, That in Smyrna by the ſea ſide there was a vine that bare fruit twice a yeare, as alſo an Apple tree in the territorie of Conſentia. But this is an ordinary thing throughout all the countrey about Tacapa in Africa, and neuer is it ſeen otherwiſe there, ſo fertile is the ſoile; but thereof will wee write more at large hereafter in another place. As for the Cypreſſe trees, they faile not but come with fruit thrice in one yeare: and their berries be gathered in Ianuarie, May, and September, and all of a diuers bigneſſe, one from the other. Ouer and beſides, the very trees themſelues are not laden with fruit after one and the ſame manner: for the Arbut or Strawberry tree is more plen-
B teous in the head, and toward the top: the Oke, the Wal-nut-tree, Fig-tree (and namely that which beareth the vnſauorie great figs Mariſcæ) are more fruitfull beneath. Generally, all trees the elder they are, the ſooner they beare and make more haſt to ripen their fruit; the rather alſo if they grow in a ground leane, and expoſed to the Sun. Contrariwiſe, trees that be wild are later in bearing than other: and ſome of them neuer yeeld fruit fully ripe. Moreouer, ſuch trees vnder which the ground is tilled & laid hollow, haue their fruit ſooner ripe, & are more fruitful withall, than thoſe that are neglected and not looked vnto. Beſides all this, there is a difference in trees as touching bearing their fruit, according to the age: for the Almond tree & the Pyrrie are, moſt fertile when they be old, as alſo maſt trees, and a certain kind of fig-trees. Al others, the yonger they are, the more fruitfull they be, howbeit, later it is, ere their fruit be ripe: a thing
C moſt plainly to be obſerued in Vines. For the better wine commeth from the elder Vines: but more plenty from the yonger. As for the Apple-tree, it becommeth of all other ſooneſt old, and in that age the fruit is nothing ſo good as in youth: for both leſſer be the Apples, and alſo more worm-eaten, inſomuch as the very wormes will breed in them vpon the tree. The Fig is the fruit alone of all trees, that needeth ſome help of * Phyſicke to ripen. And this may be noted for a ſtrange and miraculous thing in them, That the later figs bee in more price than the haſty and early ripe, and that there ſhould be more reckoning made of prepoſterous and artificiall things beſide the courſe of kind, than of the naturall. Alſo this is a generall rule, Whatſoeuer tree is exceeding fruitful, and beareth moſt, the ſame continueth leaſt while, and ſoon waxeth old. Yea
D and ſome of them are to be ſeen to die out right, and that very quickely, becauſe they inioyed ſo fauorable a ſeaſon, to cauſe them ſo to ſpend themſelues with bearing; as wee may marke moſt eaſily in Vines.

* To wit, by caprification.

Chap. XXVIII.

¶ *Of the Mulberrie tree.*

COntrariwiſe, the Mulberry tree laſteth long, and is very late ere it ſeemeth old. For why? it is not giuen greatly to beare fruit, neither is ouerloden with Mulberries. To conclude, look what trees haue a curled graine in the wood, as the Maple, Date-tree, and Poplar, they continue a long time before they decay. And in one word, ſuch as haue their roots digged or delued
E often and laid bare about, are not long liued, but ſoone age and decay.

Chap. XXIX.

¶ *Of wilde trees.*

AS for wilde trees, they indure longeſt of all others. And generally, as carefull tending and looking to trees, maketh them more fertile: ſo there is nothing ſooner bringeth age vpon them, than fruitfulneſſe and much bearing. Hereupon it is likewiſe, that ſuch trees both bud and alſo bloſſome ſooner than others, yea, and ordinarily their fruit is ripe before the reſt: in regard wherof, they are more ſubiect to the iniury of the time & the weather, which cauſeth alſo diuers and ſundry infirmities. Moreouer, as we haue ſaid already in the chapter of maſt
F trees, there be many that bring forth fruits of different ſorts: among which may be reckoned the Lawrell, with her variable floures and berries growing ſo thicke, and principally the barren of that kind which beareth nothing els, and therfore is eſteemed of ſome the male. The Hazels al-

ſo

so and Hilbard trees, besides, their nuts do carry certain chats with a callous substance of skales joined one within another, but good for nothing. G

Chap. XXX.

¶ *Of the Box-tree: the Greeke Beane or the Lotus.*

All this *Theophrastus* reporteth of Ilex, and not of Buxus.

AMong these is to be ranged the Box-tree, which bringeth forth the most varietie of all others. For it putteth forth a seed of her owne, also, a graine which they call Carthegon: besides, on the North side Misselto, and on the South Hyphear: whereof wee will write anone more at large: so that otherwhiles a man shall find foure diuers things vpon the Box all together.

Moreouer of trees, some be simple or single, to wit, such as from the root haue one trunke or body, and no more, and yet many boughes and branches; as the Oliue, Fig-tree, and the Vine: others be of a shrubs kind, and put forth many shoots from the root besides the main trunk, as the Rhamne-thorn Paliurus, and the Myrtle. In like maner the Hazell nut-tree. Howbeit, the better is the tree and more plenteous in fruit, when it is well branched from the body, and hath not those suckers from the root: ye shall find some again haue no principall stock at all, as wee may see in a kind of Box, and a certain Lotus beyond sea. Others be forked in twain, yea in fiue, immediatly from the root: and ye shall meet with those that put vp many trunks out of the earth, but branch not into boughes, as namely, the Elders; as also with others that forke not, nor are diuided at all, howbeit, they be ful of arms & boughs, as the Pitch-trees. Moreouer, some there be which haue their boughes disposed in good order, as the Pitch-tree, Firre, or Deale: others again be as disorderly, as the Oke, Apple-tree, and Pyrrie. As for the Fir verily, where it is diuided into boughs, they grow directly vpright vnto heauen, and spread not in breadth about the sides. But a strange and wondrous thing it is of this tree, that if it be headed, or the tops only of those arms cut off, the whole dieth thereupon: but if they be lopped off close to the body, it continueth still aliue. Nay, in case it be cut vnder the place where the branches put forth, the stock or stump that is left, will take no harme by it, but remaine and liue: crop the head onely thereof, and the whole tree dieth. To proceed, some trees spread into arms immediatly from the root, as the Elme: others branch only toward the top, as the Pine, and the Greek Bean, which at Rome for the pleasant taste of the fruit, resembling cherries very much, although it be of a wild nature, they call Lotus. This tree is much planted about faire houses, in the court yards, especially because the boughs spread so large; for albeit the stock or body it selfe be but very short and small, yet it brancheth so, as that it yeeldeth much shade: yea, and often times the boughes reach to the neighbor housen. But there is not a tree againe that maintaineth this shade a lesse while; for when Winter is once come, the leaues shed, and then it admitteth the warm Sun for it. Moreouer, there is not another tree that beareth a fairer barke, nor more pleasant to the eie, nor that carieth either longer boughes, and more in number than it, or stronger: a man that seeth them, would say they were so many trees by themselues. As touching the vse and commodities of this tree, the barke serueth to colour skins and leather: the root to die wooll. And as for the fruit or Apples that it beareth, they are a speciall kind by themselues: for all the world they resemble the snouts or muzles of wild beasts, and many of the smaller sort seeme to hang to one that is bigger than the rest. H I K L

As concerning boughs of trees, some are termed blind, because they put not forth certaine eies or chits where they should bud: which happeneth somtime by a naturall defect, when they are not of validity to thrust out a bud; otherwhiles it is occasioned by some wrong and iniurie done, namely, when they be cut off, and in the place of the cut, there groweth as it were a callous skar that dulleth the vertue of the tree. Furthermore, looke what is the nature that forked trees haue in their boughes, the same hath the Vine in her eies and burgeons; the same also haue canes and reeds in their joints and knots. Ouer and besides, all trees toward their root, and the neareſt to the ground, are thicker than else where. Some run vp altogether in height, and therein shew thrir growth, as the Firre or Deale tree, the Larch, Date-tree, Cypresse, Elme, and generally all that rise vp in an entire stocke, and are not diuided. Of those also that branch and put out many boughes, there is a kind of Cherry-tree that is found to beare armes like beames forty cubites long, and two foot in thicknesse square throughout the whole length. M

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Chap. XXXI.

¶ *Of the Boughes, Barke, and Roots of trees.*

THere are trees, that immediatly from the root thruſt out boughes and branches, as do the Apple-trees. Some be couered with a thin rind, as the Lawrell and I ..e tree: others with a thicke barke, as the Okes. In ſome a man ſhall find the barke euen and ſmooth, as in the Apple-tree, and fig-tree: the ſame in others is rough and rugged, as is to be ſeene in Okes and Date-trees. And ordinarily, all old trees haue more riueled barks and furrowed, than the younger. In many trees the bark naturally doth breake and cleaue of the own accord, and namely in the Vine. From ſome it ſhaleth and falleth off, as from the Apple tree and the Arbut. The cork
B and the Poplar haue a fleſhie and pulpous barke: the rind of the Vine and the Reed, is made in manner of a membrane or thin skin. In Cherry trees it is as ſlender as paper, and runneth into rolls: but Vines, Lindens, and Firs, are clad with tunicles and coats of many folds. In ſome again the rind is but ſingle, as in the Fig-tree, and the Cane or Reed. And thus much of Barke.

There is as great difference in the root. For the fig-tree, the Oke, and the Plane, haue great ſtore of roots and large ſpurns: contrariwiſe, in the Apple tree they are ſhort and ſmall: the firre and Larch haue one tap root and no more: for vpon that one main maſter-root they reſt and are founded; howbeit, many ſmall ſtrings and petie ſpurns ſhoot out of the ſides. In the Bay-tree the roots be more groſſe and vnequally emboſſed, and likewiſe in the oliue, which alſo ſpredeth out into many branches. But thoſe of the oke be of a carnous ſubſtance: and verily, all the kind
C of okes do root deep into the ground. Certes, if we giue credit to *Virgil*, that ſort of them which are called Eſculi, go down as deep into the earth with their roots, as they ariſe & mount aboue ground with their heads. The roots of the Apple-tree, Oliue, and Cypreſſe, lie very ebbe, and creep hard vnder the ſourd of the ground. Moreouer, there be roots that run direct and ſtreight, as thoſe of the Bay and Oliue: there be againe that wind and turne as they go, as thoſe of the fig-tree. Some are all ouergrowne and full of hairy ſtrings, as the firre-root, and many others of wild trees that grow in forreſts: from which the mountains vſe to pluck thoſe fine fibers & ſmal threds, wherewith they twiſt goodly faire paniers, couers for flaggons and bottels, and work many other veſſels & prety deuiſes. Some writers [as namely *Theophraſtus*] hold opinion and haue put down in their books, that no roots goe lower into the earth, than that the Sunnes heat may
D pierce vnto them and giue them a kind warmth; the which is more or leſſe, ſay they, according to the nature of the ſoile, as it is either lighter or lean, or maſſier, richer, and faſter compact. But I take this to be a meere vntruth. This is certain, that we find in antient writers, that a yong Fir, when it was to be tranſplanted and ſet again, had a root that went eight cubits within the earth; and yet it was not digged vp all whole, but broken in the taking vp, and left ſomewhat behind. The roots of Citron trees are biggeſt of all other, and ſpread moſt. Next to them are thoſe of the Planes, Okes, and other Maſt-trees. Some trees there be, the roots wherof like better & liue longer, the more ebbe that they lie within the vpper face of the ground, and namely, Lawrels; and therefore they ſpring freſh againe, and put forth better, when the old ſtock is withered and cut away. Others hold, that trees which haue ſhort ſtumped roots, do ſooner decay, & liue leſſe
E while. But deceiued they are, and may be reproued by the inſtance of fig-trees, which liue leaſt while, and yet their roots are longeſt of any other. I ſuppoſe this alſo to be as falſe, which ſome haue held and deliuered in writing, That the roots do diminiſh and decay, as the trees do waxe old; for the contrary hath bin ſeen by an aged oke, which by the violent force of a tempeſt was ouerthrowne, the root whereof tooke vp a good acre of ground in compaſſe.

Moreouer, a common thing it is and ordinary, to replant and recouer many trees that haue bin blown down and laid along; for they will reioine, knit againe, and reuiue, by meanes of the earth, euen as a wound doth vnite by the ſolder of a callous cicatrice. And this is a moſt vſuall and familiar practice obſerued in the Planes, which by reaſon of their great heads ſo thicke of boughes, gather windes moſt, and are ſooneſt ſubiect to their rage: if any one of them by that
F means be fallen, they lop their boughes, and diſcharge them of their weightie load, and then ſet them vpright again in their owne place, as it were in a ſocket, and they will take root and proſper. And in good faith, this hath bin done heretofore already in Walnut trees, Oliues, and many other, to the like proofe.

CHAP.

Chap. XXXII.

¶ *Of certaine prodigious trees, and presages obserued by them. By what meanes trees grow of their owne accord. That all plants grow not euery where: and what trees they be that are appropriate to certaine regions, and are not elsewhere to be found.*

WE reade in Chronicles and records, that many trees haue fallen without wind and tempest, or any other apparent cause, but only by way of prodigie and presage of some future euent: and the same haue risen againe of themselues without mans helpe. This happened during the wars against the Cymbrians, to the great astonishment of the people of Rome, who thereupon gathered a fore-tokening of great consequence: for at Nuceria in the groue of *Iuno*, there was an old Elme fell, and after the head was lopped off, because it light vpon the very altar of *Iuno*, it arose of it own accord; and that which more is, immediatly vpon it put forth blossoms and flourished. And this was obserued, That from that very instant, the majesty of the people of Rome began to take heart, reuiue, and rise again, which had bin decaied and infeebled by so many and so great losses that the Romans hed receiued. The like chanced (by report) neer the city Philippi, vnto a Willow tree which was fallen downe, and the head of it cut off clean: semblably, to an Aspen tree at Stagyræ, neere vnto the colledge or publik place of Exercise there. And all these were fortunate presages of good luck. But the greatest wonder of all other was this, of a Plane tree in the Isle Antandros, which was not only fallen, but also hewed and squared on all sides by the Carpenter; and yet it rose againe by it selfe, and recouered the former greenneſſe and liued, notwithstanding it bare 15 cubits in length, & foure elnes in thickneſſe and compasse.

All trees that we are beholden vnto the goodneſſe of Nature for, we haue by 3 means: for either they grow of their owne accord, or come of seed, or else by some shoot springing from the root. As for such as we inioy by the art and industry of men, there be a great number more of deuises to that effect: whereof we will speake apart in a seuerall booke for that purpose. For the present our treatise is of trees that grow in Natures garden onely, wherein she hath shewed her selfe many waies after a wonderfull manner, right memorable.

First and formost, as we haue shewed and declared before, euery thing will not grow in euery place indifferently: neither if they be transplanted, will they liue. This happeneth sometimes vpon a disdaine, otherwhiles vpon a peeuish forwardneſſe and contumacie, but oftner by occasion of imbecility and feebleneſſe of the very things that are remoued and translated; nay, one while the climate is against it, & enuious; otherwhiles the soile is contrary therunto. The balm tree can abide no other place but Iury. The Assyrian Pome-citron tree will not beare elswhere than in Syria. As for the Date-tree, it scornes to grow vnder all climats; or if it be brought to that passe by transplanting, it refuseth to beare fruit. But say, that it fortune by some meanes, that she giueth some shew and apparance of fruit, she is not so kind as to nourish and reare vp to perfection, that which she brought forth, forced against her will. The Cinnamon shrub hath no power and strength to indure either the aire or earth of Syria, notwithstanding it be a neere neighbor to the naturall region of her natiuity. The daintie plants of Amomum or Spikenard, may not away with Arabia, howbeit they be brought out of India thither by sea: for king *Seleucus* made triall therof: so strange they are to liue in any other country but their own. Certainly, this is a most wonderful thing to be noted, That many times the trees for their part may be intreated to remoue into a forrain country, and there to liue; yea, and otherwhiles the ground and soile may be persuaded and brought to accord so wel with plants (be they neuer such strangers) that it will feed and nourish them; but vnpossible it is to bring the temperature of the aire and the climat to condiscend thereto and be fauourable vnto them. The Pepper-trees liue in Italy; the shrub of Casia or the Canell likewise in the Northerly regions; the Frankincense tree also hath been knowne to liue in Lydia: but where were the hot gleames of the Sunne to bee found in those regions, either to dry vp the waterish humor of the one, or to concoct and thicken the gumme and Rosine of the other? Moreouer, there is another maruell in Nature, welneare as great as that, namely, that shee should so change and alter in those same places, and yet exercise her vertues and operations otherwhiles againe, as if there were no change nor alteration

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A ration in her. She hath aſſigned the Cedar tree vnto hot countries: and yet wee ſet it to grow in the mountaines of Lycia and Phrygia both. She hath ſo appointed and ordained, that cold places ſhould be hurtfull and contrary to Bay-trees, howbeit, there is not a tree proſpereth better, nor groweth in more plenty vpon the cold hill Olympus, than it. About the ſtreights of the Cimmerian Boſphorus, and namely, in the city Panticapæum, both K. *Mithridates*, and alſo the inhabitants of thoſe quarters, vſed all meanes poſſible to haue the Lawrel and the Myrtle there to grow, only to ſerue their turns when they ſhould ſacrifice to the gods: it would neuer be, did they what they could: and yet euen then, there were good ſtore of trees there growing of a warm temperature; there were Pomegranates and Fig-trees plenty; and now adaies there be Apple-trees and Pyrries in thoſe parts, of the beſt and daintieſt ſort. Contrariwiſe, ye ſhall not find in
B all that tract any trees of a cold nature, as Pines, Pitch-trees, and Firres. But what need I to goe as farre as to Pontus for to auerre and make good my word? Goe no farther than Rome, hardly and with much adoe will any Cheſtnut or Cherrie trees grow neere vnto it, no more than Peach-trees about the territory of Thuſculum. And worke enough there is to make hazels and filbards to like there: turne but to Tarracina thereby, ye ſhall meet with whole woods full of Nut-trees.

Chap. XXXIII.

¶ *Of the Cypreſſe tree. That oftentimes ſome new plants do grow out of the ground, which were neuer knowne to be there beforetime.*

C THe Cypreſſe hath bin counted a meere ſtranger in Italy, & moſt vnwilling there to grow; as we may ſee in the works of *Cato*, who hath ſpent more words, and made oftner mention of the Cypreſſe alone, than of all other trees whatſoeuer. Much ado there is with it before it come vp; and as hard it is to grow, and when all is done, the fruit is good for nothing. The berries that it beareth, be wrinckled, and nothing louely to the eie; the leaues wherewith it is clad, bitter in taſt; a ſtrong and violent ſmell it hath with it; not ſo much as the very ſhade thereof is delectable and pleaſant; and the wood but ſmall & not ſolide, but of an hollow ſubſtance, inſomuch, as a man may range it among the kinds of ſhrubs. Conſecrated is this tree to *Pluto*, & therefore men vſe to ſet a bough thereof as a ſigne, before thoſe houſes wherein a dead corpes
D lieth vnder bourd. As touching the female Cypreſſe, it is long ere ſhee beareth. The Cypreſſe tree for all this, in the end growing vp to a pyramidall forme ſharp pointed, is not rejected but much ſet by, if it were for nothing els but to ſtand between euery row and ranke of Pine-trees: howbeit, now adaies it is ordered with cutting and clipping for to grow thick in borders about garden quarters along the allies, alſo to climbe vpon walls in manner of ſeeling: and being thus kept down, it is by this means alwaies ſmall and tender. Moreouer, thereof are drawne many vinets and borders about ſtory-works in colours: for ſo fine is the leafe, ſo ſhort and green withal, that it may be brought in a traile to winde about pictures either of hounds and hunters, or of ſhips and ſailers, or any counterfeits and images whatſoeuer moſt daintily.

Two ſorts there are of the Cypreſſe tree. Firſt that which runneth vp into a pyramidal point, winding vpward as a round ſpire, which alſo is called the female. A sfor the male, it ſendeth out
E branches, and ſpreadeth broad: it is lopped alſo, and ſerueth in frames to beare vp vines. Both the one and the other is ſuffered to grow for perches, railes, and plankes, to be made of their boughes when they are cut. Once in thirteen yeares there is made a fall, and not one of thoſe but are ſold for a Roman denier apiece. A wood thereof planted in this manner, is of all others moſt gainfull, and yeeldeth greateſt profit: inſomuch, as in old time they were wont commonly to ſay, That one fall of ſuch Cypreſſe poles would yeeld a man a portion ſufficient to giue with his daughter in mariage.

The Iſland Candie is the naturall countrey of the Cypreſſe tree, howſoeuer *Cato* hath called it a Tarentine tree: haply, becauſe it came thither firſt. In the Iſle Ænaria, the Cypreſſe trees
F ſpring againe after they be cut downe to the roots. But in Candie, looke what ground ſoeuer a man doth breake vp and plough, vnleſſe he ſow or ſet it with ſome other thing, Cypreſſes will come vp, and preſently ſhew aboue ground. In many places alſo of that Iſle, they ſpring and grow of themſelues, euen in ground otherwiſe vntilled; and principally in the mountaines of Ida, and thoſe which they cal the white Hils: vpon the very creſts and tops wherof, which are

alwaies

alwaies couered with snow, they are to be seen in greatest plenty. A wonderfull thing, consideting that in all other places they loue warmth, and without it, will not grow: and besides, when they haue met with a familiar ground vnto them, yet they care not much for it, but disdaine so kind a nource: whereby a man may see, that not onely the nature of the soile, and the ordinarie power of the climat serueth much for these plants, but also certain sudden and temporarie impressions of the aire do wonderfully worke in this case: for some showers there be, that oftentimes do bring seeds with them and ingender plants. The same rains do fall somtime after one certain manner, otherwhiles also in such strange sort, as men are able to giue no reason thereof: A thing that befell the country about Cyrene in Barbary, at what time as the herbe Laserpitium (which beareth ihe gum Benjoine) grew there first: as hereafter we will write more at large in our treatise of herbes. Moreouer, about the 430 yere after the foundation of Rome city, there sprung vp a very forest or wood neere vnto the same city, by reason of a certaine thick and glutinous shoure like to Pitch, that then fell.

Chap. XXXIIII.

¶ *Of Ivie.*

IT is said, that now the Iuie tree groweth also in Asia: and yet *Theophrastus* in his time deliuered the contrary, and affirmed, that neither it was to be found there, nor yet throughout all India, but only vpon the mount Merus. Ouer and besides, it is reported, that *Harpalus* did what he could to store the country of Media therewith, but all in vaine. And as for *Alexander* the Great, when he returned from out of India with victory, for the rareneſſe thereof he would haue all his soldiers go in a sumptuous shew, wearing chaplets therof vpon their heads; resembling herein prince *Bacchus*, in solemnities and high feasts of which god, the people of Thracia euen at this day are furnished from this tree, and do with Ivie set out and garnish the heads of their launces, pikes, and iauelins, their mourrons also and targuets.

An enemy is Ivie doubtlesse to trees, and generally to all plants and sets what soeuer: it cleaveth and breaketh sepulchres built of stone, it vndermineth city walls; good onely to harbour serpents, and most comfortable for their cold complexions: so that I cannot chuse but maruell much that it should be honored at all, and accounted of any worth. But to enter into a more particular consideration and discourse of Iuie, two principall kinds are found therof, like as of all other trees, to wit, the male and the female. The male is described to be a more massiue and greater body, to be clad with a harder and fattier leafe, and to shew a flower inclining to purple: and yet the flower of them both, the male as well as the female, doth resemble that of the wild Rose or Eglantine, saue that it hath no smell at all. These generall kinds containe each of them three particular sorts: for there is the black and the white Iuie, and a third besides named Helix: and yet we must admit other subdiuisions of these also: for of the white, there is one sort that beareth white fruit only, and another that hath white leaues withall: moreouer, of such as carry only white fruit, one kind hath big berries growing thick together, and bunching round in maner of grapes, which clusters be called of the Greeks and Latines Corymbi. A second sort there is of the white Iuie named Selenitium, which beareth smaller beries, and those not so close set and thick couched together. Semblably, it is to be said of the black: for there is an Iuy that beareth also a black grain or seed: another with a fruit of a Saffron colour; and hereof are the garlands made which Poets weare: some call it Nysia, others Bacchica: the leaues of it are not altogether so blacke, but it beareth the greatest bunches and biggest berries of all the black kind. And verily of this Iuie there be some Greeke writers that make two sorts, according to the diuers colors of the berries: for the one they call Erythranus [*i.* the red;] & the other Chrysocarpos, as one would say, the golden berry-Iuie. Now as touching the rampant or climbing Iuie, Helix, there be many and sundry sorts thereof, differing in their leafe especially: for first & formost the leaues of this Iuie are small, cornered, and better fashioned than the rest, which indeed are but of a plain and simple making. There is a difference likewise in the length between euery knot and ioint, but especially in this, that it is barren and beareth no fruit at all. And yet some there be, who attribute that to the age, and not to a seuerall kind of Iuie by it selfe; saying, that the same which at first was Helix, and clasped trees, in tract of time changed the leafe and became a very Iuie tree: but fouly they are deceiued, and disproued plainly they may be by this,

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A That of the ſaid claſping Iuie Helix, there be many kinds, and three principall aboue the reſt. The firſt, of graſſe greene colour, which groweth moſt common: the ſecond, with a white leafe: and the third, called alſo the Thracian Iuie, which hath leaues of diuers colours. The foreſaid greene Iuie is fuller of leaues, and thoſe finer and ſet in better order than in others; whereas the contrary is to be ſeen in the white kind: alſo in the third ſort with variety of colours, ſome haue ſmaller and thinner leaues, couched likewiſe in good order, and thicker growing, whereas in the middle kind, no ſuch thing may be obſerued. Ouer and beſides, the leaues of Iuie are bigger or leſſe, ſpotted alſo and marked; in which regard one differeth from another. Among the white Iuies, ſome be whiter than other. The green Iuie groweth moſt of all others in length: the white killeth trees, for by ſucking and ſoking al the ſap and moiſture out of them, it feedeth and thri-
B ueth ſowel it ſelfe, that it becommeth in the end as big as a tree. A man may know an Iuie being come to his perfection by theſe ſignes: the leaues are very big and large withal; the tree putteth forth yong ſhoots ſtraight, whereas in others they be crooked and bend inward: the berries alſo ſtand in their cluſters directly vpright. Moreouer, whereas the branches of all other Iuies be made like vnto roots, this hath boughes ſtrong and ſturdy aboue the reſt; and next vnto it, the black kind: howbeit this property hath the white Iuie by it ſelf, that amid the leaues it putteth forth armes that claſp and embrace the tree round on euery ſide: which it doth vpon walls likewiſe, although it cannot ſo well compaſſe them. And hereupon it is, that although it be cut aſunder in many places, yet it continueth and liueth ſtil: and looke how many ſuch arms it hath ſo many heads likewiſe of roots are to be ſeen, whereby it maintaineth it ſelfe ſafe and ſound;
C and is beſides of that force, as to ſuck and choke the trees that it claſpeth. Furthermore, there is great diuerſity in the fruit, as well of the white as the black Iuie. As for the reſt, the berries of them are ſo exceeding bitter, as no bird wil touch them. And yet there is one kind more of Iuy, which is very ſtiffe and ſtandeth alone of it ſelfe without any prop to beare it vp: and this of all others only, is therupon called Ciſſos or Iuie indeed. Contrariwiſe, Chamæciſſos, [*i.* ground Iuie] is neuer knowne but to creep along the ground.

Chap. XXXV.

¶ *Of the Bind-weed or Iuie called Smilax.*

D LIke vnto Iuie, is that plant which they call Smilax, or rough Bind-weed. It came firſt out of Cilicia, howbeit more commonly it is to be ſeen in Greece: it putteth forth ſtalks ſet thicke with ioints or knots, and thoſe thruſt out many thornie branches. The leafe reſembleth Iuie, and the ſame is ſmall, and nothing cornered: from a little ſtele that it hath, it ſendeth forth certain pretty tendrils to claſp and wind about: the floure is white, and ſmelleth like to a Lilly; it beareth cluſters comming nearer to thoſe grapes of the wild vine Labruſca, than to the berries of Iuie; red of color, wherof the bigger contain within them 3 kernels or pepins apiece, the ſmaller but one, and thoſe be hard and black withall. This Smilax is not vſed in any ſacrifices or diuine ſeruice of the gods, nor ſerueth for garlands and chaplets: for that it is held to be dolefull and ominous, or of an vnlucky preſage, by occaſion of a certain yong lady or Damoſell of that name, who for the loue of the young gallant and knight *Crocus*, was turned into this
E ſhrub or plant, retaining ſtill her name: which the ignorant people not knowing, but taking it for a kind of Iuie, ſtick not to make coronets therof; profaning by that means many times their high feaſts and ſacred ſolemnities: and yet who woteth not with what chaplets Poets are crowned, and what garlands prince *Bacchus* or *Silenus* vſed to weare? Of this Smilax are made certain manuell writing tables. And this property moreouer hath the wood thereof, That if a man hold it cloſe to his eare, he ſhall heare it to giue a pretty ſound.

But to return againe to the Iuie indeed, it hath (by report) a ſtrange and wonderful vertue to trie wines, whether they be delaied with water or no: for make a cup of Iuie wood, and put wine thereinto, all the wine will ſoke and run through, but the water (if any be mingled therewith)
F will tarry behind.

Chap. XXXVI.

¶ *Of Reeds, Canes, and other water ſhrubs.*

IN this diſcourſe touching plants that loue cold places, it wil not be amiſſe to treat of thoſe that grow in waters. Among which, the Reeds and Canes may be raunged in the firſt place:

*For Arrowes and Darts: * For writing pens. *For Flutes and Pipes.

for necessarie they be in time both of * warand * peace: they haue their vse besides, and are G
accepted among the * delightsom pleasures of this world. Moreouer, in the Northern regions,
the people vse therewith to couer and thatch their houses: and this kind of roofe will last many
ages, if it be laid with a thick coat, euen vpon high and stately houses. In other parts also of the
world, they are woont with it to make their arch-roufes, and hanging floores of most sleight
worke. As for Canes particularly, and those of Ægypt by name, which haue a certaine resem-
blance of the Papyr-reed in Nilus, they serue for writing Paper. Howbeit those of Gnidos, and
which grow in Asia along the lake or meere of Anaia, be held for the best. As for ours heere in
Italy, they are of a more spungeous substance and gristly matter, apt to sucke and drinke vp any
liquour. The same within-forth is full of holes and concauities, but conuerted aloft into a fine
wooddy rind, and in time becommeth drie, fast, and hard. Apt it is to cleaue, and the clifts euer- H
more carry with them a very sharp edge; and besides, it is full of ioints. Now this woodie sub-
stance being thus distinctly parted by knots, runneth alwaies euen and smooth, growing smaller
and smaller vntill it proue sharpe pointed in the top: with a head consisting of a good thicke
downe or plume, which serueth also to right good purposes: for either in stead of feathers they
vse to stuffe beds therewith in common Innes; or when it is growne hard and hath a slimie cal-
lositie about it, they in Picardie and those Nether-lands do stampe it, and therewith calfret or
calke the ioints of their ships, betweene the ribs and plankes: and herein it hath no fellow, for
it taketh faster hold than any glue, and for filling vp any rifts and chinks, no solder so strong, no
pitch so sure and trustie. Of Reeds, the Easterlings make their shafts; and archers they be that
fight their battels and determine all quarrels. These shafts they arme with sharpe barbed arrow I
heads in manner of fish-hooks, which wound with a mischiefe, becausethey cannot be drawne
out of the body againe: and to make these arrowes flie the faster and kill more presently, they
set feathers vnto them. Now say that a shaft be broken as it is set fast in the body, that end with-
out the flesh wil serue againe to be shot: & so inured are the people in those parts to these kind
of weapons, so practised withall in discharging of them so nimbly, that a man seeing how thick
the shafts flie in the aire, would say they were a cloud of arrowes that shadowed the very Sun.
And therefore when they goe to battell, they wish euer for faire weather and Sunne-shine
daies. Windes and raine, as most aduerse vnto their warres, they cannot abide: then are they
quiet and rest in peace, ful sore against their wils, becausetheir weapons at such a time wil not
serue their turne. Certes if a man would fall to an exact reckoning and æstimate of Æthyopi- K
ans, Egyptians, Arabians, Indians, Scythians, and Bactrians, of so many nations also of the Sar-
matians, and other East-countries, together with all the kingdomes of the Parthians, hee
should finde, that the one moietie or halfe of the world hath been vanquished and conquered
by the meanes of arrowes and darts, made of Reedes. The Candiots aboue all others, were so
readie and perfect in this kinde of feat, that the ouerweening of their owne skill, and the con-
fidence which they had in this manner of seruice, made them too bold, and was in the end their
owne ouerthrow. But herein also, as in all other things else whatsoeuer, Italie hath carried the
name, and woon the prize: for there is not a better Reed growing for to make shafts, than that
which is found about the Rhene, a little riuer running vnder Bononia: very full of marrow or
pith; stiffe also it is and weightie withall; it cutteth the aire, it flyeth away most swiftly: and last L
of all, it will hold the owne and stand in the weather so counterpoised, that no winde hath any
power on it. And those Reeds in Picardie and the Low-countries, are nothing comparable: ne
yet of Candie, how highly soeuer they be commended for warre-seruice. And yet the Reeds
that grow in India be preferred before them, and beare the name, which indeed some thinke to
be of another nature, considering they bee so firme and bigge withall, that beeing well headed
with yron, they serue in stead of Speares and Iauelins. In very truth, the Indian Canes for the
most part, grow to the bignesse of Trees, such as we see commonly in Temples, standing there
for a shew. The Indians doe affirme, that there is a difference amongst them also, in regard of
sexe: and namely, That the substance and matter of the male, is more fast and massie: but that
of the female, larger and of greater capacitie within. Moreouer, (if wee may beleeue their M
words) the verie Cane betweene euery ioint, is sufficient to make a boat. These great Canes do
grow principally along the riuer Acesine. All Reeds in generall, doe shoot and spring in great
number from one root and principall stocke: and the more they bee cut, the better they come
againe. The root liueth long, and without great iniurie offered vnto it, will not die: it also is di-

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A vided into many knottie ioints. Thoſe onely of India, haue ſhort leaues. But in all of them, the leaſe ſpringeth out of the ioint, which embracing the Cane, doth clad it round about with certaine thin membranes or tunicles, as far as to the middle ſpace between the ioints; and then for the moſt part they giue ouer to claſpe the Cane, and hang downeward to the ground. As well Reeds as Canes, ſpread their leaues like wings round one after another, on either ſide vpon the very ioints, and that in alternatiue courſe alwaies very orderly; ſo as if the one ſheath come forth of the right ſide, the other at the next ioint or knot aboue it, putteth out on the left, and thus it doth throughout by turnes. From theſe nodoſities, otherwhiles a man ſhall perceiue as it were certaine little branches to breake foorth, and thoſe bee no other but ſmall and ſlender Reeds.

B Moreouer there be many kindes of Reedes and Canes: for ſome of them ſtand thicker with ioints, and thoſe are more faſt and ſolid than others, & ſmall diſtance there is between the ſame: there be again that haue not ſo many of them, and greater ſpace there is from the one to the other, and ſuch Canes for the moſt part are of a thinner ſubſtance. Yee ſhall haue a Cane all full of holes within, called therupon Syringias; and ſuch are very good to make whiſtles or ſmal flutes, becauſe they haue within them neither griſtly nor fleſhy ſubſtance. The Orchomenian Cane is hollow throughout from one end to the other, and this they call Auleticus, or the pipe Cane; for as the former was fit for flutes, ſo is this better for great pipes. Now you ſhall meet with Canes alſo that ſtand more of the wood, & haue but a narrow hole and concauity within, and this is full of a ſpungeous pith or marow within-forth. Some be ſhorter, ſome longer than
C other: and where you haue one that is thin and ſlender, you ſhall ſpie a fellow to it more groſſe and thicker. That which brancheth moſt, & putteth forth greateſt ſtore of ſhoots, is called Donax, and is neuer known to grow but in mariſhes and watery places (for herein alſo lieth a difference) and preferred it is far before the Reed that commeth vp in dry ground. The archers reed is a ſeuerall kind by it ſelfe (as we haue ſhewed before;) but of this ſort, thoſe in Candy haue the greateſt ſpaces betweene euery ioint; and if they be made hot, they are very pliable, and will bend and follow which way ſoeuer a man would haue them.

Moreouer, Reeds are diſtinguiſhed one from another by the leafe, not for the number, but the ſtrength and colour. The leaues of thoſe about Lacedæmon, * are ſtiffe and ſtrong, growing thicker of the one ſide than of the other. And ſuch as theſe are thought generally to grow a-
D long ſtanding pooles and dead waters, far vnlike to thoſe about running riuers: and beſides, to be clad with long pellicles, which claſpe and climbe about the Cane higher aboue the ioint, than the reſt doe. Furthermore, there is another kind of Reeds that groweth crooked and winding trauers, and not vpright vnto any height, but creeping low toward the ground, and ſpreading it ſelfe in manner of a ſhrub. Beaſts take exceeding great delight to feed thereof, and namely, when it is young and tender, for the ſweet and pleaſant taſte that it hath. Some cal this Reed, Elegia.

* *Varia, or Verſicolor, μαλακὴ, Theoph. i.* of diuers colours.

Ouer and beſides, there breedeth in Italy alſo among the fens, a certain ſalt ſome, named * Adarca, ſticking to the rind or vtmoſt barke of Reedes and Canes, onely vnder the verie tuft and head: paſſing good it is for the tooth-ach, by reaſon of the hot and cauſtick quality that it hath
E like to Senuie or Muſtard-ſeed. As touching the Reed-plots about the Orchomenian lake, I muſt needs write more exactly, conſidering in what admiration they were in times paſt: for in the firſt place, they called that Cane which was the thicker and more ſtrong, Characias; but the thinner and more ſlender, Plotia. And this verily was wont to be found ſwimming in the Iſlands that floted in the ſaid lake; whereas the other grew alwaies firme vpon the bankes and edges thereof, how farre ſoeuer it ſpred and flowed abroad. A third ſort alſo there is of Canes, which they called Auleticon, for that it ſerueth to make flutes and pipes of: but this commonly grew but euery ninth yeare: for the ſaid lake alſo kept that time juſt, and increaſed not aboue that terme; but if at any time it chanced to paſſe that time and to continue full two yeres together more than ordinary, it was holden for a prodigious and fearfull ſigne. The which
F was noted at Chæronia, in that vnfortunate battell wherein the Athenians were ouerthrowne and defeated: and many times elſe is obſerued to happen about Lebadia, namely when the Riuer Cephiſus ariſeth ſo high, that he ſwelleth ouer his bankes, and is diſcharged into the ſaid lake. Now during that ninth yeare (whiles the inundation of the lake continueth) theſe Canes prooue ſo bigge and ſtrong withall, that they ſerue for hawking poles, and fowlers pearches:

* *Calamachnē.*

and then the Greeks call them Zeugitæ. Contrariwiſe, if the water hold not ſo long, but do fal G
and return back within the yere, then the Reeds be ſmall and ſlender, named Bombyciæ. How-
beit the femals of this kind, haue a broader and whiter leafe, little or no down at all vpon them,
and then they are known by a pretty name and called Spadones, as one would ſay guelded. Of
theſe Reeds were made the inſtruments for the excellent cloſe muſick within-houſe: wherein, I
cannot paſſe with ſilence, what a wonderfull deale of paines and care they tooke to fit them for
their tune, and make them to accord: inſomuch, as we are not to be blamed but born withall, if
now adaies we chuſe rather to haue our pipes and hautboies of ſiluer. And in truth, to the time
of *Antigenes* (that excellent minſtrell and plaier vpon the pipe) all the while that there was no
vſe but of the plain muſick and ſingle inſtrument; the right time of cutting down & gathering
theſe Reeds for this purpoſe, was about September, when the ſigne Arcturus is in force: then
were they to haue a ſeaſoning and preparation for certaine yeares, before they would ſerue the H
turne; yea and then alſo much ado there was with them, and long practiſe and exerciſe they aſ-
ked, before they could be brought into frame and good tune: ſo as a man might wel ſay, that the
very pipes were to be taught their ſound and note, by meanes of certaine tongues or quills that
ſtruck and preſſed one vpon another; and all to giue contentment and ſhew pleaſure vnto the
people aſſembled at Theatres, according as thoſe times required. But after that muſicke came
once to be compound, and that men ſung and plaied in parts with more varietie and delight,
they began to gather theſe Reeds before mid-Iune, and in three yeares ſpace they had their per-
fection and grew to their proofe; then were thoſe tongues or holes made more wide and open,
for to quauer and change the note the better: and of ſuch are the flutes and pipes made, which
be vſed at this day. But in thoſe times men were perſuaded, that there was a great difference in I
the parts of any Reeds for to ſerue theſe or thoſe inſtruments: in ſuch ſort, as that ioint which
was next vnto the root, they held to be meeter for the Baſe pipe that was fitted for the left hand;
and contrariwiſe for the Treble of the right hand, thoſe knots that were toward the head & top
of the Reed. Howbeit of all others, by many degrees were thoſe preferred which grew in the ri-
uer Cephiſus. Now adaies, the hautboies that the Tuſcans play vpon at their ſacrifices, be of
Box-wood; but the pipes vſed in plaies for pleaſure only, are made of the Lotos, of Aſſes ſhank-
bones, and of ſiluer. The beſt Faulconers Reeds wherewith they vſe to chaſe foules, came from
Panhormus: but the Canes for angle-rods that fiſhers occupie, are brought out of Africk from
Abaris. The Italian Reeds & Canes be fitteſt for to make perches to lay ouer frames, & props
for to beare vp vines. Finally, as touching the ſetting of Reedes, *Cato* would haue them to bee K
planted in moiſt grounds, after they haue bin firſt delued & laid hollow with a ſpade; prouided
alwaies that the œlets ſtand 3 foot aſunder, and that there be wilde Sparages among, whereof
come the tender crops for ſallads; for thoſe like well and ſort together with the Canes.

Chap. XXXVII.

¶ *Of the Willow or Sallow, eight kinds thereof: and what trees beſides the Willow are good for bindings. Alſo of Briers and Brambles.*

MOreouer (after the opinion of the ſaid *Cato*) it is good to plant Withies alſo about riuer
ſides, and neere to Reeds: for ſurely there is not more profit ariſing from any other tree of L
the waters, than from it; howſoeuer the Poplars are well liked and loued of the vines, and
do nouriſh the good wines of Cæcubum: howſoeuer the Alders ſerue in ſtead of rampiers and
ſtrong fences againſt the inundation and ouerflowing of riuers, withſtanding their forcible e-
ruptions; howſoeuer they ſtand in the waters as mures and wals to fortifie the banks, or rather
as ſentinels to watch and ward in the borders of country farms; and being cut down to the root,
do multiply the rather, and put forth many ſhoots and imps as heires to ſucceed. And to bigin
withall, of Sallowes there be many kinds: for ſome there be, that in the head beare perches of a
great length to prop and make trails for vines to run vpon: and the rind or skin as it were pilled
from the wood, is as good as a belt or thong to binde or gird any thing withall. Others againe
there are, and namely the red Willowes, which carry twigs and rods that are pliable and gentle M
to wind as a man would haue them; fit alſo for buildings. Ye ſhal haue of theſe Oſiers, ſome that
are very fine & paſſing ſlender, wherof are wrought prety baskets, and many other dainty deui-
ſes; others alſo that are more tough and ſtrong, good to make paniers, hampers, and a thouſand
other

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A other neceſſary implements for country houſes,and to fit the husbandmen. Being pilled, they are the fairer and whiter,more ſmooth alſo and gentle in hand,whereby they are excellent good for the more delicate ſort of ſuch wicker ware,and better far than ſtubborn leather; but principally for leaning chairs,wherein a man or woman may gently take a nap, ſitting at eaſe and repoſe moſt ſweetly. A willow,the more that it is cut or lopt, the better ſpring will it ſhoot at root,and beare the fairer head. Let that which you cut or ſhred,be ſo little & ſhort withal, that it reſemble a mans fiſt,rather than a bough,the thicker will it come again: a tree no doubt that would not be ſet in the loweſt rank,but be wel regarded,how ſoeuer we make but baſe reckoning thereof:for ſurely there is not a tree for reuenue and profit,more ſafe and certain; for coſt, leſſe chargeable;and for iniury of weather,in better ſecurity. Certes,*Cato*, among the commodities that commend a good ferm or manor,eſteemeth it in the third place,and preferreth the increaſe
B and benefit thereby,before the gain that groweth from oliue rows,corn fields,& good medows. Yet hereof we muſt not infer,that we are not furniſhed with many other things which wil ſerue for bands to bind withal;for we haue certain ſorts of Spart or Spaniſh broom,we haue Poplars, Elmes,the Sanguine-ſhrubs,Birch,clouen Reeds,leaues of Cane; as for example in Liguria: the cuttings alſo of the very Vine,and Briars,ſo their ſharp pricks be cut away, to tie withall; yea and the Hazell wands alſo,ſo they be writhen and twined:wherein a man may ſee a wonderful property,That a wood ſhould be ſtronger for to bind withal,when it is cruſhed and bruiſed, than whiles it was entire and ſound. All theſe(I ſay)are good for bands,and yet the willow hath a gift therein beyond all the reſt. The Greek willow is red,and commonly is ſliuen for to make withs. The Amerian Oſier is the whiter,but more brittle,and ſoon wil crack,& therfore it is put
C to that vſe of binding ſound and whole as it groweth, and not clouen through. In Aſia,they make account of three ſorts of willows:the black,which they imploy to wind and bind withal, ſo tough and pliant it is:the white,wherewith husbandmen make their wicker paniers and baskets,with other ſuch veſſels for their vſe;as for the third,it is the ſhorteſt of all other,and they cal it Helix or Helice. With vs alſo here in Italy,there be as many kinds,& thoſe diſtinguiſhed by their ſeuerall names;the firſt,which is of a deep purple colour,they call the free oſier or willow;and that is ſo good for bands: the ſecond,which is more thin and ſlender,is named Vitelina,[or *Vitellinam* rather,for the yellow colour of the yolke of egges,] for the bright hew that it hath: the third that is ſmalleſt of all three,is the French willow.

D To come now to the brittle Ruſhes that grow in mariſh grounds,which ſerue to thatch houſes and to make mats; and the pith whereof when the rind is pilled, maketh wicke for watch-candles,and funerall lights to burne by a dead corps whiles it lieth aboue ground, they cannot iuſtly be reckoned in the ranke either of ſhrubbes,or Brier-buſhes,and Brambles, ne yet of tall plants growing vp with ſtems and ſtalks,no more than among Hearbes and Weeds creeping along the ground;but are to be counted a ſeuerall kind by it ſelfe. True it is,that in ſome places there are to be found ruſhes more ſtiffe,hard,and ſtrong,than in others. For not onely mariners and watermen in the riuer Po do make ſailes thereof,but fiſhermen alſo of Affrick in the maine ſea:howbeit they hang their ſailes betweene the maſts, from maſt to maſt, after a prepoſterous manner contrary to all other. The Mores alſo do couer their cottages with Bulruſhes:and ſurely if a man looke neerly to the nature of them, they may ſeeme to ſerue for that vſe which the
E Papyr-reeds in the netherland of Ægypt are put vnto, about the deſcent and fall of the riuer Nilus.

As touching Brambles,they may go among the ſhrubs of the water:ſo may the Elders alſo, which conſiſt of a ſpungeous kind of matter,& yet cannot wel be counted among thoſe plants which bee termed Fenels-gyant: for ſurely the Elder ſtandeth more vpon the wood than they do. The ſhepherds are verily perſuaded, that the Elder tree growing in a by-place farre out of the way,and from whence a man cannot heare a cock crow out of any town,maketh more ſhrill pipes and louder trumpes than any other. The Brambles beare certaine berries like the Mulberries,euen as the ſweet Brier of another kind,which they call Cynosbatos or the Eglantine, carieth the reſemblance of a Roſe. A third ſort there is of brambles,which the Greeks cal Idea,
F of the mountaine Ida. This is the Raſpis:ſmaller it is and more ſlender than the reſt,with leſſe pricks vpon it,and nothing ſo ſharpe and hooked. The floure of this Raſpis beeing tempered with hony,is good to be laied to bleared and bloud-ſhotten eies;as alſo to the wild-fire,or diſeaſe called Saint Anthonies fire. Being taken inwardly,and namely drunk with water,it is very

comfortable to a weake ſtomacke. The Elder beareth certain blacke and ſmall berries, full of a G
groſſe and viſcous humor, vſed eſpecially to die the haire of the head black. If they be boiled in water they are good and wholſome to be eaten as other pot-herbs.

CHAP. XXXVIII.

¶ *Of the iuice or humor in trees. The nature of their wood and timber. The time and manner of felling and cutting downe trees.*

TRees haue a certaine moiſture in their barkes, which we muſt vnderſtand to be their very bloud, yet is it not the ſame nor alike in all: for that of the Fig trees is as white as milke, and as good as rendles to giue the forme to cheeſe. Cherry trees yeeld a glutinous and H
clammy humor, but Elmes a thin liquor in manner of ſpittle. In Apple trees the ſame is fattie and viſcous; in Vines and Pyrries wateriſh. And generally, thoſe trees continue and liue longeſt, that haue ſuch a glewy moiſture in them. In ſumme, there are to be conſidered in the ſubſtance and body of trees, like as of all other liuing creatures, their skin, their bloud, fleſh, ſinues, veins, bones, and marrow. For in lieu of their hide is the barke. And I aſſure you, a ſtrange and maruellous thing it is to be obſerued here in the Mulberry, that when Phyſitians ſeek to draw the foreſaid liquour out of it, at ſeuen or eight a clocke in a morning, if they ſcarifie or lightly cut the bark with a ſtone, it iſſueth forth, and they haue their deſire: but if they cruſh or cut it deeper in, they meet with no more moiſture than if it were ſtark dry. In moſt trees next to the skin lieth the fat: this is nought elſe but that white ſap which of the colour is called in Latin Alburnum. As it is ſoft in ſubſtance, ſo is it the worſt part of the wood; and euen in the ſtrong I
oke, as hard as otherwiſe it is, ye ſhal haue it ſoon to putrifie and rot, yea and quickly be worme-eaten. And therefore if a man would haue ſound and good timber, this white muſt be alwaies cut away in the ſquaring. After it followeth the fleſh of the tree; and ſo the bone, which is the very heart and beſt of the wood.

All trees whereof the wood is ouer dry, beare fruit but each other yeare, or at leaſtwiſe more in one yere than another, as namely the Oliue tree: a thing obſerued more in them than in thoſe that haue a pulpous and fleſhie ſubſtance, as the Cherry tree. Neither are all trees indifferently furniſhed with ſtore of the ſaid fat or fleſh, no more than the moſt fierce and furious beaſts. As for the Box, Cornel, and Oliue trees, they haue neither the one nor the other, ne yet any marrow at all, and but very little bloud. Semblably, the Servis tree hath no heart, the Alder no car- K
noſitie, (and yet both of them are ſtored wel enough with marow, which is their pith) no more than canes or reeds for the moſt part. In the fleſhy ſubſtance or wood of ſome trees there are to be found graine and veine both. And eaſie it is to diſtinguiſh the one from the other: for commonly the veins be larger and whiter; contrariwiſe the grain, which the Latines cal Pulpa, runneth ſtreit and direct in length, and is to be found ordinarily in trees that wil eaſily cleaue. And hereupon it commeth, that if a man lay his eare cloſe to one end of a beame or piece of timber, he ſhall heare the knocke or pricke that is made but with a pen-knife at the other end, be the piece neuer ſo long, by reaſon that the ſound goeth along the ſtreit grain of the wood. By this means alſo a man ſhall find when the timber doth twine, and whether it run not euen, but be interrupted with knots in the way. L

Some trees there be that haue certain hard bunches bearing out and ſwelling like to kernels in the fleſh of a Swines necke: and theſe knobs or calloſities haue not in them long grain and broad veine, as is aboue ſaid, but only a brawny fleſh (as it were) rolled round together: And to ſay a truth, when ſuch knurres and calloſities as theſe be, are found either in Citron or Maple trees, men make great account of them, and ſet no ſmall ſtore by that wood. All other ſorts of Tables, when the trees are clouen or ſawne into plankes, are brought into a round compaſſe with the grain: for otherwiſe, if it were ſlit ouerthwart to make them round againſt the grain, it would ſoon breake out. As touching the Beech, the graine of it runneth croſſe two contrary wayes like combe teeth; but in old time the veſſels made of that wood were highly eſteemed. As for example, *Manius Curius* hauing ſubdued his enemies, proteſted, and bound it with an M
oath, That of all the booty and pillage taken from them, hee had not reſerued any thing for himſelfe, but onely a cruet or little Ewer of Beech wood, wherein he might ſacrifice vnto the gods.

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A There is no wood but floteth aloft the water, and waueth in length: like as that part which is next to the root is far more weighty, ſetleth faſter downe and ſinketh. Some wood hath no veins at all, but conſiſteth only of a meere grain, ſtreight and ſmall in maner of threds, & ſuch commonly is eaſie to be clouen. There is again wood that hath no ſuch direct graine, and that will ſooner breake out than cleaue; and of this nature is the Ollue and Vine-wood. Contrariwiſe, the whole body and wooddy ſubſtance of the Figge tree is nothing but fleſh. The Maſtholme, Cornel, Oke, Tretrifolie, Mulberry, Ebeny, and Lotus, which haue no pith and marrow within, as is beforeſaid, are all heart. All wood for the moſt part turneth to a blackiſh colour. The Cornel tree is of a deep yellow, wherof are made the faire Bore-ſpeare ſtaues, which ſhine again, and be ſtudded (as it were) with knots, and chamfered betweene both for decencie and
B handſomneſſe. The Cedar, Larch, and Iuniper wood is red.

Chap. XXXIX.

¶ *Of the Larch tree, the Firre, and the Sapine: the manner of cutting or falling ſuch like trees.*

THere is a female Larch tree which the Greeks call Ægis: the wood whereof is of a pleaſant colour, like to hony. Painters haue found by experience, that it is excellent good for their tables, both for that it is ſo euen and ſmooth, not apt beſides to chink and cleaue: as alſo becauſe it will endure and laſt for euer. And that part they chuſe which is the very heart
C of it, and next the pith, which in the Fir tree the Greekes call Leuſon. In like ſort the heart of the Cedar is hardeſt which lieth next to the pith or marrow aboue named (much after the maner of bones in the bodies of liuing creatures) when the muddy carnoſitie is ſcraped off and taken away. The inward part alſo of the Elder by report is wondrous hard & tough, and they that make thereof ſtaues for Bore-ſpeares prefer it before any wood whatſoeuer. For it ſtandeth only vpon skin and bone, that is to ſay, of the rind and heart.

Theophraſtus writeth this of the Cornell tree.

As touching the falling and cutting downe of trees, to ſerue either in temples or for other vſes, round and entire as they grow, without any ſquaring; as alſo for to barke them, the onely time and ſeaſon is, when the ſap runs, and that they begin to bud forth: otherwiſe you ſhal neuer be able to get off their bark: for bark them not, they wil rot and become worm-eaten vnder
D the ſaid barke, and the timber withall wax duskiſh and blacke. As for the other timber that is ſquared with the axe, and by that means rid from the barke, it would be fallen or cut downe between mid-winter and the time that the wind Fauonius bloweth: or, if we be forced to vſe the timber before, and to preuent that time, trees may be fallen at the ſetting of the ſtar Arcturus, or of the Harp-ſtar before it. Finally, the vtmoſt and laſt time thereof is at the ſummer Sunneſted. But foraſmuch as moſt men be ignorant of theſe ſeaſons, and know not when theſe ſtarres aboue named do either riſe or fall, I will hereafter ſhew the reaſon both of the one and other in place conuenient. For this preſent, as touching the time of felling trees, the common ſort make no more ſcruple, but thinke it ſufficient to obſerue, that no trees which are to be hewne ſquare for carpenters work be caſt down and laid along before they haue borne their fruit. As for the
E hard and ſauage Oke, if it be felled in the ſpring it will be ſubiect to the Worme: but cut it down in mid-winter, it will neither warp, ne yet cleaue and chink: being otherwiſe ſubiect vnto both, namely, as well to caſt and twine, as to rift and gape: a thing incident to the Cork wood, be it cut down in as good a ſeaſon as is poſſible. Moreouer, it paſſeth to ſee how much the age of the Moon auaileth in this caſe: for it is commonly thought that timber would not be fallen but in the wain and namely in the laſt quarter, from the 20 day of the Moon, till the thirtieth. And this is generally receiued among all good workmen, That the beſt time to cut downe any timber, is in the coniunction of the Moon with the Sun, euen in the very day of the change, before ſhe ſheweth new. Certes *Tiberius Cæſar* the Emperor gaue order to fel the Larch trees that came out of Rhœtia, to repaire and re-edifie the bridge that ſerued to repreſent the ſhew of a
F naual battell vpon the water (which fortuned to be conſumed with fire) iuſt at the change of the Moon. Some ſay, that we muſt preciſely obſerue the point of the conjunction, and that the Moon withall be vnder the earth, when ſuch trees ſhould be felled: which cannot be but in the night. But if it fall out beſides, that this conjunction or change of the Moone, and the laſt day of the Winter Sun-ſtead meet together at one inſtant; the timber then cut downe will laſt a world

world of yeares. Next vnto it is that timber which is fallen in the daies and ſignes aboue re- G
hearſed. Others affirme moreouer, that the riſing of the Dog-ſtar would be conſidered and choſen for this purpoſe: for at ſuch a time was that timber felled which ſerued for the ſtately hall or pallace of *Auguſtus*. Moreouer, for to haue good and profitable timber, the trees would be cut down that are of a middle age, for neither yong poles nor old runts are fit for durable building. Furthermore, there be that hold opinion, that for to haue the better timber, the trees ſhould haue a kerfe to the very heart and pith round about, and ſo let it ſtand an end ſtill, that all the humor by that means might run out, before they be ouerthrowne and laid along. And verily a wonderfull and miraculous thing is reported in old time, during the firſt Punicke war againſt the Carthaginians, namely, that all the ſhips of that fleet which was conducted by Generall *Duellius* the high Admiral, were ſhot into the ſea and vnder ſaile, within ſixty daies after H
the timber whereof they were built was cut downe in the wood. And *L. Piſo* hath left in writing, That againſt king *Hiero* there were 220 ſhips made & furniſhed in 45 daies after the timber grew. Alſo in the ſecond Punick war, the Armado which *Scipio* imploied, was ſet aflote and bare ſaile forty daies after the fall of the timber. See how forcible and effectuall in all things is the ſeaſon and opportunitie of time duly taken, eſpecially when need driueth to make ſpeed and haſten apace.

Cato the chiefe and only man of all others for experience and knowledge in euery thing, in his treatiſe of all kind of timber to be imploied in building, giues theſe rules following, Make
* *Sapino* or *Carpino.* » thy preſſing plank eſpecially of the black * Sapine or Horn-beam tree. *Item*, Whenſoeuer thou
» meaneſt to ſtorke vp either Elme, Pine, Walnut tree, or any other whatſoeuer for timber, ſee I
» thou dig it out of the ground, in the wane of the Moon, and that in the afternoon, and take heed
» in any wiſe that the wind be not South. *Item*, The right ſeaſon to fell a tree for timber, is when
» the fruit is ful ripe. *Item*, Beware in any caſe, that thou neither draw forth of the ground, nor yet
» ſquare a tree when the dew falleth. And a little after: Beware thou meddle not with timber
» trees but either at the change or full of the Moon. And in no hand, neither ſtork it vp then, nor
» hew it hard to the ground. But within foure daies after the full Moone, plucke vp trees hardly,
» for that is the beſt time. *Item*, Be well aduiſed, that thou neither fell, ſquare, nor touch with the
» ax, any timber that is black, vnleſſe it be dry. And meddle not with it, if either it be frozen or
full of dew. *Tiberius* the Emperor aboue named obſerued likewiſe the change of the Moon, for
cutting the haire both of head and beard. And yet *M. Varro* gaue a rule, That to preuent bald- K
neſſe and the ſhedding of haire, the Barber ſhould be ſent for alwaies after the full Moon.

But to come again vnto our timber trees: The Larch and Fir both (but the Fir eſpecially) if they be cut down, bleed a long time after, and yeeld abundance of moiſture. Indeed, theſe twain of all others be the talleſt, and grow moſt ſtreight and vpright. For Maſt-poles and croſſe ſaile-yards in ſhips, the Fir or Deale is commended and preferred before all other, for the ſmoothnes and lightneſſe withall. The Larch, the Fir, and the Pine haue this propertie common to them all, To ſhew the graine of their wood running either parted in foure, forked in twaine, or ſingle one by one. For fine carpentry and Ioiners ſeeling within houſe, the heart of the tree would be clouen or rent. The quarter timber, or that which runneth with foure grains, is ſimply the beſt, and more pleaſant to be wrought than the reſt. They that be skilfull woodmen, and haue expe- L
rience in timber, wil ſoon find at the firſt ſight the goodnes of the wood by the very bark. That part of the Fir tree which groweth next to the earth is without knots, euen and plain: the ſame is laid to ſoke and ſeaſon in the water, and afterwards the barke is taken off, and ſo it commeth to be called Sapinus. The vpper part is knotty, and harder than the nether, and the Latins name it Fuſterna. In ſum, what tree ſoeuer it be, that ſide which regardeth the North is more ſtrong and hard than the other. And generally, the wood of thoſe trees that grow in moiſt and ſhadie places is worſe: contrariwiſe, that which commeth from ground expoſed to the Sun-ſhine is more faſt and maſſie, and withall endureth a long time. And herupon it is, that at Rome the Fir trees that come from the nether ſea ſide out of Tuſcane, be in better requeſt than thoſe from Venice ſide, vpon the coaſt of the vpper ſea. M

Moreouer, there is great ods between Firre trees, in regard of diuers Countries and Nations where they grow. The beſt are thoſe of the Alps and the Apennine hills. Likewiſe in France there are excellent good Firs vpon the mountains Iura and Vogeſus: as alſo in Corſica, Bithinia, Pontus, and Macedonia. A worſe kind of them grow in Arcadia and about the mountaines

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A neare Ænea. The worſt be thoſe of Pernaſſus, & Eubœa: for in thoſe parts they be ful of boughs and grow twined, beſides, they ſoone doe putrifie and rot.

As for Cedars, the beſt ſimply be thoſe that grow in Candy, Affricke, and Syria. This vertue hath the oile of Cedar, That if any wood or timber be thoroughly anointed therewith, it is ſubject neither to worme nor moth, ne yet to rottenneſſe.

The Iuniper hath the ſame propertie that the Cedar. They proue in Spaine to be exceeding big and huge, the Berries alſo greateſt of all others. And whereſoeuer it grows, the heart thereof is more ſound than the Cedar.

A generall fault and imperfection there is common to all wood, When the graine, and the knots run into round balls; and ſuch they call in Latin Spiræ. Alſo in ſome kind of timber, like
B as in marble alſo there be found certaine knurs like kernils, as hard they be as naile heads, and they plague ſawes, whereſoeuer they light vpon them. Otherwhiles they fall out to be in trees, by ſome accidental occaſion, as namely, when a ſtone is got into the wood, and encloſed within it: or, in caſe the bough of ſome other tree be incorporat or vnited to the foreſaid wood. There ſtood a long time a wild Oliue in the market place of Megara, vpon which the hardie and valiant warriors of that citie vſed to hang and faſten their armor, after ſome worthy exploit performed: which in tract and continuance of time were ouergrown with the bark of the ſaid tree, and quite hid. Now was this a fatal tree vnto the ſame city and the inhabitants thereof, who by way of Oracle were forewarned of their wofull deſtiny and vtter ruin; which was to happen. When that a tree ſhould be with yong, and deliuered of harneis: which Oracle was fulfilled when this
C tree was cut downe, for within the wombe thereof were found the mourrions, jambriers, or grieues, of braue men in times paſt. To conclude, it is ſaid, That ſuch ſtones ſo found in trees be ſingular good for a woman with child, to carie about her, that ſhe may goe her full time.

Chap. XL.

¶ Of diuers ſorts of timber. Of ſome trees of extraordinarie bigneſſe. What trees they be that neuer be worme-eaten, nor decay and fall. What wood doth endure and continue alwaies good.

D THe greateſt tree that to this day had euer been knowne or ſeene at Rome, was that, which being brought with other timber for the rebuilding of the foreſaid bridge called Naumachiaria, *Tiberius Cæſar* commanded to be landed and laid abroad in view for a ſingular and miraculous monument to all poſteritie: and it remained entire and whole, vntill the time that *Nero* the Emperour built ſtis ſtately Amphitheatre. This peece of timber was of a Larch tree: it contained in length 120 foot, and caried in thickeneſſe euery way two foot, from one end to the other. Whereby a man may gueſſe and judge the incredible height of the whole tree beſides, to the very top. Such another tree there was to be ſeen in our daies, which *M. Agrippa* left for the like ſingularity and wonder of men, in thoſe ſtately porches and cloiſters that hee made in *Mars* field: and it continued ſtill after the building of the muſter place and treaſurers hall named Diribitorium. Shorter it was than the former by 20 foot, and caried a foot and half
E in thickeneſſe. As for the Fir tree, which ſerued for a maſt in that huge ſhip, which by the commandement and direction of *C. Caligula* the Emperour tranſported and brought out of Ægypt, that Obelisk which was erected and ſet vp in the Vatican hil, within the cirque there, together with the foure entire ſtones which bare vp the ſaid Obelisk as ſupporters; it was ſeen of a wonderfull and ineſtimable height aboue all others: and certaine it is, that there was neuer knowne to flote vpon the ſea a more wonderful ſhip than it was. She receiued 120000 Modij of Lentils for the very ballaiſt; ſhe tooke vp in length the greater part of the left ſide of Hoſtia harbour: for *Claudius* the Emperor cauſed it there to be ſunk, together with three mighty great piles or dams founded vpon it, and mounted to the height of towers, for which purpoſe there was brought a huge quantity of earth or ſand from Puteoli. The maine bodie of this maſt contai-
F ned in compaſſe 4 fadom full. And a common by-word it is, currant in euery mans mouth, that Fir maſt for that purpoſe, are vſually ſold for eight hundred Seſterces apeece, and more monie: whereas for the moſt part planks which are ſet together and ſerue in ſtead of boats, ordinarily coſt but forty. Howbeit, the kings of Egypt and Syria, for default and want of Fir (haue vſed by report) in ſtead thereof Cedar wood about their ſhipping. And verily, the voice goes of an exceeding

ceeding big one which grew in Cyprus, and was cut downe for a maſt to ſerue that mighty gal- G
leace of king *Demetrius*, that had eleuen bankes of oares to a ſide; a hundred and thirtie foot it was high, and three fatham thicke. And no maruell, ſince that the pyrats and rouers, who haunt the coaſts of Germanie, make their punts or troughs of one entire peece of wood and no more, wrought hollow in manner of a boat, and ſome one of them will hold thirtie men.

To proceed now vnto the ſundry natures of wood. The moſt maſſie and faſt wood, and therfore the weighteſt of all other, by judgment of men, is that of the Ebene and the Boxe: both ſmall trees by nature. Neither of them twaine ſwims aboue the water, no more will the Corke wood, if it be barked, nor the Larch. Of all the reſt, the ſaddeſt wood is that of Lotus, I meane that which at Rome is ſo called. Next to it, is the heart of Oke, namely, when it is rid of the white ſappie wood: the heart (I ſay) which comes neare to a black color: and yet the Cytiſus or H
Tetrifolie is blacker, and ſeemeth moſt to reſemble the Ebene. Howbeit, you ſhall haue ſome who affirme that the Terebinths of Syria be blacker than it. There was one *Thericles* a famous Turner, who was wont to make drinking cups, mazers, and bowles of the Terebinth; which is a ſufficient proofe, that the wood is fine and hard. This wood alone of all others, loueth to be oiled, and ſurely the better it is for the oile. But a maruellous prety deuice there is to ſet a paſſing faire blacke color, and a ſhining gloſſe vpon it; with Walnuts and wild Peares, namely, boiling theſe together, and making thereof a mixture and compoſition to giue the ſaid tincture. All theſe trees abouenamed haue a ſad and faſt wood. Next to them in that reſpect is the Cornell tree: and yet I cannot properly range it in the order of timber trees, ſo ſmall and ſlender it is. Neither is the wood thereof in manner good for nought elſe but for ſpokes in cartwheeles, alſo to make wedges to cleaue wood, and tough pins, that wil hold as faſt well neer as yron ſpikes. In I
like ſort, the Maſt-holm, the Oliue both wild and tame, the Cheſtnut tree, the Hornbeame, and the Poplar, be of an hard ſubſtance, and meet for this purpoſe. The wood hereof hath a curled graine like the Maple, and ſurely would be as good timber as any, but for often lopping the boughs, which gueldeth and deminiſheth the ſtrength. Moreouer, many of them there bee, and the Oke eſpecially, ſo hard, that vnleſſe they be ſoked firſt in water, it is impoſſible to bore a hole into them with an augoer, or to pluck forth a nail if it be once ſet faſt, water them as much as you will. Contrariwiſe, the Cedar will not hold a naile. The wood of the Linden tree ſeemes of all other to bee moſt ſoft, and hoteſt withal: for proofe whereof, this reaſon men doe alleadge, becauſe it ſooneſt turnes and dulles the axe edge. Of a hote nature alſo are the Mulberrie tree, the Lawrell, and the Yvie, and in one word, all thoſe that ſerue to ſtrike fire with. This experi- K
ment was firſt found out by ſpies, that goe between camp and camp, by ſheepheards alſo in the field: for hauing not flint euermore readie at hand to ſmite and kindle fire withall, they make ſhift for to rub and grate one wood againſt another, and by this attrition there fly out ſparkles, which lighting vpon ſome tinder, made either of drie rotten touchwood, or of bunts and withered leaues, very quickly catch fire, and burne not out. And for this intent, there is nothing better than to ſtrike the Yviewood, with the Bay. In this caſe alſo the wilde Vine (I mean not Labruſca) is much commended: and it climbeth and runneth vpon trees in manner of Yuie.

The trees that grow in waterie grounds be coldeſt of all others: but ſuch be tougheſt and therefore beſt to make bucklers & targuets, the wood whereof, if it be cut, comes quickly together, and cloſes vp the gaſh againe, and in that regard, much adoe there is to pierce it thorough L
with any weapon whatſoeuer. And of this ſort are Fig trees, Willowes, Lindens, Birch, Elder, Aſh, and Poplar. Of all theſe, the Fig tree and the Willow be lighteſt, and therefore fitteſt for that purpoſe. Theſe trees laſt rehearſed, be good for caskets and foſſers: wicker baskets alſo and prettie paniers, which be made of winding twigs. Their wood beſides is faire & white, ſtreight alſo and eaſie to be grauen. The plane wood is ſoft and gentle, but moiſt withall; and ſo is the Alder. Elme likewiſe, Aſh, Mulberry, and Cherry-tree wood, is pliable, but drier and more ponderous. The Elme, of all kinds of wood, will keep ſtreight and ſtiffe beſt, and not warp at all: & becauſe it twines and caſts not, it is paſſing good for hinges and hooks, for ſawne bords for ledges in dores and gates, ſo as this regard be had of exchange, that the vpper end of the bord that grew toward the head of the tree, be fitted to the nether hinge or hooke of the dore; and con- M
trariwiſe the butt end, ſerue the higher. The Date tree and the Corke, haue a ſoft and tender wood. The Apple tree, Peare tree, and Maple, haue as ſad and maſſie; but brittle it is, like as all wood that goeth with a croſſe and friſled grain. And look what tree ſoeuer is naturally hard

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A and tough, the wild and the male of the ſame kind, haue their wood more churliſh than otherwiſe it is in the reſt. Semblably, thoſe that beare no fruit, are of a faſter and firmer wood than the fruitful: vnleſſe it be that that the males be bearers and the female barren, of which ſort are the Cypreſſe and Cornell trees. The wood of Cypreſſe, Cedar, Ebene, Lotus, Box, Yewgh, Iuniper, and the Oliue both ſauage and gentle, is neuer worme-eaten, ne yet rotteth for age. As for all other trees, long it is before theſe decay, to wit, the Larch, the Oke, the Corke tree, Cheſtnut and Walnut tree. The Cedar, Cypreſſe, and Oliue wood, neuer doth chinke or cleaue of it ſelf, vnleſſe it be by ſome accident.

It is commonly thought, that the Box, the Ebene, the Cypreſſe, and the Cedar wood, is euerlaſting and will neuer be done. An euident proofe thereof as touching all theſe ſorts of timber, by the judgment and choiſe of ſo many men, was to be ſeene in that famous temple of *Diana* in
B Epheſus: for al Aſia ſet to their helping hand and contributed toward that work, which in foure hundred yeres and not before, they brought to an end & finiſhed. The beames, rafters, and ſpars that went to the making of the rouſe, were by the generall voice of the whole world, of Cedar timber. As touching the ſtatue or image it ſelfe of the goddeſſe *Diana*, it is not certainly known of what wood it was: all writers, ſaue only *Mutianus*, report that it was of Ebene. As for him, a man who had been thrice Conſull of Rome, and one of the laſt who vpon their owne ſight of the ſaid thing, wrate therof, auoucheth that it was made of Vine wood; and that, howſoeuer the temple was ruined and rebuilt againe no leſſe than ſeuen times, yet the foreſaid image was neuer altered nor changed. Who ſaith moreouer, that *Canetias* choſe that wood for the beſt (for ſo he named the workman that cut and carued it.) And I much maruel therat, conſidering that
C by his ſaying this image was of greater antiquity than that of lady *Minerua*, much more than of prince *Bacchus*. He addes moreouer and ſaith, that this ſtatue was embaulmed within, by reaſon of the precious oile of Spiknard, which was diſtilled into it at many holes: by means of which medicinable liquor, the wood was nouriſhed, and the joints held cloſe and faſt together; whereat I canot chuſe but maruell again very much, that conſidering the ſtatue was ſo ſmall, it ſhould haue any peece or joint at all. Now as touching the leaues of the dores belonging to this temple, they were by his report, of Cypreſſe wood: and continued ſtill freſh and new to the eye, notwithſtanding it is foure hundred yeares well neare ſince they were made. Where, by the way this is to be noted, that theſe dores ſtood foure yeres glewed in the claue. And verily, this wood
D was choſen for that purpoſe, becauſe among other properties, the Cypreſſe alone hath the gift, to looke alwaies ſhining and poliſhed, and neuer loſeth the gloſſe and beauty. And for to proue this, we need not to goe farre? Looke but vpon the emage of * *Vejouis*, in the Capitol, made of Cypreſſe wood, doth it not endure ſtill faire and trim? and yet was it dedicated and conſecrated in that temple, in the yeare after the foundation of Rome, 551.

* Or, *Iupiter*.

A famous and memorable temple there is of *Apollo* at Vtica, where the beames and maine peeces of timber, made of Numidian Cedars, remaine as whole and entire as at the firſt day when they were ſet vp, which was when the citie was firſt founded: by which computation, they haue continued alreadie 1188 yeares. Moreouer, it is ſaid, that at Saguntum a citie of Spaine, there is a temple of *Diana* ſtill ſtanding, a little beneath the citie: and yet as king *Borchus* mine Author ſaith, 200 yeares before the ruine and deſtruction of Troy, the ſame men that brought
E the image of the ſaid *Diana* from the Iſland Zacynthus, founded the temple aboueſaid. For the antiquity and religion whereof, *Annibal* made ſome conſcience to demoliſh it, and would not once touch it: and therein are to be ſeen at this day the beames and rafters of Iuniper, ſound and good. But aboue all other, memorable is the temple of the ſaid goddeſſe *Diana* in Aulis, which was built many hundred yeres before the Trojane war: but what kind of timber was emploied about the Carpentrie thereof, is not well knowne. Howbeit, this we may boldly reſolue vpon, that the more odoriferous any wood is, the more durable alſo it is and euerlaſting.

Next to theſe trees aboue rehearſed, the wood of the Mulberrie tree is moſt commended, which in tract of time as it growes to be old, waxes alſo blacke. Moreouer, ſome kinds of wood
F as they be more laſting than other, ſo they continue better being emploied in one kind of work, than they do in another. The Elme timber will well abide the aire and the wind. The wild Oke Robur loueth to ſtand within the ground, and the common Oke is good in the water: let it bee vſed aboue ground to take the aire and the weather, it will caſt, warpe, and cleaue too bad. The Larch wood agreeth paſſing wel with water works, and ſo doth the black Alder. As for the Oke

Robur,

Robur, it will corrupt and rot in the sea. The Beech will doe well in water, and the Walnut tree likewise: but to stand within the earth, they are principall good, and haue no fellow. And for the Iuniper, it will hold the owne, being laid vnder ground, but for building aboue in the open aire, it is excellent good. The Beech and the Cerus wood rot quickly. The smal Oke called Esculus canot abide the water. The Cherrie tree wood is firme and fast: the Elme and the Ash are tough; howbeit, they will soone settle downward and sag, being charged with any weight, but bend they will before they break: and in case before they were fallen, they stood a while in the wood, after they had a kerfe round about, for their superfluous moisture to run out vntill they were well dried, they would be the better and sure in building. It is commonly said, that the Larch wood if it be put into ships at sea, is subject to wormes: like as al other kinds of wood, vnlesse it be the wild and tame Oliue. For to conclude, some timber is more readie to corrupt and be marred in the sea, and others againe vpon the land.

Chap. XLI.

¶ *Of wormes that breed in wood.*

Of vermine that eat into wood, there be 4 kinds. The first are called in Latine Teredines: a very great head they haue for the proportion of the body, and with their teeth they gnaw. These are found only in ships at sea, and indeed properly none other be Teredines. A second sort there be, and those are land wormes or mothes, named Tineæ. But a third kind resembling gnats, the Greeks tearme by the name of Thripes. In the fourth place bee the little wormes: whereof some are bred of the putrified humor and corruption in the very timber: like as others againe engender in trees, of a worme called Cerastes: for hauing gnawne and eaten so much, that he hath roume enough to turne him about within the hole which he first made, hee engendreth this other worm. Now, some wood there is so bitter, that none of these wermin will breed in it, as the Cypresse: others likewise so hard, that they cannot eat into it, as the Box. It is a generall opinion, that if the Firre be barked about the budding times, at such an age of the Moon as hath been beforesaid, it will neuer putrifie in the water. Reported it is by those that accompanied *Alexander* the great in his voiage into the East, that in the Isle Tylos lying within the red sea, there be certain trees that serue for timber to build ships, the which were known to continue two hundred yeares: and being drowned in the sea, were found with the wood nothing at all perished. They affirmed moreouer, that in the same Island there grew little plants or shrubs, no thicker than would wel serue for walking staues to cary in a mans hand, the wood whereof was massie and ponderous, striped also and spotted in manner of a Tygres skin; but so brittle withall, that if it chanced to fall vpon a thing harder than it selfe, it would breake into fitters like glasse.

Chap. XLII.

¶ *Of timber good for Architecture and Carpentrie: what wood will serue for this or that worke: and which is the strongest and surest timber for roufes of building.*

WEe haue here in Italie, wood and timber that will cleaue of it selfe. For which cause our Maister Carpenters giue order to besmeare them with beasts dung, and so to lie a drying, that the wind and piercing aire should not hurt them. The joists and plankes made of Firre and Larch, are very strong to beare a great weight, although they bee laid in length ouerthwart. Contrariwise, the Rafters made of the wild Oke Robur, and Oliue wood, wil bend, & yeeld vnder their load: whereas the other named before, do resist mainly & withstand, neither will they easily break, vnlesse they haue much wrong: nay sooner do they rot, than faile otherwise in strength. The Date-tree wood also is * tough and strong, for it yeeldeth not, but curbeth the contrarie way. The Poplar setteth and bendeth downeward: whereas the Date-tree contrariwise riseth vpward archwise. The Pine and the Cypres are not subject either to rottennesse or worme-eating. The Walnut tree wood soone bendeth, and is saddle-backt as it lieth, (for thereof also they often vse to make beames and rafters) but before that it breaketh, it will giue warning by a cracke, which saued many a mans life in the Island Antandros, at what time

* *Valida, ex Theophrast.*

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A time as being within the common baines, they were skared with the crack that the floore gaue, and ran forth ſpeedily before all fell. Pines, Pitch trees, and Allar, are very good for to make pumps and conduit-pipes to conuey water: and for this purpoſe their wood is boared hollow: lying buried vnder the ground, they will continue many a yeare ſound and good: let them bee vncouered without any mould and lie aboue ground, they will quickly decay. But if water alſo ſtand aboue the wood, a wonder it is to ſee how they will harden therewith and endure. Firre or Deale wood, is of all other ſureſt and ſtrongeſt for rouſes aboue head: the ſame alſo is paſſing good for dore leaues, for bolts and barres: alſo in all ſeelings and wainſcot or whatſoeuer it bee, whether Greekiſh, Campaine, or Sicilian, it is beſt, and maketh very faire worke. A man ſhall ſee the fine ſhauings thereof run alwaies round and winding, like the tendrills of a vine, as the
B ioyner runneth ouer the painels and quarters with his plainer. Moreouer, the timber of it is commendable for coaches and chariots: and there is not a wood that makes a better and ſtronger joynt with glew, than it doth: inſomuch, as the ſound plank will ſooner cleaue in any other place, than in the joynt where it was glewed.

Chap. XLIII.

¶ *Of glewing timber: of rent, clouen, and ſawen painell.*

GReat cunning there is in making ſtrong glew, and in the feat of joyning with it, as well in regard of ſeelings and wainſcot made of thin bourd and painell, as of marquetry & other inlaid workes: and for this purpoſe, Ioyners doe chuſe the miſtreſſe threadie grain that is
C moſt ſtreight, which ſome call the Fertill veine, becauſe ordinarily it breedeth others, and yee ſhall ſee it branching and curled, as if it ſhed teares and thoſe trickling down. In euery kind of wood whatſoeuer, the criſped graine will not take glew and beare a joynt. Some wood it is impoſſible to glew and joyne, with peeces of their owne kind, much leſſe of other wood; as the hard Oke Robur. And lightly ye ſhall not haue peeces of a diuers nature, knit and vnite well in a joint, no more than if a man ſhould go about to glew & join ſtone & wood together. The Seruiſe tree wood canot in any wiſe ſort in a joynt with the Corneil wood; no more can the Hornbeame and the Box: after them, the Tillet or Linden wood may hardly away with his ſocietie. To ſpeak generally, whatſoeuer wood is gentle and apt to bend, (ſuch as we cal pliant) the ſame
D is good and eaſy to be wrought to any work that a man would haue: to which, you may put the Myrtle and wild Fig-tree. Durable and handſome withall, either to be cut, ſquared, clouen or ſawen, are all thoſe kinds of wood which be by nature moiſt. As for drie peeces of timber, they giue not way ſo faſt to the ſaw, as greene: and yet you muſt except the Oke and the Box wood, which although they be greene, do ſtiffely withſtand the ſaw-gate, choking and filling vp their teeth euen; by which meanes the ſlit is hindred, and the worke goeth not forward: which is the cauſe alſo that the ſawyers draw vp & let downe the ſaw twice, before the teeth ſend from them any duſt into the pit, As for the Aſh, it is moſt eaſie to be wrought, put it to what vſe you will, and makes the faireſt worke: and namely for horſemens ſtaues, better it is than Hazell, lighter than the Corneil, and more gentle and pliable than the Seruiſe wood. The French white Aſh, it
E will bend well for cart-thills and fellies. The Elme would be very like vine-wood, but that it is more ponderous and heauie. The Beech is eaſie to be wrought into any form, brittle though it be and tender: yet thereof are made fine trenchers, thin ſhindles, and ſuch like, as will wind and bend euery way: and therfore it is the only wood commendable for to make prettie caskets, paniers, and boxes. The maſt-Holme alſo may be cut into fine thin foile or leaues like plates, and thoſe alſo are of a daintie and pleaſant colour: but ſingular good is the wood thereof for ſuch things as fret and weare with rubbing, and namely, the axle trees in wheeles: and as the Holme is fit for this purpoſe in regard of the hard wood; ſo the Aſh likwiſe, becauſe it is ſo lyth & pliable: in which two reſpects, the Elm is choſen before them both. Moreouer, the wood of theſe trees before-named, are notable to make many prettie tooles that ſerue artizans in their daily
F worke: and therefore it is commonly ſaid, That the wood of the wild Oliue, Boxe, maſt-Holm, Elme, and Aſh, are excellent good for awgre-handles and wimble ſtockes. Of the ſame alſo are made mallets, but beetle heads of the bigger ſort, of the Pine and Holme. A great reaſon why theſe kinds of wood are the more tough and harder, is when the trees haue their right ſeaſon, and be cut down in their beſt time, rather than too ſoon and before they be come to maturity.

Thus it hath beene knowne that doore-hinges and hookes made of Oliue wood (which otherwiſe is moſt hard) if they haue reſted any long time, and not beene worne by ſhutting, and opening too and fro, haue put forth freſh buds, as if they had growne ſtill in the plant. As for the dore-barres and bolts, *Cato* would haue them made of Holly, Bay-tree, and Elme. The handles and helues of ruſticall tooles, mattocke ſteeles, and ſpade trees, *Hyginus* willeth they ſhould bee either of Hornebeame, Holme, or Cerrus. For fine painell in fret-worke, for ſeeling alſo and ouerlaying other wood, theſe are the chiefe, the Citron, Terebinth, Maple of all ſorts, Box, Date tree, Huluer, Holme, Elder root, and the Poplar. The Alder tree likewiſe (as hath beene ſaid) affordeth certain ſwelling bunches & hard knots, which may be cut and clouen into moſt daintie flakes and precious leaues, as faire and pleaſant to the eie for their damask branch, as either Citron or Maple: ſetting which three aſide, there be no knurs and nodoſities in any tree worth ought and of account.

Moreouer, yee ſhall haue trees ordinarily in the mids toward the heart, carie a more criſped and curled wood; and the neerer it is to the but or root end, the finer is the graine, more branching alſo, and the ſtreaks winding in and out. Loe, from whence firſt came the ſuperfluous expence to couer and ſeele one wood with another! See how thoſe trees which for their very wood were of no price, are become more coſtly and dearer, when they ſerue as a barke to clad others! that one tree forſooth by this means, ſhould be ſo ſold many & ſundry times at a ſeueral price. Thus haue been deuiſed (I would not els) thin leaues of wood, like gold or ſiluer-foile. And yet that is not all: for there is come vp of late a deuiſe, to paint and die in ſundrie colors the hornes of beaſts, to cut and ſaw their teeth into thin plates: and wheras at firſt there was fret-works only inlaid and ſet out with Ivorie here and there, ſoone after it came to paſſe, that the wood was couered all ouer therewith. Neither hath the ryot and waſtfull prodigality of the world ſtaied there, but proceeded farther, euen to ſearch into the deepe ſea for that, which might ſerue in ſtead of wood and timber. Thus the tortoiſe ſhel hath been cut into flakes and leaues, for want forſooth of wood vpon drie land. And now of late daies, certaine monſtrous ſpirits, during the Empire of *Nero*, haue found out a deuiſe to disfigure the Tortoiſe ſhel alſo with paintings, that it might be ſold the dearer when it lookt like wood. Thus means are wrought, that the price of beds ſhould be raiſed and ſet vp by this meanes: thus they would haue the Terebinth wood to bee exceſſiue deare and aboue the worth: thus muſt the Citron wood be enhaunſed to an higher rate: and thus the Maple is counterfeited, Tortoiſe ſhells are foiſted in the place and bought for it. To conclude, of late daies the curioſitie of men was ſuch, that they could not content themſelues with rich and coſtly wood; and now for to beautify and ſet out ther wood, Tortoiſe ſhels muſt needs be bought, there is no remedie.

Chap. XLIIII.

¶ *The age of trees: what kind of trees they be that are of leaſt continuance. Semblably, of Miſſelto, and the Prieſts called Druidæ.*

IF a man would conſider the hidden corners of the world, and the inacceſſable deſarts that be in it, he might by infallible arguments conclude and reſolue, that there be ſome trees that haue continued time out of mind, and liued infinitly. But to ſpeak of their age only that are known (euen by the teſtimonie of ancient records, and thoſe faithfully deliuered vnto vs) there are to be ſeen ſtanding or growing at this day, about Linternum (a towne in Campaine) certain Oliue trees, that *Scipio Africanus* (the firſt of that name) planted long ſince with his owne hand. In the ſame place alſo there is a Myrtle tree, of a rare and admirable greatneſſe; and vnder it, a caue or hole in the ground, wherein (by report) there lyeth a dragon that keepes the ghoſt and ſoule of the ſaid *Scipio*. And at Rome, in the court-yard belonging to the chappell of goddeſſe *Diana Lucina*, there is yet to be ſeen a Lote tree ſtanding before the ſaid chappell, built in the yeare of the Anarchie, what time as Rome ſtood deſolate of all magiſtrates, and that was 369 yeares after the foundation of the citie: but how much more auncient this tree is than the ſaid temple, God knoweth: for elder it is without all queſtion, conſidering that of the groue or tuft of trees there growing, which the Latines call Lucus, the ſaid goddeſſe *Diana* tooke her name * *Lucina*. Now it is 450 yeares or thereabout, ſince that time, and ſo old it is doubtleſſe. Another Lote tree there is and elder than that, but the age thereof is likewiſe vncertain: known it is

* *Gratia Lucinæ dedit hæc tibi nomina Lucus.* Ouid.

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A by the name Capillata,[*i.* hairie:]ſo called, becauſe the haire of the veſtall Nuns heads is vſually thither brought,& there conſecrated:and yet is there a third Lotus at Rome in the court-yard and cloiſter about the temple of *Vulcan*, which *Romulus* built for a perpetuall monument and memoriall of a victorie,and defraied the charges out of the tenths of the pillage and ſpoile that he woone from his enimies;and this tree is at leaſt full as old as the citie of Rome, if it bee true that *Maſſurius* writeth. The roots thereof,paſſing along the ſtreet where the Burgeoiſes vſe to keep their reſidence, doe reach as farre as the ſtately market-place or Hall of *Cæſar*. There grew by it a Cypreſſe tree alſo of the ſame age,the which by an ouerſight and carleſſe neglect, fell downe no longer ſince then the laſt yeare of *Nero* the Emperour. But why ſtand wee long hereupon? there is an Holme growing in the Vatican,elder than Rome it ſelfe, with a plate of
B braſſe vpon it engrauen in Tuſcan letters, containing an inſcription or title: wherby it appeareth, that euen in thoſe daies the ſaid tree for antiquity,was worthy of peoples deuotion. Moreouer,it is well knowne, that the Tyburtines are more antient than the Romans, and their citie Tybur founded many a yeare before Rome:and yet certain it is,that there be yet three Holmes there remaining aliue,elder than *Tyburtus* himſelfe,their firſt founder:vpon which trees (as the voice goeth) he obſerued the flight of birds, and thereby tooke his auſpices and warrant from the gods to build the ſaid citie. And (by report) the ſonne he was of *Amphiaraus*, who died at Thebes an hundred yeares before the Trojane warre. Writers there be who affirme,that both that Plane tree which groweth before the temple of *Apollo* at Delphos,was ſet by king *Agamemnons* owne hand:as alſo another in the ſecond groue of Caphys in Arcadie. Furthermore,
C at this day, there be trees neere vnto the ſtreight of Callipolis,ſometime called Helleſpontus, ouer-againſt the citie of the Ilians, where old Troy ſtood, growing cloſe vnto the tombe or ſepulcre of *Proteſilaus*: which euery fourteene yeres ſo ſoon as they areſhot vp ſo tall only as they may ſeeme to diſcouer and ſee the citie Ilium,immediatly begin to wither and fade,and afterwards ſpring againe and grow anew vnto that age and height aforeſaid. Hard by the citie of Ilium,there be certain Okes alſo(as folke ſay)neer vnto the tomb of *Ilus*,which were then planted or ſet of acornes,when Troy began to be called Ilium. It is reported moreouer, that the Oliue tree remaines yet aliue at Argos, vnto which *Argus* tied lady *Io*, after ſhe was transformed or turned into an Heifer. About Heraclea in Pontus,there be certaine altars erected to the honor of *Iupiter* ſurnamed *Stratius*,ouer which there ſtand two Okes,both ſet by the hands of *Her-*
D *cules*. In the very ſame tract there is an hauen, ennobled and renowmed by the name of *Amycus* the K. of the Bebrycians there ſlaine. His tombe,from the very day of his ſepulture,hath been ouerſhadowed with a Bay tree (planted there and then for that purpoſe) which the people of that countrey do call The raging or mad Lawrell; for pluck but a branch or twig thereof be it neuer ſo ſmall, and carie it into a ſhip, all the marriners and paſſengers within, will fall a brawling,and neuer agree vntill it be caſt out and throwne away out of the veſſell, that was brought thither from the tree aforeſaid. Of a certain region we haue before written, called Aulocrene, lying in the way between Apamia and Phrygia;& there the paiſants of that countrey can ſhew you that very Plane tree,on which *Marſyas* the muſitian hung himſelfe in a melancholly mood for that he was ouermatched in his owne cunning and profeſſed skill,by *Apollo*: and ſurely like
E it is,that euen then he made choiſe of that tree for the bignes:ouer and beſides,in the Iſle Delos,there is a Date tree to be ſeen,which hath remained there euer ſince that the ſaid god *Apollo* was borne and reared there. The wild Oliue tree at Olympia (wherof *Hercules* ware the firſt coronet or guirland) is kept and tended ſtill with great deuotion. The very ſame Oliue tree alſo (by folks ſaying) continueth this day at Athens,which ſprung vp at the very time that *Minerua* and *Neptune* ſtroue together about giuing the name to the citie Athens. And thus much of long-liued trees.

Contrariwiſe,Pomgranat trees,Fig trees,and Apple trees,liue a very ſhort time:& of theſe, the haſtie kind or Ienitings,continue nothing ſo large as thoſe that bear and ripen later:neither yet thoſe that carie ſweet fruit,laſt ſo wel as they that bring forth ſower. The Pomgranat tree
F alſo with the more pleaſant fruit,is ſhorter liued than the other. The like is to be ſaid of Vines, and namely,ſuch as bear greater burden of grapes & veeld moſt wine. Howbeit *Gracinus* ſaith, That there haue been vine trees known to liue threeſcore yeres. It ſeems alſo, that trees which come vp in wateriſh and moiſt places, are not of any long continuance, but ſoone die. In deed Bay trees,Apple trees,and Pomgranat trees,do age & looke old quickly; howbeit they ſpring

freſh again from the root. Well then, the Oliue trees hold out life and liue very long: for after G
the common opinion and agreement of all writers, they continue ordinarily 200 yeares. There
is a little hil named Carne within the territory of Tuſculum, not far from Rome city ſide, clad
and beautified with a goodly groue and tuft of Beech trees, ſo euen and round in the head, as if
they were curiouſly kept, cut, and ſhorne artificially with garden ſheares: which groue was con-
ſecrated rn old time to *Diana*, by the common conſent of al Latium, which did their deuotions
there. In it there was one eſpeciall faire tree aboue the reſt, which *Paßienus Criſpus*, a man in our
daies of great authoritie (as hauing been twice Conſull in his time, & reputed an excellent O-
rator, who alſo afterward mounted to higher place of reputation by marrying *Agrippina* the
Empreſſe, by which match he became father in law to *Nero* the Emperor) caſt a fancie and ex-
traordinar ie liking vnto: inſomuch as he was wont not only to take his repoſe and lie vnder it,
to ſprinckle and caſt wine plentifully vpon it, but alſo to clip, embrace, and kiſſe it otherwhiles. H
Neere adioining as a neighbour to the ſaid groue, there is an Holme, which of it ſelfe alone is
much renowmed: it beareth in compaſſe about the butt therof 35 foot, and ſends out ten mon-
ſtrous big armes from the bodie, which may goe well enough for as many trees, and thoſe eue-
ry one ſo great as it is wonderfull. Surely this one tree alone (a man would ſay) reſembled a
whole wood.

Moreouer, there is nothing more certaine than this, that Iuie killeth trees. The like is to bee
ſaid (in ſome ſort) of the Miſſelto, although it is generally thought, that the harme thereby is
not ſo ſoon ſeen. And this you muſt thinke, that this Miſſelto is not to be taken for the fruit of
a tree, and therfore as great a wonder it is in nature, as any other: for ſome things there be, that
not willing to grow out of the earth, engender in trees; & hauing no proper place of their own I
habitation to ſeat themſelues in, ſojourn as it were & make their abode with others, and of this
nature is the Miſſelto. Alſo, in Syria there is a certain hearbe named * Cadytas; which windeth
about, not trees onely, but alſo very buſhes and thornes: likewiſe, all about the pleaſant vale
Tempe in Theſſalie, you ſhall haue a kind of Ferne ealled Polypodie, to doe the ſame: alſo, the
Pulſe named Dolychos, which is Faſels or Kidney beanes, and the wild running-laced Thyme,
Serpillum. Semblably, that which the Greeks cal Phaunos: the very ſame, that after a man hath
cut and proined the wild Oliue, engendreth thereupon. The like is to be ſaid of Hippopheſton
which groweth vpon the Fullers thorne or thyſtle: it beareth certaine little heads and hollow
knobs with nothing in them, ſmal leaues, and a white root; the juice wherof is ſingular good to K
euacuate and purge the bodie, for the diuerſion of ill humors, in the falling ſickneſſe. But to re-
turn againe to Miſſelto, there be three kinds thereof. For that which groweth on the Firre and
Larch tree, is called Stelis in Euboea, and Hyphear in Arcadia. And as for that which properly
is Miſſelto indeed, moſt men are of opinion, that it groweth faſt to the common Oke, the wild
Robur, the Holme, wild Plumtree, and the Terebinth, and not lightly on any other trees. How-
beit, in greateſt plenty it is ſeen vpon the Oke, and that is named Dryos Hyphear. A difference
there is in the Hyhpear and Miſſelto, on what tree ſoeuer they are found (except the Holm and
common Oke) in regard of the ſauor, which is ſtrong and ſtinking in the one more than the o-
ther. The leafe of them both hath no pleaſant ſmel, and in the Miſſelto it is bitter, clammy, and
viſcous beſides. Of the two, Hyphear yet is the better to feed ſheep and ſuch cattell fat: only at
the firſt it purgeth yll humors, and makes them to ſcoure apace, but afterwards it fatteth them; L
I mean ſuch as were able to bear the ſaid purgation. But in caſe any of them were deeply tackt
and infected with the rot, or other inward conſuming diſeaſe, they can neuer endure the taking
of the ſaid Hyphear, but they die vpon it. The only fit time for this kind of curing them, by the
way of purgiug, is in Summer, and that for 40 daies ſpace together, There is moreouer, by mens
ſaying, another difference in Miſſelto: for that which groweth vpon trees, ſhedding their leaues
in winter, loſeth alſo his owne leaues; but contrariwiſe, it continueth alwaies green vpon ſuch
trees as hold their leaues all the yeare long. Moreouer, ſet or ſow this Miſſelto what way ſoeuer
you will, it will neuer take and grow: it comes onely by the mewting of birds, eſpecially of the
Stockedoue or Quoiſt, and the Blackbird, which feed thereupon, and let it paſſe thorough their M
body. And this is the nature of it vnleſſe it bee mortified, altered and digeſted in the ſtomacke
and belly of birds, it will neuer grow. It exceedeth not at any time a cubit in heighth, notwith-
ſtanding it be alwaies greene and full of branches. The male beareth a certaine graine or berry:
the female is barren and fruitleſſe. But ſometimes neither the one nor the other beareth at all.

*Some take this for *Caſſu-tha*, or *Cuſcuta* ſ Doder.

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A Now as touching Birdlime, it is made of the berries of Miſſeltoe, gathered in harueſt time before they are ripe; for if they ſhould tarry ſtil to take ſhowres of rain, wel might they thriue and increaſe in bigneſſe, but their ſtrength and vertue would be gon clean, for euer making any ſuch glew or birdlime aforeſaid. Being ſo gathered, as is beforeſaid, they muſt be laid abroad a drying, and when they be once dry, they are braied or ſtamped, and ſo put in water to ſteepe, and let to putrifie for the ſpace of 12 daies or thereabout. This one thing yet in the whole world is the better for putrefaction, and ſerueth to good purpoſe. When this is done, the ſaid berries thus putrified and corrupt, are beaten or punned once again with mallets, in running water; by which means when they are husked and turned out of their skins, the fleſhy ſubſtance within, becommeth glutinous, and will ſtick too, in manner of glew. This is the way to make birdlime
B for to catch poore birds by their wings, entangled therewith; which foulers vſe to temper and incorporate with the oile of Walnuts, when they liſt to ſet limetwigs to take foule.

And forasmuch as we are entred into a diſcourſe as touching Meſſelto, I cannot ouerpaſſe one ſtrange thing thereof vſed in France: The Druidæ (for ſo they call their Diuinors, Wiſemen, & the ſtate of their Clergy) eſteeme nothing more ſacred in the world than Miſſelto, and the tree whereupon it breeds, ſo it be on Oke. Now this you muſt take by the way, Theſe prieſts or Clergy men choſe of purpoſe ſuch groues for their diuine ſeruice, as ſtood only vpon Okes; nay, they ſolemniſe no ſacrifice, nor perform any ſacred ceremonies without branches & leaues thereof, ſo as they may ſeem well enough to be named thereupon Dryidæ in Greek, which ſignifieth as much as the Oke prieſts. Certes, to ſay a truth, whatſoeuer they find growing vpon
C that tree ouer and beſides the own fruit, be it Miſſelto or any thing elſe, they eſteem it as a gift ſent from heauen, and a ſure ſigne by which that very god whom they ſerue giueth them to vnderſtand, that he hath choſen that peculiar tree. And no maruel, for in very deed Miſſelto is paſſing geaſon and hard to be found vpon the oke; but when they meet with it, they gather it very deuoutly and with many ceremonies: for firſt and formoſt, they obſerue principally, that the Moon be iuſt ſix daies old (for vpon that day they begin their months and new yeares, yea and their ſeueral ages, which haue their revolutions euery thirty yeres) becauſe ſhe is thought then to be of great power and force ſufficient, and is not yet come to her halfe light and the end of her firſt quarter. They call it in their language All-Heale, (for they haue an opinion of it, that it cureth all maladies whatſoeuer) and when they are about to gather it, after they haue well
D & duly prepared their ſacrifices and feſtiual cheare vnder the ſaid tree, they bring thither two
K yong bullocks milk white, ſuch as neuer drew in yoke at plough or wain, and whoſe heads were then and not before bound by the horn: which done, the prieſt araied in a ſurpleſſe or white veſture, climbeth vp into the tree, and with a golden hooke or bill cutteth it off, and they beneath receiue it in a white ſoldiers caſſock or coat of armes: then fall they to kil the beaſts aforeſaid for ſacrifice, mumbling many oraiſons & praying deuoutly: that it would pleaſe God to bleſſe this gift of his to the good and benefit of all thoſe to whom he had vouchſafed to giue it. Now this perſuaſion they haue of Miſſelto thus gathered, That what liuing creatures ſoeuer (otherwiſe barren) do drink of it, will preſently become fruitfull thereupon: alſo, that it is a ſoueraign countrepoiſon or ſingular remedie againſt all vermine. So vain and ſuperſtitious are many na-
E tions in the world, and oftentimes in ſuch friuolous and fooliſh things as theſe.

F

THE SEVENTEENTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

CHAP. I.

¶ *The wonderfull prices of some Trees.*

AS touching the nature of all those trees which of their owne accord doe grow, as well vpon the main land as the sea coast, we haue already treated sufficiently. It remaineth now to discourse of those which (to speake more properly) are made rather and forced by art and wit of man, than otherwise come by nature and of themselues. But before I enter into this treatise, I cannot chuse but maruel how it is come to passe, That those trees which for necessity & need we hauing taken from the wilde and brute beasts, and possessed in common with them (considering that men maintaine fight and scramble with them for the fruits that fall, yea and otherwhiles with the fowles of the aire, about those which hang vpon the tree) should grow to so excessiue a price, as to be esteemed among the principall delights of this world? And that this is so, appeareth by that most notable example (in mine opinion) of *L. Crassus* and *Cn. Domitius Ænobarbus*. This *L. Crassus* (a right renowmed Orator of Rome as any one of his time) had a stately and sumptuous dwelling vpon mount Palatine: howbeit that house of *Q. Catulus* (who defeated in battell the Cimbrians, together with *C. Marius*) went beyond it a faire deale in magnificence, and stood likewise within the pourprise of the same mount. But the goodliest and fairest Pallace knowne in that age, was that of *C. Aquilius* a Gentleman or Knight of Rome, scituate vpon the hill of Osiers, called Viminalis: in regard whereof there went a greater name of him, than for all the skill he had in the Ciuill Law, which was his profession. Yet of all those three, *Crassus* onely was challenged and reproched for that foresaid house of his. And in this manner is the storie deliuered: *Crassus* and *Domitius* (great personages both, and descended from most noble Houses in Rome) after they had beene Consuls, happened also to be chosen Censors together: and this fell out to be in the six hundred sixty two yeare after the foundation of the city: but during this Magistracie of theirs there passed many a foule day and bitter fit betweene them; so dissonant were their natures, and their conditions so farre vnlike. Now it fortuned vpon a time, that *Cn. Domitius* (as hee was hot and hasty man by nature, and carried an inward hatred besides in his heart, which soone is kindled and set on fire, yea and most insatiable, vpon emulation and enuy betweene Concurrents, such as they two were) reproued *Crassus* verie sharpely for his excesse in expence, and namely, That any Censor of Rome should dwell in so stately and sumptuous a Pallace as he did; and euer and anon made offer to buy the House, and pay him downe-right for it an * hundred Millions of Sesterces: whereat *Crassus* (being a man quicke of spirit, and of a prompt and present wit, finely conceited withall, and not to seeke for a ready answer) tooke him at his word, and accepted of the offer; reseruing only six trees that grew about his house. Tush (quoth *Domitius*, replying againe) take those Trees away, and take all; if they be gone, I will none of the house though I might haue it for a single denier. Then *Crassus* hauing gotten the vantage and start of him, rejoyned and came vpon him thus: Tell me now I pray you good *Domitius*, whether of vs twaine giueth a scandalous example to the world? Whether am I my selfe (I say) offensiue, and deserue to be taxed and noted by mine own Censorship, who can be contented to liue quietly and louingly among my neighbours in mine owne house, and that house which came to me by way of inheritance from my father;

* *Millies Sestertium.* An incredible price for a dwelling house: and therefore as *Budæus* thinketh, this place must be corrected, by conference with *Val. Max.* who for (*millies*) hath (*sexagies*) which amounts little more than to the 20 part of the other summe.

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A father;or you rather,that for ſix trees bid 100 millions of Seſterces ? Now,if a man be deſirous to know,what theſe trees might be ? truly they were no other but ſix Lote trees, very faire and beautifull indeed,but there was nothing in them commendable, ſaue only their ſpreading and caſting a goodly ſhade. And verily,*Cæcina Largus*,a Nobleman and principal citizen of Rome, vſed many a time and often(I remember well)to ſhew me when I was a yong man, thoſe trees about his houſe. And ſince our ſpeech hath bin of ſuch trees as liue very long,theſe I wote wel, continued for the ſpace of 180 yeres after *Craſſus* death,to the great fire that *Nero* cauſed to bee made for to burne Rome;freſh and green they were with good keeping, and looked yong ſtill, like to haue liued many a faire day more,had not that prince haſtened the vntimely death euen of trees alſo[as well as of citizens.] Now leſt any man ſhould think,that all the ſumptuoſitie of *Craſſus* conſiſted only in thoſe trees,and that the furniture otherwiſe of his houſe was but mean
B and ſimple,and could miniſter vnto *Domitius* no matter of ſuch conteſting and reproofe,diſpoſed as he was to quarrel and find fault:know he thus much,That the ſaid *Craſſus* had before that time ſet vp in the open hall of that houſe,foure goodly pillars of Hymettian marble;which in the yere of his Edileſhip were brought abroad to rich and beautifie the Theatre,the Stage and Shew-place of the ſolemne plaies by him ſet out:for as yet there had not bin in publicke place at Rome any marble pillars ſeen:lo how lately is come vp this exceſſiue expence in rich & glorious building,ſo common in theſe daies. See(I ſay) how in thoſe times, faire trees beautified pallaces more than any thing els;inſomuch,as *Domitius* for the want of ſix trees only,would not ſtand to the price that himſelfe firſt made,no not to buy his very enemy out of houſe and home with it:but no maruel if trees were accounted of ſo highly,ſeeing that our anceſtors in old time
C thought not ſcorn to take otherwhiles their ſyrnames from them. Thus that braue and valiant ſouldier came to be named *Fronditius*,who(maugre the beard of *Annibal*) ſwum ouer the riuer Vulturnus,with a chaplet of green leaues(anſwerable to his name) ſet vpon his head, and performed many feats of arms and worthie exploits againſt him. Thus they of the noble *Licinian* family had for their addition *Stolons* (*i*.the vnprofitable water-ſhoots that puſt forth from the root or tree it ſelfe,and neuer proue or come to any good.) And why ſo? For that one of the ſaid houſe deuiſed the means to cleanſe trees & vines of ſuch ſuperfluous twigs (the practiſe & feat of cutting which a way,is called Pampinatio)and therupon was one *Licinius* firſt ſirnamed *Stolo*. Moreouer,our predeceſſors in antient time made good ſtatutes and ordinances for the main-
D tenance of trees : and expreſſely prouided it was by the laws of the 12 Tables at Rome,in theſe words,*That whoſoeuer made wilfull waſte,and cut downe any trees growing in another mans ground,ſhould be peined in the court for a treſpaſſe don;& forfeit for euery ſuch tree, 25 pound of braſſe money*. But what ſhould we thinke of this ? Did theſe law-makers trow ye, ſuppoſe or imagine that other wilde trees would euer haue growne to that high reckoning aboue named, and which now they are come vnto,who valued fruitfull trees at no greater price,and ſet the penalty for the treſpaſſe,ſo low ? But neuer maruell we any more hereat,conſidering to what a proportion Apple-trees,and ſuch like are riſen vnto. For there be many of them here about the city of Rome, in the villages neere adioining,which are ſet for a yearely rent of 2000 Seſterces ; and one of them yeeldeth more profit and reuenue by the yere to the owner, than a pretty ferm in times paſt of good domaine,to the land-lord. Hereupon came the inuention of graffing trees : for this purpoſe haue
E we ſuch baſtard fruits intermingled one with another, of ſundry kindes;as if Apples and other fruits were not for poore men to eat, but grew only for the rich. Hence forward now therefore will we ſhew the right,perfect,and abſolute manner how to order and cheriſh them, that it may appeare by what means eſpecially,ſuch annuall commodity can be made of them, as is beforeſaid. For the better performance of which diſcourſe,I meane to leaue the common and ordinary way;neither will I handle the vſuall and vulgar manner of that point in husbandry, wherein euery man is perfect,and whereof no man maketh queſtion : but deliuer ſuch matters onely, as be vncertaine and doubtfull,whereby oftentimes folke are deceiued and beguiled. For to break my head or buſie my brains in needleſſe trifles,and therein to affect a kinde of curioſitie , was neuer my manner yet,nor is it any part of my meaning and intention now. But before I doe en-
F ter into particulars,my purpoſe is to treat in generalitie of this matter, and touch briefely the conſideration of heauen and earth both, ſo farre forth as may concerne in common all kindes of trees whatſoeuer.

CHAP.

G

Chap. II.

¶ *Of the nature of the Skie reſpectiue vnto trees: and what quarter thereof they ſhould regard.*

TRees generally do like beſt that ſtand to the Northeaſt wind: for it nouriſheth them well, cauſeth them to ſpread thick and grow euery way in length and breadth, and withall maketh the timber more faſt and ſtrong. But in this rule moſt men do erre, and be much deceiued; for in vnderpropping vines, the forkes would not be ſet oppoſite againſt that wind to hinder the blaſt thereof; a point that is to be obſerued in regard of the North wind only. Moreouer we find by experience, that if trees haue a kindly winter and cold ſeaſon in their due time, their wood will be more firme, and ſo likewiſe will they bud and ſhoot out beſt: otherwiſe, if the H warm Southerne winds blow vpon them much, ye ſhall haue the trees proue ſoft and feeble, and their bloſſoms come to nothing, blooming as they do before time: for if it chance that preſently after their floures be fully out, and ready to ſhed, there fall any ſtore of raine, the fruit is quite gone for that yeare. And as for Almond trees and Peare-trees, if it be but cloſe and cloudy weather only, without any raine, or the wind ſtand South when they floure, ſure they be to loſe their fruit. Certes, a glut of rain in May, at what time as the Brood-hen ſtar called Virgiliæ doth ariſe, is exceeding hurtfull to Vines and Oliue-trees: for then is the very ſeaſon of their knitting or conception. Then be the foure decretorie or criticall daies, that giue the doome of Oliue trees, either to good or bad: this is the Southerly point of filthy, foule, and glowmie weather, I wereof wee haue ſpoken before. Moreouer, all manner of graine feeleth the inconuenience of Southern wind at the time of their ripening. Well may corne make haſt and ripen ſooner, but it ſhal neuer haue the kind maturity and perfection as it ought. As for the cold pinching black froſts and Northern winds, which blow out of ſeaſon, come the[illegible]rly or come they late, they be hurtfull all. But if the wind ſtand Northeaſt in winter, there is nothing ſo good generally for all fruits of the earth. And verily, a good ſhower now & then during that time, wil do no harm; and that men wiſh for rain then, the reaſon is euident: for why? trees with bearing of fruit, are drawne dry and haue loſt their naturall moiſture, with ſhedding their leaues they be poore and feeble; ſo that it is kind for them to be hungry then, and to haue a greedy appetite to new food, which is raine. Now if the winter be open and warm withal, that ſo ſoone as the trees haue don K bearing, they reſt not between, but conceiue again preſently vpon it (that is to ſay, bud & ſpurt anew, yea, and fall afreſh to bloſſome, whereby they haue another euacuation that way alſo, to ſpend their ſap and radicall moiſture) we find by experience, that there is nothing in the world ſo bad for them. Nay, if many ſuch yeres come together, immediatly one after another, the very trees themſelues will die; for who can looke for better, when they are thus pined and famiſhed? He then* whoſoeuer he was that ſaid, Husbandmen were to wiſh for faire winters: ſurely he was no friend therein to trees, nor neuer praied for them: neither are wet Mid-ſummers good for Vines. But in truth, That winter duſt ſhould cauſe plentiful harueſt, was a word ſpoken in a bravery, and proceeding from a pregnant wit and jolly ſpirit: for otherwiſe, who knoweth not, that euery man (wiſhing well to trees and corn indifferently) praieth, that ſnow might lie long vpon the ground? The reaſon is, for that not only it keepeth in & encloſeth the (vitall breath & ſoule L (if I may ſo ſay) of the earth, ready to exhale out and vaniſh away, yea, and drieth it back again into the blade and root of corn, redoubling therby the force and vigor thereof: but alſo becauſe it both yeeldeth moiſture and liquor thereunto gently by little and little, and the ſame withall fine, pure, and paſſing light: conſidering, that ſnow is nothing els but the fome or froth of rain-water from heauen. This humor therefore, not falling forcibly all at once to drown the root, ne yet waſhing away the earth from it (but diſtiling drop-meale a little at once, in that proportion and meaſure as thirſt requireth and calleth for it) nouriſheth all things, as from a teat or pap; nouriſheth (I ſay) and neither drencheth nor ouerfloweth them. The earth alſo for her part, by this means wel ſoked, ſwelleth and houeth as it were with a leauen, and lieth thereby more light and mellow: thus being full of juice and moiſture it ſelfe, & not barren, but well repleniſht with M ſeeds ſown, and plants ſuckled, thus continually in her womb; when the open time of the ſpring is once come to diſcharge her, ſhe ſheweth her ſelfe freſh and gay, and willingly entertaineth the warme weather of that ſeaſon.

* *Virgil.*

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A By this meanes eſpecially, we ſee how corne liketh well vpon the ground, and thriueth apace euery where, vnleſſe it be in climates where the aire is alwaies hot, as in Ægypt. For continuance and ordinarie cuſtome alone effecteth the ſame there, which the ſeaſon of the time, & moderat temperature of the aire elſwhere. And in one word, be the place whatſoeuer, paſſing good it is to keep away the thing that is hurtfull. For in the moſt parts of the world it happeneth, That when either corn is winter-proud, or other plants put forth and bud too earely, by reaſon of the mild and warm aire; if there follow any cold weather vpon it, all is nipped, blaſted, and burnt away. Which is the cauſe, that late winters do harme vnto the wild trees alſo in the forreſt. The more paine and ſorrow likewiſe ſuch trees abide, by reaſon of their owne thicke branches ſhading one another, and not eaſily admitting the warme Sun; and deſtitute they are beſides of mans helping hand to cure them: for growing as they do in wild and deſart forreſts, im-
B poſſible it is to lap and wrap them about with wreaths and thumb-ropes of ſtraw, and ſo to cheriſh and defend them when they be yong and tender. Wel then, to conclude this matter, Winter raine principally is ſeaſonable and good for all plants: and next to it the dewes and ſhowers that fal immediatly before their ſprouting time: a third ſort alſo there be of ſhowers that come when fruits hang on the tree, and are in their growth, yet not too ſoon, namely, before they bee ſtrong and able to abide ſome hardneſſe.

As touching trees which be late-ward and keep their fruit long ere they ripen, ſuch alſo as require ſtore of nouriſhment and more food ſtill, as namely, the Vine, the Oliue, & Pomgranat trees; it is good for them to be watered with raine in the later end of the yeare. And to ſay a truth, euery kind of tree requireth a ſeuerall rain by it ſelfe, in due ſeaſon, for that ſome ripen
C their fruit at one time, and ſome at another: ſo as a man ſhall ſee ordinarily the ſelfeſame ſhowers, to hurt one ſort, and to help another; yea, and that diuers effect is to be ſeen in trees & fruits of the ſame kind, as for example, in Pyrries: for the late-ward of them call for raine at one time, and the haſty or forward at another, and yet indifferently all doe require alike the ſeaſonable ſhowers of winter, as alſo thoſe before budding time. In which regard, the winds Northeaſt are better than the Southern, and ſuch winters be moſt kindly. Semblably, by the ſame reaſon the Mediterranean or mid-land parts of any country are for this purpoſe preferred before the maritime or ſea-coaſts (as being for moſt part colder) the high & hilly regions before the plaines and vallies: and laſt of all, the night rains are held to be more profitable than thoſe that fall by
D day time: for lands new ſowne, and any yong plants, inioy more benefit by ſuch ſhoures in the night, for that the Sun commeth not ſo preſently vpon them againe to dry and drink vp all the moiſture.

Hereunto ought to be annexed the conſideration of Vine-yards, hort-yards, and Groues, as touching their ſcituation, and namely, what part of the heauen they ſhould regard. *Virgil* condemned altogether the planting of any trees, reſpectiue to the Weſt: ſome haue choſen that quarter before the Eaſt. And this haue I obſerued, that in moſt mens opinion, the South is beſt. But if I ſhould ſpeak what is mine own conceit indeed, there can no generall and infallible rule be giuen concerning this point, for to hold alwaies. All our skil and art herein muſt be directed by the nature of the ſoile, the diſpoſition of the climat and temperature of the aire. In Africke
E although it be nothing profitable for Vine-yards to be planted ſo as they look into the South, yet kind it is & wholeſome for the Vine-planter and husbandman, by reaſon that all Africke lieth vnder the Meridionall or South climat. And therefore he that ſhall ſet vines there, either into the Weſt or North (howſoeuer *Virgil* alloweth not of the Weſt) ſhall make an excellent, medley between the temperature of that aire and the nature of ſoile together. As for the North no man ſeemeth to make any doubt or queſtion, but that vines ſo planted, wil proue right well. And verily there are not found any vines to proſper better, or to beare more fruit in all Italy tha nin that tract which lieth on this ſide, and vnder the Alpes: and there for the moſt part the Vineyards are ſo planted.

Moreouer in this caſe the winds would be much conſidered; for in Languedoc or the prouince of Narbone, in Liguria and part of Tuſcane, they are reputed vnskilfull husbandmen that plant
F any vine-yards directly vpon the Northweſt wind: but it is counted contrariwiſe a ſpecial point of prouidence and good husbandry, to caſt it ſo, as the ſaid wind may flanke it on the ſide. For this is the wind, which in thoſe quarters qualifies and tempereth the exceſſiue heat of the ſummer: howbeit, many times, ſo violent and bluſterous he is, that hee beareth downe before him the

the roofe of many a house, and carrieth it cleane away. G

Chap. III.

¶ *The societie of the skie and aire with the earth, respective to trees.*

SOme men do force the skie for to be obedient & conformable to the earth: as namely, when planting in dry grounds, they haue regard to the East and North: and contariwise, when in moist places they respect the South. Moreouer, it falleth out, that they be driuen otherwhiles to follow the nature of the very Vines, and thereby to be ruled: wherupon, in cold ground they plant such as be of the hastie kind, and soone ripen their grapes; to the end that they may come to their maturity and perfection, before cold weather comes. As for such Vines and trees H bearing fruit, as canot abide dews, those they set in to the East, that the Sun may soon dispatch and consume the said dew: but looke what trees do loue dewes, and like well therewith, those they will be sure to plant against the West, or at leastwise toward the North, to the end they may inioy the full benefit thereof. All others againe (grounding in manner vpon natural reason only) haue giuen counsell to set as well Vines as Trees, into the Northeast. And *Democritus* verily is of this mind, that such fruits will bee more pleasant and odoriferous.

Chap. IIII.

¶ *The quality of sundrie regions.*

AS touching the proper seat of the Northeast wind, and of all other winds, we haue spoken already in the second booke: and our purpose is in the next following, to treat of the rising I and falling of signes and notable stars, of other Astronomical points also concerning heauen. Now in the mean time for this present, it is sufficient, that in the former rule of the North wind, we seem to rest and resolue vpon the apparent and euident argument of the wholesome and healthfull climate of the heauen: forasmuch as we see, that euermore all such trees as stand into the South, soonest shed their leaues: the same reason also is to be giuen of those that grow vpon the sea coasts: and albeit in some places the winds blowing from thence, and the very aire of the sea be hurtfull, yet in most parts the same are good and profitable. Certaine plants and trees there are, which take pleasure to be remot from the sea, and ioy to haue the sight of it only a farre off: set them neerer to the vapors and exhalations ascending from thence, they will take harm and mislike therewith. The like is to be said of great riuers, lakes, and standing pooles. As K for those which we haue spoken of, they either burn their fruit with such mists, or refresh and coole such as be hot with their shade, yea, & take joy and prosper in the frost and cold. And therfore to conclude this point, the surest way is, to beleeue & trust vpon experience: thus much for this present, concerning the heauen: our next discourse will be of the Earth and Soile, the consideration whereof is no lesse difficult to be handled than the other.

First and formost, all grounds are not alike good for trees and most kinds of corne. For neither the black mould (such as Campain standeth vpon much) as in all places best for Vines; or that which fumeth and sendeth vp small and thin mists: neither is the red veine of earth any better, how soeuer there be many that commend it. The white earth or chalkie marle, the clay also within the territory of Alba and Pompeij, for a vineyard, are generally preferred before all I other countries (although they be exceeding fat, which in that case is otherwise vsually reie-
*i Pauic. cted.) On the other side, the white sand about * Ticinum: likewise, the blacke mould or grit, in many places, as also the red sandy ground, although it be wel mingled & tempred with fat earth are all of them nothing to the purpose for increase & fruitfulnesse. And herein must men take heed, because oftentimes their judgement may faile when it goeth but by the eie: for wee must not streight waies conclude, that the ground is rich & battle, wheron we see goodly faire & tall trees to grow, vnlesse it be for those trees only: for where shal we meet with any, higher than the Firr? & is there a tree again that possibly can liue where it doth? No more is rank grasse & plentifull forrage a true token alwaies of a good ground: for there is no better pasture nor grasing to be found than in Almaine; and yet dig but vp the greene sourd and the thinnest coat of turfe M that may be, ye shal presently come to barren sand vnder it: ne yet is it by & by a moist ground, that hath vpon it deepe grasse and hearbes shooting vp in height: no more verily, than a fat

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A and rich ſoile is knowne by ſticking to one fingers; as appeareth plainly in all ſorts of clay. And verily, no earth doth fill vp the trenches euen againe, out of which it was caſt, that therby a man might find out whether the ground be ſad, or hollow: and generally all ſorts thereof will cauſe yron to ruſt that ſhal be put into it. Moreouer, there is no weighing of earth in ballance, to know by that means which is lighter or heauier: for who could poſſibly euer ſet down the iuſt weight that earth ſhould haue? Againe, the ground that is caſt vp into banks by the ouerflow of great riuers is not alwaies commendable: ſeeing that ſome plants there be that decay, if they be ſet in water. And ſay that ſome ſuch bank were ground good enough, yet it continueth not ſo long; vnleſſe it be for Willowes and oiſiers onely. But if you would know a rich ground indeed, one of the beſt arguments and ſignes therof is this, when you ſee it to bring forth a thick & ſtrong haulme or ſtraw, ſuch as vſually groweth in that noble territorie Laborine within Campaine;
B which is of that bigneſſe, that the people of the country vſe it for fewell in ſtead of wood. Now, this ground, ſo good as it is, where & whenſoeuer we haue found it, is hard enough to be tilled, and requireth great labour and husbandry, putting the poore husbandman to more paines in manner with that goodneſſe of it, than poſſibly he could haue with any defects and imperfections thereof. For euen the hot earth, called by the name of Carbunculus, which vſeth to burn the corne ſown therupon, may be helped & remedied (as it is thought) by ſetting it with plants of poore & hungry vines. The rough grauell ſtone which naturally will crumble as grit, many writers there bee that allow and commend, for vines. As for *Virgil*, he findeth no fault with the ground that beareth fern and brake, for a Vineyard. The earth that is brackiſh, and ſtandeth much vpon ſaltpetre, is thought to be more ſound for many plants than others; and in regard of
C vermine that vſe to breed therein, much ſafer alſo. Neither do high banks and hils remaine vntilled and naked for want of good husbandry, if ſo be a man haue the caſt of it, to eare & breake them vp skilfully. As for the plaines, they are not all of them expoſed to the Sun or ſubiect to the wind more than need requireth. And to ſpeake of froſts, miſts and fogs, there be Vines (as we haue ſaid already) which are nouriſhed and fed with them. And to conclude, hereby we may ſee, that in euery thing there is ſome one deep ſecret or other, wherein it behoueth each man to employ his ſpirit and ſet his mind for to ſearch them throughly and find them out: what ſhall we ſay then to this, That oftentimes thoſe things which haue bin approoued by long experience and many obſeruations, become otherwiſe, and change their vſuall manner? In Theſſalie about Lariſſa, the whole region, by reaſon of a lake that was let out and drained drie, prooued
D much colder: and the Oliues which there grew before, left bearing and died all, vpon it. In like ſort, neer vnto Ænos, the Vines were all ſcorched and burnt, by occaſion, that the courſe of the riuer Ebrus was brought neere vnto them, an accident that beforetime neuer befell vnto them. Semblably, about the citie Philippi, the whole country being made drie by ſluces and trenches artificiall; altered withall the whole diſpoſition of the aire and weather, and changed the very habite of the heauen aboue their heads. But in the territory of Syracuſa, the forraine Coloners that thither came to inhabit and practiſe husbandry, by ridding the ground from all the ſtones, marred all the corn in the country; ſo mirie and durtie it was by that meanes, vntil ſuch time as they were driuen to lay the ſtones againe where they had them. In Syria, the husbandmen goe lightly ouer with their plough, & take no deep ſtitch in making their furrowes, for feare of the
E ſtony rocke lying ebbe vnder the good ground, which in Summer ſeaſon will burne all their graine and ſeed ſowne there. Now, there be certain parts of the world, where a man ſhall ſee one and the ſame effect to proceed both of extreame heat, and alſo of exceſſiue cold. Thracia is exceeding cold, and thereby plentifull in corne. Africke and Ægypt be as hot, and yet come not after it for fertilitie in that kind. In Chalcia, an Iſland belonging to the Rhodians, there is one place aboue the reſt ſo fruitful, that the Barly which was ſowed in the due time & ſeaſon of the yere, they mow once, and preſently put it into the ground againe; which will be ready to be cut downe the ſecond time, with other corne in harueſt. In the Venafrane tract within the realme of Naples, the grauellie ground is thought meeteſt for Oliue trees, & therin they bear moſt plentifully: contrariwiſe, about Bœtica in Spaine, the fatteſt ſoile is beſt for that purpoſe. The ex-
F cellent grape that makes the good Punicke wine, ripeneth ſoon vpon the very rockes: but the Cæcube Vines ſtand ſoaked & drenched (as it were) in the mariſh low grounds of Pomptinum. See what a difference and diuerſitie there is in cauſes, to make this variety in ſundry plots of ground! *Cæſar Vopiſcus* being conuented before the Cenſors, and there pleading his cauſe, affirmed

med openly, that the plaines of Roſea were the very fat of Italy, and reſembled the kell or leafe G
of a fed and franked ſwine: wherein (quoth he) if a man left forks or props to day, they will bee ouergrowne and couered with graſſe by to morrow. But ſurely, this ground is good for nothing but paſture. Yet notwithſtanding, Nature would haue vs ſtill to learne and grow skilfull euery day more than other: and for that intent ſhe hath laid open the defects and imperfections of the ground, euen there, whereas the commodities thereof be neither ſo certain, nor ſo well knowne. And therefore let vs in the firſt place ſpeake of thoſe faults for which the earth is blamed.

Chap. V.

¶ *Sundry ſorts of earth.*

IF a man would know which is a lean, hungry, & bitter ground, there is no better experiment H
and proofe thereof, than by the blackiſh, miſliking, and vnkind herbs growing thereupon: like as, when they come vp ſcorched and burnt, they ſhew a cold ſoile: alſo, when they ſeem ill fauored and vnpleaſant to the eie, the earth no doubt is ſoked and drowned in wet. As for red ſandy ground and clay, you need go no farther than to your owne eie-ſight. And ſuch ſoiles as theſe be, is of all other, hardeſt to be wrought and tilled; they ſo clog and load both the harrow teeth and the plow-ſhares, with huge and heauie clods. Howbeit, the ground that is thus churliſh to be eared and husbanded, is not alwaies bad and naught for increaſe. But it fareth cleane contrary with the pale and wan aſhie earth, as alſo with the white ſandy ſoile: for the barren ground is ſoon found by a thicke and callous cruſt that it hath, euen at the firſt dent of culter or I
ſtroke of mattocke.

Cato ſetteth down briefely, as his maner is, all the defects and faults of ground in theſe words: *Take heed* (quoth he) *of a rotten ground, and ſee that you ſtir it neither with cart, nor touch it with beaſt.* What ſhould we think was his meaning by this term of his, that he ſhould feare rotten ground ſo much, as to forbid in a manner to tread and goe thereupon? Let vs call to mind the rottenneſſe that is in wood: and thereby ſhall we find thoſe faults that he abhorreth and deteſteth ſo much in the earth. In good faith, by rotten earth hee vnderſtandeth dry, ſpungeous, and full of holes, rugged, hoary, eaten, old, and hollow. So as in that one ſignificant word (*Carioſa*) hee ſaid more than could be expreſſed poſſibly by any multip icity of language whatſoeuer: for if a man would rip vp to the quicke the imperfections that are in grounds, he ſhould find, that ſome pie- K
ces there be of it that may be termed truly old and ouerworne, not for any age (for who can ſay properly, that earth is ſubiect to old age) but by reaſon of their naturall defects: in regard wherof, a ground may be weake, feeble, barren, and no longer good for to bring forth any thing. The ſame *Cato* iudgeth, That ground to be principall which lieth at the foot of an hill, and runneth forth in manner of a plaine, into the South, which is the very ſcituation of all Italy: and by a blackiſh and ſwart earth, which he calleth [*Pulla*] he meaneth a gentle, tender, and mellow ſoile. And this we will determine to be the beſt ſimply both for worke or tillage, and alſo for gaine and increaſe: now let vs (if ye pleaſe) ſtand a little vpon this word *Tenera* [*i.* Tender] which he vſeth in this ſence: you ſhall find a maruellous ſignification thereof: and that he implieth thereby, as much as your heart can wiſh to be in a ground. That is it, which is ſo temperat in fertility, L
that is it which to be wrought is ſo gentle, ſoft, pliable, and mellow; neither wet, nor yet dry and thirſty. Now doth this ground ſhine againe after the plough-ſhare, reſembling that veine of earth, which *Homer*, the very fountaine and ſpring of all good wits, reported to haue bin engrauen by a * god, in the armour (of *Achilles*:) adding moreouer, that the ſaid earth looked black withall: wherein hee obſerued a wonderfull piece of workemanſhip, notwithſtanding it was wrought in gold. This is that ground, I ſay, which beeing new broken and turned vp with the plough, the ſhrewd and buſie birds ſeeke after, and goe vnder the plough-ſhare for it: this is it, that the very Rauens follow the plough-man hard at heeles for, yea, and are readie for greedineſſe to pecke and job vnder his very feet. And here, in this place I cannot chuſe but relate the opinion that is currant among our roiotous and delicate gallants: which ſome other thing M
alſo making for our purpoſe, in the diſcourſe of this argument which wee haue in hand. Certes *Cicero*, a man reputed (as he was no leſſe indeed) for a ſecond light of all good learning and literature. Better are eſteemed (quoth hee) the ſweet compoſitions and ointments which taſt of earth, than of ſaffron: where note by the way, that this great Clearke choſe to vſe the word

of

* *Vulcan.*

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A of taſt rather than of ſmell, in ſuch odoriferous perfumes and mixtures. Well, to ſpeake at a word, ſurely that ground is beſt of all other, which hath an aromaticall ſmell and taſt with it. Now if we liſt moreouer to be better inſtructed, what kind of ſauour and odour that ſhould be, which we would ſo gladly find in the earth; we may oftentimes meet with that ſent, euen when ſhe is not ſtirred with the plough, but lieth ſtil and quiet, namely, a little before the ſun-ſetting, eſpecially where a rainbow ſeemeth to ſettle & pitch her tips in the Horizon: alſo, when after ſome long and continuall drought, it beginneth to rain; for then being wet and drenched therwith, the earth will ſend vp a vapor and exhalation (conceiued from the Sun) ſo heauenly and diuine, as no perfume (how pleaſant ſoeuer it be) is comparable vnto it. This ſmell there muſt be in it when you ere it vp with the plough: which if a man find once, he may be aſſured it is a
B right good ground; for this rule neuer faileth: ſo as (to ſay a truth) it is the very ſmel and nothing els, that will iudge beſt of the earth: and ſuch commonly are new broken grounds, where old woods were lately ſtocked vp: for all men by a generall conſent, do commend ſuch for excellent. Moreouer, the ſame ground for bearing is held to be far better, whenſoeuer it hath reſted betweene, and either lien ley or fallow; whereas for vineyards it is clean contrary: and therefore the more care and diligence is to be emploied in chuſing ſuch ground, leaſt wee approoue and verifie their opinion, who ſay, That the ſoile of all Italie is alreadie out of heart and weary with bearing fruit. This is certaine, that both there and elſewhere, the conſtitution of the aire and weather, both giueth and taketh away the opportunitie of good husbandrie, that a man cannot otherwhiles do what he would: for ſome kind of grounds there is ſo fat and ready to reſolue in-
C to mire and dirt, that it is impoſſible to plough them and make good worke, after a ſhower of raine. Contrariwiſe, in Byzacium a territory of Africke, it is far otherwiſe: for there is not a better and more fruitfull piece of ground lieth without dore than it is, yeelding ordinarily 150 fold; let the ſeaſon be dry, the ſtrongeſt teeme of oxen that is, cannot plough it: fall there once a good ground ſhower, one poore aſſe, with the help of a ſilly old woman drawing the ploughſhare at another ſide, will be able to go round away with it, as I my ſelfe haue ſeen many a time and often. And whereas ſome great husbands there be, that teach vs to inrich and mend one ground with another, to wit, by ſpreading fat earth vpon a lean and hungry ſoile; & likewiſe by caſting drie, light, and thirſtie mould, vpon that which is moiſt and ouer-fat; it is a meere follie and waſtfull expence both of time and trauaile: for what fruit can he euer looke to reape from
D ſuch a mingle mangle of ground?

Chap. VI.

¶ *Of the earth which Britaine and France loue ſo well.*

THe Britaines and Frenchmen haue deuiſed another meanes to manure their ground, by a kind of lime-ſtone or clay, which they call Marga [*i.* Marle.] And verily they haue a great opinion of the ſame, that it mightily inricheth it & maketh it more plentiful. This marle is a certaine fat of the ground, much like vnto the glandulous kernels growing in the bodies of beaſts, and it is thickned in manner of marrow or the kernell of fat about it.

E

Chap. VII.

¶ *The diſcourſe of theſe matters continued according to the Greekes.*

THe Greekes alſo haue not ouerpaſſed this in ſilence: for what is it that they haue not medled withall? The white clay or earth wherewith they vſe to marle their grounds in the territorie of Megara, thoſe onely I meane which are moiſt and cold, they call Leucargillæ. Theſe marles (all the kind of them) do greatly inrich France and Britaine both, and therefore it would not be amiſſe to ſpeak of them more exactly. In old time there were two ſorts therof, and no more: but of late daies (as mens wits are inuentiue euery day of one thing or other) they haue begun to find out more kindes, and to vſe the ſame: for there are now diuers marles, the
F white, the red, the Columbine, the clay ſoile, the ſtony, and the ſandy: and all theſe are but two in nature, to wit, either hard and churliſh, or elſe gentle and fat. The triall of both is knowne by the handling, and a twofold vſe they yeeld; either to beare corne onely, or els for graſſe and paſture alſo. The ſtonie or grauelly ſoile is good only for to nouriſh corne; which if it be white

withall, and the pit thereof found among ſprings or fountains, it wil cauſe the ground to be in- G
finite fruitfull; but it is rough in handling, and if it be laid too thick vpon the lands or leyes, it wil burn the very ground. The next to it is the red marle, called alſo Capnumargos, which hath intermingled in it a certaine ſmall ſtony grit full of ſand: This ſtony marle the manner is to break and bruiſe vpon the very lands; and for the firſt yeares, hardly can the ſtraw be mowne or cut downe for the ſaid ſtones. Lighter is this marle than the reſt by the one halfe, and therefore the cariage thereof into the field is leaſt chargeable. It ought to be ſpred and laid thin, & ſome thinke that it ſtandeth ſomewhat vpon ſalt. But both the one and the other will ſerue well for fifty yeares, and the ground inriched thereby, will (during that time) yeeld plenty as well of corne as graſſe.

CHAP. VIII. H

¶ *Sundry ſorts of Earth and Marle.*

OF thoſe marles which are found to be fat, the white is chiefe; and thereof be many ſorts. The moſt mordant and ſharpeſt of them all, is that whereof wee ſpake before. A ſecond kind there is of chalkiſh clay, which our gold-ſmiths vſe (called Tripela:) this lieth a great depth within the earth, inſomuch as many times men are driuen to ſinke pits 100 foot deep, for it; and thoſe haue a ſmall and narrow mouth aboue, but within-forth and vnder the ground they be digged wider, by reaſon that the veine thereof runneth many waies, in manner of other mettall mines. This is the marle ſo much vſed in Britain: the ſtrength therof being caſt vpon a land, will laſt 80 yeres; and neuer yet was the man known that herewith marled the ſame I
ground twice in all his life time. The third kind of white marle, is that which the Greekes call Gliſchromargon: it is no other than the Fullers chalkie clay mixed with a viſcous and fatty earth. The nature of it, is to breed graſſe better than to beare corne: for after one crop of corne is taken off the ground in harueſt, before ſeed time is come for winter grain, the graſſe wil be ſo high growne, that a man may cut it down and haue a plentiful after-math for hay: and yet al the while that it hath corn vpon it, you ſhall not ſee it to beare any graſſe beſides. This marle continueth good 30 yeres: if it be laid ouer-thick vpon a land, it choketh the ground in manner of
* Cumine. The Columbine marle, the Gauls call in their language, by a name borrowed of the Greeks, Pelias, (*i.* Doue or Pigeon marle:) it is fetched out of the ground in clots and lumpes, like as ſtones be hewed out of quarries: with Sunne and the froſt together, it will reſolue and K
cleaue into moſt thin ſlates or flakes. This marle is as good for corne as for herbage. As for ſandy marle, it will ſerue the turn for want of other: yea and if the ground be cold, moiſt, and weely, the husbandman will make choice thereof before other.

* *Cymini. Turneb.* reades *Signini*, & meaneth thereby ſhards of potters worke and ſuch like rubbiſh.

The Vbians, vpon my knowledge, vſe to inrich their ground and make it more battle (though their territory otherwiſe be moſt fertile) with any earth whatſoeuer; prouided alwaies that it be digged vp three foot deep at leaſt, and laid a foot thick; a deuiſe that no other country doth practiſe: howbeit this ſoile and manner of manuring, continueth good not aboue ten yeres: the Heduans and Pictones, haue forced their grounds and made them moſt plentifull, with limeſtone; which is found alſo by experience to be paſſing profitable for vines and oliues.

To come now to the ordering of this piece of husbandry: the ground ought to be ploughed L
firſt, before marle of any ſort be caſt vpon it; to the end that the medicinable vertue & ſubſtance thereof, might the ſooner and more greedily be receiued into it. Now foraſmuch as marle is at the firſt ouer-rough and hard, not ſo free in the beginning as to reſolue and turne into blade or graſſe, it had need of ſome compoſt or dung to be mingled with it: for otherwiſe, be it neuer ſo rich, it will rather do harm than good to the ground, by reaſon that it is yet ſtrange and not acquainted therewith: and yet help it this way as wel as you can, it will not bring forth any plenty the firſt yere after it is laid on. Laſt of all, it skilleth much to conſider the nature of the ground, which you mean to marle: for the dry marle, ſorteth well with a moiſt ſoile; and the fatty, hitteth that which is dry and lean. But when the ground is of a middle temperature between both, it mattereth not whether you vſe the white gold-ſmiths chalke, or the Columbine-marle, for M
either of them will ſerue well enough.

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Chap. IX.

¶ *The vſe of aſhes vpon lands: of Dung: what graine or pulſe ſowne, doth make the ground more plentifull, and what burneth it.*

THe people dwelling beyond the Po, make ſuch account of aſhes for to inrich the grounds withall, that they prefer it before horſ-muck, and ſuch like: which dung (becauſe they take it to be very light) they burne alſo into aſhes for that purpoſe. Howbeit (as we haue ſaid before) in one and the ſame corn-land, they vſe not aſhes and mucke both at once: no more doe they caſt aſhes in hortyards for to nouriſh yong trees, nor in fields, for ſome kind of corn. Some are of iudgement, that grapes are fed with duſt: who alſo do caſt duſt vpon them when they be-
B gin to bloome, yea and beſtrew duſt vpon the roots as well of Vines as other trees. Certain it is, that in the prouince of Narbon they vſe ſo to do, and they are aſſuredly perſuaded, that grapes ripen better and the vintage commeth the ſooner thereby: becauſe in thoſe parts duſt doth more good than the Sun.

As for mucke, there be diuers ſorts thereof, and in old time much vſe there was of it: for in *Homer* we read, that long ago the good old king [*Laertes*] was found laying ſoile and dung vpon his land with his own hands. The firſt that deuiſed mucking of grounds, was (by report) *Augeas* a king in Greece: but *Hercules* divulged the practiſe thereof among the Italians, who in regard of that inuention immortalized their K. *Stercutius* the ſon of *Fauuus*. *M. Varro* eſteemeth the dung of Blackbirds (gathered out of their bartons where they be kept in mew) aboue al others.
C He highly magnifieth and extolleth it alſo, for that it bringeth forth ſo good forage to feed kine, oxen, and ſwine withall: auouching for certaine, that they will become fat beeſe and pork with no meat ſooner. We muſt thinke well therfore and hope the beſt of the world now adaies, ſince that our anceſtors and forefathers ſo long ago had ſo great bartons and pens, that the dung of fouls there kept, was ſufficient to help their hard and hungry grounds. In the ſecond degree of goodneſſe, *Columella* rangeth Pigeons dung gathered out of Doue-cotes: the third place hee giueth to that of Hens, and other land pullen, reiecting altogether the dung of water-foule. Howbeit all other Authors (ſetting theſe two aſide) attribute with one voice and conſent vnto the excrements of mans body, the greateſt praiſe for this purpoſe. Some of them prefer mans vrine, and namely, when the haires of beaſt-hides haue bin ſoked therewith and quicke-lime to-
D gether in the Tanners pits. Others vſe vrine alone by it ſelfe, only they mingle water with it againe, but in greater quantitie a good deale, than they (whoſe vrine it was) did put to the wine when they drank it: and good reaſon too; for more need there is now to correct and repreſſe the malice thereof, conſidering that beſides the natiue malignitie of the wine it ſelfe, mans bodie hath giuen and imprinted into it, a ſtrong and vnſauorie quality. Thus you may ſee how men labour, ſtriue, and try concluſions, to feed and inrich the very ground, the beſt way they can deuiſe. Next vnto the ordure and vrine of mans body, the filthy dung of ſwine is moſt commended: only *Columella* condemneth it. Some praiſe the mucke of any foure-footed beaſts whatſoeuer, ſo they were fed with Tree-trifolie, called Cytiſus. Others prefer the doung of Pigeons before any other; in the ſecond place that of Goats; thirdly of ſheepe; then of kine and oxen; and
E laſtly of cart-jades, mules, aſſes, and ſuch like. Thus you ſee as well what difference there was in times paſt, between this dung and that; as alſo what were the rules (ſo farre as I can gueſſe and learne) whereby they went, in the vſe and ordering thereof: for, to ſay a truth, the old way is beſt, euen herein as well as in other matters. Ouer and beſides, the practiſe hath bin already ſeen in ſome of our prouinces (where there is ſo great ſtore of cattell bred) to riddle and ſift their dung ouer their ground through ſieues, in manner of meale; and ſo in proceſſe of time it loſeth not only the ſtinking ſent and ill-fauored ſight that it had, but alſo turneth into a pleaſant ſmel, and looketh louely withall. Of late, found it hath been by experience, that Oliue trees doe like and proſper very well, if the aſhes of lime-kills eſpecially be laid to their roots. *Varro*, among many other precepts, addeth and ſaith, That corne grounds would be manured with horſ-dung,
F becauſe it is the lighteſt; but medowes require compoſt that is heauier, and namely, made by beaſts that haue barley for their prouender; for that ſuch ſoile bringeth plentie of graſſe. Some there bee alſo, that preferre the dung made by horſes, before the mucke of kine and Oxen; likewiſe ſheeps treddles, before Goats dung; but Aſſes mucke before all other, becauſe

they eat and chew their meat moſt leiſurely. But daily experience teacheth the contrary, and teſtifieth againſt the one and the other. And thus much as touching compoſt of mucke. G

Furthermore, all men are of opinion, that nothing is better for the ground, than to ſow Lupines therupon; prouided alwaies, that before it cod, it be turned into the ground by the plough, ſpade, or two-piked yron forke: alſo when it is cut down, to make it into wads or bottles, and ſo to bury them at the roots of trees, and vines eſpecially. In countries where there are no cattell to better the lands, it is thought good to manure the ſame in ſtead of beaſts dung, with very hawme, ſtraw, and ferne. *Cato* hath a deuiſe to make an artificiall mucke or compoſt of litter, lupine ſtraw, chaffe, beane ſtalks, leaues and branches both of Maſt-holm and oke. He ſaith moreouer to the ſame purpoſe: Weed out of the ſtanding corn * Walwort [otherwiſe called Danewort] and Hemlock; alſo from about oſier-plots, plucke vp ranke weeds, or ground Elder; alſo Reeke or Sea-graſſe, and dead leaues or branches lying rotten vnder trees: when thou haſte ſo done, ſtrew, and lay a courſe of them vnder ſheep where they be folded. *Item*, If the Vine begin to decay and wax leane, burne the ſhreads and cuttings of the owne, and turne the aſhes vnder ground hard to the roots thereof. *Item*, where thou meaneſt to ſow any wheat or ſuch like bread-corn, draw thy ſheep thither, and there fold them. He ſaith moreouer, that the ſowing of ſome graine is as good as a dunging to the ground: for theſe be his very words, The fruit it ſelfe of the earth is a batling to the earth; and namely, Lupines, Beans, and Vetches, for they muck the lands: like as on the contrary ſide, Chiches do burn the ground, both becauſe they are plucked, and alſo for that they ſtand vpon ſalt. Semblably doth Barley, Fœnigreeke, Eruile, and generally all kind of pulſe which are pulled and not mowne downe. *Item*, Take heed (quoth *Cato*) that you ſet no pepins or kernels, where you meane to ſow corne. As for *Virgil*, he is of opinion, that the ſowing of Line-ſeed for flax, likewiſe of Otes and Poppies, do burne corne-ground and pill it out of heart. He alſo giueth rules as touching mucke-hills, That they ſhould be made in the open aire, within ſome hollow place where it may gather water; that they be couered ouer with ſtraw and litter, for feare they ſhould dry in the Sun; and laſt of all, that they haue a good ſtrong ſtake of Oke pitched and driuen in about the mids thereof, for ſo there will no ſnakes nor ſuch like ſerpents breed and ingender therein. Moreouer, as touching the ſpreading of mucke, and mingling it with the mould of a land, it is exceeding good to do it when the winde ſetteth full Weſt, ſo that the Moon then be paſt the full and in the Waine. But this rule many haue miſtaken and not conſtrued aright, ſuppoſing that they ſhould ſo do when the Weſtern wind Fauonius beginneth to riſe, and namely in the moneth of Februarie only; whereas indeed moſt corn-lands require this point of husbandry in other moneths as wel. But looke what time ſoeuer you liſt to do it, be ſure in any hand that the wind do then blow from the Equinoctiall point of the Weſt, and that the moone then be in the waine, and drie withall. Haue regard to theſe rules and obſeruations, you will wonder to ſee the effects thereof, and what increaſe the earth thereby will yeeld.

* *Herba Allen.*

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I

K

Chap. X.

¶ *The planting and ſetting of trees: the manner how trees do grow, by a Sion ſliued and plucked from the root.*

NOw that we haue already ſufficiently treated of the conſiderations as well of the aire and skie, as of the earth, belonging vnto plants and trees; me thinks it were to good purpoſe to diſcourſe of the induſtry and artificiall meanes that men haue vſed to make trees grow: and verily we ſhall find no fewer kinds of them that come by mans hand, than of ſuch as nature it ſelfe hath brought forth; ſo kind and thankfull we haue bin to her, as to make recompence in this behalfe. Firſt and formoſt therefore this is to be noted, That all trees do grow either of ſeed ſowne, or of branches growing to the tree and couched in the ground, or of an old ſtocke from whence new imps may ſprout: alſo, either of a ſlip or ſprig plucked from another tree, and ſo laid in the ground; or of a young ſhoot, twig, impe, or Sion, engraffed in the very trunk of a tree, ſlit and clouen for that purpoſe. For I cannot chuſe but maruell much at *Trogus*, who was verily perſuaded, That about Babylon the leaues onely of Date trees beeing ſet or ſowne, would prooue trees. Now whereas there be ſo many deuiſes aboueſaid for to nouriſh trees, this you muſt vnderſtand, that ſome trees there be which will grow by many of theſe waies before ſpecified,

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A fied, and others by them all. And verily the moſt part of this knowledge hath beene taught by Nature her ſelfe: for firſt of all, we haue learned by her for to ſow ſeed, by occaſion that we haue ſeen ſome to fall from trees, which being receiued by the ground, haue chitted, taken root, and liued. And in very truth, ſome trees there be that grow no otherwiſe, as Cheſtnut, and Walnut-trees, excepting onely thoſe that being cut downe, doe ſpring new again from the root. Of ſeed alſo (although the ſame be farre vnlike to others) thoſe alſo will grow; that are vſually planted otherwiſe; as for example, Vines, Apple trees, and Pyrries: for in theſe the ſtone and pepin within, ſerueth in ſtead of the ſeed; and not the fruit it ſelfe, as in thoſe before rehearſed, the kernels whereof [*i.* the fruit] are ſowne. Medlars likewiſe may come vp of ſeed. But all the ſort of theſe that ſpring after this maner, be late ere they be come forward, and ſlow in growth: they turn alſo
B to a degenerat and baſtard nature, and had need to be graffed anew ere they be reſtored to their owne kind: which is the caſe of Cheſtnuts alſo otherwhiles. Howbeit there be others for them againe, which (ſow or ſet them what way you will) neuer grow out of their owne kind; and ſuch be Cypreſſes, Date trees, and Lawrels: for the Lawrell commeth vp by ſowing, by ſetting, and planting, after ſundry ſorts. The diuers kinds whereof, we haue deſcribed already. Of all which, the Lawrell Auguſta with the broad leaues, the common Bay tree alſo that beareth berries, as alſo the wild kind named Tinus, be ordered all three after one and the ſame ſort. The manner whereof is this: the Bayes or berries thereof, be gathered dry in the moneth of Ianuary when the Northeaſt wind bloweth: they are laid abroad thin to wither, one apart from another, & not in heaps, for feare they ſhould catch a heat. This done, ſome put them afterwards in dung; and
C being thus prepared and ready for to be ſowne, they ſteep them in wine. Others take and lay them within a large basket or twiggen panier, trample them vnder their feet in a brook of running water, vntill they be pilled and rid of their outward skins: for otherwiſe their skin is of ſo tough and moiſt a ſubſtance, that it would hardly or not at all ſuffer them to come vp & grow. After all this, in a plot of ground wel and throughly digged once or twice ouer, a trench or furrow muſt be made a handfull deepe, and therein the berries ought to be buried by heaps, to wit, twenty or thereabout together in one place: and all this would be done in the month of March. Lawrels alſo will grow, if their branches or boughes be bended from the ſtocke and laid within the ground: but the Triumphall Lawrell will come vp no other way but by ſetting a graffe or impe cut from it. As for the Myrtle, all the ſorts thereof within Campaine, come of berries
D ſown: but we at Rome vſe to interre only the boughes of the Tarentine Myrtle, growing ſtill to the body, and by that means come to haue Myrtle trees. *Democritus* ſheweth another deuiſe alſo to increaſe Myrtles, namely, to take the faireſt and biggeſt berries thereof, & lightly to bruiſe or bray them in a mortar, ſo that the grains or kernels within be not broken; & then to beſmere with the batter or ſtamped ſubſtance thereof, a courſe cord made of Spart or Spaniſh broome, or els hempen hurds, and ſo lay it along within the ground. Thus there wil ſpring therof, a maruellous thick hay or wall (as it were) of yong Myrtles: out of which, the ſmall twigs you may draw which way you will, yea, and plant them elſwhere. After the like manner, folke vſe to ſow thorns or brambles for to make hedges & mounds, namely, by annointing ſuch another hempen rope with bramble blacke-berries, and interring the ſame. As for Bayes thus ſowne, when they
E come once to beare a dark and blackiſh leafe: Myrtles alſo, when their leaues be of a wine color, to wit, of a deep red (which commonly happeneth when they be three yeres old) it wil be time to remoue and tranſplant.

Among thoſe plants and trees that are ſowne of ſeeds, *Mago* maketh much ado, and is foully troubled about thoſe trees that beare nuts, & ſuch like fruit in ſhels: for to begin with almonds firſt, he would haue them to be ſet in a ſoft clay ground that lieth into the South: & yet he ſaith again that Almond trees loue a hot and hard ſoile; for in a fat or moiſt ground, they will either die or els wax vnfruitful. But aboue all, he giueth a rule to chuſe Almonds for to ſet or ſow, that be moſt hooked, and eſpecially ſuch as were gathered from a young tree: alſo he ordaineth, that they ſhould be well ſoked or infuſed in ſoft beaſt ſherne or thin dung, for three daies together:
F or at leaſtwiſe in honied water, a day before they be put into the ground. *Item*, they ought (by his ſaying) to be ſet charily with the ſharp and pointed end pitched downward, and the edge of the one ſide to turne into the Northeaſt. Alſo that they muſt ſtand three and three together in a triangle, forſooth, ſo as there be a handbredth iuſt between euery one. Moreouer, that euerie tenth day they ought to be watered, till they be ſhot vp to a good bigneſſe. Now to come vnto

walnuts,they be laid along within the earth, with this regard,that they do ly vpon their ioints. G
As for pine nuts,there would be ſix or ſeuen of their kernels put together into pots that haue holes in them,and ſo buried in the ground: or elſe they ſhould be ordered after the manner of the Bay tree,which commeth of berries bruiſed,as hath been ſhewed before.

The Citron tree will grow of ſeed, and may be ſet alſo of ſprigges or twiggs drawne to the ground from the tree,and ſo couched. Servis trees come of the grains thereof ſowed of a quick-ſet plant alſo with the root,or of a ſlip plucked from it. But as the Citron trees liue in hot grounds,ſo theſe Serviſes loue cold and moiſt.

As concerning ſeminaries and nourſe-gardens,Nature hath ſhewed vs the reaſon and maner thereof, by certaine trees that put forth at the root a thick ſpring of yong ſhoots or ſions; but lightly the mother that beareth theſe imps, killeth them when ſhe hath done, with her ſhade H
and dropping together. And this is euident to be ſeene in Lawrels, Pomegranate trees,Planes, Cherry trees,and Plum trees: for ſtanding as theſe imps doe, a number of them without all order vnder their mother ſtocke,they be ouerſhadowed and kept downe ſo, that they miſlike and neuer come to proofe. Howbeit ſome few there be of this ſort, that are not ſo vnkinde to their yong breed,as to kill them with the ſhadow of their boughs,and namely Elmes & Date trees. This would be obſerued by the way,that no trees haue ſuch yong imps ſpringing at their feet, but they only whoſe roots for loue of the warm ſun and moiſt rain, ſpred aloft and ly eb within the ground. Moreouer,the manner is not to ſet theſe yong plants preſently in the place where they muſt remaine and continue for altogether, but firſt they are to be beſtowed in a piece of ground where they may take nouriſhment,to wit,in ſome nurſe-garden for the nones,vntil they are grown to a good ſtature; and then they are to be remoued a ſecond time to their due place. And a wonder it is to ſee,how this tranſplanting doth mitigate euen the ſauage nature of the I
wildeſt trees that are: whether it be that trees as well as men are deſirous of noueltie,and loue to be trauelling for change; or that as they go from a place,they leaue behind them their malicious qualitie,and being vſed to the land,become tame and gentle like the wild beaſts; eſpecially when ſuch yong plants are plucked and taken vp with the quicke root. Wee haue learned of Nature alſo another kinde of planting like to this: for we ſee that not only water ſhoots ſpringing out of the root, but other ſprigs ſlipped from the ſtocke, liue and doe full well: but in the practiſe of this feat they ought to be pulled away with a colts foot of their owne, ſo as they take a quicke parcell alſo of their mothers bodie with them, in manner of a fringe or border hanging thereto. After this manner they vſe to ſet Pomegranate, Filberd, Hazell, Apple, and Serviſe trees; Medlars alſo, Aſhes,and Figge trees; but Vines eſpecially: marie,a quince K
ordered and planted in that ſort, will degenerate and grow to a baſtard kinde. From hence came the inuention,to ſet into the ground yong ſprigs or twigs,cut off from the tree. This was at firſt practiſed with foot-ſets for a prick-hedge,namely,by pitching down into the earth, Elder,Quince-cuttings,& brambles; but afterwards men began to do the like by thoſe trees that are more ſet by,and nouriſhed for other purpoſes, as namely Poplars, Alders,and the Willow, which of all others may be pricked into the ground with any end of the cutting or ſprig downward,it makes no matter whether,for the ſmaller end will take as wel as the bigger. Now al the ſort of theſe are beſtowed and ranged in order at the firſt hand,euen as a man would haue them and where he liſt to ſee them grow, neither need they any remouing or tranſplantation at all. But before we proceed any further, to other ſorts of planting trees, it were good to declare the L
manner how to order ſeminaries, ſeed-plots,or nource-gardens.

For to make a good pepinnier or nource-garden, there would be choſen a principal and ſpecial peece of ground; for oftentimes it falleth out, yea and meet it is,that the nource which giueth ſucke ſhould be more tender ouer the infant, than the owne naturall mother that bare it. In the firſt place therefore, let it be ſound and drie ground, howbeit furniſhed with a good and ſucculent elemental moiſture, and the ſame broken vp and afterwel digged ouer and ouer with mattock and ſpade, and brought to temper and order, ſo as it be nothing coy but readie to receiue al manner of plants that ſhall come,and to entertain them as welcome gueſts; & withall, as like as may be to that ground vnto which they muſt be remoued at laſt. But before al things this would be looked to, that it be rid clean of all ſtones; ſurely fenced alſo and paled about,for M
to keep out cockes and hens and all pullen: it muſt not be full of chinkes and cranies,for feare that the heat of the ſunne enter in and burne vp the ſmall filaments or ſtrings and beard of the

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A new roots : and laſt of all, theſe pepins or kernels ought to ſtand a foot and a halfe aſunder : for in caſe they meet together and touch one another, beſides other faults & inconueniences, they will be ſubiect to wormes : and therefore I ſay there would be ſome diſtance between, that the ground about them may be often harrowed and raked, to kill the vermin, and the weeds pluckt vp by the heeles that do breed them. Moreouer, it would not be forgotten to proin theſe yong plants when they are but new come vp : to cut away, I ſay, the ſuperfluous ſprigs vnderneath, and vſe them betimes to the hooke. *Cato* giueth counſel to ſticke forks about their beds a mans height, and lay hurdles ouer them, ſo as the Sun may be let in vnderneath : and thoſe hurdles to couer and thatch ouer with ſtraw or holme, for to keepe out the cold in winter. Thus are yong plants of Peare trees and Apple trees nouriſhed : thus Pine nut trees, thus Cypreſſes which do
B likewiſe come vp of ſeed, are cheriſhed.

As for the grains or ſeeds of the Cypres tree, they be exceeding ſmall, and ſo ſmall indeed, that ſome of them can ſcarce be diſcerned well by the eye. Wherein the admirable worke of Nature would be conſidered, to wit, that of ſo little ſeeds ſhould grow ſo great and mightie trees, conſidering how far bigger are the cornes of Wheat and Barley (to make no reckoning nor ſpeech of Beans) in compariſon of them. What ſhould we ſay to Peare trees and Apple trees ? what proportion or likeneſſe is there between them, and the pretty little pepins whereof they take their beginning ? Maruell we not, that of ſo ſlender and ſmall things at the firſt, they ſhould grow ſo hard, as to checke and turne again the very edge of ax and hatchet ? that frames and ſtocks of preſſes ſhould be made thereof ſo ſtrong and tough, as will not ſhrinke vnder the
C heauieſt poiſe and weights that be ? that Maſt-poles comming thereof ſhould be able to beare ſaile in wind and weather ? and finally, that they ſhould afford thoſe huge and mightie Rams and ſuch like engins of batterie, ſufficient to command towers and baſtils, yea, and beat downe ſtrong walls of ſtone before them ? Lo what the force of Nature is ! ſee how powerfull ſhee is in her works ! But it paſſeth and exceedeth all the reſt, that the very gum and liquour diſtilling out of a tree, ſhould bring forth new plants of the ſame kind, as we will more at large declare in time and place conuenient. To returne then againe to the female Cypres (for the male as hath bin ſaid already bringeth forth no fruit) after that the little balls or pills (which be the fruit thereof) be gathered, they are laid in the Sun to dry, during thoſe moneths, which we haue before ſhewed, and being thus dried, they will breake and cleaue in ſunder. Now, when they are
D thus opened, they yeeld forth a ſeed which Piſmires are very greedy of. Where another wonder of Nature offereth it ſelfe vnto vs, That ſo ſmall a creature as it ſhould eat and conſume the ſeed which giueth life and being to ſo great and tall trees as the Cypres. Well, when the ſaid ſeed is gotten, and the plot of ground laid euen and ſmooth, with cilinders or rollers, it muſt be ſowne of a good thickneſſe in the moneth of Aprill : and freſh mould ſifted and ſtrewed ouer with riddles an inch thicke and no more : for if this grain be buried ouer-deep and ſurcharged, it is not able to break through againſt the weight of the earth, but in ſtead of riſing vp, the new chit turneth and bendeth backward vnder the ground. And hereupon it is that folke forbeare either to go at all vpon it, or elſe they tread very lightly. Being thus ſowed, it muſt be gently watered for three daies following, after the Suns ſetting, (that the earth may drinke equally in
E all places) vntill the ſprouts appeare aboue ground. Now, after they haue had a yeares growth, they be tranſlated and re-planted againe in rewes : for by that time they are come to a ſpan or nine inches in height : but great care muſt be had that the time be temperat, that is to ſay, that the weather be freſh and faire without any wind. Certes a wonderfull thing it is to be ſpoken, that all the danger or ſecurity of this tree, ſtandeth vpon the choice of that only day wherein it is replanted : for let there fall neuer ſo ſmal a rain or dew, nay let the wind blow neuer ſo little, it is a great haſard whether it will die. For euer after it is wariſhed and ſafe enough, howbeit it cannot abide a glut of rain at any time following. Moreouer, as touching Iujubes, they are likewiſe ſet of their graines in the moneth of Aprill. But that kinde of Peaches or Abricots which be called Tuberes, loue better to be graffed either vpon a skeg or wilde Plum-ſtocke, or
F Quince, or elſe vpon the wild Hart-Rhamme, called Calabricum, [or Spina Cervina.] To knit vp this diſcourſe, the fruit Sebeſten and the Serviſes may be graffed and planted both vpon the ſame kind of ſtocke : and looke what will beare the one, is apt to receiue the other.

G

Chap. XI.

¶ *The manner of tranſlating or replanting out of one ſeminarie or nource-garden vnto another. How Elmes are to be planted. Alſo as touching trenches.*

SOme would haue vs to remoue plants out of one ſeminarie into another, before they be ſet indeed where they ſhould be for to continue: which me-thinkes is a matter of more toile and curioſitie than neceſſitie, howſoeuer they make promiſe, that by ſuch tranſplanting, the leaues will proue larger and broader.

i. The firſt of March.

Now for Elms, their ſeed or grain is to be gathered about the * Calends of March, when it beginneth to turn yellow, and before the leaues break forth. After it hath bin dried in the ſhadow for two daies, it is to be ſown thick in a plot of ground well broken vp and laid hollow beforehand, and then muſt there be mould ſearced ouer through a fine riddle, to the ſame thickeneſſe as we haue appointed for the Cypres. In caſe no raine do fall in due time, it ought to be watered by hand. After one yere, the plants that come herof muſt be taken vp out of the trenches and ranges wherein they came vp, and tranſlated directly into the Elme plots where they are to grow; with this care & good regard, that they ſtand a foot at leaſt euery way diſtant one from another. As for the male Elmes, vnto which Vines are wedded, becauſe they are without ſeed, it is better they were planted in the Autumne: and for that they want ſeed they would be ſet of plants. Here with vs about Rome ſide they vſe to replant them again in their groue-plots when they be fiue yeares old, or as ſome would haue it, ſo ſoon as they be come to 20 foot in height. The maner whereof is this, in a trench or ditch called * Novenarius, 3 foot deep in the ground, and as many broad, or rather more, they are ſet: which done, for three foot in height euery way about the foot of each tree from the ground as it ſtands, there muſt be banks raiſed of ſome earth, after the maner of thoſe ſeats which they cal Arulæ in Campanie. As for the ſpaces between tree and tree, they ought to be ſet out and diſpoſed according to the nature and ſcituation of the place, and as the ground wil giue leaue. In the champion and plain country, thoſe would be planted that are of a drier nature, and likewiſe in a thinner courſe. As for Aſhes and Poplars, becauſe they make haſt to ſpring, leafe, and bud out betimes, it is meet that their plants likewiſe were ſet and ranged with the firſt, that is to ſay, about the * Ides of Februarie; for they alſo grow of plants, and may well be replanted.

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i. Nine foot diſtant euery way from another, for trees were planted ordinarily with that ſpace between: as may appeare in the next chapter.

i. The 13 day of Februarie.

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Now for the order of ſetting trees either in groues, hort-yards, or vine-yards, wee ought to follow the vſuall maner of checquer row, called Quincuntial, which is not ſo common, but it is alſo as neceſſarie: not only good to admit all kindes of winde to paſſe betweene, but alſo faire and pleaſant to the eye, conſidering, that which way ſoeuer a man looks, there offer to his ſight both the allies, and rewes, directly rangedin order.

The Opiets or Wich-Hazels are ſown of ſeed after the ſame maner as Elme: in like ſort alſo are they to be remoued & tranſplanted out of their nource-plots, as if they were wild, drawn from the very forreſts.

Moreouer, aboue all things this would be conſidered, that a tree to be remoued ought to be tranſlated either into the like ground from whence it came, or elſe into a better. For we muſt take heed how we remoue plants out of warme grounds, & where the fruit is early ripe, into others that be colder or late in ripening. Semblably, out of cold & hard places, they would not be tranſlated into warm, mellow, and forward. *Item*, if it be poſſible, let the trenches be caſt and digged ſo long before, that a good thicke green ſourd be ouergrowne againſt the time that you mean to plant. *Mago* is of opinion, That the ſaid trenches ſhould ſtand made a yeare before at the leaſt, that they might be fully ſeaſoned with the Sun, and receiue all rain, winde, & weather throughly. But in caſe it fall out otherwiſe, that the opportunitie thereof be ouerſlipt, or our leiſure wil not ſerue, he would haue fires to be made in the midſt of them two moneths before, and in no caſe any trees to be ſet but after ſhowres of rain. And if the ground be tough or hard, and ſtanding vpon the cley, the ditches ought (according to *Mago*) for to be three cubits deepe euery way: and if they be to plant plum trees, he would haue them be a hand-bredth more, or ſpanne in deapth, and digged on euery ſide hollow, and vaulted in manner of a fournace, with a narrower mouth in the top. In a blacke veine of ground, by his direction, it is ſufficient that they be two cubites and a hand-breadth or ſpanne deepe, and made foure-ſquare in manner

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A ner of a quadrangle. In the meaſure and proportion of theſe ditches, the Greeke writers doe accord in one, ſaying, that they ought not to be more than two foot and a halfe deepe, nor wider than two foot bare: alſo, that in no place it muſt be vnder a foot and a halfe deepe, for that in a moiſt ſoile, we ſhal come ordinarily neer to water about that skantlin, and not before. But *Cato* is of another judgment, If (quoth he) the place be wateriſh, let the trenches be three foot broad in the mouth, but in the bottome not aboue a foot and a hand-breadth, but ſee they bee foure foot deep: prouided alwaies, that they be * paued beneath with ſtone: and for want thereof, laid with green willow baſtons, and for default of them, with vine cuttings, or ſuch trouſſe, ſo that they lie halfe a foot thicke. But conſidering the nature of trees wherof we haue before written, I think it not amiſſe to adde ſomewhat of mine owne, namely, The more ebbe that any roots of
B trees creepe vnder the ground, the deeper they muſt be ſet into the earth, as for example, the Aſh and the Oliue tree: for they and ſuch other like ought to ſtand foure foot deepe. As for all the reſt, it skils not, if they goe no deeper than 3 foot, for that is thought ſufficient. [Stocke me vp this root here (quoth *Papyrius Curſor* a Roman in General, in a brauery, when he meant to terrifie the Pretor of the Prænestines.) Whereby it is plain that the more ſecure & ſafe way in his judgment was rather to cut the ſtocke and maiſter Root indeed, than ſlightly to pare away thoſe bare roots that appeare naked aboue ground; for that mought be done, and the tree neuer the worſe for it.] Some there be that would haue round peble ſtones laid in the bottom of ſuch ditches, which might as wel contain and keep water, as let it forth and giue iſſue therto: whereas broad flat ſtones would not ſo doe, but beſides, hinder the root that it ſhould not goe downe
C and take hold of the earth. For to keep therefore a meane betweene, it were good in mine opinion, to lay grauell vnder the root.

Moreouer, there be diuers men of this mind, that a tree ſhould not be remoued, either vnder two yeares old, or aboue three: wheras others make no queſtion to tranſplant them after the firſt yeare, without more adoe. *Cato* alloweth not of tranſlating a tree, vnleſſe it beare in thickneſſe more than 5 fingers. And verily, ſo exactly hath he written hereof, that he would not haue forgotten, to marke in the barke of trees the South ſide, before they were taken vp, in caſe, hee had thought that it was material to the replanting of them, that they ſhould ſtand juſt in the ſame poſition and accuſtomed coaſt of the heauen, as they did before; for feare leaſt that ſide which regarded the North, if now it ſhould be oppoſed againſt the South, might cleaue and rift with
D the heat of the Sunne, not vſed thereto: and contrariwiſe, the parts which looked Southward, might now by the Northern winds, be clunged and congealed withall. Now there be ſome that affect a cleane contrarie courſe, and namely, in the Fig tree, and the Vine; exchaunging the one ſide for the other: being fully perſuaded, that by that means they will beare leaues thicker, preſerue and defend their fruit better, and in the end ſhed fewer: more particularly, that the fig tree therby wil be the * more eaſie to climb. Moſt men take great heed of this only, that when they prune trees, and cut off the top ends of boughes, the cut may be toward the South; without any regard or conſideration, that in ſo doing they expoſe the boughs to the danger of cleauing, by reaſon of the hote Southern wind which lieth vnceſſantly beating vpon them. Yet hold I rather with them, that would haue branches cut Southeaſt or Southweſt, namely, toward the points
E where the Sun is, at the fift and eight houres of the day. Another ſecret there is beſides, wherof they are as ignorant, howbeit, not to be neglected, namely, to beware that the roots of ſuch trees as are to be replanted, ſtay not long aboue ground, and thereby wax drie: alſo, that trees bee not digged vp, either ſtanding into the North, or in any quarter between that point and the Southeaſt, where the Sunne riſeth in midwinter, in caſe the wind ſit in thoſe corners: or at leaſtwiſe, that the roots be not expoſed bare againſt any of thoſe winds: for ſurely, many a tree dies hereby, and husbandmen neuer know the cauſe thereof. *Cato* vtterly condemneth al maner of winds whatſoeuer, yea, and raine too, all the while that trees be in remooving. Moreouer, in this caſe it is ſingular good, that there hang to the roots of theſe trees, when they be tranſlated, as much of the old earth wherein they liued and grew before, as may bee, yea, and (if it were poſſible) to
F bring them away with the turfes whole and entire, lapped faſt about the roots. And therefore *Cato* prouided wel, that ſuch yong plants ſhould be caried in baskets, earth and altogether with the roots. Doubtleſſe, not without very great reaſon there is one Author ſaith, That it is ſufficient that the vppermoſt courſe of the old mouth that lay at the foot of the tree, ſhould be put vnder the root thereof now when it is replanted. Some write, that if the bottom of the hole or

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* It ſeems that *Cato* meant of trenches to drain water out of low grounds: and not as *Pliny* miſtaketh.

* *Scanſilem*, reading it *ἐξαυτμον*, happily for *ἐξαστμον*, out of *Theophraſtus*, (i.) more fertill and fruitfull.

graue be paued with ſtone where Pomegranate trees ſhould ſtand, the Apple or fruit that they G
bear, wil neuer burſt nor cleaue vpon the trees. Alſo, that the roots of trees when they are to be ſet, ſhould be laid bending atone ſide, and not ſtand direct and ſtreight. Moreouer, that the tree in any caſe be ſet juſt in the mids of the ditch or hole made for it. It is ſaid moreouer, that if a man plant a fig-tree, together with the ſea-onion, Scilla (that is a kind of the Bulbi) it wil make haſt to bear Figs, and thoſe wil not be ſubject to the worme: and yet other fruits will be worm-eaten neuertheleſſe, ſet them with the ſaid Scilla as well as you can. As for the roots of a tree who makes any doubt, that great care ſhould be had in the taking of them vp? ſo as they might ſeeme rather drawn forth gently, and not plucked vp violently. But my purpoſe is not to dwell in theſe matters, nor to ſtand much vpon ſuch points, which haue a manifeſt reaſon, and wherof no man is ignorant or doubtfull; to wit, that the earth is to be well driuen and beaten downe H
cloſe with a rammer, that it may lie faſt about the roots, which *Cato* judgeth to bee a principall point for to be obſerued in this buſineſſe: who alſo giueth a rule, that the place where a tree is cut in the body, ſhould be plaſtred ouer with dung, couered ouer alſo, and faſt tied with leaues.

Chap. XII.

¶ *Of the ſpaces and diſtances that ought to bee betweene trees planted: of their ſhaddowes and droppings: of the place where they ſhould be planted.*

IT belongeth to this place properly for to ſpeak of the diſtances between tree and tree, in the ſetting. Some writers are of opinion, That Pomgranat trees, Myrtle trees, & Lawrels, ſhould I
be planted thicker than ordinarie, howbeit, with this regard, that they be ſet 9 foot aſunder one from another. As for Apple trees, they may ſtand a little more at large, Peare trees ſomewhat wider than they, Almond trees, and Fig trees yet a little more than all the reſt. But herein muſt we be ruled & directed by the boughs ſpreading more or leſſe, by the room of the place it ſelfe, and according to the ſhadow that each tree caſteth. There is not (I ſay) any one of theſe conſiderations to be neglected, and the ſhade eſpecially of all others would be obſerued. For ſuch trees as branch round as it were in compaſſe, although they be otherwiſe great, as namely Apple trees, and Pyrries, yet they yeeld no great ſhadow: whereas a man ſhall ſee Cherry trees and Lawrels take vp an exceeding deale of ground with their ſhade. Now theſe ſhaddowes of trees haue their properties by themſelues, for that of the Walnut tree is noiſome and hurtfull K
euen to man, breeding heauineſſe in the head: and an ill neighbour it is beſides to all plants either vnder or neere vnto it. The Pine tree alſo with her ſhaddow nippeth and killeth the yong ſpring of all plants within the reach thereof. Howbeit, both it and alſo the Walnut tree reſiſt the force of winds notably, and therefore they ſerue in good ſteed to protect vineyards, and are projected againſt the winds to breake their violence. The dropping of the Pine, Oke, and Maſtholme, by reaſon of the raine water wherewith they are much charged, is very heauy and ponderous, and therefore hurtfull. As for the Cypreſſe tree, it droppeth little or nothing, by reaſon that it receiueth ſo ſmall a deale of rain: and in truth of all others the ſhade is leaſt, the boughs are knit and truſt ſo round, and run vp ſharpe pointed in the top. The Fig tree giueth no thicke ſhadow, howeuer the boughs ſpread large ynough; which is the cauſe, that no man forbiddeth L
the planting of them in Vineyards among Vines. And as for Elmes, their ſhade is ſo milde and thin, that it nouriſheth whatſoeuer it ouerſpreads vnder it. Howbeit, *Atticus* is of opinion, That the ſhaddow of Elmes is one of the thickeſt and moſt hurtfull: neither doe I make any doubt thereof, if they be let to ſpread into great armes and boughes at liberty: marie, if the branches thereof, or if any tree within-forth be ſhrigged, I thinke that the ſhade will doe no harme at all. The Plane tree carieth a heauie head, and therefore caſteth a thicke ſhade, howbeit, pleaſant it is, and refreſhes thoſe that ſit vnder it: ſafe reſting there is vpon the graſſe, rather than the bare ground: and there is not a tree againe where graſſe groweth thicker and longer, to couer the bankes and ſeats vnder it. As for the white Poplar or Aſpen tree, it maketh little or no ſhade at all, the leaues keep ſuch a wagging & trembling, and neuer hang ſtill: the ſhadow of the Alder M
tree is fat and battle, it feeds whatſoeuer is ſowne or ſet vnder it. The Vine hath ſhade ynough to ſerue her owne turne: the leaues are euer ſtirring, and by their motion and turning often too and fro, there is a good temperature of ſhade and Sunne by that meanes: they ſerue alſo in ſteed of a couert in time of raine, and beare off a good ſhower. Generally, all trees in manner that

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A haue their leaues hanging by a long taile, caſt but a light and ſlender ſhaddow. And truly the knowledge hereof would not be contemned, nor ſet in the laſt place of ſuch points as belong to husbandrie, conſidering there is not the ſhadow of any one tree, but either is a kind nource, or a ſhrewd and curſt ſtep-dame, that is to ſay, either profitable or incommodious to all the fruits of the earth. For without all queſtion, the ſhade of Walnut trees, Pine trees, Pitch trees, & firs is no better than poiſon to all that is within the compaſſe of it, and kils whatſoeuer it toucheth. And thus much of Shadowes.

As touching the dropping of trees, a man may conclude in one word all that belongs thereunto. For looke what trees ſoeuer be ſo defended and clad with thick leaued branches, that the raine canot paſſe readily through them, be ſure the dropping and diſtillation of ſuch is naught
B and dangerous. And therefore it skilleth very much in this matter and queſtion now in hand, to know the nature of the earth wherin we meane to plant, how many trees it may well bear and nouriſh. As for hills, they require of themſelues not ſo great diſtance betweene tree and tree, as the plaines beneath: beſides, in ſuch places expoſed to the wind, it is good that they be planted thicker. Howbeit, Oliues require the greateſt ſpace between of all others: and therfore *Cato* following the judgment of all Italie, ordaines in theſe words, That they ſhould ſtand aſunder fiue and twentie foot at the leaſt, and thirtie at the moſt: but this rule holdeth not alwaies; for herin guided we muſt bee by the nature and ſite of places, which varie and differ much. For in Bœtica, which is a part of Spaine, there is not another tree growing, bigger than the Oliue: and if we may giue credite to authors that haue written hereof, there bee in Affricke, by their report ma-
C ny of them called Milliariæ, for that euery yeare they yeeld a thouſand pound weight of oile; apeece. And therfore *Mago* allowed threeſcore and fifteen foot euery way, for diſtance between Oliue trees, or elſe fiue and forty at leaſt, euen in leane and hard grounds, and thoſe that were expoſed to the winds. And in Bœtica verily, the people vſe to reap great plenty of corn among Oliue trees.

Now of all other follies this is one, and bewraieth ſhamefull blindneſſe and ignorance, To be driuen to make glades between trees when they be grown to a good bignes: and namely, either by lopping their boughs too much for to let in light between, and ſo by this means to haſten their age and decay; or els to draw them by cutting them downe cleane: wherin oftentimes they that did ſet them at firſt, take themſelues in the manner, and blame their own want of skil.
D Conſidering therefore, that there is no greater ſhame can happen to husbandmen than to repent when a thing is done, and then goe about to vndoe it, much better it is of the twain in this caſe, to fault in ouerwide, than too ſtreight roume.

Chap. XIII.

¶ *What trees grow but ſlowly: and which they bee that ſoone come forward: alſo, of the Sauine.*

SOme trees by nature are ſlacke of growth, and principally thoſe that come of ſeed, and liue longeſt. But ſuch as ſoone decay and die, are quicke of growth, as the Fig tree, Pomegranat tree, Plumme-tree, Apple-tree, Peare-tree, Myrtle, and Willow: but they make amends for
E their ſhort life in this, that they goe before others in fruit, and enrich their maſters quickly, for they begin to beare well at three yeeres age, yea, and they make a ſhew thereof in their bloſſom before. Of all theſe the Pear-tree is the ſloweſt. But the Cypirus, as wel the true & legitimat as the baſtard (which is a ſhrub called Pſeudo-Cypirus) come faſteſt forward of any other, for they beare at firſt both bloſſome and fruit. This is a generall thing obſerued, That al trees will thriue and proſper better, yea, and grow ſooner to perfection, if the ſhoots and ſuckers that put out at the root, as alſo other water twigs, be rid away, ſo that al the nouriſhment may be turned to the principall ſtocke only.

The work of Nature in ſending out theſe ſprigs, taught vs the feat to couch and lay ſets in
F the ground by way of propagation: and euen after the ſame manner briers and brambles doe of themſelues put forth a new off-ſpring: for growing as they do, ſmal and ſlender, and withal running vp to be very tall, they cannot chuſe but bend and lean to the ground, where they lay their heads againe, and take freſh root of their owne accord without mans hands: and no doubt, ouergrow they would and couer the whole face of the earth, were they not repreſſed and withſtood

by

by good husbandrie. The conſideration whereof maketh me to enter into this conceit. That G
men were made by Nature for no other end but to tend and look vnto the earth. See yet what a commodious deuice we haue learned by ſo wicked and deteſtable a thing as this bramble is, namely, to lay ſlips in the ground, and quick-ſets with the root. Of the ſame nature is the Yuie alſo, euen to grow and get new root as it creepeth and climbeth. And by *Catoes* ſaying, not onely the Vine, but Fig trees & Oliues alſo, wil grow & increaſe of cuttings couched in the ground; likewiſe Pomegranate trees, all kinds of Apple-trees, Baies, Plum-trees, Myrtles, Filberds, Hazels of Præneſte, yea, & Plane-trees. Now be there two waies to increaſe trees by way of propagation or enterring their twigs. The firſt is, to force a branch of a tree as it grows, downe to the ground, & ſo to couch it within a trench foure foot ſquare euery way; & after two yeares to cut it atow, where it bent from the tree: and after three yeares end to tranſplant it. But if a man liſt H
to haue ſuch plants or young trees to beare longer, the beſt way were to burie the ſaid branches at the firſt within mould, either in paniers or earthen veſſels, that when they are once rooted, they might be remoued all whole and entire in them, and ſo replanted. The ſecond is a more curious and wanton deuiſe than this, namely, to procure roots to grow on the very tree, by carrying, and conueighing branches, either through earthen pots or oiſier baskets, full of earth, thruſt cloſe to the ſaid branches: and by this means, the branches feeling comfort of the warme earth encloſing them on euery ſide, are eaſily intreated to take root, euen among Apples and other fruits, in the head of the tree, (for ſurely by this meanes we deſire to haue roots to chuſe, growing vpon the very top.) So audacious are men and of ſuch monſtrous ſpirits, to make one tree grow vpon another, far from the ground beneath. Thus in like manner as before, at 2 yeares I
end, the ſaid impes or branches that haue taken root, be cut off and carried away in the foreſaid pots or paniers: thither where they ſhall grow. As for the Sauine, an hearb or plant it is that wil take if it bee in this ſort couched in the ground: alſo, a ſprig if it be ſlipped off cleane from the ſtocke, will come again and root. Folke ſay, that if a man take wine lees, or an old bricke out of the wal broken ſmall, and either pour the one, or lay the other about the root, it wil proſper and come forward wonderfully. In like manner may Roſemarie be ſet as the Sauine, either by couching it, or ſlipping off a branch from it; for neither of them both hath any ſeed. To conclude, the hearb or ſhrub Oleander, may be ſet of any impe, and ſo grow, or elſe come of ſeed.

Chap. XIIII.

¶ *Of encreaſing trees by ſeed: the manner of graffing one in another: how the fine deuiſe of inoculation by way of ſcutcheon and emplaiſter was deuiſed.* K

NAture not willing to conceal any thing from man, hath alſo taught him to engraffe trees with their ſeed and graine. For oftentimes it happeneth, that birds being hungrie, haue greedily gobled vp ſeed and fruit whole and ſound, which after they haue moiſtened in their gorge, and tempered it alſo with the warmth and natural heat of their ſtomack, they ſend forth and ſquirt out again when they meute, together with their dung, that giueth vnto it a vertue of fecunditie, and ſo lay it vpon the ſoft beds of tree leaues, which many a time the winds catch and driue into ſome clifts and cranies of the barke, by meanes whereof, wee haue ſeene a Cherrie tree vpon a Willow, a Plane tree vpon a Lawrell, a Lawrell vpon a Cherrie tree: and at L
one time Berries and fruits of diuerſe ſorts and ſundry colors hanging at one and the ſame tree. It is ſaid moreouer, that the Chough or Daw hath giuen occaſion herof, by laying vp for ſtore, ſeeds and other fruit in creuiſes and holes of trees, which afterwards ſprouted and grew. From hence came the manner of inoculation or graffing in the ſcutcheon, namely, to cut out a parcel of the barke of that tree which is to be graffed, with a ſharp knife made in manner of a ſhomakers nall blade, and then to encloſe within the ſaid concauity, the eie or ſeed taken out of another tree with the ſaid inſtrument. And in old time verily this was the only maner, of inoculation vſed in fig-trees and apple trees. *Virgil* teaches vs to open a concauity in the knot or joint of a bud that driueth out the barke, and within it to encloſe the gem or bud taken out of another tree. And thus much for the graffing that Nature hath ſhewed. M

But there is another way of graffing, which caſualtie and chance hath taught. And to ſay a truth, this Maiſter hath ſhewed well neer more experiments, now daily practiſed, than Nature her ſelfe. Now the manner of it came by this occaſion. A certain diligent & painfull husband-

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A man, minding to mound and empale his cottage round about with a fence of an hedge; to the end that the ſtakes ſhould nor rot, laid a ſill vnder them, of Iuie wood: but ſuch was the vitall force of the ſaid Iuie, that it took hold faſt of the ſtakes and claſped them hard, inſomuch as by the life therof, they alſo came to liue; and euident it was to the eye, that the log of Iuie vnderneath, was as good as the earth to giue life and nouriſhment vnto the ſtakes afore-ſaid.

To come then vnto our graffing, which we haue learned by this occaſion: firſt, the head or vpper part of the ſtock muſt be ſawed off very euen, and then pared ſmooth with a ſharp garden-hook or cutting-knife: which don, there offers vnto vs a two-fold way to perform the reſt of the worke: The firſt is, to ſet the graffe or Sion between the barke and the wood: for in old time truly, men were afraid at firſt to cleaue the ſtocke; but ſoon after they ventured to bore a hole into
B the very heart of the wood: and then they ſet faſt into the pith juſt in the mids thereof, but one Sion or graffe; for by this kind of graffing, impoſſible it was that the ſaid pith ſhould receiue or beare any more. But afterwards they deuiſed a finer and more ſubtile inuention to graffe, by cleauing the ſtocke gently thorough the mids; and after this manner they might well ſet into it ſix imps or Sions at once: as being perſuaded, that by ſuch a number they might ſupply the defect of any, if they chaunced to die or miſcarry any way. Now when the ſaid clift was made, they held it open with a wedge of wood put between, vntill ſuch time as the impe or graffe being thwitted thin and ſharp beneath were ſet handſomely cloſe within the rift. In the practiſe of which feat, many points are to be obſerued: firſt and foremoſt, it would be conſidered, what trees will thus ſort together and be vnited; namely, what ſtock will beare this maner of engraf-
C fing, and of what tree an impe or Sion will agree well to be ſet into it: for be ye ſure of this, all trees are not alike, neither haue they all their ſap in one and the ſame part. Vines aud Figtrees are drier in the mids of the tree, than in the head; and toward the top they are more apt to take and conceiue, and therfore from thence it is good to make choiſe of impes to be graffed. Contrariwiſe, the ſap of Oliues is moſt frim about the mids, and from thence they afford Sions; for the tops are drie. Moreouer, ſooneſt of all other doe thoſe trees incorporate one into another, if when the ſtock and graffe haue barks both of one nature, if they bloſſom together at one time, if they bud and put forth their ſpring at the ſame ſeaſon, and laſt of all, if their ſaps doe agree one with another. On the other ſide, long it wil be ere they take, when the ſtock is drie and the graffe moiſt; or when the barke of the one is tender, and of the other tough and hard. Ouer and
D beſides, carefull heed muſt be taken in this buſineſſe, That the ſtocke be not clouen in a knot; for the churliſh hardneſſe therof will not willingly receiue and entertaine a gueſt, that choiſe alſo be made of the ſmootheſt and faireſt place in the ſtocke, where the graffe would be ſet: *Item*, That the clift be not aboue 3 fingers deepe; that it be ſtreight and direct; and laſtly, that the impe ſtand ſo cloſe barke to barke in the ſocket, that a man may not ſee between it and the ſtocke. *Virgil* will in no wiſe haue a Sion or graffe to be taken from about the top of a tree, for ſuch are all naught. But this one thing is generally held for certain, That the good imps to bee graffed are thoſe, which be gathered from thoſe armes of the tree that regard the Sun-riſing in ſummer: *Item*, That all ſuch graffs come from the boughs that beare well: alſo that they be new tender ſhoots of the laſt yeare (vnleſſe they are to be graffed in the ſtock of an old tree, for then
E there ſhould bee choſen ſuch as are ſtronger:) moreouer, this is to be regarded, that they be well budded, yea and knotted too, making ſhew and giuing good hope euen then, that they would bear fruit the ſame yere, but in any wiſe the ſame ought to be of 2 yeres growth at leaſt, and not ſmaller beneath toward the ſtocke than a mans middle finger. As for the graffes, the manner is to ſet them in the ſtocke with the leſſer end downward, when our purpoſe is, that the tree ſhould ſpread rather in breadth, than run vp in hight. Aboue all, it would be looked wel to, that they be neat and bright, ſo as they ſhine againe; that no part of them be ſeene either ſcorched drie with the ſunne, or cicatrized (as it were) and bliſtered. Good hope there is that the graft will take, if the pith or marrow of the ſion do fall jump with the joynt, ſo as it joyne cloſe to the wood and inner barke of the mother ſtocke: for this is farre better than to let it meet juſt
F and euen with the bark without-forth. Moreouer, a carefull eie muſt be had in thwitting and ſharpning the graffe or imp, that the heart or woody ſubſtance be not ſtript all naked and left bare: howbeit gently and with a light hand a man muſt go ouer it with a fine and ſharp inſtrument, in ſuch ſort, as it may go downe into the clift wedgewiſe, no deeper than 3 fingers bredth: the which may right eaſily be don, if it be ſhauen and pared preſently after it hath bin dipped

in water. Moreouer, wee ought be well aduiſed, that wee ſharpen not the end of a graffe in the G
wind, and that the barke goe not either from it or the ſtock. As for the graffe it ſelfe, it muſt be
driuen downe into the clift, cloſe to the ſhoulder where the owne barke goeth round, and from
whence you began to ſharpen it: but take heed in thruſting and forcing therof, that it ſtand not
out of joynt, ne yet that the barke thereof turne vp in wrinkles: and therfore choſen they would
not be which are ouer moiſt, no more (I aſſure you) than thoſe that be too drie; for as the ex-
ceſſiue humiditie of the one looſeneth the rind, ſo the want of vitall moiſture in the other, will
not ſuffer it to vnite & concorporat. Ouer and beſides, in the working of this feat, men obſerue
a certain religious reuerence, namely, that the ſions be ſet into the ſtocke when the moone is
croiſſant (to wit, before the full) and with both hands forſooth, or els all is marred: and other-
wiſe in this buſinhſſe there is an opinion, that two hands together are put to ſmaller ſtreſſe, and H
haue better ſtay of themſelues than one alone; and therefore ſuch a moderation is right neceſ-
ſarie: for the more forcibly the graffes be ſet into the ſtocke, and the faſter that they are ſetled,
the longer it will be ere they take to bear; but ſurer they be, and continue the longer: contrari-
wiſe, if they ſtand ſlacke, the tree indeed will the ſooner beare, but laſt the leſſe while. Further-
more, regard would be had in this caſe, as well that the clift of the ſtocke gape not too much
(as being ouerwide for the graffe;) as that it be not too little and ouer-ſtreight, for feare that ei-
ther it ſlurt it out againe, or claſp it and gird it ſo hard that it kill it quite. This principally we
muſt take heede of at the firſt, that there be no ſpill or little chip left behind in the mids of the
clift, nor any thing beſides the graffe it ſelfe, to fill vp the place. Some there be, that enter the
clift firſt in the ſtock, with a bill, and with an oſier twig tie and bind vp the very brims or edges I
therof: which done, they driue the wedges in, to make ſuch an ouerture as is meet; for by reaſon
of the foreſaid bonds, they need not feare the gaping of it too wide. Some ſtocks there be that
the very ſame day that they be graffed in the nource-garden, are without any harme remooued
to the place where they muſt grow. If the ſtocke wherein you graffe be big and round, the beſt
way is to ſet the ſion between the barke and the wood therof, and to diuide the one from the o-
ther with a wedge of bone, leaſt in enlarging of the barke it chance to breake. In graffing of a
Cherry tree ſtocke, the ouer rind or barke would be taken away before the clift be made. [Now
theſe trees alone of all others may be graffed very well preſently after mid-winter.] When the
ſaid rind is gone, you ſhall ſee therein a certain down, that if it chance to claſp about the graft,
it rots the ſame incontinently. But to return again to our worke of graffing: After the wedge is
taken forth whole and ſound at the point (which is a token that no ſpill remaines within) you K
may be bold to bind the head of the ſtocke all about. Yet this would be conſidered by the way
(which I had like to haue forgotten) that the beſt & handſomeſt graffing, is as neer the ground
as may be, in caſe the knots wil giue leaue and the ſtock beare it: alſo that the grafts would not
conueniently ſtand without the ſtock aboue ſix fingers breadth. Now when al is done and ſure
work made (as hath been ſaid) *Cato* willeth vs to take cley, or the ſandie grit of chalk, mixed to-
gether with oxe or cow ſhearn, to worke and temper all theſe together in maner of a tough paſt
or cataplaſme, and then to lay the ſame within the clift, & round about to daube all. And verily
by this and other ſuch rules which he hath left in writing, it appears plainly, that in thoſe daies
the manner was to graffe betweene the barke and the tree, and not otherwiſe; as alſo to ſet the
ſions in the ſtocke, not aboue two fingers deepe. As for Apple trees and Pyrries, he preſcribeth L
that they ſhould be graffed in the Spring; alſo 50 daies after the ſummer Sun-ſtead, and again
after vintage: but Oliues and Fig-trees in the Spring only, obſeruing the age and diſpoſition of
the Moon, when ſhe is in the wane and thirſtie, that is to ſay, drie: moreouer, after noonetide,
and when no Southern wind doth blow. And I cannot chuſe but wonder much at the curioſitie
and double diligence of *Cato*, who not content to haue defended the graft with clay or paſt a-
foreſaid, yea and to preſerue it with turfe and moſſe againſt the injurie of rain and cold, to haue
bound it about alſo with little knitches of ſoft oſier twigs ſliued in twaine; muſt giue charge
beſides to couer it with Oxe-tongue (a kind of herb there is ſo called) *i.* Bugloſſe: and yet hee
hath not done, but the ſame muſt be bound with wiſpes and wreaths of ſtraw and litter aloft.
Now adaies men make no more adoe, but thinke it ſufficient to ſtop and cloſe vp barke and al, M
with earth or cley and chaffe tempered together, thinking it ſufficient, the graft beare out two
fingers breadth aboue. They that wait vpon the Spring ſeaſon for to graffe, are many times dri-
uen to their ſhifts for want of time, by reaſon that all trees make haſt then to bud, and do break

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A out of a ſudden,vnleſſe it be the Oliue, the oilets or eies wherof be longeſt while in comming forth, as hauing leaſt ſap of all other, running vnder the barke; the which if it were ouermuch would ſtifle and choke the grafts. As for the Pomegranat and Fig tree, howſoeuer otherwiſe they ſeem to be dry,yet good it is not to defer and put off the graffing of them. The Peare tree may well enough be graffed with the bloſſom on the head,and it makes no matter if a man do ſtay and graffe it within the moneth of May. To be ſhort, if a man be conſtrained to fetch his ſions or imps of Apple trees, and ſuch like, far off, it is thought that they will keepe their ſap beſt,if they be ſtuck or ſet faſt in a Rape root. Alſo if one would preſerue them a certain time before they ſhould be occupied, it is paſſing good to lay them cloſe betweene two ereſt tiles, well ſtopped on euery ſide with earth,and that neere to ſome riuers or fiſh-ponds.

B

Chap. XV. ¶ *The manner how to graffe a Vine tree.*

AS for the cuttings or ſets of vines,they may be kept wel a long time, couered all ouer with ſtraw or litter in dry ditches; and afterwards they are to be laid within the earth, all hilled or couered,ſaue only that their heads be ſeen aboue ground. *Cato* graffeth a vine ſtock three maner of waies: Firſt,he willeth that the mother ſtock ſhould be cut ouerthwart,& then clouen through the very pith or heart in the mids,wherin he would haue the yong imps(thwitted and ſharpened as is beforeſaid) to be ſet and ingraffed ſo, as the marrow of the one and the other may ioyne and meet iuſt together. The ſecond maner is,when two vine ſtockes doe reach one to the other,for to cut byas or aſlaunt(after the manner of a goats foot) two twigs or branches,of either one,with this regard,that theſe cuts be of a contrarie ſide the one vnto the other,
C and withall ſo deep,as that they come vnto the pith or heart: then to fit one to the other, ioyning pith to pith,and then binding them faſt together ſo cloſe,that no aire may enter between, vntill ſuch time as the one hath adopted the other. The third deuiſe is,to bore holes in an old vine,not directly, but aſlope,as far as to the pith; and then to put into them yong imps 2 foot long,and to bind them faſt: which done,to make a certaine batter or morter [with clay, beaſts dung,and ſand together] and therewith to dawbe the place: but with this regard,that the graft ſtand halfe vpright,or ſomwhat leaning. This manner of graffing hath bin checked and corre-
ɛted of late daies by our countrymen,who leauing the hand-piercer,haue taken the French Vibrequin or breſt-wimble,which gently and quickely boreth a hole, and hurteth not the wood: for all chafing heate cauſed by the ſaid piercer,dulleth the vigor both of ſtock and imp. Alſo
D they haue deuiſed,that the ſaid imp to be ingraffed,be gathered from the tree when it begins to bud or burgen: and when it is ſet into the ſtocke, that it be left ſtanding out with no more than two eies or buds out of the graffing place; that it be well bound alſo with the winding rods of an Elme: moreouer, that on either ſide of it the mother ſtock be ſlit or cut in two places on both ſides,to the end that from thence rather than otherwiſe, the wateriſh humour may diſtill and drop forth,which of all things hurteth vines moſt. After all this, they would haue the ſaid graffe remain bound,vntill ſuch time as it haue put forth ſhoots two foot long; and then the foreſaid bands to be cut in ſunder,that they may burniſh in thicknes and at eaſe accordingly. The ſeaſon which they haue allowed for to graffe vines,is from the Equinoctial in Autumne,vnto the time that they begin to bud forth Generally all trees that are tame and gentle
E may wel be graffed into ſtocks and roots of the wild, which by nature are dryer: contrariwiſe, graffe the wild and ſauage kind vpon the other,you ſhal haue all degenerate and become wild. Touching other points belonging to the feat of graffing, all dependeth vpon the goodneſſe or malignitie of the ſky and weather. In ſum, a dry ſeaſon is good for all trees graffed in this maner: and ſay that the drought were exceſſiue,there is a good remedie for it,namely,to take certain earthen pots of aſhes,and to let water diſtill through them ſoftly,by little and little to the root of the ſtock. As for inoculation,it loueth ſmall dewes otherwhiles, to refreſh both ſtock, ſcutcheon,and Oilet.

Chap. XVI.

F

¶ *Of Emplaſtration or graffing with the Scutcheon.*

THe manner of graffing by way of emplaiſtre or ſcutcheon, may ſeeme alſo to haue come from inoculation: and this deuiſe agreeth beſt with thoſe trees that haue thick barks,as namely Fig trees. To goe therefore artificially to worke,the mother ſtocke or tree to be

graffed, muſt be well rid and clenſed from the branches all about the place where you mean to G
practiſe this feat, becauſe they ſhould not ſuck the ſap from thence; and chuſe the neateſt and frimmeſt part, which ſeems moſt freſh and liuely: then cut forth a ſcutcheon of the barke [but be careful that your inſtrument pierce no farther than the bark, nor enter into the quick wood] which done, take from another tree the like ſcutcheon of the bark, ſauing the eye or bud thereon, and ſet it in the place of the other; but ſo equall this muſt be to the place, and ſo cloſe ioyned and vnited to it, that a man may ſee no token at all or apparance in the ioynt, of any wound or skar made, to the end, that preſently they may concorporat, that no humor of the ſap may iſſue forth, nor ſo much as any wind get between: and yet to make ſure work, the better way is to lute it well and cloſe with clay, and then to bind it faſt. This deuice of graffing thus with the ſcutcheon was but lately found out, by their ſaying, that fauor all new and modern inuentions: howbeit I find that the antient Greeks haue written thereof: yea and *Cato* alſo our own Coun- H
tryman, who ordained to graffe both Oliue and Fig tree in that order: and (as he was a man verie diligent and curious in all things that he tooke in hand) he hath ſet downe the iuſt meaſure and proportion of the ſcutcheon; for he would haue the barks both the one and the other, to be cut out with a chiſell foure fingers long, and three in bredth, and ſo to cloſe vp all in manner aforeſaid, that they might grow together; and then to be dawbed ouer with that mortar of his making aforeſaid: after which maner Apple trees alſo may be graffed.

Some there be who haue intermingled and comprehended vnder this kinde of graffing with the ſcutcheon, that deuiſe of making in the ſide a cleft, and namely in vines; for they take forth a little ſquare piece with the bark, and then ſet in an impe very hard & cloſe, on that ſide where it is plain and euen, to the very marow or pith. Certes, neere to Thuliæ in the Tyburtines coun- I
try, I haue ſeen a tree graffed all theſe waies aboueſaid, and the ſame laden with all manner of fruits; one bough bearing Nuts, another berries, here hung Grapes, there Figs; in one part you ſhould ſee Peares, in another Pomegranats; and to conclude, no kind of Apple or other fruit, but there it was to be found: mary this tree liued not long. Howbeit, let vs vſe what diligence we can, yet neuer ſhal we able with all our experiments to attain vnto the depth of Natures ſecrets. For ſome Trees there be that come vp of themſelues, and by no art and induſtry of man wil be made to grow: ſuch alſo loue ordinarily to be in wild foreſts and in rough deſarts, where they proſper well; wheras the Plane tree wil beare all manner of graffing beſt of any other; and next vnto it the wild and hard Oke: but both the one and the other corrupt and mar the taſt of what fruit ſoeuer is graffed thereupon. Some trees there be that refuſe not to be ingraffed vpon K
any ſtock, and what way ſoeuer they be graffed it skils not, as fig trees and Pomgranat trees. As for the Vine it will not beare the ſcutcheon, neither any Tree beſides that hath a thin barke, or which doth pill and rift: no nor ſuch as be dry or haue ſmall ſtore of ſap within them can away with inoculation. Howbeit this maner of graffing is moſt fruitfull of all other; and next vnto it that which is done by way of ſcutcheon or emplaſtre: yet trees ſo graffed be of all others moſt tender and feeble: as alſo ſuch as reſt and ſtay vpon the bark only, are with the leaſt wind that is, ſooneſt diſplanted and laid along on the ground. The ſureſt and ſtrongeſt way therefore is, to graffe imps vpon the head of a ſtocke, yea, and more plentifull by far, than to ſow them of ſeed, or plant them otherwiſe.

L

Chap. XVII.

¶ *An hiſtorie ſhewing the example and proofe hereof.*

IN this diſcourſe and queſtion concerning grafts, I cannot paſſe ouer the rare obſeruation of one example, practiſed by *Corellius* a Knight of Rome, borne at Ateſte: This Gentleman of Rome, in a ferme that he had within the territorie of Naples, chanced to graffe a Cheſtnut with an imp cut from the ſame tree: This graft tooke and bare faire Cheſtnuts and pleaſant to the taſt, which of him took their name. After the deceaſe of this gentleman, his heire (who had bin ſomtime his bondſlaue, and by him infranchiſed) graffed the foreſaid Corellian Cheſtnut tree a ſecond time: and certainly between them both was this difference, The former Corelli- M
an bare the more plenty, but the nuts of the other twice graffed were the better. As for other ſorts of graffing or planting, mans wit hath deuiſed, by obſeruing that which hath fallen out by chance: thus are we taught to ſet broken boughs into the ground, when we ſaw how ſtakes pitched

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A ched into the earth, tooke root. Many trees are planted after that maner, and eſpecially the Fig tree, which will grow any way, ſaue only of a little cutting: but beſt of all, if a man take a good big branch thereof, ſharpen it at the end in manner of a ſtake, and ſo thruſt it deepe into the ground, leauing a ſmall head aboue the ground, and the ſame couered ouer with ſand. The Pomegranate likewiſe and the Myrtles are ſet of branches, but the hole firſt ought to be made eaſie and large with a ſtrong ſtake or crow of iron. In ſum, all theſe boughs ought to be 3 foot long, ſmaller in compaſſe than a mans arme, ſharpned at the one end, and with the barke ſaued whole and ſound with great care. As for the Myrtle tree, it wil come alſo of a cutting; the Mulberry will not otherwiſe grow: for to couch and plant them with their branches, we are forbidden, for feare of the lightnings. And foraſmuch as we are fallen into the mention of ſuch cut-
B tings, I muſt now ſhew the manner of planting them alſo: aboue all things therefore regard would be had, that they be taken from ſuch trees as be fruitfull, that they be not crooked, rough and rugged, nor yet forked; ne yet ſlenderer than ſuch as would fil a mans hand, or ſhorter than a foot in length. *Item*, That the barke be not broken or raſed; that the nether end of the cut be ſet into the ground, and namely, that part alwaies which grew next the root; and laſt of al, that they be banked wel with earth about the place where they ſpring and bud forth, vntil ſuch time as the plant haue gotten ſtrength.

Chap. XVIII.

¶ *The manner of planting, ordering, and dreſſing Olive trees. Alſo which*
C *be the conuenient times for graffing.*

WHat rules (by the iudgment of *Cato*) are to be obſerued in the dreſſing and husbanding of Oliues, I think it beſt to ſet down here word for word, as he hath deliuered them. Thus he ſaith therefore: The trunches or ſets of Oliue trees which thou meaneſt to lay in trenches, make them 3 foot long; handle them gently and with great care, that in cutting, ſharpning, or ſquaring them, the bark take no harm nor pill from the wood. As for ſuch as thou doſt purpoſe to plant in a nourſe-garden, for to remoue again, ſee they be a foot in length, and in this manner ſet them: Let the place be firſt digged throughly with a ſpade vntill it be well wrought, lie light, and brought into temper: when thou putteſt the ſaid truncheon into
D the ground, beare it downe with thy foot; if it goe not willingly deepe enough by that means, driue it lower with a little beetle or mallet; but take heed withall, that thou riue not the barke in ſo doing. A better way there is, To make a hole firſt with a ſtake or crow, before thou fet it into the ground, and therein maiſt thou put it at eaſe, and ſo will it liue alſo and take root the ſooner: when they be three yeares old, haue then a carefull eye to them in any caſe, and marke where and when the bark turneth. If thou plant either in ditches or furrowes, lay three plants together in the earth, but ſo as their heads may ſtand a good way aſunder aboue the ground; alſo that there be no more ſeen of them than the bredth of foure fingers: or els, if thou thinke good, ſet the buds or eyes only of the Oliue. Moreouer, when thou art about to take vp an oliue plant for to ſet again, be wary and carefull that thou break not the root: get as many ſpurres or
E ſtrings [called the beard] as thou canſt, earth and all about them: and when thou haſt ſufficiently couered thoſe roots with mould in the replanting, be ſure thou tread it down cloſe with thy foot, that nothing hurt the ſame.

Now if a man demand and would gladly know what is the fitteſt time for planting oliues; in one word I will tell him, Let him chuſe a dry ground in ſeed time [*i.* in Autumne] and a fat or battle ground in the ſpring: furthermore, begin to prune thy Oliue tree 15 daies before the Æquinox in the ſpring, and from that time forward for the ſpace of forty daies, thou canſt not do amiſſe. The maner of pruning or disbranching them, ſhall be thus, Looke where thou ſeeſt a place fertile, if thou ſpy any dry or withered twigs, or broken boughs that the wind hath met withall, be ſure thou cut them away euerie one: but if the plot of ground be barren, eare it vp
F better with the plough, take pains (I ſay) to till it well, to breake all clots and make it euen, to cleanſe the trees likewiſe of knurs and knots, and to diſcharge them of all ſuperfluous wood: alſo about Autumne bate the earth from about the roots of Oliues, and lay them bare, but in ſtead thereof put good mucke thereto. Howbeit if a man do very often labor the ground of an olive plot, and take a deep ſtitch, he ſhall now and then plough vp the ſmalleſt roots thereof, ſo ebbe

they will run within the ground, which is not good for the trees; for in caſe they ſpread aloft, G
they will wax the thicker, and ſo by that means the ſtrength and vertue of the Oliue will turne all into the root.

As touching all the kinds of Olive trees, how may they be; alſo in what ground they ought to be ſet, and wherein they will like & liue beſt; likewiſe what coaſt of the heauen they ſhould regard; we haue ſhewed ſufficiently in our diſcourſe and treatiſe of Oile. *Mago* hath giuen order in his books of husbandry, that in planting them vpon high grounds, in dry places, and in a vein of clay, the ſeaſon ſhould be between Autumne and mid-Winter: but in caſe you haue a fat, moiſt, or wateriſh ſoile, he ſets down a longer time, namely from harueſt to mid-winter. But this rule of his you muſt take to be reſpectiue to the clymat of Africk only: for in Italy at this day verily men vſe to plant moſt in the Spring: howbeit if a man hath a mind to be doing alſo H
in Autumne, he may be bold to begin after the Equinox: for during the ſpace of 40 dayes to-
*Vergiliæ. gether, euen to the ſetting of the * Brood-hen ſtar, there are no more but 14 days ill for planting. In Barbarie the people haue this practiſe peculiar to themſelues, For to graffe in a wilde Oliue ſtock, whereby they continue a certain perpetuity: for euer as the boughs that were graffed, and (as I may ſay) adopted firſt, wax old and grow to decay, a ſecond quickly putteth forth afreſh, taken new from another tree, and in the ſame old ſtock ſheweth yong and liuely; and after it a third ſucceſſiuely, and as many as need; ſo as by this meanes they take order to eterniſe their Oliues; inſomuch as one Oliue plant hath bin known to haue proſpered in good eſtate a world of yeares. This wilde Oliue aforeſaid may be graffed either with ſions ſet in a cliffe, or els by way of inoculation with the ſcutcheon aforeſaid. But in planting of Oliues this heed I
muſt be taken, that they be not ſet in a hole where an Oke hath been ſtocked vp by the root: for there be certain canker-wormes, called Erucæ in Latine, or Raucæ, breeding in the root of an Oke, which eat the ſame, and no doubt will do as much by the Oliue tree. Moreouer, it is found by experience better for Oliue trees, that their ſets be not interred in the earth, nor yet dried, before they be planted. Alſo, the ſame experience hath taught, that for old Oliue trees, ouergrown with a kind of moſſie skurfe, it is paſſing good, ech other yeare to ſcrape and claw them well, between the Spring and Æquinox, and the riſing of the ſtarre Vergiliæ or the Brood-hen: likewiſe to beſtow moſſe round about the root: mary euery yere they would be digged round about the root and laid bare after the ſunſtead, with a trench made two cubits broad, and a foot deep: as alſo once in three yeres it were not amiſſe to cheriſh them with good dung. Ouer and beſides, the ſame *Mago* ſaith, that almond trees ought to be planted between the ſetting of Ar- K
cturus and the ſhorteſt day in the yeare. As for Peare trees, they are not to be ſet all at one and the ſame time, for they bloſſom not all alike. They that beare either the long or round peares, haue their ſeaſon from the occultation of the Brood-hen ſtarre, vntill mid-Winter. All other ſorts, and principally thoſe that regard either the Eaſt or the North, are to be planted in mid-winter, namely after the retreit of the ſtar called Sagitta [*i.* the Shaft.] The Lawrell would be put in the ground, from the Egle-ſtar, vnto the fall of the Shaft aforeſaid: for certainly the obſeruation of the time, pertinent to the planting of trees, agreeth much-what after this maner; and for the moſt part, men do accord and ordaine, That it ſhould be done in the ſpring and Autumne eſpecially. Another ſeaſon there is about the riſing of the Dog-ſtarre, which few men take knowledge of, becauſe it is not ſo generally practiſed, nor found alike profitable to all L
countries: howbeit I muſt not ouerpaſſe it in ſilence, conſidering that my purpoſe is not to ſpeake of this or that countries diſpoſition, but to ſearch into the nature of all things. In Cyrenaica therefore, a region in Africk, they vſe to ſet trees about the time that the Eteſian Northerne winds do blow: in Greece likewiſe they do the ſame, and namely in Laconia they ſuppoſe that to be the beſt time for the Oliue tree: & in the Iſland Cos the maner is then to plant Vines alſo. In all other parts of Greece they make no doubt to inoculate and to graffe in that ſeaſon; but in no wiſe will they plant whole trees then. But herein it skilleth much to conſider the nature of each tract and region: for in Egypt, they ſet, plant, and replant euery moneth of the yeare: in Æthiopia likewiſe, and India; and generally in all Countries whereſoeuer it raineth not in Summer. Setting theſe reſpects aſide, Trees require of neceſſitie to be planted in M
Autumne. Like as therefore there bee three ſeaſons of planting Trees, ſo there are as many wherein they bud and put forth new ſhoots; to wit, the Spring, the riſing of the Dog-ſtarre, and the apparition of Arcturus. And verily this is a thing worthy to be noted, that not onely

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A beaſts and other liuing creatures haue an appetite to engender, but the earth alſo, and all the plants thereupon, are much more luſty and hot that way. And therefore to make them to conceiue in due ſeaſon, the time would be well obſerued, when they be as it were in loue, and deſire the act of generation. And not onely in the earth and trees therein planted, is this to bee ſeene, but in grafts and ſtocks alſo particularly by themſelues, ſince that they haue a mutuall and reſpective appetite, one to ioine and incorporate with the other. They that make choiſe of the Spring for this purpoſe, begin to put them as it were together for to ingender, preſently after the Equinoctiall; giuing out in theſe plaine termes, that trees then are broody and ready to put forth ſprouts; which is the reaſon, that their barkes at ſuch a time will knit and ioine together eaſily. But ſuch as prefer the Autumne before the Spring, fall to this buſineſſe immediatly vp-
B on the riſing of the ſtar Arcturus; for then they ſuppoſe, that plants will take root forthwith, & by the time that the Spring is come, they will be better prepared to put forth luſtily; conſidering that their vertue is not ſtreightwaies ſpent in budding, but rather imploied in taking good root. Howbeit, ſome trees there be that haue their ſet times and ſeaſons of the yere limited, whether it be to plant or to graffe: and the ſame indifferently in all places; as namely, Cherry-trees and Almond trees about the mid-winter. But for the moſt part, the ſcituation of the place will be able to guid and order all this matter beſt: for cold and wateriſh grounds ought to bee planted in the Spring: but dry and hot in the Autumne. With our peaſants here in Italy, it is ordinary to diuide their times and ſeaſons for planting in this manner following, They ſet out for the Mulbery all the time from the Ides of February to the ſpring Æquinox: for the Peare-
C tree they allow the Autumne, and ſo forward till 15 daies before the point of mid-winter, and no longer; for Summer apples and quinces, for Seruiſes likewiſe and plums, they aſſigne the ſpace between the winter tropicke or Sun-ſtead, and the Ides of February. As for Carobes of Greece, and Peach-trees, they haue all the Autumne and the whole yere before them vntill mid-winter approch. All Nut-trees, as namely, Walnut-trees, Pine-trees, Filberds, Hazels, and Cheſtnut-trees, would be planted from between the firſt day of March, and the 15 thereof. To conclude, the only time for willowes and broom, is about the Calends or beginning of the ſame March. But of theſe two laſt named, the Broom loueth to be ſet of Nource-plants, comming of ſeed, in dry and light grounds: but contrariwiſe, the willow to be ſet of twigs in moiſt places, according as we haue before ſaid.

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Chap. XIX.

¶ *What trees they be that loue to ſort and keepe companie together. The skill, and feat of baring the roots of trees, and alſo of hilling or banking them about.*

THere is beſides a new manner of grafting trees, which I will not ouerpaſſe: for my purpoſe is not willingly to omit ought, that I haue found in any booke as touching this argument. And *Columella*, as himſelfe affirmeth, was the firſt deuiſer thereof, namely, to conioin trees of diuers natures, and ſuch as otherwiſe cannot abide ſocietie and fellowſhip together, as for example, Fig-trees and Oliue trees. He, I ſay, would haue a Fig-tree to be planted neere vnto an
E Oliue, and ſo neere indeed, as that a bough or branch of the oliue may reach vnto the Fig-tree at eaſe, conſidering that it is very ſupple and pliable otherwiſe, and ready to follow and be led as a man would haue it: and yet as obedient as it is, hee would haue it it euer and anone to be handled and made gentle in the meane time, that by this meanes inured firſt, it may bee bent and bowed to the purpoſe when the time ſerues. Which done, after that the Figge tree hath gotten ſome ſtrength, and is growne to ſufficient bigneſſe for to beare a graffe (which ordinarily is at three yeares end, or at the vtmoſt when it is fiue yeares old) the head thereof muſt be cut or ſawed off, and then the branch or bough of the Oliue beforeſaid, being well clenſed and made neat, and the head end thereof (as is beforeſaid) thwited and ſcraped ſharpe, howbeit, not yet cut from the mother ſtocke, muſt bee ſet faſt in the ſhanke of the Figge-tree, where it muſt bee
F kept well and ſurely tied with bands, for feare, that thus beeing forced and graffed arch-wiſe, it ſtart and flurt not out againe, and returne vnto the owne. Thus beeing of a mixt and meane nature, betweene a branch or bough growing ſtill vnto the Tree, and yet laied in the ground to take new root, and an Impe or Sion graffed, for the ſpace of three yeares it is ſuffered to feed and grow indifferently betweene two mothers, or rather by the meanes thereof, two mother-

ſtockes

stocks are growne and vnited together. But in the fourth yeare it is cut wholly from the owne G
mother, and is become altogether an adopted child to the Fig-tree, wherein it is incorporat. A pretty deuise, I assure you, to make a Fig-tree beare Oliues, the secret whereof is not knowne to euery man: but I my selfe do conceiue and see the reason of it well enough.

Moreouer, the same regard and consideration aboue rehearsed, as touching the nature of grounds, whether they be hot, cold, moist, or dry, hath shewed vs also the manner of digging furrows and ditches. For in watery places it will not be good to make them either deep or large: whereas contrariwise, in a hot and dry soile they would be of great capacity, both to receiue and also to hold store of water. And verily, this is a good point of husbandry for to preserue not onely young plants, but old trees also: for in hot countries, men vse in Summer time to raise hillocks and banks about their roots, and couer them all therewith, for feare lest the extreme heat of the Sun should scorch and burne them. But in other parts the manner is to dig away the earth, and H
to lay the roots bare, and let in the wind to blow vpon them. The same men also in winter doe banke the roots about, and thereby preserue them from the frost. Contrariwise, others in the winter open the ground for to admit moisture, to quench their thirst. ¶ But in what ground soeuer it be where such husbandry is requisit, the way of clensing tree roots, and ridding the earth from them, is to dig a trench three foot round about. And yet this must not be don in medows, forasmuch as for the loue of the Sun, and of moisture, the roots of trees run ebbe vnder the face of the earth. And thus much verily may suffice in generall, for the planting and graffing of all those trees that are to beare fruit.

Chap. XX. I

¶ *Of Willow and Osier plots: of places where reeds and Canes are nourished: also of other trees that be vsually cut for poles, props, and stakes.*

IT remaineth now to speake of those trees which are planted and nourished for others, and for Vines especially: to which purpose, their wood is vsually lopped to serue the turne. Among which, Willowes and Oisiers are the chiefe, and to be placed in the formost rank: and ordinarily they loue to grow in moist and watery grounds. Now, for the better ordering of the Oisier, the place would be well digged before, and laid soft two foot and a halfe deep, and then planted with little twigs or cuttings of a foot and a halfe in length, and those prickt in: or else stored with good big sets, which, the fuller and rounder they be in hand, so much better they are for to K
grow, and sooner will they proue to be trees. Betweene the one and the other, there ought to be a space of six foot. When they are come to three yeares growth, the manner is to keepe them downe with cutting, that they stand not aboue ground more than two foot, to the end that they might spread the better in bredth, & when time serues be lopped & shred more easily, without the help of ladder: for the Withie or Osier is of this nature, that the nearer it groweth to the ground, the better head it beareth. These trees also, as wel as others, require (as men say) to haue the ground digged & laid light about them euery yere, in the month of April. And thus much for the planting and ordering of Oisier willowes, which must be emploied in binding and winding. As for the other willow, which affoordeth big boughs, for poles, perches, and props, those may be set likewise of twigs and cuttings, and trenched in the ground after the same manner. L
These lightly euery fourth yere will yeeld good poles or staues, & for that purpose would they then be ordinarily cut and lopped. If these trees become old, their boughs by propagation may still maintain and replenish the place; to wit, by couching them within the ground; & after they haue lien soone yeare, and taken root, by cutting them clean from the stocke-father. An Oisier plat of one acre stored thus, will yeeld twigs sufficient for windings and bindings, to serue a vineyard of fiue and twenty acres.

To the same purpose men are wont to plant the white poplar or Aspe, in manner following. First, a piece of ground, or a quarter, must be digged and made hollow two foot deep: and therin ought to be laid cuttings of a foot and a half in length, after they haue had two daies drying: but so, as they stand one from another, a foot and a handbreadth, & be couered ouer with mould M
two cubits thick.

As touching canes and reeds, they loue to grow in places more wet and waterish than either the Willows and Oisiers aboue said, or the Poplars. Men vse to plant their bulbous roots, which

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A ſome call their oilets or eies, in a trench of a ſpan depth: and thoſe two foot and an halfe aſunder. Theſe reeds do multiplie and increaſe of themſelues (if a plot be once planted with them) after the old plants be extirped & deſtroied. And ſurely, this is found now adaies to be the better and the more profitable way, euen to commit all to Nature, rather than to gueld and weed them out where they ſeem to grow ouer thick, as the practiſe was in old time: for the maner of their roots is, to creepe one within another, and to be ſo interlaced continually, as if they were twiſted together. The fit and proper time to plant and ſet theſe canes or reeds is a little before the calends of March, to wit, before the oilets or eies abouesaid begin to ſwell. They grow vntill mid-winter, at which time they wax hard, which is a ſigne that they haue done growing: and this is the only ſeaſon alſo for to cut them. Likewiſe, the ground would be digged about them,
B as often as vines. The order of planting them is two manner of waies, for either the roots be laid ouertwhart or acroſſe, and but ſhallow within the ground (and look how many eies there be in the root, ſo many plants wil ſpring aboue the earth:) or els they be pitched down-right, within a graue or trench of a foot depth, ſo as there be two eies or buds vnder the ground, & the third aboue, but cloſe and meet with it: but this caueat is to be giuen, that the head thereof may bend forward toward the earth, for feare that it drinke in any dew, which might ſtand and ſettle vpon it. This alſo is obſerued, that they be cut euer in the wane of the Moone: as alſo, before that they are imploied about Vineyards for to beare vp vines, they would haue a whole yeares drying, for ſuch are more profitable than the greene.

The beſt ſtaies to beare vp Vines, are made of the Cheſtnut-tree: for why? the wood is gentle
C and tractable; tough withall, and induring long: beſides, it hath this property, that cut it when you liſt, it will ſpring againe more plentifully than any willowes. It loueth to grow in a gentle and ſandy ground, but principally, if the ſame ſtand vpon a moiſt grauell or a hot earth full of little pebbles, and namely, where there is good ſtore of ſuch ſoft ſtones, as will ſoone crumble into grit: neither makes it any matter how much the place be ſhadowed, nor how cold and expoſed to the Northern winds, for ſuch it liketh well enough, yea, although it be the ſide or hanging of an hill, as bleake and cold as may be. But contrariwiſe, it may not abide the red French earth, the chalkie or marle ground, nor in one word, any that is battle or fruitfull. Set it is of a Nut, as we haue beforeſaid: but it commeth not vp, vnleſſe there be fiue in a heape piled together, and thoſe of the faireſt & biggeſt ſort. Moreouer, the plot wherin you mean to haue Cheſt-
D nuts grow, muſt be ouvertly broken vp aloft, from between Nouember and Februarie: in which time the Nuts vſe to be looſe, and to fall of themſelues from the tree, and ſpring vnderneath, finding the ground light and hollow vnder them. Betwixt each heape ſet in manner aforeſaid, there ought to be a foot ſpace euery way, and the trench wherein they be ſet, of a ſpan depth: out of this plot, as out of a ſeminary and nource-garden, theſe yong plants are to be tranſlated into another, and then they muſt be ſet two foot aſunder. Howbeit, they ought to be aboue two yeres old firſt, before they be remoued and replanted. Moreouer, a man may increaſe Cheſtnut-trees by propagation; to wit, by couching and trenching the branches therof, as they grow to the mother: and there is not another tree againe that ſooner taketh that way, than it doth; for the root thereof being laid bare, the whole branch muſt bee interred along in the trench made for the
E purpoſe, leauing out the end only aboue ground. Thus ſhall you haue one tree ſpring from it, and another from the root. Howbeit, planted in this wiſe, it loueth not to be tranſplanted; it cannot lodge elſewhere, but dreadeth and hateth all change of ſoile: and therefore ſuch plots of ground as do affoord coppiſes of Cheſt-nut trees, are ſtored with plants comming of marrons or nut-kernels, rather than quicke-ſets or plants ſet with the root. For the ordering and dreſſing of them, there is no other labour required, than the others before rehearſed; namely, for the two firſt yeares inſuing to dig the ground looſe about their roots, and to proine or cut away the ſuperfluous twigs: for euer after they will ſhift well enough, & manure themſelues, by reaſon that their owne ſhade will kill thoſe ſuperfluous water-ſhoots that ſpring out either from the root or the ſides of the tree. A coppiſe of theſe trees is cut ordinarily within euery ſeuenth yere: and
F one acre of them will yeeld props enough for to ſerue a vineyard of twenty acres: for beſides that one pole of them will abide to be clouen and make two props apeece, they will laſt very well vntill the next fall of the wood or coppis be paſt.

Moreouer, the Maſt-tree called Eſculus, is planted and commeth vp in like ſort: howbeit, paſſing vntoward and vnwilling they are to grow, and therefore they ſtand ten yeres at leaſt before

they

they be cut and lopped. Set Acorns of this tree Eſculus wherſoeuer you pleaſe, they wil ſurely take and come vp: but the trench muſt be a ſpan deep, and the Acornes two foot aſunder. And foure times a yeare are they to be lightly *raked and clenſed from weeds. A forke or prop made of this wood, laſteth very well and rotteth not: and in very truth, the more that the tree it ſelfe is cut and mangled, the better it ſpringeth and putteth forth new ſhoots. G

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Ouer and beſides theſe trees abouenamed, there be others that vſe to be cut and lopped for Vine props and ſtaies; to wit, the Aſh, the Bay tree, the Peach and Hazell tree, yea, and the Apple tree: but theſe are all of them lateward and ſlow of growth: neither will they indure ſo well without rotting, if they ſtand any time in the ground, and much leſſe will they abide any wet. But on the othe ſide, the Elder tree of all others is moſt firme for to make poles and ſtakes of. It wil grow of ſions and imps euen as the Poplar. As for the Cypreſſe tree, we haue of it ſpoken ſufficiently already. H

Chap. XXI.

¶ *The maner and skill of husbanding and dreſſing Vineyards.*

NOw that we haue treated ſufficiently of the inſtruments, furniture, and tackling as it were belonging to Vineyards, it remaineth to ſpeake of the nature of vines, and to deliuer with eſpeciall regard the manuring and dreſſing them. According therefore as wee may ſee in Vines and ſome other trees, which haue within them a ſpungeous matter and light ſubſtance, their twigs and branches do containe a kind of marrow or pith incloſed between certain knots or ioints wherewith their ſtalkes are diuided and parted. As for the fiſtulous concauities, they are but ſhort all of them, and toward the top ſhorter and ſhorter, but euermore betweene two knots, they incloſe the ioints aforeſaid. Now this marow, this vegetatiue and vitall ſubſtance, I ſay (call it whether you wil) runneth forward ſtil on end al the length of the hollow kex or pipe ſo long as it findeth no reſiſtance by the way: but meeting once with a ioint or hard knot which maketh head vpon it, not ſuffering the ſame to paſſe forward, it beeing driuen backe, returneth downward: howbeit, in that reuerberation, breaketh out vnder thoſe knots, and putteth foorth certaine wings or pinnions like arme-pits, whereas the buds or leaues doe come; but alwaies in alternatiue courſe, one of this ſide, another of that; after the maner of reeds, canes, and fennell-geant, as hath bin ſhewed before; in ſuch wiſe, that if one wing riſe forth at the bottome of the lower knot on the right hand, another ſpringeth for it on the left hand in that next aboue it; and thus they keep order the whole length of the branch. Theſe ſprouts when they are come once to ſome bigneſſe, and do branch there, be called of the Latines by a prety name, Gemmæ, as it were precious ſtones: but ſo long as they are no other than buds ſprouting forth vnder the concauity or pit-hole of the foreſaid ioints, they term them Oculos [*i.* Oilets or Eies:] marie in the very top they be named by them Germina [*i.* Sprigs or Burgeons.] After this order are ingendered the maine branches, the ſmaller * ſprigs yearly cut away, the grapes, leaues, and yong tendrils of Vines. But hereat I wonder moſt, that the burgeons comming forth on the right ſide, be alwaies more tough and firm than thoſe of the left. To come now vnto the planting of theſe vines: the ſhoots or branches muſt be cut iuſt in the midſt between the foreſaid knots or ioints, ſo as the marrow in no wiſe run out. And if you would plant fig-ſets or ſions, they ought verily to be a ſpan long, and then to be prickt into the ground (but firſt there ſhould bee a hole made with a little ſtake) with the greater end that grew next to the body of the tree downward: prouided alwaies, that two oilets or buds ſtand aboue ground. Now theſe oilets are properly (in twigs or ſets of trees) thoſe buds called, where the new ſpring firſt ſhooteth forth. And herupon it is, that theſe ſions or cuttings being ſet in nource-gardens, beare the ſame yere that very fruit which they would haue borne vpon the tree, if they had not been cut off: and namely, if they be ſet in the right ſeaſon whiles they be plump and full: for hauing conceiued on the Tree, they do conſummat the ſad conception ſo begun, and are deliuered thereof elſwhere. And look what Fig-ſets be in this manner planted, may be eaſily and without danger remoued and tranſlated the third yere after. For certes, as this tree of all others ſoon ageth and indureth not long; ſo in recompence of ſhort life, this one gift it hath of Nature, That it comes forward apace, quickly groweth to the full bigneſſe, and beareth fruit. I K L M

Nepotes.

As for the Vine, there is not a tree that is planted more ſundrie waies, nor affourdeth greater

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A ſtore of ſions or ſets than it. For firſt and formoſt, nothing thereof is planted, but that which is vnprofitable, hurtfull, ſuperfluous, and of neceſſitie to be pruned and cut away. But in the pruning, this rule muſt be obſerued, that thoſe branches bee cut off which were portoirs, and bare grapes the yere before. The manner in old time was to plant or ſet a ſion, headed (as it were) and taking hold on both ſides of the old wood and hard ſtock: whereupon, becauſe it was faſhioned like a little mallet or hammer head, it was and is at this day called in Latine Malleolus. But afterwards they began to ſlip off a twig with a heele only of the old wood (as they vſe to doe in a Fig-tree:) & there is not a better way to make a Vine ſurely to take and liue than this. A third ſort there is beſides of ſions or ſets which are more readily gotten, without any ſuch heele of the hard wood, and therefore they be wreathed and twined when they be ſet into the ground:
B whereupon they be called in Latine Sagittæ [*i.* Shafts:] for the ſame ſions only cut off and not wreathed, are named Trigemmes, as a man would ſay, twigs with 3 buds or ſpurts: & therefore of one and the ſame vine-branch, a man may in this ſort make many kinds of ſions or ſets. Howbeit, that is to be noted, that if you ſet any yong ſprigs that neuer bare fruit but leafe onely, the Vines comming thereof will be euer barren: and therefore none ought to be planted but ſuch as are fruitfull. A vine-ſet or cutting, that hath ioints ſtanding thin, but here & there, is thought to be fruitleſſe: but contrariwiſe, if it be ſet thick with buds, by all likelihood it will beare plentifully. Some are of opinion, that no ſions ſhould be put into the ground, but thoſe that haue floured already: alſo, that to ſet ſuch cuttings as be called ſhafts, which haue no part of the old wood, is not ſo fit; for, that in remouing they are in danger to break whereas they were writhen.
C Now, when you haue gotten ſuch ſets as be meet for planting; let them be a foot long at the leaſt, and carry fiue or ſix knots, and at this length they cannot poſſibly haue fewer than three buds. Moreouer, the beſt way is preſently to ſet them the very ſame day that they be gathered. But in caſe a man be driuen to keep them long before they be put into the ground, great heed would be taken, according to the rule beforeſaid, that they be not laid aboue ground; that they dry not in the Sun; that they take no wind; nor looſe their freſh vigor by cold. And if it chance that they lie out any while in the dry aire, they would be laied to ſoke in water many daies together, vntill they be refreſhed and look green again, before they be ſet into the earth. The plot or quarter within the nource-garden or vineyard, ought to be wel expoſed to the Sun, of a good largeneſſe, and ſufficiently moulded: alſo, it muſt be well digged for 3 foot broad with a grub-
D bing double toothed forke: then muſt you goe deeper and caſt vp the earth with a broad ſpade or ſhouell, after that the ſame hath bin broken vp with a mattocke or yron toole, carying foure foot in the head, ſo as the ditch may go two foot directly deep into the ground. Which done, the ditch is to be clenſed, & the mould to be ſpread abroad, & not left lying raw in that maner, but to take a kind concoction in the weather. And herein muſt the labourer proceed and be ruled by meaſure, and trie his worke thereby: for if the earth be not well delued, it will be ſoone found out by the vneuen balks or beds. There would be a iuſt meaſure taken alſo of the allies that lie between the beds. All things being thus prepared, let vs come now to the planting of the ſets aforeſaid, which would be couched either in trenches made of purpoſe, or in long furrowes; and then the fineſt and moſt delicate mould that can be found, is to be caſt aloft. But all
E this preuaileth not in a leane and hungry ground, vnleſſe fatter earth be laied as a pallet vnderneath. Moreouer, this is to be looked vnto, that two ſets at the leaſt be moulded and laid within the earth together in one range: alſo they muſt be ſo couched, that they leane with their heads cloſe vpon the earth next about them; yea, and with one and the ſame ſtake the ſaid earth ought to be driuen cloſe and faſt about them. Ouer ane beſides, throughout the whole plot or quarter of this nource-garden, regard is to be had, that between euery two ſets there be a foot & an half one way; to wit, in breadth; and halfe a foot another way, to wit, forward in length. Theſe plants being thus ordered, after they haue growne to twelue moneths, they ſhould be then diſcharged of all their burgeons, euen to the nethermoſt knot, vnleſſe haply it bee ſpared and let alone: for
F ſome there be that cut it alſo: after theſe, commeth forth the matter of the oilets, & ſhew themſelues; and therewith at the third twelue month end the quick-ſet root and all is remoued to another place in the vineyard.

Beſides all this, there is another pretty and wanton deuiſe, more curious ywis than needfull, to plant Vines, and namely, after this manner. Take foure branches of foure vines growing together, and bearing ſundry kindes of grapes; bind them wel and ſtrongly together in that part

where

where they are moſt ranke and beſt nouriſhed: being thus bound faſt together, let them paſſe a- G
long either through the concauitie of an Oxe ſhanke and maribone, or els an earthen pipe or
tunnell made for the nonce. Thus couch them in the ground, and couer them with earth, ſo as
two ioints or buds be ſeen without. By this meanes they inioy the benefit of moiſture, and take
root together: andalthough they be cut from their owne ſtocke, yet they put out leaues & bran-
ches. After this, the pipe or bone aforeſaid is broken, that the root may haue libertie both to
ſpread and alſo to gather more ſtrength. And will you ſee the experience of a pretty ſecret? you
ſhall haue this one plant thus vnited of foure, to beare diuers and ſundry grapes, according to
the bodies or ſtocks from whence they came. Yet is there one fine caſt more to plant a Vine,
found out but of late, and this is the manner thereof: take a Vine-ſet or cutting, ſlit it along
through the midſt, and ſcrape out the marrow or pith very cleane; then ſet them together again H
wood to wood, as they were before, and bind them faſt: but take heed in any caſe that the buds
or oilets without-forth be not hurt, nor raſed at all. This done, put the ſame cutting into the
ground, interre it I ſay wel within earth and dung tempered together: when it begins to ſpread
yong branches, cut them off; and oftentimes remember to dig about it, & lay the earth light: &
certes, *Columella* holdeth it for certain, and aſſureth vs vpon his word, That the grapes comming
of ſuch a vine wil haue no ſtones or kernels at all within them. A ſtrange thing and paſſing won-
derfull, that the very ſet it ſelfe ſhould liue; and that which more is, grow and beare, notwith-
ſtanding the pith or marrow is taken quite away.

Furthermore, ſince we are entred thus far into this diſcourſe and argument, I cannot paſſe by
but I muſt needs ſpeake of ſuch twigs and branches of trees as wil knit and grow together euen I
to a tree. For, certain it is, that if you take fiue or ſix of the ſmalleſt ſprigs of box, binde them
together, and ſo prick them into the ground, they will proue and grow to one entire tree. How-
beit, in old time men obſerued, that theſe twigs ſhould be broken off from a Box tree, which ne-
uer had bin cut or disbranched, for otherwiſe it was thought verily they would neuer liue: but
afterwards this was checked by experience, and the contrary knowne. Thus much as touching
the order of Vine-plants, and their nource-garden for ſtore.

It remaineth now to ſpeak of the manner of Vineyards and Vines themſelues. Where in the
firſt place, there offer vnto vs fiue ſorts thereof. For ſome traine and run along vpon the ground
ſpreading euery way with their branches: others grow vpright and beare vp themſelues with-
out any ſtaies. Some reſt vpon props, without any traile or frame at all: others be born vp with K
forkes and one ſingle raile lying ouer in a long range: and laſt of all, there be vines that run vpon
trailes and frames laid ouer croſſe-wiſe with foure courſes of railes, in manner of a croſſe dor-
mant. The ſame manner of husbandry that ſerues thoſe Vines which beare vpon props without
any other frame at all, will agree well enough to that which ſtandeth of it ſelfe without any
ſtaies. For ſurely it groweth ſo, for default onely and want of perches and props. As for the vine
that is led vpon a ſingle range as it were in one direct line, which they call Canterius, it is
thought better than the other, for plenty of liquor: for beſides that it ſhadoweth not it ſelfe, it
hath the furtherance and help of the Sun-ſhine continually to ripen the grapes: it hath the be-
nefit alſo of the wind blowing through it, by which means the dew will not long ſtand vpon it.
Moreouer, it lieth more handſome to the hand for the leaues to be plucked away, and for the L
clods to be broken vnder it: & in one word, is readieſt for all kind of good husbandry to be don
about it. But aboue all other commodities it hath this, that it is not long in the floure, but bloo-
meth moſt kindly. As for the frame aforeſaid, that is ranged in one line a length, it is made of
perches or poles, reeds and canes, cords and ropes, or els lines of haire, as in Spaine and about
Brindis. The other kind of frame with railes and ſpars ouerthwart, beareth a vine more free, for
plenty of wine than the reſt, and called this is *Compluviata vitis*, becauſe it reſembleth the hol-
low courſe of gutter tiles, that in houſes receiue all raine water and caſt it off. For as the croſſe
dormant in building ſhutteth off the raine by foure gutters, euen ſo is this Vine led and caried
foure waies, vpon as many trailes. Of this Vine and the maner of planting it, we will only ſpeak,
for that the ſame ordering will ſerue well enough in euery kind beſides: marie there be far more M
waies to plant this than the reſt, but theſe three eſpecially. The firſt and the ſureſt is, to ſet the
Vine in a plot well and throughly delued: the next to it, is in the furrow: the laſt of all, in a
trench or ditch. As for digging a plot and planting therein, ynough hath been written already.

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Chap. XXII.

¶ *Of furrowes and trenches wherein vines are planted: alſo of pruning vines.*

IT ſufficeth that the furrow or trench wherin a vine is to be planted, be a ſpade or ſhouels bit breadth: but ditches would be three foot long euery way. Be it furrow, trench, or ditch, wherin a vine is to be replanted, it ought to be three foot deepe; and therefore no plant thereof ſhould be remoued ſo little, but that it might ouer and beſides ſtand aboue ground, and ſhew two buds at the leaſt in ſight. Needful it is moreouer, that the earth be well looſened and made more tender and gentle, by ſmall furrowes ranged and trenched in the bottom of the ditch; yea
B and be tempered ſufficiently with dung. Now if the vineyard lie pendant vpon the hanging of the hill, it requireth deeper ditches, and thoſe raiſed vp well with earth and bedded, from the brims and edges on the lower ground. As for ſuch which ſhall be made longer, and able to receiue two vine-plants growing contrary one to the other, they ſhall be called in Latine, Alvei. Aboue al, the root of the vine ought to ſtand juſt in the midſt of the hole or ditch; but the head and wood thereof which reſteth vpon the ſound and firme ground, as neere as poſſible is, muſt beare directly into the point of the Æquinoctiall Sun-riſing: and withall, the firſt props that it leaneth vpon, would be of Reeds and Canes.

As touching the bounding and limitation of a vineyard, the * principall way which runneth ſtreight Eaſt and Weſt, ought to carry 18 foot in breadth, to the end that two carts may paſſe
C eaſily one by another, when they meet; the other croſſe allies, diuiding euery acre juſt into the mids, muſt be ten foot broad: but if the plot or modell of the vineyard wil beare it, theſe * allies alſo which lie North and South, would be as large ful as the foreſaid principal high way. Moreouer, this would be alwaies conſidered, That vines bee planted by fiues; (*i.*) that at euery fifth perch or pole that ſhoreth them vp, there be a path diuiding euery range and courſe, and one bed or quarter from another. If the ground be ſtiffe and hard, it muſt of neceſſitie bee twice digged ouer, and therein quick-ſets only that haue taken root, muſt be replanted: marie in caſe it be a looſe mould, light, and gentle, you may ſet very cuttings and ſions from the ſtock, either in furrow or in trench, chuſe you whether. But ſay it be a high ground and vpon the hill, better is it to caſt it into furrowes ouerthwart, than to dig it; that by this meanes the perches or props may
D keep vp the ground better, which by occaſion of raine water would ſettle downeward. When the weather is diſpoſed to raine, or the ground by nature drie, it is good planting vine-ſets, or ſions at the fall of the leafe, vnleſſe the conſtitution of the tract and qualitie of a country require the contrary: for a dry and hot ſoile would be planted in Autumne or the fal of the leafe, whereas a moiſt and cold coaſt may tarry, euen vntill the end of Spring. Let the ſoile be dry and hard, bootleſſe it will be to plant, yea though it were a very quick-ſet, root and all. Neither will it do well to venter the ſetting of imps cut from the tree, in a drie place, vnleſſe it be immediatly vpon a good ground ſhower: but in low grounds, where a man may haue water at will, there is no danger at all to ſet vine branches, euen with leaues on the head; for they will take well enough at any time before the Mid-ſummer Sun-ſtead, as we may ſee by experience in Spaine.
E When you will plant a vine chuſe a faire day; and if poſſibly you can, let it be when there is no wind ſtirring abroad; for ſuch a calme ſeaſon is beſt: and yet many are of opinion, that Southern winds be good, and they wiſh for them; which is cleane contrarie vnto *Cato* his mind, who expreſſely excepteth and reiecteth them. If the ground be of a middle temperature, there ought to be a ſpace of fiue foot diſtance between euery vine: and in caſe it be a rich and fertile ſoile, there would bee foure foot at leaſt from one to another; but in a leane hungrie piece of light ground, there ſhould be eight foot at the moſt: for whereas the Vmbrians and Marſians leaue twenty foot void betweene euery range of vines, they doe it for to plough and ſow in the place, and therein they haue quarters, beds and ridges, called Porculeta. If the place where you plant a vineyard be ſubiect to thicke and darke miſts, or to a rainie diſpoſition of the weather, vines
F ought to bee ſet the thinner: but in a drie quarter, it is meet they ſhould bee planted thicke. Moreouer, the wit and induſtrie of man hath found out meanes to ſaue charges, and in ſetting a nource-garden with vine-ſions to goe a nearer way, with ſmall expence and no loſſe of ground: for in replanting a vineyard with quicke-ſets vpon a leuell plot, onely digged and laied euen, they haue with one and the ſame labour (as it were by the way) repleniſhed the ground be-

* *Decumanus.* Limes.

* *Cardines.*

tween euery ſuch rooted plants,with vine cuttings for ſtore,ſo as the quickſets may grow in his G
owne place appointed,and the ſion or cutting (which another day is to be tranſplanted) in the
mean time take root between euery courſe and range of the ſaid vine quick-ſets,before they be
ready to take vp much ground. Thus within the compaſſe of one acre,by iuſt proportion a man
may haue about 16000 quick-ſets. This is the difference only,that ſuch beare not fruit ſo ſoon
by two yere:ſo much later are they that be ſet of ſions,than thoſe that were tranſplanted and re-
main ſtil on foot. When a quick-ſet of a vine is planted in a vineyard,and hath grown one yere,
it is vſually cut downe cloſe to the earth, ſo as but one eie or button be left aboue ground, and
one ſhore or ſtake muſt be ſtickt cloſe to it for to reſt vpon,and dung laid well about the root.
In like manner ought it to be cut the ſecond yeare. By this means it gathereth ſtrength inward-
ly, and maintaineth the ſame in ſuch wiſe, as it may be ſufficient another day to beare and ſu- H
ſtain the burden both of branch and bunch,when it ſhall be charged with them: for otherwiſe
if it be let alone and ſuffered to make haſt for to beare, it would prooue to be ſlender, vinewed,
leane,and poore:for ſurely this is the nature of a vine, That ſhe groweth moſt willingly: in ſuch
ſort,that vnleſſe ſhe be kept vnder,chaſtiſed,and bridled in this manner(her inordinat appetite
is ſuch) ſhe will run her ſelfe out of heart,and go all to branch and leafe.

As touching props and ſhores to ſupport vines,the beſt, (as we haue ſaid) are thoſe of the
Oke or Oliue tree;for default whereof,ye may take good ſtakes and forks of Iuniper, Cypreſſe,
Laburnium,and the Elder. As for thoſe perches that be of other kinds,they ought to be cut and
renewed euery yeare. Howbeit,to lay ouer a frame for vines to run vpon; the beſt poles are of
Reeds and Canes,for they will continue good fiue yeares,being bound many of them together. I
When the ſhorter branches of a vine are twiſted one within another in manner of cording or
ropes,and ſtrengthened with the wood of vine cuttings amongſt, thereof arch-worke is made,
which in Latine they call Funeta. Now by the time that a vine hath growne three yeares in the
vineyard, it putteth forth apace ſtrong branches, which in time may make vines themſelues;
theſe mount quickly vp to the frame:and then,ſome good husbands there be,who put out their
eies,that is to ſay,with a cutting hook(turning the edge vpward) fetch vp the eies budding out
beneath: thus by pruning,although they ſeem to do hurt and wrong vnto them, yet they draw
them to ſhoot out the longer by the meanes: for in good faith, the more profitable way it is,
thus to vſe & acquaint it with bearing branches luſtily;and far better and eaſier is it beſides to
cut away theſe yong imps as the vine lieth faſt joined to the frame, vntill ſuch time as a man
think it be ſtrong enough of the wood. Others there are, who in no caſe would haue a vine tou- K
ched or medled withall,the next yeare after that it is remooued into the vine-yard; nor yet to
feele the edge of the cutting hooke,vntill it haue fiue yeres ouer the head;mary then they agree
it ſhould be pruned & guelded of all the wood it hath,ſaue only three burgeons. You ſhal haue
ſome againe that will indeed cut them the very next yere after they be replanted,but ſo as they
may win euery yere three or foure ioints;and when they be foure yeres old and not before,they
giue them liberty to climbe vpon the frame. But this(I aſſure you) is the next way to make the
vine fructifie ſlowly and late: beſides,it cauſeth it to ſeem ſcortched and full of knots, yea and
to grow like a dwarfe or wreckling. The beſt ſimply, is to ſuffer the ſtocke or mother to bee
ſtrong firſt,and afterwards let the branches and yong imps hardly,be as forward and audacious
as they will. Neither is it ſafe truſting that vine which is full of cicatrices or skarres (a thing L
that proceeds of great errour and an vnskilfull hand;) for ſurely all ſuch branches grow of hurts
or wounds,and ſpring not one jot from the mother ſtock indeed: for all the while that ſhee ga-
thereth ſtrength,her whole vertue remaineth within her; but when ſhe is ſuffered to grow and
fructifie,ſhe goeth throughly to worke,and emploieth her forces full and whole to bring forth
that, which yeerely ſhee conceiued: for Nature produceth nothing by halfes nor by peece-
meale,but is deliuered of all at once. Well then,after that a vine is once full grown and ſtrong
enough,let it preſently run vpon perches, or be led in a traile vpon a frame; but in caſe it bee
yet with the weakeſt,let it be cut againe,and take vp her lodging hardly beneath vnder the very
frame:for in this point the queſtion is not,what Age,but what Strength it hath? for that is it
which muſt rule all. And verily great folly and raſhneſſe it were,to put a vine to it, and let her M
haue the will to grow ranke,before ſhe be as big full as a mans thumbe. The next yere after that
it is gotten to the frame, there would be ſaued and let to grow one or two branches, according
to the ſtrength and ability of the mother: & let the ſame the yere following alſo be preſerued,
nouriſhed,

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A nouriſhed,and permitted to grow on end,vnleſſe her feebleneſſe be againſt it:but when the third yeare is come,and not afore,be bold to giue her the head with two branches more;and neuer let her goe but with foure at the moſt. In one word, hold a vine downe as much as you can, neuer cocker and cheriſh her,but rather repreſſe her fruitfulneſſe;for of this nature is the vine, Rather than her life,ſhe would be alwaies bearing;neither taketh ſhe ſuch pleaſure to liue long, as to beare much: and therefore the more you take away of her ranke and ſuperfluous wood, the better will ſhe imploy her radicall ſap and moiſture to fructifie and yeeld good ſtore of grapes:yet by her good will ſhe would be euer putting forth branches for new plants, rather than buſie in bearing fruit:for well woteth ſhe,that fruit will fall and is but tranſitory. Thus to her owne vndoing and ouerthrow, while ſhee thinketh to ſpread and gaine more ground, ſhee ſpends her
B ſtrength,her ſelfe and all. Howbeit,in this caſe.the nature of the ſoile will guide a man and adviſe him well: in a lean and hungry ground,although the vine be ſtrong enough, you ought to keep it downe with cutting, that it may make abode vnder the head of the traile and frame aboue;and howſoeuer ſhe may haue ſome hope that her young branches may get vp to the top, (as being at the very point to mount aboue it,and ſo neare as that they reach therevnto) yet let her ſtay there and proceed no farther:ſuffer her not(I ſay) to lay her head thereupon and couch vpon the traile,nor wantonly to ſpread and run on at her eaſe. In this manner (I ſay) hold her head in with the bridle,that ſhe may in the end chuſe rather to grow big in body & ſtrong withall,than to ſhoot forth branches about her euery way far and neare. The ſame branch now that is kept ſhort of the frame,ought to haue two or three buds to burgen at,and to bring forth more
C wood in time: and then let it be drawne and trained cloſe vnto the traile and tied faſt thereto, that it might ſeeme to beare vpon it and be ſupported thereby, and not to hang looſely thereupon. Being thus bound to the frame,it muſt likewiſe be tied anon,three buds or joints off: for by this means alſo the wood is reclaimed and repreſſed from running out in length beyond all meaſure,and the burgeons in the way between will come thicker & ſhoot vp on heigth, to furniſh the husbandman with ſtore of new ſets and ſions for the next yeare. The very top end in no wiſe muſt be tied. Certes this property and qualitie hath the vine, That what part ſoeuer of it is dejected and driuen downward, or els bound and tied faſt, the ſame ordinarily beareth fruit, and principally in that very place where it is bowed and bent in manner of an arch. As for the other parts which be backeward and neerer to the old maine ſtocke, they ſend out ſtore of new
D branches indeed,full of wood,but otherwiſe fruitleſſe that yeare:by reaſon(I ſuppoſe verily)of the ſpirit or vegetatiue life,and that marrow or pith whereof wee ſpeake before, which findeth many ſtops and lets in the way. Howbeit theſe new ſhoots thus putting forth, will yeeld fruit the next yere. Thus there offer vnto vs two kinds of vine branches:for that which ſpringeth out of the hard and old wood,and promiſeth for that yeare following nothing but ſprigs and twigs onely,is called Pampinarium: whereas that which commeth more forward beyond the cup or cicatrice,and beareth ſhew of grapes,is named Fructuarium. As for another, ſpringing from a yeare-old branch, it is left alwaies for a breeder and kept ſhort vnder the frame: as alſo that which they terme Cuſtos,[i.the Keeper,or Watch:]a young branch this is,and no longer than it may well carry three buds:which the next yeare is like to beare wood and repaire all, in caſe
E the old vine ſtocke ſhould miſcarry and ſpend it ſelfe by carrying too great a burden. Alſo another burgen there is cloſe to him,bearing out like a knob,of the bigneſſe of a wart(called heis Furunculus)who muſt ſerue the turne and make ſupply, if peraduenture the foreſaid Watch or Keeper faile.

Moreouer, a vine if it be ſuffered to beare before the ſeuenth yeare after it was firſt ſet of a cutting or ſion,decaieth ſenſibly and ſoon dieth:neither is it thought good to let the old wood run on ſtill in length vpon the frame, as far as to the fourth forke that vnderproppeth it, (ſuch old crooked branches ſome call Dracones, others Iuniculos) to make thereof huge and great trailes of vines termed Maſculeta. But worſt of all it is, to ſeeme for to propagate or draw in a long traile within the ground vines in a vineyard,when they be growne hard with age. When
F the vine is fiue yeares old,a man may boldly wind and twine the very branches,ſo as out of euerie one there be a twig let to grow at liberty: thus he may proceed forward to the next;cutting away the wood as he goeth that bare before. The ſurer way euermore is ſuppoſed to leaue the Watch or Keeper behind; marie he muſt be next vnto the vines maine bodie, and neareſt the root, and no longer than is before ſet downe. Now in caſe the branches proone ouer ranke,

they muſt be writhed and twiſted in maner aforeſaid,ſo as the vine ſtock may put forth no more G
than foure boughs at the moſt,or twaine if ſo be it reſt vpon one chanter or range of perches. If
you would order a vine ſo as it may ſtand alone without any props, at the beginning it would
deſire and haue ſome ſupporter or other (it makes no matter what) to reſt vpon, vntill it haue
learned to ſtand of it ſelfe,& riſe vpright:afterwards,it is to be vſed in manner of all other vines
when this training is paſt. This regard would be had in pruning and cutting the twigs of theſe
vines called Pollices, That a man well guide and ballance his hand,and go euen withall in eue-
ry part indifferently,for feare leſt one ſide be charged with fruit or branch more than the other:
where by the way,he muſt alſo remember to keepe downe the head,and not ſuffer it in any wiſe
to run vp in height: for if this kind of vine be aboue three foot high,it wil hang the head down-
ward. As for others, they may well grow to fiue foot and vpward, ſo that they paſſe not in any H
caſe the full height of a man. To come now vnto the other vines that creepe along and ſpread
ouer the ground;they be inuironed all the way as they run,with pretty ſhort hollow cages as it
were,to reſt and repoſe their branches in. They haue need moreouer of certaine trenches or dit-
ches round about to run in,to the end that as the ſaid branches wander too and fro,they ſhould
not incounter one another and ſtriue together. And verily in moſt parts of the world, they vſe
to gather their vintage of vines thus growing low by the ground:as we may ſee the manner is
in Africke, Ægypt, Syria, throughout all Asia, and in many places of Europe. For the good
vſage and dreſſing of theſe vines,a ſpeciall care would be had to keepe them downe cloſe to the
earth;and to fortifie the root,ſo long and in the ſame manner, as hath beene ſhewed before in
thoſe,that are ſhored or beare vpon frames;with this charge and regard beſides,to leaue alwaies
the ſhort twigs only called Pollices,with three buds a piece,in caſe the ground be fruitfull;or I
*Quinis,rather Binis,i. twaine. * fiue,if it be light and lean And in one word,better it is without all queſtion, that they be left
many,than long. As for thoſe points which we haue deliuered heretofore, as touching the na-
ture of the ſoile, they will be more effectually ſeen to proue either the goodneſſe or the contra-
ry,in the grapes of this vine,by how much nearer they lie to the ground than others. Wherein
conſideration is to be had of the ſundry ſorts of vines; namely,that they be ſeuered apart; and
nothing is better,than to ſort euery one with the tract or region that agreeth beſt with it, and
therein to plant them accordingly: for theſe mixtures of diuers kindes are neuer good,but al-
waies diſcordant: naught in old wines that come to our table, much worſe then you may bee
ſure,in thoſe that be new and not yet tunned vp. But if a man will intermingle plants of ſundry K
vines together,yet in any caſe thoſe would be ioined together(and none els) which ripen their
fruit at one and the ſame time.

For frames and trailes wherein vines are to run,the better and more battle that the ground of
the vineyard is,the plainer and euener that it lieth,the higher they would be from the ground;
likewiſe if the place be ſubiect to dews,fogs,and miſts,and nothing expoſed to the winds:con-
trariwiſe,if the ground be leane and dry,hot,and open to the winds,they muſt be the lower and
nearer the earth. As concerning the rafters,that lie ouer & reach from prop to prop,they ought
to be tied and faſtened thereto with as ſtreight and ſure a knot as is poſſible; whereas the Vine
would be bound vnto them, but ſlacke. Of the ſundry ſorts of Vines, as alſo which were to be
planted in this or that ſoile,and what coaſts & climats each one of them loueth, we haue ſhew- L
ed ſufficiently in the particular treatiſe of their nature,and of the wines that come of them.

Touching all other points of husbandry that remaine behind; much doubt and diuers que-
ſtions are made:for many there be that feare not all Summer long to bee digging in the vine-
yard about vine-roots,after euery little raine. Others again forbid to meddle & be luſty therin,
in the budding time:for it cannot be auoided, but that the yong oilets will either bee ſmitten
off clean,or els galled or bruiſed one time or other,with their gate that go in and out between:
which is the cauſe,that they would haue all kind of cattell to bee kept out that they come not
neare,and eſpecially ſuch as beare wooll on their backs; for ſheep of all others ſooneſt rub off
the buds as they paſſe by,with their ſhag coats. Moreouer, they are of opinion,that all manner
of raking and harrowing,is an enemy to vines when they bee in their floure,and putting foorth M
young grapes:and ſufficient it is(ſay they) if a vineyard be delued thrice in one yere;to wit,firſt
from the ſpring Æquinox,to the apparition of the Brood-hen ſtar; ſecondly, at the riſing of
the great Dog ſtar; and thirdly,when the grape beginneth to change colour and turne blacke.
Others ſet out theſe times after this maner: if the vineyard be old,they would haue it once dig-

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A ged betweene vintage and mid-winter; howſoeuer ſome be of this mind, That it ſufficeth them to bare the roots only of the vines and lay dung thereto. The ſecond deluing they would haue to be from the Ides of Aprill, and ſix daies before the Ides of May, that is, before they begin to conceiue and bud: and thirdly, before they fall to bloſſome; alſo when they haue done flouring; and alſo at the time when the grapes alter their hew. But the more skilfull and expert husbands affirme conſtantly, That if the ground be ouermuch laboured, and digged too often, the grapes will be ſo tender skinned, that they will burſt againe. Moreouer, theſe rules following are to bee obſerued, That when any vines do require ſuch deluing and digging, the laborers ought to goe to worke betimes before the heat of the day: mary if the vineyard ſtand vpon a mirie clay, it is not good then either to eare or dig it, but rather to wait for the hot ſeaſon; for the duſt that ri-
B ſeth by digging, is very good (by their ſaying) both to preſerue the vine and grapes from the parching Sun, and alſo to defend them againſt the dropping miſts.

As for disburgening of vines, and clenſing them of their ſuperfluous leaues, all men accord, that it ſhould be done once in the Spring; to wit, after the Ides of May, for the ſpace of eleuen daies following; and in any hand before they begin to put forth floure. And how much thereof muſt be thus diſſoiled for the firſt time? euen all that is vnder the traile or frame, & no more. As for the ſecond, men be not all of one minde; ſome would haue the leaues to be disbranched when the vine hath done flouring: others expect, vntill the grapes begin to be ripe. But as touching theſe points, the rules that *Cato* giueth, wil reſolue vs: for we are now alſo to ſhew the maner of cutting and pruning vines. Many men begin this worke immediatly after vintage, when
C the weather is warm and temperat: but indeed (by courſe of Nature) this ſhould neuer be done before the riſing of the Ægle ſtar (as we will more at large declare in the next booke, where we are to treat of the riſing and fall of the fixed ſtars and of their influences) or rather in truth, when the Weſterne wind Fauonius beginneth to blow, foraſmuch as there might be danger in going ouer ſoon to work, conſidering that haſt commonly maketh waſt. For this is certain, that if there come an after-winter, and chance to bite the vines newly medicined (as it were) or rather ſore with this pruning, if it happen (I ſay) that when euery man makes reckoning that winter is gon, it come vpon them againe and whiske with his taile, their buds pinched with cold will loſe their vigor, their wounds will cleaue and make rifts, in ſuch ſort, that when the humidity is di-
D ſtilled and dropped forth, the oilets wil be nipt and burnt away with the bitterneſſe of the vnſeaſonable weather; for who knoweth not, that in froſt it is tickliſh medling with vines, and that they be in danger ſoon to breake and knap aſunder? To ſay therefore a truth, by order of Nature there would not be ſuch haſt made. But here is the matter, they that haue a large domaine and much lands to look vnto, they that muſt go through a great deale of work, cannot wil nor chuſe but begin betimes, and make this computation and reckoning aforeſaid. And in one word, the ſooner that vines be pruned (if the time wil ſerue commodiouſly) the more they run into wood and leaues; and contrariwiſe, the later you go to work, the more plenty of grapes they wil yeeld: and therefore it is meet and expedient to prune vines that be poore and feeble, very timely; but ſuch as be ſtrong and hardy, laſt of all.

As for the manner and faſhion of the cut, it ought alwaies to be aſlant, like a goats foot, that
E no drops of raine may ſettle and reſt thereupon, but that euery ſhower may ſoon ſhoot off: alſo that it turn downeward to the ground, that it be euen and ſmooth made with a keen and ſharpe edged bill or cutting hook. Furthermore this heed would be taken, that the cut be iuſt between two buds, for feare of wounding any of the oylets neere vnto that part which is cut off: and commonly this is ſuppoſed to be blacke and duskiſh, and ſo long as it is ſo ſeen, it ought to be cut and cut again, vntill you come to that which is ſound and cleare indeed: for neuer ſhall yee haue out of a faulty and corrupt wood, any thing come forth that will bee worth ought. If the vine be ſo poore and lean that it affordeth no branches meet and ſufficient to beare, cut it down to the verie ground, for beſt it is then to fetch new from the root, and to ſee whether they will be more liuely. Ouer and beſide in disburgening and defoiling a vine, you muſt beware how
F you pluck off thoſe burgeons that are like to beare the grape, or to go with it; for that were the next way to ſupplant (as it were) the grapes, yea and kill the vine, vnleſſe it were a new and yong plant. Will you then know which are vnprofitable and may be ſpared? euen all thoſe are deemed ſuperfluous, which are come not directly from the knot or neere oilet, but grow out of the ſide: and no maruell, ſince that the verie branches of grapes which hang in this manner out of

the hard wood,are ſo ſtiffe and tough alſo,that vnneth a man may plucke them off with his fingers,but had need of a knife or hook to cut them away. G

As for the pitching of props into the ground,ſome are of opinion that the beſt way is to ſet them between two vines: and indeed that were the eaſier way to come about the vines, for to lay their roots bare when time ſerueth. Alſo, better it is far ſo to doe, in a vineyard where the vines run vpon one ſingle traile, in caſe the ſaid traile be ſtrong enough, and the vineyard not ſubiect to the danger of winds: but where a vine runneth foure waies, it muſt be relieued with prop and ſtayes as neer as may be,to ſupport the burden; yet ſo,as they be no hinderance when as men ſhould come about the foot to lay the root bare: and therefore they would be a cubit off,and no more. Moreouer,this is a general rule,that a vine be clenſed about the root beneath, before that it be pruned aboue. H

Cato treating generally of all maters concerning vines, writeth thus by way of rule and precept; Let your vine (quoth he) be as high as poſſibly you can: faſten it to the frame decently, but take heed you bind it not too hard. Dreſſe and order it after this manner: After you haue cut away the tips and tops therof,dig round about the roots, and be in then to eare vp & plow the vineyard: draw furrowes and ridges too and fro throughout. Whiles vines be yong & tender,couch the branches within the ground for propagation,with al ſpeed: as for old vines,geld them as little as you can,& keep them with a good head; rather if need require,lay them along on the ground,and two yeares after cut them hard to the root. If it be a yong vine,attend vntill it be of ſtrength ſufficient;then will it be time and not afore to prune it. If haply the vineyard be bare and naked of vines,and that they grow but thin here and there,make furrowes and trenches between,and therein plant new quickſets: but rid the weeds well from about thoſe Trenches,for ouerſhadowing them: be euer alſo digging and delving. Then,if it be an old vineyard, ſo drage and pulſe for prouender: if it be a lean and light ground,ſow nothing that bears grain or corn. Be ſure that ye lay about the heads of the ſaid quickeſets,dung,chaffe,refuſe of grapes preſſed,and ſuch like mullock. When the vine beginneth to put out leaues and look green, fall to disburgeoning. So long as the Vines be yong and tender,tie them ſurely in many places,for feare leſt the wood or ſtalk therof do break aſunder. But when a vine hath gotten head to perch aloft vpon a ſingle traile, gently binde the tender burgeons and branches thereof, extend and ſtretch them out,and lay them ſtreit. Now when they ſtand once vpright and are able to beare themſelues,mark when the grapes begin to change colour,bind them wel and ſure below. I K

As for graffing of vines, there are two ſeaſons of the yeare meet therefore: the one in the ſpring,the other when the vine doth floure;and this is held for the beſt. If you purpoſe to tranſlate an old ſtock of a vine into another place,and there to replant it,cut off the firſt thick arm only,leauing behind two buds and no more. In taking of it vp,be carefull that you do it with ſuch dexteritie,as that you race not nor wound the root. This done,look how it grew before, ſo ſet it now,either in trench or furrow: couch it wel and cloſe,and couer it throughly with good mould. After the ſame manner as is beforeſaid vnderſet and prop it vp, bind it,turn and winde it; but aboue all be euery while digging about it. As touching the drage called Ocymum, the which *Cato* wills to be ſowed in a vineyard,it is a kind of forage or prouender for horſes,which the Latines in old time named Pabulum; it commeth vp very ſpeedily and groweth faſt, and beſides can well away with ſhadowie places. L

Chap. XXIII.

¶ *Of Trees ranged in rewes for to ſupport Vines.*

IT remaineth now in this diſcourſe and treatiſe of Vines,to write of the manner of trees planted of purpoſe for to ſerue their turn. And here I canot chuſe but cal to mind,firſt,how this point of husbandry hath bin iudged naught, and altogether condemned by the two *Sarſennæ*,both father and ſonne; but contrariwiſe held for good, and highly commended by *Scroſa*: whereas all three were reputed the moſt antient writers,and skilfulleſt in this kind next to *Cato*. M And yet *Scroſa*, as great a patron as he is thereof, alloweth not this deuice in any clymate elſe but only in Italy. Howbeit,gon this hath for currant many yeares paſt, and time out of mind, That the beſt and moſt dainty Wines came of thoſe grapes onely which grew vpon ſuch Haut ins or trees beforeſaid. Yea,and it was thought generally, that the higher a Vine climbed vp-

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A on theſe trees, the better grapes it bare, and yeelded more commendable wine: and againe, the lower that thoſe trees were, the greater plenty followed both of the one & the other. By which a man may ſee how materiall it is to raiſe Vines on high, and haue grapes growing in the top of trees. In which regard, choiſe alſo is to bee made of trees for this purpoſe. And here firſt and formoſt is preſented vnto vs the Elme: and yet I muſt except that kind of it which is called Atinia, by reaſon that it is ouermuch charged with boughes and leaues, and therewith too full of ſhade. Next vnto it may be ranged the blacke Poplar, euen for the ſame cauſe, becauſe it is not leaued nor branched ſo thick. Many men there be that refuſe not the Aſh, the Fig tree, yea and the Oliue, ſo that it ſtand not ouer thicke with boughs, and make too much ſhade. As for the ſetting, planting, and ordering of theſe trees in general, we haue ſufficiently and to the full treaB ted heretofore. But now for this ſpeciall and peculiar vſe that they be put vnto, this would bee conſidered, That Vines which are to be wedded to theſe trees, muſt in no wiſe feele the edge of the cutting hooke, before they be three yeares old full. After which time, this regard ought to be had, that euery ſecond branch or arme thereof is to be ſpared, and likewiſe each other yeare and no oftener they are in this wiſe to bee pruned: and by that they are ſix yeres old, it is good time to joine them in marriage vnto their husbands aforeſaid.

In Piemont, Lombardie, and thoſe parts of Italy beyond the riuer Po, they vſe for this purpoſe to plant their grounds with theſe trees ouer and beſides thoſe aforenamed, to wit, the Cornell, the Opiet or Wich-hazell, the Teil or Linden, the wild Aſh Ornus, the Carpin Carme or Horn-beame, and the Oke. About Venice and all that tract, the Willowes ſerue the turne and C none elſe, by reaſon that the whole ſoken ſtandeth ſo much vpon water.

As touching the Elme, named in the firſt place, it muſt be kept plaine and bare, and the great water-boughs vnderneath ſhread vntill you come to the middeſt of the tree, or thereabout; and then the reſt ought to bee arraunged and digeſted into good order, whereupon the Vine may climb as it were vpon ſtaires or ladder rounds: and lightly none of theſe trees vpward be aboue twentie foot high. Now in caſe it be a high ground vpon an hil, and drie, they are permitted to branch and ſhut out their armes, within eight foot of the ground. But in plaines and low moiſt grounds, they begin not to fork before they bear twelue foot. Howbeit, let the place be what it wil, the flat of the tree from whence the boughs begin to diuide, ought to regard the ſouth ſun. And the ſaid branches immediatly from their project muſt riſe ſomewhat vpright in maner of D fingers, ſtanding forth from the palm of ones hand, among which, the ſmal ſprigs muſt eftſoons be barbed (as it were) & ſhauen clean off, for feare they do not ouerſhadow the Vine branches.

As touching the ſpace or diſtance between one tree & another, the ordinarie proportion is, that afront and behind, in caſe the ground be erable, it beare fortie foot: but aflanke, or on the ſide, twentie. Marie, if it be not well tilled and husbanded, ſo much wil ſerue euery way, to wit, twentie foot and no more. Commonly euery one of theſe trees maintaineth tenne Vines at the foot therof: and a bad husband he is who hath fewer reared about it than three. But by the way, it is no good husbandrie to ſuffer a tree thus to be coupled (as it were) in marriage to ſo many Vines, before that it be of ſufficient ſtrength to entertain them: for there is nothing ſo hurtfull, by reaſon that the Vines will choke and kill them; ſo quick they be of their growth, and ſo reaE die to ouercharge them.

As for planting of Vine-ſets to the root of trees, needful it is to make therfore a ditch three foot deep: and they ought to be diſtant one from another a ful foot, and ſo much likewiſe from the tree. This don, there is no queſtion thereof the ſmal twigs or ſhoots what to do with them? neither is there any charge or expence required for digging and deluing: for this is the manner of it, and this peculiar gift haue theſe tree-rows, That in the ſame ground where they grow, the ſowing of corne is nothing hurtfull, nay, it is profitable and good for the Vines. Moreouer, this commoditie and eaſement commeth of their height, that they be able to ſaue themſelues: neither is there any ſuch need, as in other Vineyards, to be at the coaſt of walls, of mounds, pales, or hedges, ne yet of deep ditches or other fences, to keep off the violence or injuries of beaſts. Of F all other toiles before rehearſed, there is no more required but to looke vnto onely the getting of quick-ſets, or couching ſions: all the matter I ſay lieth herein, and there is no more to do.

But of couching ſions and that kind of propagation, there be two deuiſes. Firſt within paniers or baskets vpon the boughs of the tree, and that is the be beſt way, becauſe it is ſafeſt from the danger of cattel. The ſecond is, to bend the Vine, or a branch therof, cloſe to the foot of her

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owne tree,or elſe about the next vnto it:if it ſtand ſingle and haue no Vine joined vnto it. As much of this branch or Vine thus couched as is aboue the ground,muſt be kept with ſcraping; that is to ſay,the buds ought euer and anone to be knapt off,that it ſpring not forth. Within the earth there ſhould be no fewer than foure joints or budding knots buried and enterred for to take root;in the head without,two onely are left for to grow. [Where, note by the way,that the Vine which groweth to the foot of a tree,muſt be trenched in a ditch foure foot long in al, three in breadth,two and an halfe in deapth.] Now, when the ſion thus couched, hath lien one yere,the order is to cut it toward the ſtock to the very pith or marrow,that ſo by little and little it may be inured to fortifie it ſelfe vpon the own roots,and not to hang and cling alwaies to the mother:as for the other end or head thereof,it would be cut off alſo ſo neere the ground, as that there be but two only buds left. By the third yeare it muſt be quite cut in two,(where before it was but guelded to the pith)and that which remaines of it, laid deeper into the ground, for feare it ſhould ſprout foorth and beare leaues toward that ſide where it was cut in twaine. This done,no ſooner is Vintage paſt,but this new quicke-ſet,root and al,muſt be taken vp and replanted. G H

Of late daies deuiſed was the manner of couching or planting by a trees ſide a Vine Dragon (for ſo we vſe to call the old branch of a Vine paſt all ſeruice,which hath done bearing many a yeare,and is now grown to be hard.) And verily,they vſe to make choiſe of the biggeſt they can find,which when they haue cut from the ſtocke, they ſcrape and pil the bark, three foure parts in length,ſo farre forth as it is to lie within the ground[wherupon they name it in Latine Raſilis:]when it is thus couched low within a furrow, the reſt that is aboue the earth they rear vp againſt the tree. And it is thought,that there is not ſo good nor ſo ready a mean to make a Vine grow and beare than this. If it fall out ſo, that either the Vine be ſmal and weak,or the ground it ſelfe but lean and hungrie,it is an vſuall and ordinarie practiſe to cut and prune it as neer the ground as poſſibly may bee,vntill ſuch time as it bee well ſtrengthened in the root,as alſo,great regard is had, that it be not planted when the deaw ſtandeth vpon it, ne yet when the wind ſits ful in the North. The old Vine ſtock it ſelf ought to look into the Northeaſt,prouided alwaies that the yong branches turne Southward. Moreouer,new and tender Vines would not be proined and cut in haſt:but better it is to expect and tary vntil ſuch time as they be ſtrong ynough and able to beare the cutting bill: meane while,to gather the yong branches together round in maner of on houp or circle. [Where note by the way, That Vines which are erected vpon trees for the moſt part beare later by one yeare than thoſe in Vineyards that be pearched or run on frames.] Some would not haue them to be cut at all, before they haue raught vp to the top of the tree. At the firſt time when you come with the pruning hooke, the head muſt be cut off at ſix foot from the ground,leauing vnderneath one little top twig,which muſt be forced to beare by bending it downward in the head:and in the ſame,when it is thus pruned,there muſt be left behind three buds and no more. The branches which burgen out from thence, ought the next yeare to bee brought vp to the loweſt armes of the tree, and there ſeated: and ſo from yeare to yeare,let them climb vp higher to the vpper boughs,leauing alwaies vpon euery loft or ſcaffold as it were where they reſted,one branch of the old hard wood, and another young imp or twig, for to grow vp and climbe as high as it will. Furthermore, as often as a Vine is pruned afterwards, thoſe branches or boughs thereof in any wiſe muſt bee cut away wnich were bearers the yeare before:and in ſtead of them, the new after they be firſt cleanſed from all the hairy & curled tendrils on euery ſide ſhred off. The ordinarie manner of pruning and dreſſing of vines here about Rome, is to let the tender branches and ſprigs enterlace the boughes, inſomuch, as the whole tree is ouerſpread & clad therwith,like as the very ſame tendrils be alſo couered all ouer with grapes. But the French faſhion is to draw them in a traile along from bough to bough: whereas in Lumbardie and along the cauſey Æmilia [from Plaiſance to Rimino] they vſe to train them vpon forkes and poles:for albeit rhe Atinian Elmes be planted round about, yet the Vine commeth not neere their greene boughes. Some there be, who for want of ſill and good knowledge about vines,hang them by a ſtrong bond vnder the boughs:but this is to wrong,yea to ſtifle and ſtrangle them outright:whereas indeed a vine,as it ought to be kept down with oiſier twigs,ſo it muſt not bee tied ouer ſtreight. For which cauſe, euen they alſo who otherwiſe haue ſtore & plenty ynough euen to ſpare,of willows & oiſiers, yet chuſe rather to bind vines with ſome more ſoft and gentle matter,to wit,with a certain hearb,which the Sicilians in their I K L M

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A language called Ampelodeſmos[*i.* Vine-bind.] But throughout all Greece they tie their vines with Ruſhes, Cyperus, or Gladon, Reeke, and ſea-graſſe. Ouer and beſides, the maner is otherwhiles to vntie the Vine, and for certain daies together to giue it liberty for to wander looſely, and to ſpred it ſelfe out of order, yea, and to lie at eaſe along the ground, which all the yere beſides it onely beheld from on high: in which repoſe it ſeemeth to take no ſmall contentment and refreſhing: for like as draught horſes, when they be out of their geeres, and haknies vnſadled, like as Oxen when they haue drawn in the yoke, yea, and greyhounds after they haue run in chaſe, loue to tumble themſelues and wallow vpon the earth: euen ſo the Vine alſo, hauing bin long tied vp and reſtrained, liketh wel now to ſtretch out her lims and loins, and ſuch eaſement and relaxation doth her much good. Nay, the tree it ſelfe findes ſome comfort and ioy therby,
B in being diſcharged of that burden which it carried continually as it were vpon the ſhoulders, and ſeemeth now to take breath and heart again. And certes, go through the whole courſe and worke of Nature, there is nothing, but by imitation of day and night, deſireth to haue ſome alternatiue eaſe and play dayes between. And it is by experience found very hurtfull, and therefore not allowed of, to prune and cut Vines preſently vpon the Vintage and grape-gathering, whiles they be ſtill wearie and ouertrauelled with bearing their fruit ſo lately: ne yet to binde them, thus pruned, in the ſame place again where they were tied before: for ſurely vines do feel the very prints and marks which the bonds made, and no doubt are vexed and put to pain therewith, and the worſe for them.

The maner of the Gaules in Lumbardy, in training of Vines from tree to tree, is to take two
C boughs or branches of both ſides, and draw them ouer, in caſe the ſtock Vines that beare them be forty foot aſunder: but foure, if they are but twenty foot diſtant. And theſe meet one with another in the ſpace between, and are interlaced, twiſted and tied together. But where they are ſomwhat weake and feeble, they be ſtrengthened with Oiſier twigs or ſuch like rods here and there by the way, vntill they beare out ſtiffe: and look where they be ſo ſhort that they wil not reach out, they are with an hook ſtretched and brought to the next tree that ſtandeth without a Vine coupled thereto.

A Vine branch drawn thus along in a traile, they were wont to cut when it had growne two yeares: for in ſuch Vine-ſtocks as by reaſon of age are charged with wood, it is the better way to giue time & leiſure for to grow and fortifie the ſaid branch that is to paſſe from tree to tree,
D ſo as the thicknes thereof will giue leaue: yea and otherwiſe it is good for the old main bough to feed ſtill and thriue in pulp and carnoſitie, if we purpoſe that it ſhould remaine and carrie a length with it.

Yet is there one maner beſides of planting and maintaining Vines, of a mean or middle nature between couching or interring a branch, by way of propagation, and drawing them thus in a traile from one to another: namely to ſupplant, that is, lay along vpon the ground the whole ſtock or main body of a Vine; which done, to cleaue it with wedges, and ſo to couch in many furrowes or raies, as many parcels thereof, comming all together from one. Now in caſe each one of theſe branches or armes proceeding from one body, be of it ſelfe ſmall, weake and tender, they muſt be ſtrengthned with long rods like ſtaues bound vnto them round about; neither
E ought the ſmall ſprigs and twigs that ſpring out of the ſide, be cut away.

The husbandmen of Novaria reſt not contented with a number of theſe trailed branches, nor with ſtore of boughs and trees to ſuſtaine and beare them, vnleſſe they be ſhored and ſupported alſo with poſts and ouerthwart railes, about which the yong tendrils may creep & wind. No maruell therefore if their wines be after a ſort rough, hard, and vnpleaſant: for beſides the badneſſe of their ſoile, the maner of their husbandry is ſo crooked and vntoward.

Our husbandmen moreouer here about vs, neer vnto the city of Rome, commit the like fault, and find the ſame defect thereupon, in the Varracine Vines, that be pruned but once in two yeres: a piece of husbandry by them practiſed, not for any good that it doth vnto the vine, but becauſe the wine thereof is ſo cheap, that oftner pruning would not quit coſt, neither doth the
F reuenue anſwer the labor and the charges.

In the territorie of Carſeoli (a champion and plain countrey about Rome, the peaſants take a better order, and hold a middle and temperat courſe. For their maner is to proin and cut away from the Vine thoſe parts onely that are faulty and rotten, when they begin once to drie and to wither, leauing all the reſt for to beare Grapes: and thus diſcharging it of the ſuperfluous

burden

burden that it caried, they hold opinion, that it is not good to wound it in diuers places: for by this means (ſay they) it will be nouriſhed and come on very well. But by their leaue, vnleſſe the ground be paſſing rich and fat, Vines thus ouercharged with wood, will for want of pruning degenerate into the baſtard wild wines called Labruſcæ. G

But to returne againe vnto our plots planted with Trees and Vines coupled together: ſuch grounds when they be plowed require a good deep ſtitch, although the corn therein ſown need it not. Alſo it is not the manner to disburgen or deffoile altogether ſuch trees, and thereby a great deale of toile and labor is ſaued: but when the Vines are a pruning, they would be diſbranched at once with them, where the boughs grow thickeſt; and to make a glade onely thorow, the ſuperfluous branches would be cut away, which otherwiſe might conſume the nutriment of the grape. As for the cuts and wounds remaining after ſuch pruning and debranching, we haue already forbidden, that they ſhould ſtand either againſt the North or the South. And I think moreouer it were very well, that they did not regard the Weſt where the Sunne ſetteth: for ſuch wounds will ſmart, and be long ſore, yea, and hardly heale again, if either extreme cold pinch, or extreme heate parch them. H

Furthermore, a Vine hath not the ſame liberty in a vineyard that it hath vpon a tree: for better means there are, and eaſier it is to hide the ſaid wounds from the weather flanked as they be within thoſe cloſe ſides; than to wryth and wreſt them to a mans mind to & fro. In lopping and ſhredding of trees, when the cut ſtandeth open, there would be no hollow places made like cups, for feare that water ſhould ſtand therein. Laſt of all, if a Vine be to climbe Trees that are of any great height, there would be ſtayes and appuies ſet to it, wherupon it may take hold, and ſo by little and little ariſe and mount vp aloft. I

Chap. XXIIII.

¶ *The maner of keeping and preſeruing Grapes. Alſo the maladies whereto Trees be ſubiect.*

IT is holden for a rule, That the beſt Vine-plants which run vpon a frame of rails, ought to be pruned in mid-March about the feaſt of *Minerua*, called Quinquatrus: and if a man would preſerue and keep their grapes, it would be done in the wane of the Moone. Alſo, that ſuch vines as be cut in the change of the Moon, wil not be ſubiect to the iniurie and hurt of any noiſom vermin. Although in ſome other reſpect men are of opinion, that they ſhould be cut in the night, at the full of the Moon, when the ſigne is in Leo, Scorpio, Sagittarius, and Taurus: and generally it is thought good to ſet them when the Moon is at the full, or at leaſtwiſe when ſhe is croiſſant. Moreouer, this is to be noted, that in Italy there need not aboue ten men for to look vnto a vineyard of an hundred acres. K

And now that I haue diſcourſed at large as touching the manner of planting, graffing, and dreſſing of Trees, I purpoſe not here to treat again of Date Trees & Tretrifoly, whereof I haue ſufficiently written already in the Treatiſe of ſtrange and forrein Trees: but foraſmuch as my meaning is to omit nothing, I will proceed forward to decipher thoſe matters which concerne principally the nature of Trees, and namely their maladies and imperfections, whereto they alſo as well as beaſts and other liuing creatures, are ſubiect. And to ſay a truth, what creature is there vnder heauen freed therefrom? And yet ſome ſay that wild and ſauage trees are in no ſuch danger: only the hail may hurt them in their budding and blooming time. True it is alſo, that ſcorched they may be otherwhiles with heate, and bitten with cold black winds, comming late and out of ſeaſon: for cold weather ſurely in due time is kindly and good for them, as hath bin ſaid before. But let me not forget my ſelf. See we not many times the cold froſt to kill the very Vines? Yes verily: but this is long of the ſoile and nothing elſe; for neuer hapneth this accident but in a cold ground. So as this concluſion holdeth ſtill, That in winter time we alwaies find froſt and cold weather to do much good: but we neuer allow of a cold and weake ground. Moreouer, it is neuer ſeen, that the weakeſt and ſmalleſt trees are indangered by froſt, but they are the greateſt and talleſt that feele the ſmart. And therefore no maruel if in ſuch, the tops being nipped therewith, ſeem firſt to fade and wither; by reaſon that the natiue and radical moiſture being bitten and dulled before, was neuer able to reach vp thither. L M

Now concerning the diſeaſes that haunt Trees: ſome there bee that are common vnto all; others

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A others againe, that extend peculiarly to ſome certaine kind or other. As for the former ſort generall it is, that no trees are exempt from the worme, the blaſting, and the joint-ach. Hereof it commeth, that we ſee them more feeble and weake in one part or member than in another; as if they did participate the maladies and miſeries of mankind, ſo common are the names of diſeaſes vnto them both. For certes, we vſe to ſay indifferently, That trees are headleſſe, when they be lopt and topt, as wel as men who are beheaded: we tearme their eyes to bee enflamed, ſendged, and bloud-ſhotten, when their buds be blaſted: & many other infirmities, according to the like proportion. And therupon it is, that we ſay they be hungerſtarued and pined: and contrariwiſe, that they be full of crudites and raw vndigeſted humors; namely, when moiſture aboundeth in them. Yea, and ſome of them are ſaid to be groſſe and ouerfat, to wit, al ſuch as bear roſin; when
B by the means of too much greaſe (as it were) they begin to putrifie and turn into Torch-wood; yea, and it falleth out, that they die withall, in caſe the ſaid greaſe take once to the roots; euen as liuing creatures being ouergrowne with fat. Moreouer, ye ſhall ſee a kind of peſtilence light amongſt one peculiar kind of trees: like as it fareth ſometimes with men in ſundrie ſtates and degrees: whereby one while ſlaues only die of a plague, another while the Commons, and thoſe either artiſans in a citie, or peaſants and husbandmen of the countrey.

Now as touching the Worme, ſome trees are more ſubject vnto it than others: and to ſay a truth, in manner al, more or leſſe; and that, the birds know well ynough, for with their bills they will job vpon the barke, and by the ſound trie whether they be worm eaten or no. But what ſay we to our gluttons and belly gods in theſe daies, who make reckoning among their dainty di-
C ſhes, of wormes breeding in trees; and principally of thoſe great fat ones bred in Okes, which wormes they call Coſſi, & are eſteemed a moſt delicat meat? Theſe forſooth they feed in mue, and franke them vp like fat-ware, with good corn-meale. But aboue al others, Pear trees, Apple trees, and Fig trees, are ſooneſt worme-eaten: and if any trees eſcape, they be ſuch as are of a bitter wood in taſt, and odoriferous in ſmell. Touching thoſe wormes that be found in Fig trees, ſome are engendred of themſelues, and of the very wood: others are bred of a bigger vermine called Ceraſtes. Howbeit, al of them (which way ſoeuer they come) are ſhaped in maner of the ſaid Ceraſtes, and make a certaine ſmall noiſe like the ſhrill and creaking ſound of a little criquet. The Seruiſe tree likewiſe is haunted and plagued with little red and hairie wormes, that in the end doe kill it. The Medlar trees alſo when they be old, are ſubject to this maladie

D As for the miſliking of trees [calſed Sideratio] wherby they conſume, wither away, & crumble to powder; it is a thing cauſed only of the weather and influence of ſome Planet. And therfore in this ranke are to be raunged Haile, Blaſting with ſome vntoward winds, and froſts that bite and nip them to the heart. And verily it falleth out, that in a mild and warme Spring, when plants bee too forward, and put foorth their ſoft buds and tender ſprouts ouer-ſoone, the black wind taketh them on a ſuddaine, and a certaine rime ſettleth thereupon, ſendging and burning the oilets of the Burgeons, whiles they be ful of a milky ſap: which accident if it light in blooming time vpon the bloſſome, is called properly Carbunculus [i. a Mieldeaw.] As for the Froſt at ſuch a time, it is far worſe than the blaſting aforeſaid, for when it falleth vpon any trees or plants, it there reſteth and remains ſtil, it congealeth all into an yce, and no puffe of wind there
E is to remoue and diſlodge it: for why? ſuch froſts commonly are not but in time of a ſtil, cleer, and calm aire. Touching that manner of Blaſting or miſliking called Sideratio, as if they were ſmitten with the maligne aſpect of ſome planet, this danger chanceth peculiarly by ſome drie and hote winds, which are buſie commonly about the riſing of the Dog ſtar, at what time wee ſhall ſee yong trees and newly graffed, to die outright, eſpecially Figge trees and Vines. The Oliue, ouer and beſides the worme (whereto it is ſubject as wel as the Figge tree) hath another greefe and ſorance called in Latin Clavus, Fungus or Patella [i. a Knur, Puffe, Meazil or Bliſter] chuſe you whether: and nothing is it but a very ſendge or burne by the ſunne.

Furthermore, *Cato* ſaith, That the red Moſſe is hurtfull vnto trees. Oftentimes alſo wee find that as wel Oliues as Vines, take harm by ouermuch fertilitie and fruitfulnes. As for ſcab and
F ſkurfe, what tree is cleare of it? The running mange or tettar, is a miſcheefe peculiar vnto the Fig tree: as alſo, to breed certain Hoddy-dods or ſhell-Snailes ſticking hard therto and eating it. And yet theſe maladies are not indifferent and alike in all parts of the tree. For thus you muſt think, that ſome diſeaſes are appropriate to one place more than another. For like as men are troubled with the Arthriticall torments, or the Gout, euen ſo be trees: yea, and after 2 ſorts

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as well as they: for either doth the diſeaſe take the way to the feet, that is to ſay, to the roots, & G
there breaketh out and ſheweth it ſelfe; or elſe it runneth to the exterior joynts and fingers, to wit, the ſmal branches and top twigs, which be fartheſt remote from the main body of the tree. Hereupon then begin they to drie, wither, and waxe blacke: and verily the Greeks haue proper names and tearms reſpectiue to the one infirmity and the other, which we in Latin want. Howbeit we are in ſome ſort able to expreſſe the Symptones following therupon; and namely, when we ſay, firſt, That a tree is ill at eaſe, ſicke, and in pain euery where: anon, that it falls away, looks ill, poore, and leane, when wee ſee the freſh green hew gone, and the branches fraile and brittle: laſt of all, that it is in a waſt, conſumption, or feuer hectick, and dieth ſenſibly, to wit, when it receiueth no nouriſhment (or not ſufficient) to reach vnto al parts, and furniſh them accordingly: and the tame Figge tree of al others, is more ſubject hereunto; as for the wild, they be exempt H
wholly from all theſe inconueniences hitherto named.

Now as touching the ſcab or ſcurfe incident vnto trees, it commeth of certain foggie miſts and clammie dewes, which light ſoftly and leiſurely after the riſing of the Brood-hen ſtar Vergiliæ, for if they be thin and ſubtile, they drench and waſh the trees wel, and do not infect them with the ſcab: howbeit in caſe they fall down right, or that there be an ouer great glut of ſhowers and raine, the Fig tree taketh harme another way, namely, by ſoaking of too much moiſture into the root.

Vines, ouer and aboue the Worme and the Blaſt, haue a diſeaſe proper vnto themſelues, called Articulatio, which is a certain barraineſſe of theirs when they leeſe their ſpring in the verie joynt. And this may come vpon three cauſes: the firſt, when by vnſeaſonable and ill weather, as I
froſt, heat, haile, or other forcible impreſſions of the aire, they forgoe their young ſprouts: the ſecond (as *Theophraſtus* hath well noted) if in pruning of them, the cut ſtand vpward and open to the weather: the third, when they be hurt by thoſe that haue the dreſſing of them, for want of skill and taking good heed: for all theſe wrongs and inconueniences they feele in their joynts or knots. A ſeuerall kind of blaſting or mortification there is beſides in vines, after they haue done blooming, which is called Roratio; namely, when either the grapes do fall off, or before they come to their full growth, be baked (as it were) into a thick and hard calloſitie. It happens alſo that they be otherwhiles ſick, in caſe after their pruning, their tender oilets or buds be either bitten with the froſt, or ſindged with ſome blaſt. The ſame befalleth likewiſe to them vpon ſome vntimely or vnſeaſonable heat: for ſurely in all things, a certaine meaſure and moderate K
temperature doth well, to bring them to their perfection. To ſay nothiug of the wrong that is done vnto them by the vine-maſters themſelues and husbandmen as they dreſſe and trim them, namely, when they bind them ouer-ſtreight, as hath been ſaid before, or when the labourer that diggeth about them, chanceth to do them one ſhrewd turne or other by ſome crooked croſſe blow; or elſe when the ploughman at vnawares doth looſen the root, or glance vpon it with the ſhare, and ſo disbarke the bodie of it: finally, they haue injurie done vnto them, in caſe the pruning-hooke bee ouer blunt, and ſo giue them a bruſe. In regard of all theſe cauſes, they are leſſe able to beare either cold or heat; for euery outward injurie is readie to pierce their freſh galls, and a skald head is ſoon broken. But the tendereſt and weakeſt of al others, be the Apple trees, and namely, the haſtie kind that bringeth ſweet Iennitings. Howbeit ſome trees there be which vpon ſuch feebleneſſe and hurt done vnto them, become barren onely, and die not; namely, the Pine and Date tree: for if a man fetch off their heads, you ſhall ſee them faile in bearing fruit, L
but this hurt will not kill them quite.

Moreouer, it falleth out otherwhiles, that the Apples only or other ſuch fruits, as they hang are diſeaſed, when as the tree aileth nothing; to wit, if in due time they wanted rain, warmth, or winds that were needfull; or contrariwiſe, if they had too much of euery one: for by ſuch means they either fall from the tree of themſelues, or els they are the worſe for it, if they proue worth ought at all.

The greateſt diſpleaſure that can happen to Vine or Oliue tree, is, when in their very blooming they be pelted with violent ſhowers of raine; for, together with the bloſſome, down goeth the fruit of them both. From the ſame cauſe, proceed the cankerwormes or caterpillars (a moſt M
daungerous and hurtfull kind of vermine to trees) which will eat out the greene bud, knot and all. Others there be that wil deuoure the bloſſome and leaues of Oliues alſo, as in Miletum: and thus hauing conſumed all the greene leaues, leaue the trees bare, naked, and ill-fauored to the

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A eye. Theſe wormes doe breed in moiſt and warme weather, and eſpecially if there be thick and foggie miſts. Of the ſame vermine, there is another engendred, namely, if there enſue vpon the former wet ſeaſon, hotter gleames of the ſunne more than ordinarie, which burne the foreſaid wormes, and therefore change them into other vermine. Moreouer, there is a fault or imperfection beſides, wherto Oliues and Vines eſpecially are ſubject, and this they cal in Latine Araneus, [i. the Spider] when cobwebs (as it were) doe enfold and wrap their fruit, keeping them from growing, and ſo in time killing them. Ouer and beſides, there be certaine winds which ſindge and burne Oliues and grapes principally, yea and all ſorts of fruits whatſoeuer. In ſome yeres alſo ye ſhall ſee all fruits worm-eaten, and eſpecially Apples, Peares, Medlars, and Pomegranats, without any ſuch hurt and offence to the trees that bear them. As for Oliues, the worm
B ſometimes doth them harme, otherwhiles good: for if the worme be engendred and formed before it take the Oliue, it conſumes and ſpoileth the fruit; but in caſe they breed within the kernel, it cauſeth the Oliue to thriue the better, by eating the ſaid kernel that drew away and ſucked the humor which nouriſhed it. The rain that falleth after the riſing of the ſtarre Arcturus, hindereth the generation of wormes, and preſerueth fruits from being worme-eaten: and yet if the wind ſit Southward in that time when it ſo raineth, ſuch raines will breed worms in oliues eſpecially, called Drupæ; which beginning but then to ripen, are moſt readie to fall from the tree. And verily thoſe trees that grow in waterie places or neer riuers, are more ſubject to haue worme-eaten fruit, which although it fall not ſo ſoone, yet it is as loathſome euery way.

Ouer and beſides, there is a certaine kind of flie reſembling the Gnat, which annoieth ſome
C trees and their fruits, and namely, Maſt and Figs: and it ſeemeth that this flie is engendred of a certaine ſweet humour that lyeth vnder their barkes. Thus much as touching all diſeaſes to ſpeake of, that trouble trees.

As for the impreſſions of the Aire at certaine ſeaſons, as alſo of other accidents occaſioned by the climat, they are not properly to bee called Maladies, becauſe they kill trees ſodainly: as namely, when a tree is blaſted outright, or all at once doth wither and drie away: like as when ſome puffe of an vntoward wind peculiar vnto any region, doth ſmite them: ſuch as in Apulia they call * Atabulus, and in Eubœa is named Olympias: For if this wind chaunce to blow in mid-winter, it biteth, burneth, and drieth vp trees with ſuch cold blaſts, as afterwards no heat of the Sunne is able to recouer againe. In this ſort likewiſe, al trees growing in vallies or ſtanding
D along riuers ſides, bee endaungered: and aboue all others, Vines, Oliues and Figge trees. This death that they thus take, is ſoone after diſcouered and ſeene in the budding time when trees begin to put foorth, how ſoeuer it be later ere the Oliue ſhew it. Howbeit, a good ſigne it is in them all of their recouery, when they loſe their leaues: for you ſhall ſee the leaues tarie on in many of them, and when you think they are paſt the worſt, ſodainly die. Otherwhiles alſo you ſhall haue the leaues to fade and ſeeme drie, yet afterwards the ſame trees to reuiue againe, and become greene. Furthermore, in the Northerly regions, as in Pontus and Phrygia, ſome trees there are that be ordinarily frozen to death; namely, when the froſt and yce continueth after mid-winter fortie daies. And not onely there, but alſo in other countries, if immediatly after that trees haue put forth their fruit, there follow a hard froſt, they wil die vpon it, although the froſt laſt not many daies.

* quaſi ἀτλῶ βάσαν. i. calamitatem, aut peſtem inferens

E In a ſecond ranke of cauſes that may kill trees, are to be ranged the injuries and wrongs that come by mans hand, Pitch, oyle, and greaſe, are very enemies and hurtfull to them al, but eſpecially to young trees. Againe, if trees be barked round about, they will die all, vnleſſe it be the Corke tree; for it will thriue and proſper the better, if it be in that wiſe diſcharged of the outward barke; for growing as it doth ouer thicke, it claſpeth and clingeth to the tree ſo hard, that it choketh and ſtrangleth it again. Neither doth the tree Adrachne find any hurt or offence by disbarking, vnleſſe the very wood be cut alſo together with it. As for cherie trees, Lindens, and Vines, it is ordinarie with them to caſt ther barke in ſome ſort, and take no harme thereby; but it is not the vitall and liuely inner barke indeed which is next vnto the bodie, but that onely
F which by comming of another underneath freſh and young, is driuen forth and thruſt out.

Some trees there be, which naturally haue their barke full of chaps and riſts, as the Planes for example. As for the Line or Linden tree, if it chance to leeſe the barke, it will come in manner whole and entire againe. In ſuch therefore the manner is, by way of cure to cloſe vp againe with clay and dung, the naked and bare place, and ſo to bring it to a cicatrize: and, I aſſure you,

this practiſe ſomtimes ſpeeds well, and doth the deed; prouided alwaies, that the naked place G
were not ſurpriſed before the cure, with extremity either of cold or heat. Certaine it is, that by
this means both kinds of the Oke, as wel the Robur as the Quercus, liue the longer, and die no-
thing ſo ſoone as otherwiſe they would. And herein the time of the yeare ought to be conſide-
red, when a tree is thus pilled and disbarked: for in caſe that a man pill the barke of the Firre or
Pine tree, during thoſe months wherein the ſunne paſſeth thorough the ſignes of Taurus or Ge-
mini, which is the very ſeaſon of their budding, there is no way but one with them, for preſent-
ly they die: but if this wrong ſhould befall them in winter, they would abide it the better and
longer liue, than being ſo miſuſed either in Aprill or May. The ſame is the caſe of the maſt-
Holme, the wild Robur alſo, and the common Oke. Howbeit, take this note by the way, that if
the void place where the tree hath beene barked round about, be but narrow, ſo as the brims of H
the barke remaining be not farre aſunder, the trees aforeſaid will take no harme at all thereby.
Mary in the tenderer ſort, and ſuch as a man may ſay are but of a weake complexion, and grow-
ing beſides in a leane and hungrie ground, if the barke be taken away but of one ſide and no
more, it is enough to kill them.

The like may be ſaid of the topping or beheading the Cypreſſe, the Pitch tree, and the Ce-
dar: for let theſe haue their heads either cut off with an axe, or burnt by fire, they will die, there
is no remedie. As much alſo is to be ſaid, when beaſts doe brouſe and eat them. As for the
Oliue tree, if a Goat chance but to licke thereof, it will thereupon proue barraine and beare no
more Oliues; ſo ſaith *Varro*, as we haue noted heretofore, But as ſome trees vpon the like injury
done vnto them, will die, ſo others againe will be but the worſe for it, and ſuch are the Almond I
trees: for where before they did beare ſweet Almonds, they will euer after bring bitter. Moreo-
uer, you ſhall haue ſome trees, that wil thriue & do the better after this hard dealing, & namely
a kind of peare tree called Phocis, in the Iſland Chios: for you haue heard by me already, which
trees they be that lopping and ſhredding is good for.

Moſt trees, and in manner all (except the Vine, Apple tree, Fig tree, and Pomegranate tree)
will die, if their ſtocke or bodie be clouen: and ſome be ſo tender, that vpon euery little wound
or race that is giuen them, yee ſhall ſee them to die: howbeit, the Figge tree and generally all
ſuch trees as breed Roſin, defie all ſuch wrongs and injuries, and will abide any wound or bruſe
whatſoeuer.

That trees ſhould die when their roots are cut away, it is no maruell: and yet many there bee
of them, that wi liue and proſper well neuertheleſſe, in caſe they be not all cut off, nor the grea- K
teſt maſter roots, ne yet any of the heart or vitall roots among the reſt.

Moreouer, it is often ſeene, that trees kill one another when they grow too thicke; and that
either by ouerſhadowing, or elſe by robbing one another of their food and nouriſhment. The
Iuie alſo, that with clipping and claſping bindeth trees too hard, haſteneth their death. Miſſelto
likewiſe doth them no good; no more than Cytiſus, or the hearbe Auro, which the Greekes
name Alimus, growing about them. The nature of ſome plants is, not to kill and deſtroy trees
out of hand, but to hurt and offend them only, either with their ſmell, or elſe with the mixture
and intermingling of their owne iuice with their ſap. Thus the Radiſh and the Lawrell doe
harme to the Vine if they grow neare vnto it: for ſurely the Vine is thought to haue the ſenſe
of ſmelling, and wonderfully to ſent any odours: and therefore it is obſerued in her by experi- L
ence, That if ſhee be neare vnto Radiſh or Lawrell, ſhee will turne away and withdraw her ſelfe
backeward from them, as if ſhee could not abide their ſtrong breath, but vtterly abhorred it as
her very enemie. And vpon the obſeruation of this ſecret in Nature, *Androcides* the Phyſitian
deuiſed a medicine againſt drunkenneſſe, and preſcribed his patients to eat Radiſh if they
would not be ouercome with wine. Neither can the Vine away with Coleworts or the Cab-
bage, nay it hateth generally all worts or pot-hearbs: it abhorreth alſo the Hazell and Filberd
tree; in ſuch ſort, as a man ſhal ſenſibly perceiue it to looke heauily and miſlike, if thoſe plants
aforeſaid grow not farther off from it. And now to conclude and knit vp this diſcourſe, would
you kill a Vine out of hand? lay to the root thereof nitre or ſalt-petre, and alumne, drench it
with hote ſea-water: or doe but apply vnto it Bean cods, or the ſhales or husks of the pulſe Er- M
uile, and you ſhall ſoone ſee the operation and effect of a moſt ranke and deadly poiſon.

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Chap. XXV.

¶ *Of many and ſundry prodigies or ſtrange tokens and accidents about trees. Alſo of an Oliue plot which in times paſt was tranſported all and whole, from one ſide of an high port way, to another.*

IN this Treatiſe of the faults and imperfections incident to Trees, me thinks I ſhould do wel to ſay ſomwhat of the ſupernatural occurrences in them obſerued: for we haue known ſome of them to grow vp and proſper without any leaues at all. And as there haue bin Vines and Pomegranats ſeen to beare fruit, ſpringing immediately from the trunke, and not from branch
B or boughs: ſo there haue bin vines charged with grapes, and not clad with leaues: and Oliues likewiſe had their berries hanging vpon them whole and ſound, notwithſtanding all their leaues were ſhed and gon.

Moreouer, ſtrange wonders and miracles haue hapned about trees by meere chance and fortune: for there was an Oliue once, which being burnt to the very ſtump, reuiued & came again: and in Bœotia, certain Fig Trees, notwithſtanding they were eaten and gnawn moſt piteouſly with Locuſts, yet budded anew, and put forth a freſh ſpring. Alſo it hath bin marked, that trees haue changed their colour from black to white. And yet this is not alwayes a monſtrous thing beyond naturall reaſon, and ſpecially in ſuch as come of ſeed, as wee may obſerue in the Aſpe, which eſtſoones turneth to be a Poplar. Some are of opinion, That the Seruiſe Tree if it bee
C tranſplanted, and come into a hoter ground than is agreeable to the nature thereof, will leaue bearing, and be barren. But it is taken for no leſſe than a monſter out of kind, that ſweet Apples and ſuch like fruits ſhould proue ſowre, or ſowre fruit turne to be ſweet; as alſo that a wilde Fig Tree ſhould become tame, or contrariwiſe. And it is counted for an vnluckie ſign, if any Tree change from the better to the worſe; to wit, if a gentle garden Oliue degenerate into the wilde and ſauage: if a Vine that was wont to beare white grapes, haue now black vpon it: and ſo likewiſe if a Fig Tree which vſed to haue white Figs, chaunce afterwards to beare black. And here by the way I canot forget the ſtrange accident that befell in Laodicea, where vpon the arriuall of King *Xerxes*, a Plane tree was turned into an Oliue. But if any man be de-
D ſirous to know more of theſe and ſuch like miracles, for as much as I loue not to runne on ſtill and make no end, I refer him ouer to *Ariſtander* a Greek writer, who hath compiled a whole volume, and ſtuffed it full of ſuch like wonders: let him haue recourſe alſo to *C. Epidius*, a Countryman of ours, whoſe Commentaries are full of ſuch ſtuffe: where he ſhall find alſo, that trees ſometimes ſpake.

A little before the ciuil war brake out between *Iulius Cæſar* and *Pompey* the Great, there was reported an ominous and fearfull ſight preſaging no good, from out of the territory of Cumes, namely, That a great Tree there ſunke down into the earth ſo deep, that a very little of the top boughs was to be ſeen. Hereupon were the propheticall books of *Sibylla* peruſed, wherin it was found, that this prodegie portended ſome great carnage of men; and that the neerer that this ſlaughter and execution ſhould be to Rome, the greater ſhould the bloud ſhed be.

A prodigious ſigne and wonder it is reputed alſo, when trees ſeem to grow in places where they were not wont to be, and which are not agreeable to their natures; as namely on the chapters of pillars, the heads of ſtatues, or vpon altars: like as to ſee one tree of a diuers and contrary kinde growing vpon the top of another; as it befell about the city Cyzicum hard before the ſtreit ſiege that was laid vnto it [by *Mithridates*] both by ſea and land, where a Fig tree was ſeen to grow vpon a Lawrel. Likewiſe at Tralleis, about the time of the foreſaid ciuill war, a Date tree grew out of the baſe or foot of a Columne that *Cæſar* Dictator cauſed there to be erected. Semblably at Rome alſo, twice during the war between the Romans and K. *Perſeus*, there was a Date tree known to grow * vpon the lanterne or top of the Capitoll temple, foreſhewing thoſe victories and triumphs which afterward enſued, to the great honor of the people of Rome. And
F when this was by ſtormes and tempeſts ouerthrowne and laid along, there ſprung vp of it ſelfe in the very ſame place a Fig tree, at what time as *M. Meſſala* and *Caius Caſſius* the two Cenſors, held their Quinquennall ſolemne ſacrifices for the aſſoiling and purging of the city of Rome. From which time *Piſo* (a renowmed Hiſtoriographer and Writer of good credit) hath noted, that the Romans were giuen ouer to voluptuouſneſſe and ſenſuality, and that euer ſince all cha-

* Or as ſome read, the head of *Iupiter* within the Capitol.

ſtitie and honeſt life hath bin exiled. But aboue all the prodigies that were euer ſeen or heard, G
there is one that paſſeth, and the ſame hapned in our age, about the very time that *Nero* the emperor came to his vnhappy end and fall: for in the Marrucine territorie there was an oliue garden belonging to *Vectius Marcellus* a right worſhipfull knight of Rome, which of it ſelfe remoued all and whole as it ſtood, ouer the broad highway, to a place where lay tillage and earable ground: and the corn lands by way of exchange croſſed ouer the ſaid cauſey againe, and were found in lieu of the Oliue plot or hortyard aforeſaid.

Chap. XXVI.

¶ *The remedies for the maladies and diſeaſes of Trees.*

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NOw that I haue declared the diſeaſes of Trees, meet it is that I ſhould ſet down the cure and remedies thereto. Where this one thing would be firſt noted, That of Remedies, ſome be common to all trees, others appropriate to certain. Common be theſe following, To bare and cleanſe the roots, to hil and bank them again; that is to ſay, to giue aire vnto the roots, & let the wind into them: and contrariwiſe to couer them, & keep both wind & weather from them: to water them, or to deriue & diuert water from them: to refreſh their roots with the fat liquor of dung: to diſcharge them of their burden by pruning their ſuperfluous branches. *Item*, to giue their humors iſſue, and as it were by way of phlebotomie to let them bloud, and to skice and ſcrape their bark round about, in maner of ſcarification. To take downe their ſtrength and keep them vnder that they be not too luſty & proud. Alſo, if the cold hath caught I
their buds or burgeons, & therby cauſed them to look burnt, rough, and vnpleaſant; to ſlick, poliſh, & ſmooth them again with the pumy ſtone. Theſe verily be the diuers helps to cure trees: howbeit, vſed they muſt be with great diſcretion, for that which is very good for one, is not ſo good for another: and ſome trees require this courſe, others that, to be taken with them. As for example, the Cypres tree canot abide either to be dunged or watered, it hateth all digging and deluing about it, it may not away with cutting and pruning, it is the worſe for all good phyſick, nay, all remedies to others are miſchiefs to it, and in one word, go about to medicine it you kil it. All Vines, and Pomegranat trees eſpecially, loue alife riuer ſides, & deſire to be watered, for thereby will they thriue and proſper. The Fig tree alſo it ſelfe is nouriſhed and fed in waterie grounds: but the fruit that it beareth is the poorer by that means. Almond trees if they be plied K
with digging, will either not bloome at all, or elſe ſhed their floures before due time. Neither muſt any yong plants or trees newly graffed, be digged about their roots, before they haue gathered ſufficient ſtrength and begin to beare fruit. Moſt trees are willing enough to be disburdened of their ſuperfluous and ouer-rank branches, like as we men can ſpare our nails to be pared, and buſh of hair to be cut, when they be ouergrowne. As for old trees, they would be cut down hard to the ground, for vſually they riſe again of ſome ſhoot ſpringing from the root, and yet not all of them. Regard therefore muſt be had, that none be ſo vſed but ſuch (as we haue noted before) as are able of nature to abide it. For trees to be watered at the roots in the heate of ſummer, it is good, but in winter it is as bad. In the fal of the leaf it may be wholſom, it may alſo be hurtfull, and therefore the nature of the ſoile would be conſidered: for the grape-gatherer in Spain meeteth with a good vintage, notwithſtanding the Vines ſtand in a mariſh and fennie ground; howbeit in moſt parts of the world beſides, it is thought good husbandry, to draine a- L
way from the roots the very rain water that falls from aboue in Autumne. About the riſing of the Dog-ſtar, trees deſire moſt of all to be wel watered; and yet they would not haue too much thereof euen in that time, for in caſe their roots be ouer-drenched and drowned therewith, they will catch harm. Herein alſo the age of trees is to be reſpected, which in this caſe preſcribeth what is meet and ſufficient: for yong trees be leſſe thirſty than others: alſo Cuſtome is a great matter. For ſuch as haue beene vſed vnto watering muſt not change their old woont, but they require moſt of all others to be vſed ſo ſtill. Contrariwiſe, Thoſe Trees which grow vpon dry grounds naturally, deſire no more moiſture than that which is needful. In the territory about Sulmo in Italy, and namely within the Liberties of Fabianum, the Vines which doe beare M
the harder and ſowrer Grapes, muſt of neceſſitie be watered. And no maruaile, for the verie lands and Corne-fields vſe to haue water let in vnto them. And here a wonderfull thing is to be obſerued; This water cheriſheth the Corne, but killeth all the hurtfull Graſſe among: and

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A the riuer ouerflowing the lands, is as good as a weeding. In the ſame countrey the maner is in midwinter to open a ſluce or draw vp their floodgates, for to ouerflow their vine roots with the riuer: and ſo much the rather, if either it be an hard froſt, or ſnow lie vpon the ground: And why ſo? becauſe the pinching cold ſhould not burne them: and this they call there by the name of Tepidare, [*i.* to giue them a kindly warmth as in a ſtouve:] ſee the memorable nature of this only riuer, to be warme in winter, and yet the ſame in ſummer is ſo cold, that hardly a man can endure his hand in it.

Chap. XXVII.

¶ *Of caprification or ſcarifying trees: alſo the maner of dunging them.*

B TOuching the remedies for blaſting as well by heat as cold, I will treat in the booke next following. Meane while I cannot omit one manner of cure by way of Scarification. For when the bark is poore and lean, by reaſon of ſome diſeaſe or miſlike, ſo as it clengs together, preſſing and binding the quick wood ouermuch, wherby the tree is as it were hide-bound, they vſe to ſlit the ſame along with a very ſharpe cutting hooke, guiding and gaping the edge thereof with both hands, that it goe not ouer-deep: and ſo by theſe incitions they doe open it, and as it were loſen and enlarge the skin. Now, when this feat is wrought, the onely ſigne that it is wel don and good for the tree, is this, if the inciſions in tract of time appeare wide, and the void place incarnate again and fill vp with a kind of callous ſubſtance, compounded of the ſap, and wood together growing betweene. Whereby it appeareth, that in many caſes the cure of
C mens maladies & the diſeaſes of trees is very like: for that euen their bones alſo vſe to bee trepanized and bored through as well as ours. Alſo for to make ſweet almonds of bitter, firſt the tree muſt be digged round about, and then boared thorough with an augoer toward the root or butt end, whereby the wateriſh humor that runneth downward, may iſſue forth and paſſe away. Moreouer, if a man would diſcharge Elmes of their ſuperfluous moiſture, they muſt be pierced with a wimble, a little aboue the ground, as far as to the very heart or pith; if either they be old, or be perceiued to receiue ouermuch nutriment. In like maner the ſame exceſſiue humor is let out of Fig trees by meanes of certaine light ſlits or gaſhes made in the barke, aſlant or byas, in caſe it ſeeme to ſwell and be ouer-ſtreight, and by this deuiſe they preuent the falling of their fruit.

D Generally, what trees ſoeuer bearing Apples or ſuch like ſoft fruit without, if they chaunce at any time to proue barren, that is to ſay, to put foorth leafe only without any fruit, the vſe is, firſt to make a clift in the root; then, to put a ſtone therin, that the edges meet not and rejoin againe; and ſo they become fruitfull. The ſame is practiſed in Almond trees alſo, but in ſteed of the ſtone there muſt be a wedge of Oken wood driuen in. As for Pyrries and Medlar trees, thoſe wedges muſt be made of Pine Torch-wood. Moreouer, if either vines or fig trees, be ouer ranke of wood, it is very good to cut and skice the roots round about, and when they bee thus ſerued, to couer with aſhes the ſaid inciſions: but then they muſt bee cloſe couered with aſhes and earth aloft. If ye would haue trees beare Figs at the later end of the yere, pluck off the firſt green figs ſo ſoon as they be ſomwhat bigger than Beans: for vnder them there wil other come
E vp in the place, and be later ere they wax ripe. The ſame fig trees when they begin to ſpring leaf and look green, if the top-twigs of euery bough be cut off, becom the ſtronger & more fruitfull by it. For as touching the ripening of Figges by Caprification, true it is, that there be certain flies like gnats engender in greene figs, which are the occaſion thereof, for when they are flown out, there are no graines or ſeeds found within: whereby it is euident, that they be turned into thoſe flies. And when they do fly forth, ſo haſty they are to be gone, that many of them as they breake out, leaue either a foot or a wing behind them. Beſides, another kind there is of gnats, which they call Centtinæ, for ſloth and ſhrewdneſſe like in al the world to Drone-bees, ſo miſcheeuous they be to the good flies or gnats indeed, that cauſe the Figs to ripen: for, them they kill, and die themſelues when they haue done. Moreouer, there be certaine wormes like moths
F that ordinarily do much hurt to the graines or ſeeds within figs, and eat them quite: The only remedie againſt this vermine, it is to take a twig or imp of the Italian Lentisk tree, and to ſet or couch it with the wrong or top end downeward, in the very ſame trench were the fig tree was planted, For to haue fig trees bear moſt plentifully, take ruddle or red-earth tempered wel with the lees or grounds of oile, after that the ſame is mixed with dung, poure it to the roots of the

trees when they begin to put forth leaues. Among wild Fig trees, the beſt be the black & thoſe G
that grow in ſtonie grounds: for their Figges are fulleſt of cornes or graines within. And as for caprification, it would be practiſed after rain. And take this for a generall rule, That ye beware in any hand in curing of trees, leaſt yee vſe a miſcheefe for a remedie, a thing that commonly happeneth by ouer many medicines, or the ſame not applied in due ſeaſon: for as it is very good for trees, to cut and lop off their boughs where they grow too thicke: ſo to be hacking and mangling of them euery yeare, hurteth them as much. As for the vine, it requireth pruning once a yeare: but the Myrtle trees, Pomegranate, and Oliue trees, euery two yeares; becauſe they will quickly ſpring againe and ſhoot forth branches thicke. Other trees would not be lopped ſo often. Neither is it good to cut or prune any whatſoeuer it be, at the fal of the leafe. Nay, they are not ſo much as to be ſcraped, but in the pruning time, that is, in the Spring. All wounding of H
trees goes to the very heart, and hurt the quick, vnleſſe it be of thoſe parts that are ſuperfluous.

As great conſideration there would be had in the manner of mucking them. No doubt, they loue dung well: but carefull heed would be taken firſt, that none be laid to the roots in the hoteſt ſeaſon of the yeare. *Item*, That it be not greene, but thoroughly rotten: laſtly, that it bee not ouer ranke nor ſtronger than is needfull, Swines dung burnes the root of vines, vnleſſe it bee fiue yeares old, or the vines ſtand in ſome place where water is at commaundement for to coole the exceſſiue heat thereof. Alſo the filth of Tanners ooſe and Curriers ſcrapings doe the like, if they be not well delaied with water. Likewiſe it muſt not be laid too thicke. The ordinarie proportion is thought to be for euery ten foot ſquare, three Modij of dung. But herein no certaintie can be ſet downe: for the nature of the ſoile muſt rule all. With Swines and Pigeons I
dung, they vſe to ſoulder the cuts and wounds that are giuen to trees. In caſe the Pomegranats grow to bee tart and ſoure, the manner is to dig about the root and lay it bare, and then to put Hogs dung therto: for that yeare the Pomgranats will be full of a wine juice; and the next yeare following proue ſweet. Some good husbandmen there be, that think it meet and requiſit foure times a yere to water their roots with mans vrine and ſhere water together, and vpon euery one they beſtow a whole Amphore. Or elſe to bedeaw and ſprinckle the top branches of the Pomegranat trees with wine, wherein Laſer hath beene ſteeped. When the pomegranat doth cleaue & open vpon the tree, it is good to wreath the ſteal therof. If Figs doe the like, there would be oile lees caſt vpon them. Other trees when they are amiſſe or doe miſlike, ought to be drenched with wine lees: and Lupines if they be ſet about their roots, will helpe them. The water alſo or K
decoction wherein Lupines were ſodden, poured about the roots of Apple trees or ſuch like, doth them much good. If it happen to thunder about the feaſt Vulcanalia, Figs will fall from the tree. The remedy thereof is to ſtrow the plots before with Barley ſtraw. Would you haue haſtie Cherries? Lay lime to the roots of the tree, it will cauſe them to ripen their fruit ſpeedily. Of al fruits theſe haſtie Cherries would be plucked and gathered as they ripen, to the end that thoſe which be left behind, may thriue and grow big and faire.

Chap. XXVIII.

¶ *Many and ſundrie medicines ſeruing for trees, to wit, remedies againſt venomous vermine and Piſmires, likewiſe againſt all hurtfull beaſts.* L

Some trees there be which are the better for wrong and injurie done vnto them: yea, and if they be pinched or bitten, they ſhoot vp the rather, as Date trees and the Lentisks, for euen the very ſalt water nouriſheth them. And true it is, that aſhes hath the like nature and vertue that ſalt, howbeit, more mild and gentle. Hereupon it comes alſo, that Fig trees vſe to bee ſtrewed therewith, yea, and to be wet with the juice of Rue, to the end, that neither their fruit ſhould proue worm-eaten, nor their roots putrifie and rot. Moreouer, if vines be too full of moiſture and apt to bleed ouermuch, it is an ordinary thing to pour ſalt water to their roots. Alſo, in caſe their grapes be apt to fall, folk vſe to take aſhes and beſprinckle them with vinegre, and ſo to beſmear the roots therwith: or els with red Orpiment, in caſe the grapes be giuen to putri- M
faction. Say that vines be barren and will not bear grapes, their roots ought to be wel drenched and dawbed with ſharp vinegre and aſhes incorporat together. But what if a vine bring not her fruit to ful maturity, before it begin to wax drie and to wither? the ſuperfluous wood ought to be cut away about the root, and the cuts together with the ſmall ſtrings or beard of the root to bee

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A be wet and ſoked in ſharp vineger,and ſtale chamber-lee,and then they ſhould be well couered and ſtopped with a kind of mortar made therewith, and often digged about. As for Oliues, if they make ſhew of ſmal increaſe,their roots muſt be bared and laid open to the cold in winter; for by this manner of chaſtiſement they will amend and do far better.

In all theſe remedies,proceed we muſt according to the courſe of the yere: for ſomtime the ſeaſon requireth,that the meanes ſhould bee ſooner vſed, and otherwhiles later. Some plants there be that fire is good for, and namely, canes and reeds: for if they be burnt,they will come vp again the thicker and more ſmooth. As for *Cato*, hee hath certain compound medicines for trees,diſtinct by ſundry meaſures by him preſcribed: for he hath ordained to the roots of the greater trees an * Amphore,but of the leſſe an * Vrna only,of Oile dregs,with an equall quan-

B tity of water: all which being tempered together,he would haue to be poured by little & little to the roots,but they ought before to be digged about and laid bare. And for the Oliue, he addeth moreouer,that the roots ſhould haue a bed of litter or ſtraw made before,and then vſed accordingly. In like manner alſo would the fig tree be ſerued: but eſpecially at the roots of it there ſhould be raiſed a bank of old earth; for by that means it wil come to paſſe,that the green figs will not fall, they will beare more plenteouſly, and the fruit be more ſmooth and pleaſant. To preuent in like maner,that the worme * Convolvulus bred not in a vine,hee appointed two gallons of oile dregs or lees,to be boiled firſt to the thicke conſiſtence of hony,and then afterwards to take a third part of the ſlime Bitumen,and a fourth part of brimſtone,and ſeeth all together again in the open aire; for within dores there would be ſome danger of ſetting the houſe

C a fire. With this mixture,if a vine be well annointed about the ioints, and vnder their hollow arm-pits,he aſſureth vs,that there will no ſuch worme breed therein. Some content themſelues to perfume vines onely with the ſmoke of this compoſition,ſo as it be done on the winde-ſide, that it may carry the fume directly to them; and this ſhould be continued for three daies together. Many are of opinion,that wine being mingled with like quantity of water (becauſe alone of it ſelfe it is hurtfull) is as good for this purpoſe as the oile dregs aboueſaid,which *Cato* hath preſcribed. Another kind of vermin or worme there is,that gnaweth the tender buds or burgeons of the vine,and the ſame is called Volvox: to preſerue vines from this harmefull creature, men are wont to take their vine-hooks when they be newly ground and ſharpned,then to ſcoure them with a Beauers skin,and with them to prune the vines: or elſe after they be pruned,to an-

D noint them with bears bloud. Moreouer, Ants or Piſmires make foule work otherwhile among trees. If you would driue them away,daub the ſtock or butt end with red Sinopre and Tar tempered together. Or do but hang vp any fiſh neere by,and all the Piſmires wil leaue their former haunt,and gather about it. Others make no more adoe,but ſtampe Lupines with oile, and therwith annoint the roots. Many there are, who kill both them and Mouldwarps with oile dregs. Alſo,againſt Palmer-worms or Caterpillars,and to keepe Apples from rotting,they giue order for to annoint the top twigs and branch ends of trees with the gal of a green Lizard. But more particularly againſt the ſaid caterpillars,they would haue a woman whiles her monthly ſickneſs is vpon her,to go round about euery tree by it ſelfe, barefooted and barelegged, vnbraced and vnlaced,and her haire hanging about her eares. Moreouer,to preſerue trees from wilde and noi-

E ſome beaſts,that none of them come neare to bruiſe and marre their green ſpring,they doe appoint to beſpreint their leaues with greene Cow or Oxe ſhearne,and water together, betweene ſome ſhowers,that the rain may waſh away the malice and hurtfull quality of the medicine. A wonder to ſee how inuentiue men are to deuiſe remedies for euery miſchiefe; for many you ſhal haue,who be verily perſuaded,that there are certain charms & inchantments to driue away the haile. But for mine own part,I thinke it meere mockery to ſet downe the very words, although *Cato* hath done it before me. Who alſo ſpeaketh of another ſpell for diſlocations or members out of ioint (an accident happening to trees) which he would haue to be ioined cloſe within the cliſt of canes. The ſame writer hath permitted men to cut down ſacred groues,trees alſo dedicated for religion and ſequeſtred from profane vſe (after a ſolemne ſacrifice to the gods firſt

F performed:) the reaſon and manner whereof he hath put downe in a certaine treatiſe, which hee compiled of purpoſe as touching that argument.

* *Amphora,or Quadranta*, was a meaſure Romane of liquor, containing 16 *Congij* which is about 16 wine gallons.

* *Vrna*, is halfe *Amphora*, to wit, 8 gallons, or thereabouts.

* Vine frettar, or the Diuels gold-ring.

THE

THE EIGHTHTEENTH BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I.

¶ Of the exceeding loue and affection of our anceſtors in old time to Agriculture and Husbandrie. Alſo, of their ſingular paines and diligence about Gardens.

NOw followeth the treatiſe of corn, of Gardens, and Floures, and generally of al things elſe, that by the goodneſſe of Nature the Earth bringeth forth bountifully, beſides Trees and Shrubs. The ſpeculation whereof verily is infinit, if a man do but conſider the number and variety of Herbes and Floures, together with their odors and colors; the diuerſity alſo of their iuices, their ſeueral vertues and properties, whether it be to cure men of their maladies, or to giue them pleaſure and contentment to their ſenſes. But before that I enter into this diſcourſe, very willing I am to take in hand the cauſe of Earth (the common mother of vs all) and to aſſiſt her againſt all ſlanderous imputations, notwithſtanding I haue in the beginning of this my worke pleaded once already in her defence. For when we looke into the matter within her contained, we are ſet on fire inwardly to find fault with her for breeding and bearing noiſome things, charging vpon her our own faults, and imputing to her that, for which we of right ought to be blamed. Set caſe ſhe hath brought forth poiſon and venom, Who hath ſearchad them out but man? As for the fouls of the aire and wild beaſts, it is ſufficient that they touch them not, nay they know how to beware and auoid them. For ſay that the Elephants doe file their teeth ſharp againſt hard trees, ſay that the Rhinocerotes whet their horns againſt the rockes, and the wild Bores ſharpen their edge tuskes againſt both ſtocke and ſtone: ſay that all creatures know well enough how to prepare and frubbiſh their weapons to do miſchiefe, which of them all yet infect them with poiſon, but man alone? we haue the caſt to envenome and poiſon arrowes; we can tell how to put ſomthing to our darts of yron and ſteele, more hurtfull and miſchieuous than they be. It is ordinary with vs to poiſon riuers alſo; yea & the very Elements whereof the world doth ſtand, are by vs infected: for euen the aire it ſelfe, wherein and whereby al things ſhould liue, we corrupt to their miſchiefe and deſtruction. Neither can we truly ſay or think, that other creatures beſides vs are ignorant of theſe poiſons; for we haue already ſhewed, that they are not to ſeeke either what defenſatiues to prouide againſt they ſhould fight with ſerpents, or what remedies to find for their cure after they haue fought and are hurt. Moreouer, ſetting man aſide, there is no creature furniſhed or armed with any other venome, but their own. We cannot chuſe therefore but confeſſe our great fault and deadly malice, in that we reſt not contented with naturall poiſons, but betake our ſelues to many mixtures and compoſitions artificiall, made euen with our owne hands. But what ſay you to this? Are not ſome men themſelues meere poiſons by nature? for theſe ſlanderers and backbiters in the world, what doe they elſe but lance poiſon out of their black tongues, like hideous ſerpents? what doe theſe enuious perſons, but with their malicious and poiſonfull breath ſindge and burne all before them that they can reach or meet with, finding fault with euery thing whatſoeuer? Are they not well and fitly compared to theſe curſed fouls flying in the dark, which albeit they ſequeſter themſelues from

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A from birds of the day,yet they bewray their ſpight and enuy euen to the night and the quiet repoſe thereof,by their heauie grones(the only voice that they vtter) diſquieting and troubling thoſe that be at reſt: & finally,all one they be with thoſe vnluckie creatures,which if they happen either to meet or croſſe the way vpon a man,preſage alwaies ſome il toward,oppoſing themſelues(as it were)to all goodneſſe,and hindering whatſoeuer is profitable for this life. Neither do theſe monſtrous and abominable ſprites know any other reward of this their deadly breath, their curſed and deteſtable malice,but to hate and abhor all things. Howbeit,herein may wee acknowledge and ſee the wonderfull majeſtie of dame Nature: for like as ſhe hath ſhewed her ſelfe more fruitfull and liberall in bringing forth profitable and holeſome plants, in greater plenty than hurtfull and noiſom;ſo ſurely hath ſhe furniſhed the world better with good men
B and vertuous for the weale publick. In which regard and conſideration,we alſo taking no ſmall joy and contentment (leauing theſe troubleſome ſpirits to themſelues for to broile and frie in their owne greace) will go on forward and proceed to declare the reſt of Natures workes; and with the better reſolution, for that wee ſeeke more pleaſure and contentment in the paines and trauell that we take,than expect any fame or bruit of men afterwards. For why? we are in hand to ſpeake of the countrey and countrie commodities,ſuch as in old time like as they were moſt neceſſary for this life,ſo they were accounted and honoured moſt highly.

Chap. II.

¶ *Of the firſt guirland or chaplet made of herbes and floures at Rome.*

C THe firſt order that K. *Romulus* inſtituted in Rome city newly built, was the guild or fraternitie of certaine Prieſts or Wardens ouer corn fields, which were in number twelue. And for to do the greater honour to this company,he cauſed himſelfe to be called the twelfth brother among them: and *Acca Laurentia*,the nource or foſter-mother of this Prince, beſtowed vpon him a garland of corn eares, twiſted and tied together with a white ribband, as the moſt ſacred badge and enſigne of this new Prieſthood, which he and his brethren ſhould weare with great reuerence and deuotion: and this was the very firſt chaplet known at Rome. Now the honor of this ornament was perpetuall,and continued for terme of life; ſo as a man once inueſted therein,could not be degraded and depriued thereof, though hee were baniſhed or taken priſo-
D ner;it accompanied him euer to his dying day. Then,and in thoſe daies, euery man within the whole body of the people of Rome,contented himſelfe with two acres of land,and King *Romulus* aſſigned to none of his ſubiects a greater proportion: whereas now ye ſhall haue thoſe that erewhile were but ſlaues and ſeruants vnder the emperor *Nero*(deſpiſing as not ſufficient,green encloſures and gardens of that compaſſe) muſt haue fiſh-pooles alſo bigger than ſo: and well it were if they would ſtay there and go no further,for ſhortly we ſhall ſee ſome one or other of them,neuer reſt vntill he haue kitchins alſo more than two acres wide. And thus much for king *Romulus*.

King *Numa* his ſucceſſor,ordained to worſhip the gods with an oblation of corne,yea and to offer prayers and ſupplications vnto them by no other means,than cakes made of ſalt and meal: yea and as *Hemina* mine author ſaith,for to induce the people of Rome the better vnto it, he al-
E lowed them to parch their corne in their ſacrifices;for that corne thus partched, was ſuppoſed to be a more wholſome food: by which meanes,this one thing inſued in the end, that no corne was counted pure and good, nor fit to be vſed in diuine ſeruice, but that which was thus baked or partched. He alſo inſtituted the feaſt Fornacalia;to wit,certaine holy-daies for the parching and baking of corne: as alſo another as religiouſly obſerued,called Terminalia;namely,for the bounds and limits of lands: for theſe and ſuch like gods,as then,they worſhipped moſt: as alſo the goddeſſe *Seia*,ſo called *aſerendo*: [*i.* of ſowing corne and ſetting plants:] and *Segeſta*, which name they gaue her *aſegetibus*,[*i.* of corn fields:]whoſe images we at this day do ſee in the grand
F Cirque or Shew-place at Rome. A * third goddeſſe there is among them, whom to name and inuocate within-houſe, they might not with ſafe conſcience. Laſtly, ſo religious and ceremonious they were in old time,that they would not ſo much as taſte of new corne or wine, before the Prieſts had taken a ſey of the firſt fruits.

* *Tertiam*, to wit, *Tutelina*, for preſeruing of trees planted, and corne ſowne: or as ſome reade (*Tertium*) meaning *Terminus*.

CHAP.

Chap. III.

¶ *Of Iugerum, and Actus. Of the antient Lawes ordained for Cattell in old time. How often and at what time Corne and victuals were exceeding cheape at Rome. What noble and famous persons addicted themselues wholly to Husbandrie and Tillage.*

AN Acre or Arpen of ground, called in Latine Iugerum, was as much as might be eared vp or ploughed in one day with a yoke of Oxen. And Actus in Latine is a Land, or so much just as two Oxen are driuen and occupied in, whiles they plough in one tract without any rest. This contained by the old time, 120 foot in length: and being doubled in length, made the Acre or Iugerum abouesaid.

In antient time of the old Romans, the greatest Present that could be giuen to captains and souldiers who had borne themselues valiantly in the seruice of their countrey, was as much ground as they could haue eared or broken vp in one day. And it was thought a great reward to receiue at the hands of the people of Rome halfe a pint (or a pint at the vtmost) of corn. Moreouer, in so great request was corn and Husbandry, that the first and chiefe houses in Rome, took their surnames from thence: and namely, the *Pilumni*, who deuised first the pestill to bray corne withall in their mils and backhouses: also, the family of the *Pisones*, who tooke their name, *a pisendo*, [*i.* of stamping or pounding corne in a mortar.] The *Fabij* in like manner, the *Lentuli*, and the *Ciceróes*, each one according to the seuerall pulse that they skilled best to set or sow. Moreouer, to the house of the *Iunij*, they gaue the surname of *Bubulcus*, by occasion of one of their ancestors, who knew passing well how to vse and order oxen. Ouer & besides all this, that you may know what regard was had of corn, among other sacred and holy ceremonies, there was nothing reputed more religious than the bond of Confarration, in knitting vp of mariages, & assurance making of the chiefe priests: yea, the manner of the new wedded brides was to carry openly before them a wheaten cake. In times past, the Magistrates called Censors, iudged it a trespasse worthy of great rebuke, to be an il husband; that is to say, to be careless and negligent in tilling the ground. And as *Cato* reporteth, if men called one by the name of a good husbandman, they were thought to haue praised & commended him in the highest degree: hereupon also it came, that rich and substantiall men were termed in Latine, Locupletes, as one would say, Loci-pleni, [*i.* wel landed.] And as for the very word Pecunia in Latine, which signifieth money, it took the name of Pecus, (*i.*) cattell. And euen at this day (as appeareth in the Registers of the Censors, and the accounts of the city Chamber) all their rents, reuenues, and customes growing vnto the people of Rome, are called Pascua; for that a long time the whole domaine of Rome, stood vpon pasturage and nothing els. The penalties and fines also, which offendants were put to pay, were raised of nothing else but of Kine, Oxen, and Sheep: where, by the way, I cannot conceale from you the fauorable regard that the antient lawes and ordinances of Rome had; whereby it was expressely forbidden, That no Iudge who had power to enioine or impose any paine and amercement, should name the fine of an Oxe, vnlesse he had passed that of a Sheep first. The solemne games and plaies also in the honour of Kine and oxen, they who frequented them, called Bubetij. Moreouer, king *Seruius* at the first when hee made brazen coine, stamped the peeces with the portraiture of Sheepe, Kine, and Oxen. By the lawes of the twelue Tables, all persons whatsoeuer aboue foureteen yeares of age, were forbidden vnder pain of death, either by stealth, to feed their cattell in the night time vpon any corn-field of another mans, ploughed and sown; or to cut the same downe by syth or sickle at such a time, and in that manner. By the same laws also ordained it was, That whosoeuer was attaint or conuicted thereupon, should be hanged by the head and strangled for satisfaction of the goddesse *Ceres*: and in one word, to be more grieuously punished than in case of man-slaughter. But if the offender were vnder that age beforesaid, the same law prouided, that hee should be whipped at the discretion of the Pretor or Lord chiefe Iustice for the time beeing: or, if this punishment were remitted by the partie who sustained the domage, then hee should satisfie vnto him for the trespasse as a slaue, and pay double for the losse, according as honest and indifferent men valued it. Furthermore, in antient time, the distinction of States and degrees in the city of Rome (both for wealth and worship) was according to their lands, and not otherwise. Insomuch, as those citizens were reputed for chiefe and principall, who were possessed of Land and liuing in the Countrey: and these made the State, called the Rusticke Tribes, in Rome: whereas contrariwise the other estate, reputed

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A the meaner in degree, was named the Vrbane Tribes; conſiſting of Artiſans and ſuch like as were not landed perſons: into which, if a man were transferred from any of the reſt, it was thought a great ſhame and diſgrace, as if he were reproched for idleneſſe & negligence in huſbandry. And hereupon theſe foure Tribes alone took name of thoſe foure principall parts or quarters of the city wherein they were ſeated; to wit, Suburrana, Palatina, Collina, and Exquilina. Ouer and beſides, vpon faires and market daies, the Ruſtick Tribes vſually viſited the city: vpon which daies therefore no publick aſſemblies of the people were holden, to call the Commons away from their market affaires. Alſo the manner in thoſe daies was to take their ſleepe and repoſe in good ſtraw and litter. Yea, and when ſpeech was of glory and renowne, men would call it by no other term but Adorea, of Ador, a kind of fine red wheat. Where, by the way, I haue
B in great admiration the antique words of thoſe times, and it doth me good to think how ſignificant they were. For thus we read in the ſacred Pontificall Commentaries of the high prieſts, *For the Augurie or ſolemne ſacrifice called * Canarium, let there be certain daies appointed, to wit, before the corn ſhew eare out of the hoſe, yea, and before that it come into it.* But to return againe to the praiſe of Husbandry. When the world was thus addicted and giuen to Agriculture, Italy was not only well prouided and ſufficiently furniſhed of corne, without any help from out prouinces; but alſo all kind of grain and victuals were in thoſe daies ſo exceeding cheap, as it is incredible: for *Manius Martius* a Plebeian Edile of Rome, was the firſt man that ſerued the people wheat at one Aſſe the Modius: and after him *Minutius Augurinus*, the eleuenth Tribune of the commons (euen he who indited that mutinous and ſeditious citizen *Sp. Melius*) brought down the price of
C wheat for 3 market daies to an Aſſe the Modius. The people therefore of Rome, in regard of this good deed of his, erected a ſtatue for him without the gate Trigemina; and that with ſuch affection and deuotion, that euery man contributed ſomewhat thereto by way of beneuolence. *Trebius* alſo in the time of his Ædileſhip, cauſed wheat to be ſold vnto the people at the ſame rate; to wit, one Aſſe a Modius. For which cauſe, there were 2 ſtatues alſo in memorial of him ſet vp, both in the Capitoll and alſo in Palatium: and himſelfe when he was departed this life, had this honor done vnto him by the people, at his exequies, as to be carried on their ſhoulders to his funerall fire. It is reported moreouer, That in the very ſame yeare wherein the great goddeſſe *Cybele* (called alſo the mother of the gods) was brought to Rome, there was a more plentifull haruеſt that Summer, and corn was at a lower price than had bin known in ten yeares
D before. Likewiſe, *M. Varro* hath left in writing, That when *L. Metellus* made ſhew of ſo many Elephants in his triumph at Rome, a Modius of good red wheat, was worth no more than one Aſſe; alſo a gallon of wine coſt no more. And as for drie figges, thirty pound weight carried no higher price: and a man might haue bought a pound of Oile oliue, and 12 pound of fleſh at the very ſame reckoning. And yet all this plenty and cheapneſſe proceeded not from the great domaines and large poſſeſſions of thoſe priuate perſons that incroched vpon their neighbors, and hemmed them within narrow compaſſe. For by the law publiſhed by *Stolo Licinius*, prouided it was, that no Roman citizen ſhould hold in priuat aboue fiue hundred acres. The rigor of which law or ſtatute was extended and practiſed vpon the Law-maker himſelfe, and by vertue thereof he was condemned: who, for to poſſeſſe aboue that proportion, and to defraud the meaning of
E the ſaid Act, purchaſed more lands in the name of his Son. Loe what might be the proportion and meaſure of poſſeſſions allowed euen then, when as the State and Common-wealth of Rome was in the prime and began to flouriſh. And as for the Oration verily of *Manius Curius* after ſuch triumphs of his, and when he had ſubdued and brought vnder the obeiſance of the Roman Empire and laid to their dominion ſo many forrein nations; what it was, euery man knoweth, wherin he deliuered this ſpeech, That he was not to be counted a good man, but a dangerous citizen, who could not content himſelfe with a cloſe of ſeuen acres of ground. And to ſay a truth, after that the kings were baniſhed out of Rome, and their regiment aboliſhed, this was the very proportion of land aſſigned to a Roman Commoner. If this be ſo, What might be the cauſe of ſo great plenty & abundance aforeſaid in thoſe daies? Certes, this & nothing els, great LL. and
F generals of the field (as it ſhould ſeem) tilled themſelues their ground with their own hands: & the Earth again for her part, taking no ſmall pleaſure (as it were) to be eared and broken vp with ploughes Laureat, and ploughmen Triumphant, ſtrained her ſelfe to yeeld increaſe to the vttermoſt. Like it is alſo, that theſe braue men and worthy perſonages were as curious in ſowing a ground with corne, as in ordinance of a battell in array: as diligent (I ſay) in diſpoſing and ordering

* Made with a red dog to pacifie the Dog-ſtarre.

ring of their lands, as in pitching of a field: and commonly euery thing that commeth vnder G
good hands, the more neat and cleane that the vſage thereof is, and the greater paines that is taken about it, the better it thriueth and proſpereth afterwards. What ſhall we ſay more? was not [*C. Attilius*] *Serranus* (when the honorable dignity of Conſulſhip was preſented vnto him, with commiſſion to conduct the Roman army) found ſowing his own field and planting trees, whereupon he took that ſyrname *Serranus*? As for *Quintius Cincinnatus*, a purſeuant or meſſenger of the Senat brought vnto him the letters patents of his Dictatorſhip, at what time as he was in proper perſon ploughing a piece of ground of his owne, containing foure acres and no more, which are now called Prata Quintiana, [*i. Quintius* his medowes] lying within the Vaticane: and (as it is reported) not onely bare-headed was hee and open breaſted, but alſo all naked and full
„ of duſt. The foreſaid officer or ſergeant taking him in this maner, Do on your cloths ſir (quoth H
„ he) and couer your body, that I may deliuer vnto you the charge that I haue from the Senate
„ and people of Rome. Where, note by the way, that ſuch Purſeuants and Sergeants in thoſe daies were named Viatores; for that eftſoones they were ſent to fetch both Senatours and Generall captaines out of the fields where they were at worke: but now, ſee how the times be changed! They that doe this buſineſſe in the field, what are they but bond-ſlaues fettered, condemned malefactors manacled, and in one word, noted perſons, and ſuch as are branded and marked in their viſage with an hot yron? Howbeit the Earth, whom wee call our Mother, and whom wee would ſeem to worſhip, is not ſo deafe and ſenceleſſe, but ſhe knoweth well enough how ſhee is by them depriued of that honour which was done in old time vnto her: inſomuch, as wee may well weet, that againſt her will ſhee yeeldeth fruit as ſhee doth; howſoeuer wee would haue it I
thought, by theſe glorious titles giuen vnto her, that ſhe is nothing diſpleaſed therewith, namely, to be labored and wrought by ſuch vile and baſe hirelings. But we forſooth do maruell, that the labor of theſe contemptible bondſlaues and abiect villains doth not render the like profit, as that trauell in former times of great captains and LL. Generalls. And in very truth, euen among other forrein nations, it was counted a princelike profeſſion indeed, to be able for to giue rules and directions about Husbandry: for ſo we may ſee, that both kings haue ſtudied this argument, as namely, *Hiero*, *Philometor*, *Attalus*, and *Archelaus*: and alſo martiall captaines; to wit, *Xenophon*, and *Mago* the Carthaginian. As for *Mago* verily, our Senate did him that honour after Carthage was woon, that in ſacking it and giuing away among diuers LL. of Affricke, the Libraries there found; they thought good to reſerue only 28 volumes of his, and penned by K
him as touching Agriculture, and to haue them tranſlated into the Latin tongue (notwithſtanding that *M. Cato* had already beforetime put out in writing and ſet forth certaine rules & precepts therof:) giuing order for this tranſlation, to thoſe that were well ſeene in the Punicke or Carthaginian language: in which buſineſſe, *D. Syllanus* a Romane gentleman of a right worſhipfull houſe, went beyond all others. As for great ſchollers and men of profound and deep learning, a number there were beſides that trauelled in this matter, whom wee haue named already in the forefront; and eftſoones ſhall mention in the diſcourſe of this volume. In which range we muſt nominate not vnthankfully among the meaneſt writers, *M. Varro*, who beeing foureſcore yeares old and one, thought it not amiſſe to compile a ſpeciall booke and treatiſe of Huſbandry.

Chap. IIII. L

¶ *The manner of Husbandry in antient time.*

LAte it was ere the Romans began to ſet their minds vpon Vines and Vineyards: for at firſt they tilled only corne fields for very neceſſitie, euen as much as might ſuffice to ſerue the city. The order and manner whereof, I will ſet in hand to treat of; not after a vulgar and common ſort, but according to my vſuall manner hitherto more ſoundly: as hauing ſought out with all care and diligence, not only the antient practiſe in times paſt, but the inuentions alſo of late daies; & withal ſearched into the cauſes and reaſons of euery thing, and found them out. My purpoſe is beſides, to ſpeake in this treatiſe of the fixed Starres; their riſing and ſetting, M
their apparition and occultation, together with their influences, as they are vndoubtedly obſerued and ſeen here vpon earth. And this, my meaning is to do after a plain and familiar ſort, foraſmuch as they, who hitherto wrote of this argument, haue handled the ſame ſo ſubtilly, and penned

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A penned it with ſo high a ſtile,as they may ſeeme to any man for to haue written books for Oratours to reade,rather than to the capacity of plaine husbandmen for to practice. Firſt and foremoſt therefore,I will for the moſt part deale by Oracles,that is to ſay,ſententious Sawes,for to determine this queſtion in hand: concerning which, there are as many to be found in number, and thoſe as true in effect,as in any other part and profeſſion of this our life whatſoeuer. And leaſt any man ſhould think it ſtrange,that I cal theſe rules of Husbandrie,Oracles;who would take them for leſſe conſidering how they proceed from Time,a god moſt certaine,and are deliuered and approoued by Experience,the trueſt prophet of all others. And beginne I will with *Cato* firſt.

Chap. V.

B ¶ *The praiſe and commendation of Husbandmen: what things are to be required in the purchaſing or taking to ferme of houſe and land.*

THe children (ſaith *Cato*) that are begotten by husbandmen,proue moſt valiant,the hardieſt ſouldiers,and ſuch as thinke leaſt harme of all others. In buying of land, take heed you be " not too hot and eager vpon the purchaſe. In the husbanding of ground, ſpare for no paine " and trauell;but in the purchaſing therof be you nothing forward: a thing ouer-bought, hath e- " uermore repentance,and had I wiſt,attending vpon it. They that are about a purchaſe, ought a- " boue all,to ſee how the ground is watered,what waies and auenues be about it, and what neigh- " bors be neare vnto it. Out of euery one of theſe points, matters of great importance and deepe "
C concluſions may be picked,and thoſe moſt certaine and infallible. *Cato* addeth moreouer and ſaith,That there would be good regard had of the people confining, and other grounds bounding thereupon,whether they be well liking,faire, and trim to ſee vnto? For theſe be his words, It is a good ſigne(quoth he) that the ferm is well ſeated and in a commodious quarter, if all about looke well. *Attilius Regulus* (hee who during the firſt Punicke warre was twiſe Conſull of Rome) was wont to ſay,That a man ſhould not purchaſe an vnwholeſome piece of land, were it neuer ſo rich and fruitfull;nor make choice of a barren ſoile,were it neuer ſo healthie. Now as touching the healthfulneſſe of a place,a man may not alwaies conclude therof by the color and freſh hue of the inhabitants: for many times it falleth out, that thoſe who be vſed to peſtilent places,hold out well and haue their health;yea and by their lookes bewray no harme that they
D take. Moreouer,ſome quarters and coaſts there be,which at ſome times of the yeare ſtand ſound and healthy enough:but I will count none holeſome,but ſuch as be healthfull all the yere long. An ill piece of land is that,which putteth the lord thereof to pain,and with which he is forced to wreſtle for to haue his health. *Cato* would haue this point eſpecially to be conſidered,that the ſoile of a ferme (ſcituat as hath bin ſaid) be good of it ſelfe,and fertile: alſo, that neere vnto it there be ſtore of laborers: and that it bee not farre from a good and ſtrong towne: moreouer, that it hath ſufficient meanes for tranſporting of the commodities which it yeeldeth,either by veſſels vpon water,or otherwiſe by waines vpon the land. Furthermore, that the manour houſe be well built,and the land about it as well husbanded. Howbeit, herein I ſee many men to erre much,and greatly to be deceiued: for they hold opinion,that the negligence and il husbandry
E of the former lord,is good for him that ſhall purchaſe land and come after him. But I ſay,there is nothing more dangerous and diſaduantageous to the buyer, than land ſo left waſt and out of heart: and therefore *Cato* giueth good counſell, to purchaſe land of a good husband, and not raſhly and hand ouer head to deſpiſe and ſet light by the skil and knowledge of another. Who ſaith moreouer, That as well land as men(which are of great charge and expence) how gaineful ſoeuer they may ſeeme to be, yeeld not much profit in the end to the maſter *declaro*, when all counts be caſt and reckonings made. He therfere judgeth,that the Vine veeldeth the beſt reuenue,of all commodities belonging to a ferme: and good reaſon he hath ſo to ſay,becauſe aboue all things he taketh order to cut off expence as much as may be. Next to it,he reckoneth Hortyards,ſuch eſpecially as haue water at command: and good cauſe why, prouided alwaies that
F they lie vnder a good towne ſide. [In the third place he rangeth the Oſier plots, and after them Oliue rewes:] then he counteth of medows, which our anceſtors called Parata, as a man would ſay, Ready and prouided. The ſame *Cato* being asked, What was the moſt aſſured profit riſing out of land? made this anſwer, *To feed Cattell well*: beeing asked againe, What was the next? *Marie* (quoth hee) *to feed in a meane*. By which anſwers he would ſeeme to conclude, That the

moſt certain and ſure reuenue was that, which would coſt leaſt. Howbeit, this is not ſo generall G
a rule, but it may alter according to the diuerſitie of places, & ſundry occaſions occurrent. Herunto alſo is to be referred another ſpeech of his, That a good husbandman ought to be a ſeller, [and not a buyer:] as alſo, That a man ſhould make ſpeed in his youth, and not delay to plant and ſtocke his ground; but not to build thereupon, before it be well and throughly ſtored that way: and euen then alſo, he ſhould not be forward thereto, but take leiſure ere he be a builder: for it is the beſt thing in the world (according to the common prouerbe) To make vſe and reap profit of other mens follies: prouided alwaies, that a mans land be not ouer-built, leſt the expence of keeping all in good repaire, be chargeable and burdenſome. Now when there is a ſufficient and competent houſe builded thereupon, a good husband will vſe to repaire often thereunto, and take pleaſure ſo to do: and verily a true ſaying it is, That the lords eie is far better for H
the land, than his heele.

Chap. VI.

¶ *How to chuſe a conuenient place for to build a manour houſe in the country. Alſo certain rules obſerued in antient time, as touching Husbandrie and tilling ground.*

IN building vpon a mans land, this mean and moderation is commended, That the houſe be anſwerable in proportion to the ground: for as it is a bad ſight to ſee a large domain and circuit of ground without a ſufficient graunge or home-ſtal to it; ſo it is as great a folly to ouer- I
build the ſame, & to make a faire houſe where there is not land enough lying to it. Like as there were two men at one time liuing, who faulted diuerſly in this behalfe; to wit, *L. Lucullus* and *Q. Scæuola*, for the one was poſſeſſed of faire lands without competent building thereto, whereas *Lucullus* contrariwiſe built a goodly houſe in the country, with little or no liuing adjoyning to it: in which regard, checked he was by the Cenſors, for ſweeping more floures than he ploughed lands. Now in building, there would be art and cunning ſhewed: for euen of late daies *C. Marius* (who had bin ſeuen times Conſull of Rome) was the laſt man that built an houſe within the territory of the cape Miſenum, and he ſeated it ſo, as if he had pitched & fortified a camp right skilfully; in ſuch ſort, that when *Sylla* ſyrnamed *Fœlix* [*i.* Happy] ſaw his manner of building, he gaue out and ſaid, That all the reſt in compariſon of him, were blind beetles, and knew neither K
how to build nor to encamp. Well then, a houſe in the country would be ſet neither neere vnto a fenny and dormant water, ne yet ouer-againſt the courſe and ſtream of a running riuer: and yet what ſaith *Homer* beſides to this purpoſe? The aire and miſts (quoth he, and that right truly) ariſing from a great riuer betimes in a morning before day-light, cannot chuſe but be euer cold and vnholeſome. How then? mary if the country or climat be hot, an houſe muſt ſtand into the North; but in caſe the quarter be cold, it ought to affront the South: if the tract be temperate between both, it ſhould lie open vpon the Eaſt point, where the Sun riſeth at the Æquinoxes.

As touching the goodneſſe of the ſoile, and namely what ſignes and marks there be of it; although I may ſeem to haue ſufficiently ſpoken already, in the diſcourſe which I had of the beſt kind of ground, yet I am content to ſubſcribe to other tokens thereof deliuered by other men, L
and eſpecially by *Cato* in theſe words following: *When you ſee* (quoth hee) *growing vpon any land, ſtore of Walwort, Skeg trees, Brambles, the little wild Bulbous Crow-toes*, [called otherwiſe our Ladies Cowſlips] *Clauer-graſſe or Trifoile, Melilote, Oke, wilde Pyrries, and Crab-trees; know yee, that theſe doe ſhew a ground good for Wheat, and ſuch like white-corne.* So doth alſo the blacke mould and that of aſhes colour, teſtifie no leſſe. Where there is ſtore of chalke or plaiſter, the ground is not ſo fit for corne; for all kinde of chalke doth heat ouermuch, vnleſſe the ſame be very leane. The like doth ſand alſo, if it be not paſſing fine and ſmall. And the effects aboueſaid are much more ſeen in the plaines and champaine vallies, than vpon the hills and mountaines. Our anceſtours in old time thought it a principall point of Husbandry, not to haue ouermuch ground about M
one graunge: for they ſuppoſed more profit grew by ſowing leſſe, and tilling it better: of which mind I perceiue **Virgil* was. And to ſay a truth, confeſſe we muſt needs, That theſe large enclo- ſures and great domains held by priuat perſons, haue long ſince bin the ruine of Italie, and of late daies haue vndone the prouinces alſo thereto belonging. Six Land-lords there were and no more, that poſſeſſed the one moitie of all Africke, at what time as the Emperour *Nero* defeated

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A and put them to death. Where, by the way, I may not defraud *Cn. Pompeius* of the due glory anſwerable to that greatneſſe of his, who neuer in all his life would purchaſe any ground that butted or bordered vpon his owne land. *Mago* thought it no reaſon, but a very vngentle and vnkind part for the buying of land, to ſell a manſion houſe; and in his conceit, it preiudiced much the weale-publick. And verily this was the principall point that he recommended in the entrance of his treatiſe and rules ſet downe for Husbandry, ſo as a man might perceiue very euidently, that hee required continuall reſidence vpon the land. Next to theſe principles aboue named, great regard would be had in chuſing of good & skilful bayliffs of the husbandry, concerning whom *Cato* hath giuen many rules. For mine own part, it ſhal ſuffice to ſay thus much only, that the lord ought to loue his bayliffe very well, & ſet him next to his heart: but himſelf ſhould not
B let him know ſo much. Moreouer, I hold it the worſt thing that is, to ſet ſlaues & condemned perſons in their gyues & chains, about tilling and husbanding of a ferm: neither do I like of any thing don by ſuch forlorne and hopeleſſe perſons; for lightly nothing thriues vnder their hand. I would put down one ſaying more of our antient forefathers, but that haply it may ſeeme a fond & raſh ſpeech, yea and altogether incredible, & that is this, *Nothing is leſſe profitable, & expedient, than to labor a ground exceeding much, and to ouer-til it. L. Rarius Rufus*, a man of very baſe and low parentage deſcended, & yet aduanced to the Conſular dignity for his proweſſe in feats of arms; was otherwiſe very thrifty and ſparing, after the maner of the old world; inſomuch as partly by his niggardiſe and partly through the liberality of *Auguſtus Cæſar*, he had gathered good together amounting to the ſum of an hundred millions of Seſterces: all which maſſe of money,
C what with purchaſing land to land in the Picene country, and what with beſtowing ſuch a deale of husbandry vpon it, more ywis of a vain glory and oſtentation, than for any profit that he reaped thereby, he laid forth and ſpent euery whit of that ſtock; inſomuch as hardly he could finde any man that would take vpon him to be his executor, or to accept ſimply of the inheritance. What ſhall we ſay then? or what good commeth of ſuch houſes or lands ſo chargeable, as that they are like to coſt a man his life, and that by famine? I hold therfore, that in all things a mean is beſt, and bringeth greateſt profit in the end. To till and husband ground well, is neceſſary; to ouer-do the ſame and to exceed, turneth more to the damage than the profit of the lord, vnleſſe it were done by his own children, or to maintain the charge of keeping ſuch hinds as otherwiſe muſt be found if they ſat ſtill and did nothing: for ſetting that cauſe aſide, it falleth out often-
D times, that the gathering and inning of ſome harueſt (if a man count all the pains emploied and the mony of the purſe) is nothing beneficial to the maſter. In like maner, Oliues would not alwaies be tended and looked vnto ouermuch: neither do ſome grounds require much diligence, but are the worſe for ſuch attendance: as may be ſeen (by report) in Sicily; which is the cauſe that new commers thither for to be tenants, and to occupy thoſe lands, are many times deceiued and put beſides their reckoning.

After what manner then ſhall we proceed in the husbandry of our land to moſt benefit and behoofe? Learn a rule out of the Oracle or ſententious riddle, which goeth in this forme, *Malis bonis* [*i.* Cheapeſt, Beſt.] But herein, me thinks, good reaſon it is, that our old great grandfathers ſhould be defended and excuſed for holding theſe ſtrange and obſcure paradoxes; they (I ſay)
E who by ſuch rules and precepts, tooke great care and paines to inſtruct vs how to liue. Would you know then what they meant by this word *Malis*? ſurely they vnderſtood thoſe that were cheapeſt and ſtood them in leaſt. The chiefe point of all their prouidence and forecaſt, was to goe the neareſt way to worke, and to be at the ſmalleſt coſt: and no maruell; for who were they that gaue out theſe thriftie precepts? euen thoſe, who reproched a victorious General (and one who triumphed ouer the enemy) for hauing a cupboord of ſiluer plate weighing but ten pound: thoſe (I ſay) who if their bayliffes of husbandrie chanced to die, whereby their lands in the countrey ſtood void, would make ſuit to be gone themſelues thither, and to return to their own fermes; leauing behind them the glory of all their victories by them atchieued: and to conclude, euen thoſe who whiles they were imploied in the conduct of armies, had their grounds
F looked vnto and tilled at the charges of the common-weale, and had no other for their bayliffs than the noble Senators of Rome. From their mouths came theſe other oracles and wiſe ſentences following: An ill husband is he, who is forced to buy that, which his ferme might affoord him. As bad is that houſholder & maſter of a family, who doth that in the day which might be don by night, vnleſſe vnſeaſonable weather driue him to it: worſe than either of theſe is he, who

doth that vpon work-daies which ſhould haue bin done on play daies or idle holidaies: but the G
worſt of all other is he, who when the weather is fair, wil chuſe to work rather within cloſe houſe
than abroad in the open field: & here I cannot hold and rule my ſelfe, but I muſt needs alledge
one example out of antient hiſtories, whereby it may be vnderſtood, How it was an ordinary
matter to commenſe actions and to maintaine pleas in open court before the body of the peo-
ple in the caſe of Husbandry: as alſo in what ſort thoſe good Husbandmen of old time were
wont to defend their owne cauſe when they were brought into queſtion. And this was the caſe.
There was one *C. Furius Creſinus*, late a bond-ſlaue, and newly infranchiſed, who after that hee
was ſet at liberty, purchaſed a very little piece of ground, out of which he gathered much more
commodity than all his neighbors about him out of their great and large poſſeſſions: whereu-
on he grew to be greatly enuied and hated; inſomuch, as they charged him with indirect means, H
as if he had vſed ſorcery, and by charmes and witch-craft drawne into his owne ground that in-
creaſe of fruits, which ſhould otherwiſe haue growne in his neighbors fields. Thus vpon com-
plaint and information giuen, he was preſented and indited, by *Spurius Albinus*, an Ædile Cu-
rule for the time being: and a day was ſet him down peremptorily for his perſonal appearance
to anſwer the matter. He therfore fearing the worſt, and doubting that he ſhould be caſt to pay
ſome grieuous fine; at what time as the Tribes were ready to giue their voices, either to acquit
or condemne him, brought into the common place his plough, with other inſtruments and fur-
niture belonging to husbandry: he preſented likewiſe in the open face of the court, his owne
daughter, a luſty ſtrong laſſe and big of bone; yea, and (as *Piſo* telleth the tale) well fed, and as
well clad: he ſhewed there (I ſay) his tooles and plough yrons of the beſt making, and kept in I
as good order; maine and heauy coulters, ſtrong and tough ſpades, maſſie and weighty plough-
ſhares, and withall his draught Oxen, ful and faire. Now, when his courſe came to plead his own
cauſe before the people, and to anſwer for him ſelfe, thus he began and ſaid: My maſters (quoth
» he) you that are citizens of Rome, behold, theſe are the ſorceries, charms, and all the inchant-
» ments that I vſe (pointing to his daughter, his oxen & furniture abouenamed:) I might beſides
» (quoth he) alledge mine owne trauell and toile that I take, the early riſing and late ſitting vp ſo
» ordinary with me, the carefull watching that I vſually abide, and the painefull ſweats which I
» daily indure; but I am not able to repreſent theſe to your view, nor to bring them hither with
» me into this aſſembly. The people no ſooner hard this plea of his, but with one voice they all
acquit him and declared him vnguilty, without any contradiction. By which example verily, a K
man may ſoone ſee, that good husbandrie goeth not all by much expence: but it is pains taking
and careful diligence that doth the deed. And hereupon came the old ſayd ſaw, ſo rife in euerie
mans mouth, that the only thing to make ground moſt fertile and fruitfull, is the Maſters eie.
As for all other rules and precepts of Agriculture, reſpectiue to this or that peculiar point of
husbandry, I will deliuer them in their proper places accordingly. And in the meane time I wil
not omit ſuch as be more generall, as they ſhal come into my mind and remembrance. Firſt and
formoſt, there offereth it ſelfe to me one aboue the reſt, wherof *Cato* is the Author, and which of
all others I hold to be moſt profitable and founding to ciuilitie; to wit, that in all our doings we
» aime at this, To haue the loue and good will of our neighbors: and that for many and ſufficient
» reaſons by him alledged, which I ſuppoſe no man will make any doubt of. *Imprimis*, hee giueth L
» a good caueat, That our ſeruitors and people about vs be not ſhrewd, but well ordered, and that
» none of our family be ill diſpoſed to offer any wrong. *Item*, All good husbands agree in this, that
» nothing would be done too late and when the time is ouerhipt. And againe, That euery worke
» ſhould haue the due and conuenient ſeaſon: to the ſame effect there is a third admonition, name-
» ly, That when the opportunity is once paſt, in vain we ſeek to recall and recouer it. As touching
a rotten and putrified ground, we haue at large ſhewed already how much *Cato* doth abhor and
curſe it. And yet he ceaſeth not to forewarne vs of it, and beſides, to giue vs theſe rules follow-
ing. What work ſoeuer may be performed by a poore Aſſe, is thought to coſt little or nothing,
and to be done very cheape. Ferne or Brake will die at the root in two yeares, if you wil not ſuf-
fer it to branch and grow aboue ground: and this ſhall you hinder moſt effectually, in caſe you
knap off the head of the firſt ſpring with a wand or walking ſtaffe: for the liquid juice dropping M
downe from them, doth kill the root. It is commonly ſaid alſo, that if they be pulled vp about
the ſummer Sun-ſtead, they will not come againe but die: as alſo, if they be topt, or their heads
whipt off with a reed: or if they be eared vp with the plough, ſo as there be a reed faſtned to the

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A ſhare. Semblably, for to kill reeds, they giue order to plough them vp, with ſome Fern likewiſe laid vpon the ſhare. A ruſhie ground muſt be broken vp and turned ouer & ouer with the broad ſpade: but if it be ſtony, it would be digged with a mattock or two tined fork. Rough grounds and giuen to beare ſhrubs, if a man would ſtork, the beſt way is to burne them vp by the roots. If the place lie low, and be ouermoiſt, the onely meanes to make it ſound and drie, is to draine away the water by trenching. In caſe a ground doe ſtand vpon chalke or plaiſter, the ditches or trenches therin ſhould be left wide open: but if the ſoile be more looſe & not ſo faſt, they muſt be ſtrengthned and kept vp with quick-ſet hedges, for feare of falling: or elſe they ought to be made in ſuch ſort, as both the ſides thereof be well bedded and couched, bearing out a belly a-ſlope, and not digged plum downe-right. Some would be cloſed vp aboue and made very ſtrait
B and narrow, for to run directly into others that are more wide and large: alſo, if occaſion doe ſo require, the bottome of their channell would be paued with pebble, or laied with good grauell. As for the mouth and end therof (to wit, for entrance and iſſue) they ought both of them to be fortified and vnderſet with two ſtones at either ſide, and a third laied croſſe ouer them. Laſt of all, if a ground run to wood and be ouergrowne therewith, *Democritus* hath taught vs the means how to kill the ſame in this manner, Take Lupine floures, let them be ſteeped one whole day in the juice of Hemlock, and therewith beſprinckle and drench the roots of the ſhrubs that ouer-run the place, and they will die.

Chap. VII.

¶ *Sundry ſorts of corne, and their ſeuerall natures.*

C NOw that we haue thus ſhewed the way how to prepare a field for to beare corne, it remaineth to declare the nature of corne. And to ſpeake generally of all graine, there are two principall kinds thereof; to wit, firſt Fourment, containing vnder it wheat and Barley, and ſuch like: ſecondly, Pulſe, compriſing Beans, Peaſe, Chiches, &c. The difference obſerued both in the one ſort and the other, is ſo euident and plaine, that needleſſe it is for me to vſe any words thereof. And as for the former kind called Fourment, it is diuided alſo into ſundry ſorts, according to the ſeuerall ſeaſons wherein they be ſowne. Firſt there is the Winter corn, which being ſowed about the ſetting of the ſtar Virgilia, *i.* in Nouember, lieth all winter long in the ground and there is nouriſhed, as for example, Wheat, Rie, and barley. Secondly, Summer corne, which
D is put into the earth in Summer about the riſing of the foreſaid ſtar Virgilia, *i.* The Brood-hen, to wit, in May; namely, Millet, Panick, Horminum, and Irio (two kinds of grain.) But note that I ſpeak here of the manner vſed in Italy. For otherwiſe in Greece and Aſia, they ſow all indifferently at the retrait or occultation of Virgiliæ: and to come again to our Italy, ſome grain there is which is ſown there, both in Winter and Summer: as alſo, you ſhall haue other corne ſowed in a third ſeaſon; to wit, in the Spring. Some there be who take for Spring-corn, Millet, Panick, Lentils, cich Peaſe, and the grain wherof * Fourmenty is made. But Wheat, Barley, Beans, Na-
E uews, Turneps, and Rapes, they hold for Seméntina, *i.* to be ſowed at the proper and timely ſeaſon of ſeeds, *i.* in Autumne. In that kind of corne which comprehendeth Wheat, there is to be reckoned that grain which ſerueth for prouender and forrage, and is ſown for beaſts, & namely, that which they call dredge or ballimong. Likewiſe, in the other kind, to wit, of Pulſe, the Vetches be compriſed: but that which is good indifferently both for man and beaſt, is the Lupine. All ſorts of Pulſe called in Latine Legumina, vnleſſe it be the Bean, haue but one root apiece, and ſuch be as hard as wood, and full of ſhoots, and thoſe diuided into forked branches: and the roots of the cich Peaſe run deepeſt into the ground. But all other corne vnder the name of Frumenta, haue many ſmall fillets or ſtrings appendant to the roots, & otherwiſe branch not: as for Barly, it chitteth and begins to ſhew within 7 daies after it is firſt ſowne. All ſorts of Pulſe appeare aboue ground by the fourth day or the fift at the vtmoſt. And yet Beans ordinarily do lie in the ground 15 or 20 daies. Howſoeuer in Ægypt all Pulſe commeth vp by the third day. In Barly, one end of the ſeed runneth to root downward, and the other into blade, and that * bloo-
F meth firſt. Now, if you would know which end ſerueth for the one and the other; certaine it is, that the bigger and thicker part of the grain yeeldeth root, and the ſmaller the greene blade. In all other ſeeds there is no ſuch diuerſitie, for from one and the ſame end breaketh out both root and greene blade. All kind of corn carying ſpike or eare, called Frumenta, ſhew nothing but the green blade during winter: howbeit, no ſooner commeth the ſpring, but they begin to grow vp

* *Alica.*

* No maruell being ſowed before winter.

into ſtraw, and to ſpindle vpward pointwiſe, I meane all that be of the winter kind. But Millet G
and Panick run vp into an hollow ſtem full of knots and ioynts: and Seſama by it ſelf into a kex
or hollow ſtem in maner of fenell and ſuch like. The fruit or ſeed of all graine that is ſowne or
ſet, is contained within eares, as we ſee in (bearded) wheat and barley, and the ſame is defended
as it were with a paliſaide of eales, diſpoſed ſquare in foure rankes; or is incloſed within long
cods and husks, as the Pulſe kind; or els lieth in little cups, as Seſame and Poppie. Millet and
Panick only put forth their fruit grape-wiſe and openly, without any partitions and defences,
ſo as their ſeed is expoſed to the little birds of the aire: for no otherwiſe are they defended,
than within ſmall skins and thin huls. And as for Panick, it taketh the name of certain panicles
or chats hanging from the top thereof, whereby the head bendeth and leaneth downward, as if
it were weake and wearie of the burden. The ſtem or ſtalk thereof groweth ſmaller and ſmaller, H
and pointed vpward: inſomuch as by little and little it runneth vp in maner of a little ſprig, or
ſion, and there you ſhall ſee a number of ſeeds or grains cluſtered together thicke, inſomuch as
they are ſomtimes bunched with an head a good foot long. As touching the Millet, the head
thereof bearing ſeed round about is bent likewiſe and curbed, beſet alſo with fringes, as it were,
of hairy fillets. But to return to Panick againe, there be ſundry ſorts thereof: for ſome of it is
found with a tuft or bunch, from which depend certain ſmall cluſtered chats or panicles, & the
ſame alſo hath two knaps or heads, and this is called Mammoſum, as one would ſay, the Panick
with bigs or dugs. Moreouer, you ſhall haue Panick ſeed of ſundry colours, white, blacke, and
red, yea and purple. Of Mill or Millet there be diuers ſorts of bread made in many places; but
of panick it is not ſo common: howbeit there is no grain more ponderous and weighty than it, I
or which in the ſeething or baking ſwelleth and riſeth more; for, out of one Modius or pecke
thereof there is ordinarily made 60 pound of dough for bread. Moreouer, take but 3 ſextares or
quarts of it being ſteeped, and it will yeeld a meaſure called Modius, of thicke gruel or batter,
* i. Turkiſh Millet. called in Latine Puls. It is not fully ten yeres ſince there was a kind of * Millet brought out of
India into Italy, and the ſame was of colour black, the ſeed or grain in quantitie big and faire,
and for ſtem like vnto a reed. It riſeth vp in height ſeuen foot: the ſtalks are mighty and great,
ſome call them Lobæ or Phobæ. Of all ſorts of corne it is moſt fruitfull, and yeeldeth greateſt
increaſe: for of one grain a man ſhal haue 3 ſextars or quarts again. But it loueth, yea & ought
to be ſown in a moiſt ſoile.

Moreouer, ſome kinds of ſpiked corn begin to ſpindle and gather eare at the third ioynt, o- K
thers at the fourth: but there it lieth as yet hidden and incloſed. Now as touching theſe ioints,
wheat beareth vſually foure, beere Barly ſix, and the common ſprit Barly eight, which is wel to
be conſidered: for no corn vſeth to ſpier before it be fully knotted or iointed in maner aboue-
ſaid. And ſo ſoon as the ſaid ſpier ſheweth ſome hope of an eare, within 4 or fiue daies after at
the moſt, they begin to bloum: and in as many dayes ſpace, or little more, they will haue done
and ſhed their floures. And yet I muſt needs ſay, that all ſorts of barley are a ſeuen-night at the
vtmoſt in ſo doing. *Varro* ſaith, that in foure times 9 daies this kind of corn commeth to perfe-
ction: but it ought to ſtay nine moneths before it be ripe for to be reaped and mowne downe.
As for Beanes, after they be ſet or caſt into the ground, firſt they put forth leafe, and afterward
ſtalk, that ſhooteth vp euen, without any partition of ioynts or knots between. All other pulſe L
beſides the Bean, haue a more ſollid and wooddy ſubſtance in the ſtraw. Of which, the Chich
peaſe, the Ervile, and Lentils doe ſpred forth in branches. And ſome of them runne ſo low that
they creep along the ground, vnleſſe they be born vp and ſupported with ſome props, as for ex-
ample Peaſe, which help if they miſſe they proue the worſe for it. Of all manner of Pulſe, the
Bean alone and Lupine beare but one ſingle ſtalke apiece: the reſt doe branch into very ſmall
ſprigs or tendrils. Howbeit none of them but their ſtalke or ſtraw is fiſtulous and hollow in
maner of reeds. Some pulſe put out leaues preſently from the root: others again from the top
or head only: wheat and Barly both the one and the other: and what corn ſoeuer ſtandeth vp-
on a ſtalk, beareth one leafe in the head or top thereof. But the leaues of Barly are rough, wher-
as in other corn they be ſmooth. Contrariwiſe, Beanes, Chiches, and Peaſe haue many leaues.
In ſpiked corn the leafe reſembleth that which groweth to reeds: in beans they be round, and M
ſo likewiſe in the moſt kinds of puls, howbeit in peaſe and Ervile we ſee they be ſomwhat lon-
ger. The leaues of Faſels or Kidney beanes are ribbed and full of veines: of Seſama and * Irio
* i. Turkiſh corne. they be red and reſemble bloud. The Lupines only and the Poppies do ſhed their leaues. All

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A pulſe is long in the bloom, and namely Ervile and the Cich peaſe: but Beans continue longeſt, euen for the ſpace of 40 daies together: howbeit euery ſingle ſtalk beareth not bloom ſo long: but thus it is, as one hath done and giuen ouer, another beginneth afreſh. Neither bloometh the whole field at once, as ſpiked corn doth. Alſo, all kinds of Pulſe doe cod at ſundrie times, and not vpon the ſame day: beginning firſt at the bottome, and ſo likewiſe the floure riſeth vp higher by little and little. All corne growing in ſpike or eare, ſo ſoone as it hath done blooming, waxeth big and ſtrong, and commeth to maturitie within forty daies at the fartheſt: ſo doth Beanes alſo: but the Cich peaſe receiueth her full perfection in very few daies: for from the time that it was firſt ſowed, it groweth to be ripe in forty daies. Millet, Panick, Seſame, and all Summer corn, haue their full ripeneſſe forty daies after their blooming. But herein there is
B great diuerſitie, according to the clyme and the ſoile: in which reſpects corne ripeneth ſooner or later. For in Ægypt Barley is readie to be reaped in the ſixt moneth after it was ſowne, and Wheat in ſeuen: but in the region of Hellas in Greece, the Barley tarieth ſeuen moneths; and in Peloponneſus or Morea, eight. As for wheat and ſuch like hard corne, longer it is ere it be ripe and ready for the ſycle. All Corne that groweth aloft vpon a ſtalke or ſtraw, beareth the graines arranged ſpikewiſe, and as if they were plaited and braided like a border of haire. In Bean ſtalks and other ſuch like pulſe, the cods grow in alternatiue courſe, ſome on the right ſide, others on the left, in order. Wheat and ſuch like ſpiked corne withſtand the winter cold better than Pulſe: but theſe yeeld a ſtronger food, and fill the belly ſooner. Wheat, Rie, and ſuch like grain are well wrapped within many tunicles. Barley for the moſt part lieth bare and
C naked: ſo doth Arinca [*i.* a kind of Rice or Amel corn] and Oats eſpecially. The ſtraw of wheat and Rie is commonly taller than that of Barly. But the eiles of Barley are more rough and prickie than thoſe of the other. Pol-wheat both red and white, yea and Barley alſo, is threſhed and driuen out of the huſk vpon a floore, and being thus threſhed clean and pure, it is either ground or ſowne againe without any parching or drying in a furnace. Contrariwiſe, the Beare corne or Bearded wheat, Far, Millet, and Panick, cannot poſſibly be made clean, vnleſſe they be firſt ſendged and ſo dried. Theſe ſorts of graine therefore vſe to be ſowed raw and rude with their very huls: like as the Beare corn or bearded Far men are wont to keep ſtill incloſed within the huſk againſt ſeed time, and neuer parch or dry it at the fire. Of all the ſorts of grain before reheaſed, Barley is the lighteſt; for a Modius or pecke thereof ſeldome weigheth aboue 15 pounds,
D whereas the like meaſure of Beans poiſeth 22. The bearded corne Far is yet more ponderous than it; and Wheat more than all the reſt. In Ægypt they vſe to make certain frumenty meat or naked grotes of a kind of Rice or white Amel-corn, called Olyra, which is among them holden for the third ſort of Spike-corne. In Gaule likewiſe they haue a kinde of frumentie corne or gurts by themſelues, named in their language Brance, and with vs in Italy and about Rome, Sandalum: this grain is of all others moſt neat and faire, and this ſingular propertie it hath beſides different from the reſt, That ordinarily in euery meaſure called Modius, it yeeldeth more bread by foure pound weight than any other corne husked and dreſſed in maner aforeſaid. *Verrius* reporteth, That the people of Rome for 300 yeares together vſed no other meat than the grotes made of common Wheat. And as touching Wheat, there be many ſorts therof, diſtin-
E guiſhed by the names of the Regions and countries where they be found growing. Howbeit for my part I thinke verily, that there is no wheat in the world comparable to ours here in Italy, for it ſurpaſſeth all others both in whiteneſſe and alſo in weight: by which two marks eſpecially, as it is knowne from the reſt, ſo it is reputed for the very beſt. And if you take the wheat growing in the mountain countries of Italy, the beſt haply of forrein regions may match it, and that is the wheat of Bœotia: the principall of all others next to it, is that which growes in Sicily; and then that of Africk may be ranged in the laſt place: in a third rank is to be reckoned the Thracian and Syrian Wheat, and after them the Ægyptian, in regard of the weight that it carieth. Now theſe degrees of weight we gather by the proportion aſſigned to champions and wreſtlers, whoſe allowance was much like to the liurie giuen to laboring horſes, and as much in
F maner would their paunches both require and receiue: for according as they could eate of the one ſort more meaſures than of the other, * ſo aroſe theſe diſtinct degrees in the weight aboue ſaid. The Greeks make great account of the Wheat growing by Pontus, and highly commend it: but this neuer came into Italy, neither know wee what it is. The ſame Grecians preferred before all other grain, theſe three ſorts, to wit, Dracontias, Strangias, and Selinuſium; eſteeming

* For whereas of the Athenian Wheat, fiue demy Sextars, (*i.* two quarts and a halfe) were but ſufficient, three would ſerue and content them of the Bœotian (*i.* a quart & halfe: wherby it was collected, how much weightier this was than that.

ming the goodneſſe of the corn by the thickneſſe and bignes of the ſtraw, and attributing theſe three kinds by that ſigne and argument, to the goodneſſe and riches of the ſoile: and therefore they preſcribed to ſow this corn in a fat and battle ground. But the lighteſt in weight and pooreſt in ſubſtance, becauſe it required much nutriment, they appointed to be ſowed in moiſt places. Of this opinion and iudgment were the antient Greeks, during the reign of *Alexander* the Great, at what time as Greece was in the floure and height of her glory, as hauing the monarchie and ſoueraigntie ouer the whole world. Howbeit, before his death 145 yeares or thereabout, *Sophocles* the Poet in a Tragedie entituled Triptolemus, praiſed the Italian wheat aboue all other: for in effect thus he ſaith word for word; G

Et fortunatam Italiam frumento canére candidò. H

And Italy, a land (I ſay) ſo happy and ſo bleſt,
Where ſtand the fields all hoare and gray with white Wheat of the beſt.

And in very truth our Italian wheat at this day carieth the name alone in that regard. I wonder therefore ſo much the more at the modern Greeks of late time, who made no mention at all of this our wheat. Now at this preſent, of all thoſe kinds of outlandiſh wheat which are tranſported by ſea into Italy, the lighteſt is that which commeth out of France and Cherſoneſus, [*i.* the ſtreits of Callipolis] for a Modius or peck thereof containeth not aboue 20 pound weight, weigh the very graine it ſelfe as it groweth, vncleanſed, huske and all. The Sardinian wheat is more weighty than it by halfe a pound in a Modius. And that of Alexandria exceedeth the I
* *i.* 4 ounces. French halfe a pound and * one third part, in euery meaſure before named. And this is the very poiſe alſo of the Sicilian wheat. The Bœotian is yet a full pound heauier: and that of Africk
* *i.* 9 ounces. as much, and * three fourth parts of a pound more. In Lombardy & that tract of Italy beyond the riuer Po, I know ful wel that a Modius of their wheat weighed 25 pounds; and about Cluſium 26. But be the corne whatſoeuer it will, this is the ordinarie proportion by the courſe of Nature, that being made into down-right houſhold bread for ſoldiers, and to ſerue the campe, it ought to weigh as much as it did in corne, and one third part ouer and aboue. As alſo this is a rule, That the beſt Wheat is that which to euerie Modius will take and drink vp a gallon of water ere it be made dough. And yet ſome kindes of Wheat there be that will yeeld the full weight aforeſaid in bread, and neuer count the water going thereto, & namely that which commeth out of the Balear Iſlands; for a Modius of that wheat yeeldeth in bread 30 pound weight: yet otherwhiles it falleth out in ſome kinds of wheat (being blended two ſorts together, as namely that of Cyprus and Alexandria, whereof neither exceed little or nothing more than 20 pound weight to the Modius) that the bread made thereof will ariſe to the ordinary proportion: for the Cyprian wheat is not bright, but brown and duskiſh, and therefore makes a blacke kind of bread; in which regard the Alexandrian wheat, which is faire and white, is mixed with it, and ſo both together do yeeld in bread 25 pound weight. The wheat of Thebes addeth a ſurpluſage thereto of one pound.

As for the maner of working and kneading dough, I like not their faſhions who take ſea water for that purpoſe, as moſt do that inhabit the ſea coaſts, thinking thereby to ſaue the charge of ſalt; for I hold this very hurtfull and dangerous. Neither doe I thinke, that vpon any other L
cauſe mens bodies are made more ſubiect to maladies, than by this means. In France & Spain,
* *Zythum & turmi.* when the Bruers haue ſteeped their wheat or frument in water, and maſht it for their * drink of diuers ſorts, as heretofore hath bin ſhewed; they take the * skum or froth that gathereth aloft
* Yeſt or barm by the working of the wort, and vſe the ſame in ſtead of leuen for to make their bread; which is the reaſon that their bread is lighter and more houved vp than any other.

Moreouer, there is great difference in wheat by reaſon of the ſtraw or ſtalk that bears it: for the thicker that it is and more full, the better is the corne taken to be. The Thracian wheat is incloſed and well clad (as it were) with many tunicles and coats; throughly prouided by that means (and good cauſe why) to reſiſt the exceſſiue cold of that climat; which gaue the Thracians iuſt occaſion alſo to caſt about and deuiſe to haue a kind of wheat that remaineth vpon the M
ground not aboue three moneths, by reaſon that the ſnow ouerſpreadeth the face of the earth all the yeare beſides: and verily this kinde of corne is come into other parts of the world, and lightly within three moneths after it is ſowed, you ſhall haue it readie to bee reaped. A practiſe

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A &iſe well knowne all the Alpes ouer, and in other cold and winterly regions, where (by report of the inhabitants) this kind of corne doth wondrous well, and none proſpereth better or groweth more ranke than it. Ouer and beſides, there is another kind of wheat that putteth vp from euery root one ſtalk and no more in any place whatſoeuer: the manner is to ſow it in no ground but that which is light, and it neuer miſſeth. Alſo about the Thracian gulfe, there is wheat that within 40 daies after the ſowing, will be ripe, and therupon it is called the Two-month wheat. And would you heare a wonder? there is no wheat more weighty than it, and beſides it yeelds no branne at all. In Sicilie and Achaia both, there is great vſe thereof, and namely among the mountainers of thoſe two countries. Much ſeeking alſo there is after that corne in the Iſle Euboea, about Caryſtus. See how much *Columella* was deceiued, who thought that there was not to
B be found ſo much as any kind of three months wheat: whereas it is plaine, that ſuch hath beene of old and time out of mind. The Greeks alſo haue a proper name for it, and call it Trimenon. Furthermore, it is reported, that in the countrey Bactriana, there is ſome corne of that bignes, that euery graine is full as much as one of the eares of ours.

But to returne againe to our husbandry; of all ſpiked corne, Barley is ſowed firſt: but I purpoſe to ſet down the very juſt time and ſeaſon apropriat to each kind, according to the ſeueral nature of euery ſort, which my meaning alſo is to declare. Mean while I canot omit, that there is among the Indians, barley both ſowne and alſo wild, whereof they make the beſt bread that they haue. As for vs Italians (to ſay a truth) we ſet moſt ſtore by rice, wherof (being husked and cleanſed) we make grotes, like for all the world to thoſe which other men beſides doe make of
C barley husked. The leaues verily that this graine Rice doth beare, be pulpous and fleſhy, reſembling Porret or Leeks, but that they be broader: the ſtem groweth a cubit high, the floure is of purple colour, and the root round like a jem or pearle.

Barley [husked] was the moſt ancient meat in old time, as may appeare by the ordinarie cuſtome of the Athenians (according to the teſtimonie of *Menander*) as alſo by the addition or ſirname giuen to ſword-fencers, who vpon their allowance or penſion giuen them in barly, were called Hordearij, [*i.* Barley-men.] The ordinarie drie grout or meale alſo Polenta, which the Greeks ſo highly commend, was made of nothing els but of barley: and the preparing thereof was after ſundrie waies. The manner that the Greeks vſed, was firſt to ſteepe the barly in water, and giue it one nights drying; the morrow after they parched or fried it, and then ground it in
D a mill. Others there be, who (when it is well fried and parched hard) beſprinckle it once againe with a little water, and then dry it before it be ground. There are ſome again, who take the ears of barley when they are green, beat & driue the corn out, and while it is freſh and new, cleanſe it pure; which don, they infuſe it in water, and while it is wet, bray it in a mortar: then, they waſh it well in oſier paniers, and ſo let the water run from it; and beeing dried in the ſun, they pound or ſtamp it againe; and beeing throughly husked and cleanſed, grind it into meale as is aforeſaid. Now when it is thus prepared one way or other, to twenty pound of this barley they put of Line ſeed three pound, of Coriander ſeed halfe a pound, of ſalt about two * ounces and two drams: and after they haue pearched them all well, they blend them together and grind them in a quern. They that would haue this meale to keep long, put vp into new earthen veſſels al to-
E gether both floure and bran. But in Italy they neuer vſe to ſteep or ſoke it in water, but preſently parch it, and grind it ſmal into a fine meale, putting thereto the former ingredients, and the graine of Millet beſides.

* *Acet. Hilum.*

As for bread of Barley, ſo much vſed of our forefathers in old time, the poſterity that liued after, found to be naught and condemned it: in ſuch ſort, as they allowed it for prouender only to feed their beaſts and cattel with. But in ſtead therof came vp the vſe of * husked barly to be ſodden for grewell; ſo highly commended as a moſt nutritiue and ſtrong meat; and withal, paſſing wholeſome for mans bodie: inſomuch as *Hippocrates* (who for skill and knowledge was the prince of all Phyſicians) hath written one whole booke in the praiſes onely of it. Now the beſt Ptiſana or husked barley, is that which commeth from Vtica. As for that which wee haue from
F Ægypt, it is made of the flat barley which groweth vpon the eare in two ranks or ſides only. *Turannius* ſaith, That in the realms of Granade, Andaluſia, and Africk, the barley wherof the ſaid Ptiſane is made, is ſmooth and naked in the eare without eiles or beard at all. He alſo is of opinion, that Rice and the graine Olyra, are all one. The manner of preparing husked barley and making Ptiſana is ſo commonly knowne, that I need not to ſay a word thereof.

* *P. iſand.*

As

As for Tragum, it is a kind of Ptiſane, made of Wheat, after the ſame order that the former of Barley. Howbeit, there is none of it to be found but in Ægypt and Campaine. Touching Starch-floure called Amylum, it may be made of all kinds of wheat, and of the fine corne Siligo, *i.* Winter wheat: but the principall is that which they make of the three-month or ſummer wheat. We are beholden to the Iſland Chios for the inuention of Starch: and euen at this day, the very beſt is that which commeth from thence: called it is in Greek Amylum, becauſe it neuer came into the mill, nor was ground vpon ſtones. The next to it in goodneſſe, is made of a certaine Summer Wheat that is nothing ponderous and weightie. The way to make it, is to ſteep the wheat within certaine cooperie veſſels, made of wood, in freſh water ſo much as will couer it wel. But it would not be forgotten, that the water muſt be changed fiue times in a day: and if it were ſo ſerued alſo in the night, it would be the better, to that end, that beeing thus ſoaked and ſoftened, it might be well mixed and incorporated, yea, and reſolued (as it were) into a kind of paſt, before that it become ſoure and bitter. This beeing done, it muſt be laid to drie either vpon linnen cloths, or elſe in twiggen paniers, that the liquor which is therein may draine away: afterwards vpon tiles, beſmeared ouer with ſome leauen, it is poured forth to take the Sunne, to drie and harden againſt it. After the Chian Starch, that of Candie is moſt eſteemed and liked of: and laſtly, that which commeth out of Ægypt. The good Starch outht to be light, ſmooth, and euen, and withall, freſh made: for thoſe properties hath *Cato* ſet downe alreadie.

To returne againe vnto our Barley: the meale thereof is of great vſe here with vs in Phyſick. And that which more is, a ſtraunge effect it worketh in Horſes, Aſſes, and ſuch like labouring beaſts: for take Barley when it is dried and hardened at the fire, grind it to meale, reduce it into a paſte, and make thereof gobbets: let theſe be put downe by a mans hand into their bellie, after the manner of cramming Pullen, and you ſhall ſoone ſee, that this food and manner of feeding, ſhall make the beaſts more ſtrong and luſtie, and their fleſh more faſt and compact.

As for Barley eares, ſome there be which haue but two rankes or rewes: others againe haue more, euen to the number of ſixe. In the very graine alſo there is much difference: for there be many of them longer than other, lighter, ſhorter, rounder, whiter, blacker, and laſt of all, enclining to a reddiſh or purple color. This is the worſt of all others for to make drie Grout or Polenta: and as for the white, it is beſt for that purpoſe, but will not abide any tempeſtuous or hard weather. And to ſay a truth, of all corne, Barley is the ſofteſt and tendereſt, and will leaſt endure any hardneſſe: It would not be ſowed, but in a drie and fine ground, laid light, and brought into temper: howbeit, good it muſt be, and well in heart. The chaffe and pugs that come of Barly, is ſuppoſed to be as good as the beſt: but for ſtraw it hath no fellow, eſpecially to make litter of. Moreouer, in this regard, Barley of all other graine, is leaſt ſubject vnto blaſting, for lightly it is cut downe before Wheat is mieldeawed. And therefore it is, That the wiſer ſort of huſbandmen in the countrey, ſow no more Wheat than will ſerue for the prouiſion of their houſe only. Furthermore, they ſay, that Barley is ſowed with the rake, namely, when the mould lightly couereth it: and therefore it commeth vp ſooneſt, and bringeth moſt encreaſe and plentie. That which is gathered at Carthage in Spaine, within the moneth of Aprill, is ſowed the very ſame moneth in Celtiberia, ſo as in one yeare it yeeldeth two crops. It is no ſooner ripe, but they make greater haſt to cut it downe, and to inne it, than any other corne: for the ſtraw is very brittle, and the huske which contains the grain is as thin and ſmall. To conclude, it is thought to yeeld the better groats if it be taken whiles it is ſomwhat green, rather than if it ſhould haue the full ripeneſſe.

Chap. VIII.

¶ *That all kinds of Wheat or Fourmenty corne grow not indifferently in euerie place. Alſo, of other ſorts of corne in the Leuant or Eaſt countries.*

You ſhall not find in all places the ſame kinds of Wheat: and where you meet with the very ſame, yet they bear not one name, but haue ſundry appellations. The red bearded wheat named in Latin Far, and which in old time they called Adoreum; the winter wheat Siligo, and the

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A the ordinarie white Fourmentie wheat Triticum, are the commoneſt of all others. And indeed theſe grow all in moſt countries. As for Arinca it loueth Gaule beſt, and that is the natiue and proper country for it. Howbeit there is plenty thereof in Italy alſo. As for Zea, Olyra, and Typhe, there be ſundry ſorts of wheat and Rie peculiar and appropriate to Ægypt, Syria, Silicia, Aſia, and Greece. The Egyptians make of their wheat a kind of floure or ſifted meale, but nothing comparable to the Italian. They that vſe Zea or Spelt haue not the fine red Wheat Far. And yet we are ſtored therewith in Italy, and moſt of all in Campain, where it is called by the generall name of Seed: which name no doubt was giuen vnto it for excellencie and ſingularitie, as ſhall be ſhewed anon more at large. This is the very grain for which *Homer* the poet called the earth, ζείδωρον ἄρουραν, *i.* yeelding the corn Zea: and not becauſe ſhe giueth life to all liuing
B creatures, as ſome would haue to be meant by that Epithete. Thereof is made alſo a kinde of ſtarch, but groſſer than the former, whereof we ſpake before: for no difference is there els. Of all kinds of wheat, Far (which is taken for the red bearded wheat) is moſt hardy, and beſt reſiſteth winter cold: it will wel abide the coldeſt ſoile that is, and that which is leaſt labored and tilled: it may endure alſo hot and dry places: it yeelded the firſt food and meat to our antient forefathers in Latium; as may appeare by this good argument, that publique preſents and rewards by way of remuneration were giuen of Far, which they called Adorea, as hath beene ſaid before. Moreouer, that the Romans for a long time liued of a kinde of batter or gruell made of meale ſod, and not of bread, is very euident by old records and Chronicles: for euen at this day ſuch thick gruels or pottage be called Pulmentaria in Latine. And *Ennius* a moſt antient poet,
C when he would expreſſe the famin of a city that had endured long ſiege, reporteth, that the parents took by force from their children their ſops, notwithſtanding they cried pitteouſly for very hunger. Moreouer, euen in our time wherein we liue, the ſacred and ceremonious feaſts by vs obſerued in memorial of our birth daies and natiuitie, ſtandeth much vpon furmenty, gruel, fritters, and pan-cakes. It ſeemeth alſo, that our gruels and ſuch like pottage were as much vnknown to Greeks, as their Polenta or dried groats were ſtrange to vs here in Italy. There is no corn more hungry and greedy of nouriſhment than Seed [wheat;] or that draweth more vertue and fat out of the earth for nutriment. As touching the winter grain, called in Latine Siligo, I may be bold to ſay, it is the daintieſt and moſt delicate wheat that is, for whiteneſſe, mildneſſe, and lightneſſe. It agreeth wel with moſt countries, ſuch as Italy is, and that part of Gaul cal-
D led Comata, *i.* Lumbardy Beyond the Alps alſo in Sauoy only, and the territorie of the Meninians, it will endure and hold the owne very well. Mary in other parts of that countrey, within two yeares it turneth into the common wheat. The only remedy therefore is, to chuſe forth the heauieſt and weightieſt cornes, and them to ſow.

Chap. IX.

¶ *Of Paſtry, of Grinding, and of Meale.*

THe beſt manchet bread for to ſerue the table, is made of the winter white Wheat Siligo, and the moſt excellent works of paſtrie likewiſe are wrought thereof. And yet in Italie
E it paſſeth all the reſt, in caſe that of Campain bee blended with another ſort which doth grow about Piſæ: for the Wheat of Campaine is redder, but this of Piſæ whiter: and more weighty it is, if it come from a chalky ground, or haue chalk mingled among. Moreouer, this is the ordinary proportion, that of the very pure corn of Campain wheat, which they cal guelded, *i.* wel husked and clenſed, a meaſure named Modius ſhould yeeld four Sextars or quarts of fine meale: but of the vulgar and common grain, which is not ſo guelded, 5 ſextars, and half a Modius beſides of bolted floure: and for a courſer houſhold bred, which they call the ſecond bread, 4 ſextars of meale, and as many of brans. Alſo of the Piſane wheat, one Modius ſhould yeeld fiue ſextares of good meale, and the reſt equall to the former. As for the Cluſine and Aretine wheat, in euery Modius it anſwereth again ſix ſextars of meale, that is to ſay, one more than the
F reſt: otherwiſe they be all alike. Now if you liſt to range and boult it for cork flower to make bread, ye ſhall haue of manchet 16 pound, of courſe houſhold bread three, and halfe a Modius of brans. But this proportion doth not alwaies hold, for it altreth according to the good or bad grinding vpon the mill: for that which is ground dry rendereth againe more meale: but if it be wet or beſprinckled with ſalt water, it maketh the fairer meale, and fuller of fine flower: and

then ſhall ye haue more go away in brans. As for the word Farina in Latine, *i.* meale, it is deriued of Far, which in old time was the beſt & fineſt red wheat, as may appeare by the very name that it carieth. Finally, a Modius of meale comming of the French Siligo, called Blancheen, or Ble-blanch, maketh in bread 22 pound weight: but of our Italian, 3 or 4 pound more in bread pan-baked: for what corn ſoeuer it be, there muſt be allowance of two pound vantage ouer and aboue, for ouen-baked bread. G

Chap. X.

¶ *Of the meale called Similago: of the white flower Siligo. Of other ſorts of Meale. and of the maner of baking.*

H

THe beſt meale of that kind, which they call in Latine Similago, is made of the common wheat. If the corne come out of Africk, it yeeldeth ordinarily for euery Modius, half ſo much in ordinarie meale, and fiue ſextars beſides of flower called Pollen: [for that is the Latine tearme which they vſe in the fineſt of the common wheat Triticum, proportionable to that which in the other winter wheat Siligo, they call Flos. And great vſe herof there is in copper-ſmiths forges, and in work-houſes where paper is made.] Ouer and beſides, of courſer grodgeons for brown bread foure ſextars, and as much of brans. Moreouer, the ordinarie proportion goeth thus, that of one Modius of the fine meale Similago, there ſhould be made 122 loues of bread: & that a Modius of the pure flower of Siligo ſhould yeeld 117. As touching the price, thus it goeth commonly in the market one yere with another, when corn is at a reaſonable and indifferent rate: A Modius of down-right meale is worth *40 Aſſes: but if the meale be ſifted and ranged from the groſſe brans vntill it be Similago, it will coſt eight Aſſes more: and if it be boulted yet finer to the nature of the fine flower Siligo, the ouer-deale in the price wil be double. Another diſtinction or difference there was known of this proportion, when a Modius comming of wheat of Similago, was ſeen to anſwer 17 pound in bread: and as much of Wheat flower called Pollen, thirtie pound and foure ounces: beſides, for ſecond houſhold bread, two pound and a halfe; and of the courſeſt or browneſt as many, and ſix Sextars ouer and aboue of brans. I

*i. 2 ſh. 6 d.

But to return to our winter white wheat called Siligo, it neuer ripens kindly & all together, as other corn doth: and for that it is ſo tender and tickliſh, as that no corn wil leſſe abide delay and tarry on worſe, great heed muſt be taken thereof; for ſo ſoone as any is ripe, preſently the ſeed ſheds and falls out of the eare. Howbeit, leſſe danger is it ſubiect vnto whiles it ſtandeth in the field, than other kindes of wheat, for it beareth alwaies an vpright ſpike or eare: neither wil it hold and retain that mildew which blaſteth corn ſo much, and turneth it into black pouder. As for that kind of corn which they call Arinca, it maketh the ſweeteſt bread: the grain it ſelfe is more faſt & ful than the fine red wheat Far, it carieth a bigger eare, and is beſides more ponderous and weighty. Seldom is it ſeen, that a Modius of this grain maketh full 16 pound. In Greece they haue much ado with it, to threſh it cleane and falter it from the huls and eiles. For which cauſe *Homer* ſaith, that they were wont to giue it as prouender to horſes, and ſuch labouring garrons; and the very ſame it is which he calleth Olyra. Howbeit this corn in Ægypt goeth out eaſily vnder the flaile, is better to grind, and withal yeeldeth better, and is more fruitfull. The Red-wheat called Far is polled wheat [in Ægypt] and carieth no beard or eiles about it. So is the white winter Wheat Siligo, ſaue onely that which is named Laconica. To theſe may be adioyned other kinds alſo, to wit, * Bromos, the poll wheat Siligo, (differing from all the other of that name) and Tragos: ſtrangers all brought from the Levant or Eaſt parts, and reſembling Rice euerie one. Typhe likewiſe is of the ſame kind, whereof in Italy and this part of the world is made that husked corne which goeth among vs for Rice, for it turneth into it. The Greeks haue a kind of wheat called Zea or Spelt: & it is commonly ſaid, that both it and Typhæ (conſidering that they vſe to degenerate and proue baſtard) will turne to their kinde again, and become wheat, if they be husked before a man ſow them: howbeit this change will not be ſeen preſently, nor before the third yeare. As touching our common wheat, there is no grain more fruitfull than it: this gift hath Nature endued it withall, becauſe ſhe meant thereby to nouriſh mankinde moſt; for one Modius thereof ſowne, if the ſoile be good and agreeable thereto (ſuch as lieth about Bizacium, the champian countrey of Africke) will yeeld an hundred K L M

Some take it for a kinde of Barley, or rather Oats.

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A hundred and fiftie fold againe. The procurator generall of that prouince vnder *Auguſtus Ceſar* ſent from thence vnto him one plant thereof (a wondrous thing and incredible to be reported) which had little vnder 400 ſtraws ſpringing from one grain & meeting all in one and the ſame root, as it appeareth vpon records by the letters ſent, teſtifying no leſſe. Likewiſe to the Emperour *Nero* he ſent 340 ſtrawes out of the ſame country, riſing all from one onely corne. But to goe no farther than to Sicilie; within the territorie about Leontium, there haue beene certaine fields knowne, wherein one graine putteth forth no fewer than a hundred ſtalks with ears vpon them: and not there onely, but alſo in many other parts of that Iſland. And this is ordinarie throughout all the kingdome of Granade, and Andaluſia in Spaine. But aboue all, the land of Ægypt may make boaſt in rendring ſuch intereſt to the husbandmen. Moreouer, of all thoſe
B kinds of wheat which are ſo plentiful, there is principal account made of that which branches; as alſo of another which men call Centigranum, *i.* the wheat that beareth 100 graines.

To leaue this kind of graine, and to come to Pulſe: there hath been found in Italie, and goe no farther, one beane ſtalke laden with an hundred beanes. Touching Summer corne, to wit, Seſama, Millet, and Panicke, we haue alreadie ſpoken. As for Seſama, it commeth from the Indians, whereof they make a certaine kind of oile. The color of this graine is white. Like vnto it there is another grain called Eryſinum, which is rife in Aſia & Greece: and I would ſay it were the very ſame, that with vs in Latine is named Irio, but that it is more oileous and fatty; and indeed to be counted a medicinable or Phyſicall plant, rather than a kind of corne. Of the ſame nature, is that which the Greekes call Hormium: it reſembleth Cumin, aed is vſually ſowed
C with Seſama: howbeit no beaſt will eat thereof while it is greene, no more than they do of Irio aforeſaid.

To come now to the manner of husking and cleanſing of corne: the feat is not ſo eaſily done in all, as in ſome; for in Tuſcane, they take the eares of their red wheat called Far, when they be parched and dried at the fire, they pound or bray them with a peſtill headed at the nether end with yron, or els fiſtulous and hollow within, yet bound about with a hoop or ring of yron, and the ſame withinforth toothed in manner of a ſtar; ſo as if they be not heedfull in the ſtamping, the yron-work at the peſtill end will either cut the cornes in two, or elſe bruiſe and break them clean. In Italy (for the moſt part) they vſe a reed or plain peſtill, not headed with yron, to huske and dreſſe their corn; or els certain wheeles that are turned and driuen apace with water, which
D going very ſwift doe alſo grind the ſaid corne. But ſince we are fallen into this treatiſe concerning husking and grinding of corn, it ſhall not be amiſſe for to ſet down the opinion and reſolution of *Mago* in this behalfe: Firſt, for common wheat he giueth order, that it be well ſteeped and ſoked in good ſtore of water; afterwards, to be rid from the hulls and eiles that it hath, in a mortar: which done, it ought to be dried in the ſunne, and followed a ſecond time with a peſtil. In like maner (ſaith he) ſhould barley be vſed: howbeit, two Sextars or quarts of water will be ſufficient to beſprinckle and wet twentie Sextars of barly. As for Lentils, he would haue them firſt parched and dried, and then lightly punned or ſtamped together with brans; or els to put vnto twentie Sextars thereof, a fragment or peece of a broken ſemeld brick, and half a Modius or peck of ſand. Eruile would be cleanſed or husked as Lentils be: but Seſama, after it hath bin
E infuſed or ſoked in hot water, he ſaith, ought to be laid abroad a ſunning; then to be rubbed hard together; and afterwards to be put into cold water and therewith couered, ſo as the huls or chaffes do flote and ſwim aloft: which done, to be laid forth a ſecond time in the ſun vpon linnen clothes, for to drie. Now if all this be not don one thing after another and diſpatched with the more ſpeed and haſt, it wil ſoone vinew or catch a mouldineſſe, and beſides loſe the bright natiue hew, and looke wan and of a leaden colour. Now, ſay that corn be cleanſed and husked, ſome one way and ſome another, it is ground afterwards in diuers ſorts. If the ears be bolted by themſelues alone for goldſmiths worke, the chaffe comming thereof is called in Latine, Acus; but if it be threſhed and beaten vpon a paued floor, eare, ſtraw, and al together (as in moſt parts of the world they vſe to doe, for to fodder cattell and to giue in prouender to horſes, then it is
F tearmed Palea: but the refuſe or chaffe remaining after that Panick or Seſama be clenſed, they call in Latine Appluda, howſoeuer in other countries it be otherwiſe named.

To ſpeake more particularly of Millet, there is great ſtore thereof in Campaine, and there they ſet much by it, for of it they make a kind of white grewel or pottage: alſo the bread thereof is paſſing ſauorie and ſweet. The Tartarians alſo & nations in Sarmatia, feed moſt of this water

gruell made with Millet: as alſo with the crude and raw meale thereof vnſodden and vnbaked G
tempered with mares milk, or els with horſe-bloud that runneth out of their maſter leg-vains, by way of inciſion made for the purpoſe with the phleame. As for the Æthiopians, they know no other corne but Millet and Barley. Panicke is eaten in ſome parts of Gaule, and principally in Aquitane or Guien: in Piemont alſo, and all about the Po, it is a great feeding, ſo there bee beanes among; for without beans they canot skill how to dreſſe any thing for their daily food. The regions that confine vpon the Euxin ſea or Pontus, haue no daintier meat than that which is made of Panick. To conclude, all Summer corn abouenamed, delight more ro grow in moiſt and watery grounds, than to be wet with ſhowres and raine from aboue. And yet I muſt needs ſay, that Millet and Panick care leaſt for water or moiſture, when they begin to put forth their blade. Laſt of all, there is no good husbandman but wil forbid to ſow Millet and Panick either H
in vineyards, or among trees that beare fruit; being perſuaded, that the ſowing thereof doth eat out the heart of the ground.

Chap. XI.

¶ Of Leuains: the manner of making bread: ſundrie kinds of bread: about what time Bakers were firſt knowne at Rome: of Sieues and Serces, of Rangers and Bulters. Laſt of all, of the Frumentie called Alica.

THe meale of Millet is ſingular good for Leuains, if it be wrought and incorporat in new wine, for ſo it may be kept a whole yeare. The like is made of the better brans of wheat, ſo I
they be ſmall, fat, and not to neer raunged; and the ſame be kneaded in new white wine of three daies old, and then dried in the ſunne. Hereof is made a dough or paſt, and the ſame is reduced into certain round cakes or Troſches to ſerue for the making of bread; for theſe muſt be ſoked and diſſolued in hot water with the floure of the corn Zea, and therein be ſodden, which don, they vſe to mingle it with the meale and floure to make paſt of, which they hold to be the beſt way of making bread. The Greeks haue ſet down this proportion, allowing to euery pecke or Modius of Meale, 8 ounces of leuaine; and this they thinke to be ſufficient. Now theſe kinds of leuains verily canot be made, but only in time of vintage. But if a man would make leuaines at any other time, he may take of barly meal tempred with water ſo much as it may be brought into a paſt; and when there be certain lumps or cakes herof made, weighing two pound apeece, K
they muſt be baked either vpon the hearth vnder hot embres, or els in an earthen pan ouer the coles, vntill ſuch time as they looke brown and red withal. Afterwards they be put vp cloſe couered in pots or ſuch like veſſels, & there remain vntil they wax ſower. Now when a man would vſe leuain, herof he taketh what he will, and diſſolueth it as is aforeſaid. In old time when they made barley bread, they vſed no other leuain for it but only the meale of Eruile or Cich peaſe; and ordinarie it was, to take two pound thereof for * two peckes and an halfe of meale: but now adaies the order of our huſwiues is, to make leuaines of the very ſame meale which is kneaded and wrought into dough, before ſalt be put therto, which they ſeeth tothe conſiſtence of a pulp or thicke batter, and ſo let it lie vntill it become ſowre. And yet commonly they doe not boile their leuains but only reſerue ſome of the paſt or dough, wherof they make their bread the day L
before. As tonching the nature of Leuain, certain it is that it proceeded of ſoureneſſe, like as it is generally held, that they be ſtronger of bodie who feed of leuained bread: for in old time it was verily thought, that of the weightieſt and heauieſt kind of wheat, there was made the holeſomeſt bread.

* *quinque ſedecos.*

Concerning the ſundrie ſorts of bread that is made, it ſeemeth a needleſſe peece of work to ſet them down euery one in particular: for ſometimes bread taketh the name of the meats and viands that be eaten therewith: as for example, Oiſter-bread, ſo called for that it was good with oiſters: otherwhiles it bears the name of ſome daintie cates, as Artologanus, [*i.* pancake, fritter, or fine cake bread.] As for the bread called Speuſticus, [*i.* Haſtie] it is ſo called, becauſe it was made in haſt. The manner alſo of the baking giueth denomination to ſome bread; as to Furnaceus panis, which was made in a furnace; to Artoptitius, made in a baking-pan called Artopta: M
as alſo to that which was baked in an ouen. Not long ſince alſo there was a new deuice of making bread brought out of Parthia, which becauſe the paſt is drawne through water (and yet a ſpungious, light, and hollow ſubſtance it carries) they call water-bread, and giue it the denomi-

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A nation of Parthicke bread. But howſoeuer it be, the beſt bread is of the fineſt wheat floure, that hath paſſed through a ſmal tamis bulter. Some countries there be, that knead their dough with milke or egs; others alſo put butter thereto: but thoſe be ſuch nations as are not troubled with wars, ſince that they can haue while to ſet their minds on ſundry ſorts of paſtry. The Picenes in times paſt inuented away by themſelues of making bread, with the very matter or ſubſtance of the frumentie Alica; and ſurely that deuiſe holdeth ſtil and is much vſed. The manner thereof is this: They take the ſaid frumentie paſt and ſteep it in water nine daies; on the tenth day they work or knead it with the juice of Raiſons, to the faſhion of the Parthick cake driuen thin and broad, after this they put it into earthen pots, ſet them in ouens for to frie & bake, that the ſaid pots may there breake in ſunder: and beeing thus hard baked, it is not to be eaten vnleſſe it be
B ſoked in ſome lipuor, which ordinarily is milke, or mead eſpecially.

There were no Bakers known at Rome for the ſpace of 580 yeres after the foundation of the citie, vntill the Perſian warre. Before that time euery Roman citizen had his owne bread baked at home, and womens work commonly it was, like as at this day it is in moſt countries: for this appeareth by *Plautus*, who in his Comœdy entituled Aulularia, maketh mention of * Artopta, a baking pan [which men haue vſually in their houſes:] and hereupon is growne much diſpute and controuerſie betweene learned men about this Queſtion. Whether that verſe were of that Poets making or no? for certain it is (acording to the opinion of *A. Atteius Capito*) that at ſuch mens bourds as kept great houſes and delicate fare, there was no other bread eaten but ſuch as Cookes were wont to make them, after the maner of ſimnels: for Piſtores were thoſe only then
C called, who husked and cleanſed the bearded red wheat named in Latin Far; and others Bakers than they, were there none. Neither had the Romane citizens in ordinarie, any Cookes as their houſhold ſeruants, but hired them out of the market whenſoeuer they had any meat to dreſſe.

* *Ego hanc Artoptam ex proximo vtendam puto.*

Diuers ſorts of ſieues and bulters there be. The Sarce made of horſe haire, was a deuiſe of the Frenchmen: the tamis raunger for courſe bread, as alſo the fine floure boulter for manchet, (made both of linnen cloth) the Spaniards inuented. In Ægypt they made them of Papyr reed and ruſhes. But now that we are entred ſo far into this matter as touching corne, I thinke it not amiſſe before I proceed any farther, to ſpeak (with the firſt) of the frumentie called Alica, and the manner thereof being (as it is) ſo excellent and wholſome to be eaten; and which, no doubt, throughout all Italy, bears the name for the very beſt of all corne whatſoeuer. No queſtion, but
D there is made thereof in Ægypt; howbeit nothing to the other. In Italy, many places there be where it is to be had, as namely in the territories of Verona and Piſæ: but that of Campain carieth the price and praiſe aboue all the reſt: a champion or plaine countrey this is, for the ſpace of forty miles lying as a vale vnder the hils and mountaines, ſubject to watery clouds and tempeſtuous winds. The ſoile of this whole tract (to ſpeake directly of the nature thereof and defer no longer) is light and duſtie, if a man reſpect the vpper coat thereof, but vnderneath it drinks in much moiſture, whereunto apt it is by reaſon of certain fiſtulous poroſities therin, like a pumiſh ſtone: in which regard, the mountaines commanding theſe plaines (ill neighbors otherwhiles) do it much good and mend the ſoile very well; for many a ſound ſhowre, which ordinarie falleth from the hills) paſſeth and runneth through it, as it were a colander; by means wher-
E of, the ground ſtandeth not drenched and ſoked with water, but is thereby more pliable & eaſie to be tilled. Now this ſoile hauing thus receiued ſtore of water, doth not yeeld it vp again boiling out at any ſprings, but keepeth and cheriſheth it ſtill within, as it were the radical and nutritiue humor, concocting the ſame to a very good temperature. All the yere long a man ſhall ſee it ſown and ſtanding with corn, one or other; for the ſame ground bears one crop of Panick. and two of the red wheat Far: it neuer reſteth but beareth ſomwhat: for ſay that ſome lands lye fallow betweeen-while, and are not ſowed with corn; they yeeld roſes in the ſpring of themſelues naturally, and thoſe far ſweeter than the garden roſes: ſo fruitful is it and canot abide to be idle and do nothing. Herupon aroſe the prouerb of this land of Campaine, *That greater ſtore is there to be found of ſweet perfumes and odoriferous ointments, than of ſimple oyle in other countries whatſoeuer.*
F And looke how much this tract of Campaine ſurpaſſeth all other lands in goodneſſe and fertility, ſo much excelleth one quarter therof (called in Latin Laboriæ, and by the Greeks Phlegræum) all the reſt, and goeth beyond it ſelfe. This plain aforeſaid named Laboriæ, is confined on both ſides with the great cauſeis or high waies raiſed by the Conſuls, and thereupon called Conſulares; the one goeth from Puteoli, the other from Cumes, and lead both to Capua.

But to come againe vnto our Frumentie Alica, made it is of the graine Zea, which before we tearmed by the generall name of Seed. This corne for to make Frumenty, is to be pound in a wodden morter, when it ſhould be cleanſed from the huske: for if a man beat in one of ſtone, the hardneſſe thereof would bruiſe and breake it. The beſt way of cleanſing and husking it, is with a peſtill, ſuch as bond ſlaues and priſoners do vſe to ſtamp withall, and to work by task for their puniſhment: in the forepart therof it hath a circle of yron, made in faſhion of a round Box: wherewith after the corne is drawn naked out of the husk, the very ſame inſtrument ſerueth again to ſtamp and bruiſe the white marrow and floure thereof within. And thus by this means there be three ſorts of Alica or Fourmentie aforeſaid. The fineſt, which is the beſt: the meane, which is the ſecond: and the greateſt or groſſeſt, which the Greekes call Aphærema. G

When all this is done, yet haue they not that whiteneſſe of their owne, for which cauſe they are ſo much eſteemd; as namely, thoſe that are come nowadays from Alexandria, which are taken to be the beſt and to excell all other. And therfore there is chalk (a wonderfull thing to be ſpoken) mingled afterwards and incorporate therwith, and ſo by that means the Frumenty becomes white and tender withall. Now this chalke or plaſtre is found between Puteoli and Naples, in a little hill which thereupon is called Leuco-gæon, [*i.* white earth.] And in truth when *Auguſtus Cæſar*, late Emperor of Rome, erected a colonie at Capua, and peopled it with Roman citizens, he aſſigned vnto the Neapolitanes (by vertue of a decree, now extant) an yerely rent or penſion of twentie thouſand deniers to be paid out of his owne treaſure, in regard of the chalk which came from the hill aforeſaid, being within their territorie and ſiegnorie. He rendereth alſo a reaſon inducing him thus to do, Becauſe the inhabitants of Capua, alleadged, that they could not make good Alica or Frumenty without that mineral of chalke. In the ſame hil there is alſo found a Brimſtone mine, and out of the veines thereof, fountaines ſpringing, called Oraxi, the water whereof is ſingular good to cleer the eies, to cure and heale green wounds, and to faſten the teeth that are looſe in ones head. H I

As touching a baſtard kind of Frumenty, it is made verily for the moſt part of a Speltor Zea in Affrick, which there doth degenerat and grow out of kind. The ears that it carieth, are broader and blacker than the other, and the ſtraw is but ſhort. They vſe to cleanſe and huske it by ſtamping or braying it together with ſand, and for all that deuiſe, much ado they haue to fetch off the huls and huskes wherein the graine lieth encloſed: now when it is thus cleanſed and naked, it is not paſt halfe as much in meaſure as it was before. Which done, there is a fourth part of plaſtre ſtrewed & mingled among: and when al is together, they ſift it down through a meal ſieue. That which remaineth behind and paſſeth not through, is the groſſeſt part thereof, and is called in Latine Exceptitia. That which was thus ſearced, is driuen againe through a narrower and finer ſieue, and thoſe groats that tarie in the ranger, the call Secundaria. In like manner doe they a third time, ſearcing it through ſo fine a ſieue, that nothing can paſſe but the very ſmall ſand and pouder: and this laſt kind of Frumenty gurts they name Cribraria. Another way there is beſides in all places practiſed, to ſophiſticat, and counterfeit the right Frumenty groats indeed: They chuſe out of our common Wheat, the faireſt, fulleſt, and whiteſt grains, which beeing half ſodden in an earthen pot, they lay out afterwards in the Sun, till they be as drie as they were at firſt: which don, they lightly ſprinckle ſome water ouer, & then bruiſe them in a quearn mill. Fairer Frumentie groats be made of Zea than of Wheat, and called it is Granum or Granatum, although in Alica that be counted a fault. To conclude, they that wil not vſe chalk, do blanch and make their Frumentie white by ſeething milke with it, and mingling all together. K L

Chap. XII.

¶ *Of Pulſe.*

IT followeth now to write of the nature of Pulſe, among which, Beanes do challenge the firſt ranke and principall place: for thereof men haue aſſaied to make bread. The meale of Beans is called in Latine Lomentum. There is not a Pulſe weigheth more than it, and Beane meale makes euery thing heauier wherin it is. Now adaies they vſe to ſel it for prouender to feed horſes. And indeed Beanes are dreſſed and vſed many waies, not only to ſerue all kind of four-footed beaſts, but alſo for man eſpecially. For in moſt countries it is mingled with Frumentie corn: and namely with Pannicke moſt of all, whole and entire as it is: but the more delicat and M

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A daintie way is to break and bruiſe it firſt. Moreo uer, by ancient rites and religious ceremonies, at the ſolemn ſacrifice called Fabraria, the maner was to offer vnto certain gods and goddeſſes Beane cakes. This was taken for a ſtrong food, being eaten with a thick grewel or pottage; howbeit, men thought that it dulled a mans ſences and vnderſtanding, yea, and cauſed troubleſome dreames in the night. In regard of which inconueniences, *Pythagoras* expreſſely forbad to eat Beanes: but as ſome haue thought and taught, it was becauſe folke imagined, that the ſoules of ſuch as were departed, had reſidence therein: which is the reaſon alſo, that they be ordinarily vſed and eaten at the funerals and obſequies of the dead. *Varro* alſo affirmeth, That the great Prieſt or Sacrificer called the Flamine, abſtains from Beanes both in thoſe reſpects aforeſaid, as alſo for that there are to be ſeen in the floure thereof certain letters or characters that ſhew-
B heauines and ſigns of death. Further, there was obſerued in old time a religious ceremonie in Beanes: for when they had ſown their grounds, their maner was, of all other corne to bring back with them out of the fieldes ſome Beanes: for good luck ſake; preſaging thereby, that their corne would returne home again vnto them; and theſe Beanes thereupon were called in Latine Refriuæ, or Referiuæ. Likewiſe in all port-ſales it was thought, that if Beanes were entermingled with the goods offered to be ſold, they would be luckie and gainefull to the ſeller. This is cerataine, that of all the fruits of the earth, this only will be full and ſound when the Moone is croiſant, notwithſtanding it were gnawne and halfe eaten with ſome thing before. Set them ouer the fire in a pan with ſea water or any other that is ſaltiſh, they will neuer be thoroughly ſodden. They are ſet or ſowne before the retrait of the Starre Vergiliæ, [*i.* the Brood-hen] the
C firſt of al other Pulſe, becauſe they might take root betimes and preuent the Winter. And yet * *Virgill* would haue them to be put into the ground in the Spring: like as the manner is in Piemont and Lombardie, all about the riuer Po.

**Vere fabis ſatis. Georg. lib. 1.*

But the greater part of good Husbandmen are of this opinion, That the ſtalke or ſtraw of Beanes ſowne early or ſet betimes, are better than the very fruit it ſelfe, which hath had but three months being in the ground. For the cods and ſtalks only of Beans are paſſing good fodder and forage for cattell. Beanes when they are blouming, and in their floure deſire moſt of al to be refreſhed with good ſtore of rain: but after they haue don flouring, they care for little: the ſowing of this Pulſe in any ground, is as good as a mucking vnto it, for it enriches it mightily. And therefore towards Macedonie and about Theſſalie, the manner is when Beanes begin to
D bloſſom, for to turne them into the ground with the plough. Beans come vp and grow in moſt places, of their owne accord without ſowing; and namely, in certaine Iſlands lying within the Northern ocean, which our countrymen therupon haue named Fabariæ. Semblably, they grow wild commonly thoroughout Mauritania, but exceeding hard and tough they be, and ſuch as poſſibly canot be ſodden tender. There are likewiſe in Ægypt to be found Beanes, with a ſtalk beſet full of prickles or thornes: which is the cauſe that Crocodiles wil not come neer them, for feare of hurting their eyes. The ſtemme of theſe Beanes is foure cubites in height, but exceeding thicke and big withall: tender it is notwithſtanding, and ſoft, running vp euen and ſmooth without any knots or joints at al, it caries a head in the top like Chesboule or Poppy, of a roſe red color: wherin are contained not aboue 30 Beanes at the moſt. The leaues be large: the fruit
E it ſelfe (or the Bean) is bitter in taſt, and the ſmel not pleaſant: howbeit the root is a moſt dainty meat, which the inhabitants do eat as wel raw as ſodden; and like it is to reed & cane roots. Theſe grow in Syria and Cylicia, as alſo about the lake Torone, within Chalcis.

Much like to the prouerbe here in England, *March Ote ſtraw is better than Aprill Otes.*

As touching other Pulſe, Lentils be ſown in Nouember, and ſo are Peaſe, but in Greece only. Lentils loue a light ground better than a fat & heauie: they like alſo drie and faire weather. Two kinds thereof be found in Ægypt: the one more round and blacke than the other; the reſt be faſhioned as common Lentils. According to the manifold vſe and diuers effects of Lentils, there haue ſundrie names and denominations beene borrowed from them: for I find in writers, that the eating of Lentils maketh men to be mild and patient, whereupon they be called Lenti and Lenes. As for Peaſe, it ought to be ſowed in warm places lying well vpon the Sunne: for
F of all things it cannot abide the cold. Which is the cauſe, that in Italie and in other countries where the clime is tough and hard, they are not ſowne vſually but in the Spring, and folke chuſe a gentle, light, and looſe ground.

To come now to the Cich peaſe, the nature of it is to be nitrous and ſaltiſh, and therefore it burneth the ground where it grows. Neither muſt it be ſowne, vnleſſe it were well ſteeped and

ſoked in water the day before: many ſorts there be of theſe cich-peaſe, different in bignes, form, colour, and taſt: for there are both blacke and white, and thoſe in faſhion ſhaped like to a Rams head, and therupon they are ſo called. There is a ſecond kind named Columbinum, or by others Venerium. Theſe are white, round, light, leſſe than the former Rams-head ciches, which men do eat ceremoniouſly with great religion, when they meane to watch thoroughly all night long. There is a little cich peaſe alſo, called Cicercula, made cornered and otherwiſe vneuen, like vnto a Peaſe. But the beſt ciches and moſt pleaſant are thoſe that come neereſt in reſemblance to the Eruile: and generally the red kind and the black are more firm and faſt than the white: cich peaſe grow within round cods, whereas other Pulſe he contained in long and flat, according to the forme and figure of the ſeed which they hold: Peaſe by themſelues haue a long round cod in forme of a Cylinder. G H

The Pulſe called Phaſeoli, [*i.* Kidney Beans] vſe to be eaten cod and al together. Theſe may be ſet or ſowne in what ground you liſt, from the Ides of October to the Calends of Nouember. Finally, all kinds of Pulſe, ſo ſoone as they begin to ripen, are to be gathered or plucked haſtily: for ſtay neuer ſo little, they leape out of their cods, and ſhed, and being once fallen, they lie hidden in the ground, like as the Lupine alſo.

Chap. XIII.

¶ *Of Rapes or Neuewes of Amiternium Turneps.*

NOw let vs proceed and paſſe to other matters: and yet in this diſcourſe, it were meet to write ſomwhat as touching Rapes or Nauews. The Latin writers, our countreymen, haue ſlightly paſſed by and touched them only by the way. The Greeks haue treated of them ſomwhat more diligently, and yet among pot-hearbes and worts growing in gardens; whereas indeed according to good order they would be ſpoken of immediatly after Corne, or Beanes at leaſt wiſe, conſidering there is not a plant of more or better vſe than is the Rape or Nauew. Firſt and formoſt, they grow not only for beaſts of the earth and the Foules of the aire, but alſo for men. For all kinds of Pullen about a Farme-houſe in the countrey, doe feed vpon the ſeed thereof as much as of any thing elſe, eſpecially if they be boiled firſt in water. As for four-footed beaſts, they eat the leaues thereof with great delight, and wax fat therewith. Laſt of al, men alſo take as great pleaſure and delight in eating the leaues and heads of Rapes or Nauewes in their ſeaſon, as they do of young Coly-flories, Cabbages, or any tender crops of hearbs whatſoeuer; yea, when they are faded, flaggie, and dead in the Barn, they are eſteemed better, than being freſh and green. As for Rapes or Nauewes, they will keep long and laſt al Winter, both within the ground where they grew: and being well wintered, they will continue afterwards out of the earth lying abroad euen almoſt till new come: ſo as they yeeld men great comfort to withſtand hunger and famin. In Piemont, Lombardie, & thoſe countries beyond the Po, the people make the moſt account of gaine by gathering Rapes, next to wine vintage and corne harueſt. It is not choiſe and daintie, of the ground where it will grow: for lightly it wil proſper where nothing els can be ſowed. In foggy miſts, hard froſts, and other cold weather, it thriues paſſing wel, and grows to a wonderfull bignes. I haue ſeene one of their roots weigh aboue fortie pounds. As touching the handling and dreſſing of them for our table, there be many waies and deuiſes to commend and ſet them out. Preſerued they may be till new come, ſpecially condite with ſharp and biting Senuie or Muſtard ſeed. Moreouer, our Cooks know how to giue them ſix other colours beſides their owne which is pure and naturall; they haue the caſt to ſet euen a purple hew vpon them. And to ſay a truth, there is no kind of viands beſides that, being thus painted & colored, hath the like grace. The Greeke writers haue diuided them by the ſexe, and therby made two principal kinds therof, to wit, the male and the female. Nay, more than that, out of one and the ſame ſeed, according as it is ſowed, they can make male or female, whether they pleaſe. For if they ſow thicke, and chuſe therto a hard and churliſh ground, it will proue of the male kind. Alſo, the ſmaller that the ſeed is, the better it is eſteemed. But of al Rapes male or female, three eſpeciall ſorts there be & no more. For ſome roots ſpread flat and broad, others are knit round like a ball; the third ſort that runs downe into the ground with a long root in manner of a Raddiſh, they cal the wild Rape or Nauew: this bears a rough leaſe and ful of angles or corners; the iuice that it yeelds is ſharp, hote, and biting, which being gathered in harueſt time & reſerued, I K L M

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A mundifieth the eies,and cleareth the ſight,eſpecially being tempered with breſt-milke. If the weather be cold,they are thought not only to thriue in bigneſſe of the root, but alſo to prooue the ſweeter,whereas contrariwiſe in a warm ſeaſon they run vp all to ſtalke and leafe. The beſt ſimply are thoſe that grow in the Nurſine territory. For they are ſold by the weight: and euery pound is worth a Roman Seſterce,yea,and otherwhiles twaine,if there be any ſcarcity of them. Next to theſe in goodnes be thoſe that come out of Algidum. Thus much of Rapes & Navews

As for the Turneps of Amiternum, they be in a manner of the ſame nature that the Rapes aforeſaid,& cold they loue as well. Sown they are before the Calends of March;& foure quarts of their ſeed will take vp a whole acre of ground. The beſt Husbandmen, and ſuch as are more exquiſite in their practiſe of Agriculture,giue order,That the ground for Turneps ſhould haue
B fiue tilthes,whereas Rapes or Nauewes are content with foure: but both the one and the other had need of a ſoile well inriched with dung or compoſt. By their ſayings alſo,Rapes will proſper the better and come vp thicker,if they be ſowed in their huls,chaffe and all together. Moreouer, they would haue the ſeeds-man to be naked when he ſowes them,and in ſowing to proteſt, that this which he doth is for himſelfe and his neighbors,and withall to pray as he goeth. The proper ſeaſon for the ſeedneſſe of them both, is between the feaſts of the two gods; to wit, *Neptune* and *Vulcan*.

To conclude,there is a ſubtill and curious obſeruation that many go by and do hold, namely this,To marke how many daies old the Moon was,when the firſt ſnow fel the winter next before;for if a man do ſow Rapes or Turneps,within the foreſaid compaſſe of that time,the moon
C being ſo many daies old,they will come to be wondrous great, and increaſe exceedingly. Men vſe to ſow them alſo in the Spring:but then they make choiſe of moiſt and hot grounds.

Chap. XIIII.

¶ *Of Lupines.*

AFter Rapes and Turneps, the Lupines haue greateſt vſe, and ſerue to be raunged next: for that they indifferently ſerue both men and alſo all foure footed beaſts that be houſed, either whole or clouen. Now for that the ſtalke is very ſhittle in mowing, and therefore flyeth from the edge of the ſyth, the onely remedie therefore (that the mower may catch it) is to
D goe to worke preſently after a good ſhower. And verily there is not a plant growing vpon the earth (I meane of ſuch as are ſowne of ſeed) more admirable than the Lupine, in regard of the great amity and ſympathie betweene the earth and it. Looke how the Sun keepeth his courſe in our Horizon aboue,ſo doth it turne and go withall;inſomuch as the Husbandmen of the countrey go by no other clocke to know how the day paſſeth,in cloſe and cloudie weather,than this obſeruation. Moreouer,it hath three ſeaſons of blowming: it loueth the earth well,but yet willingly it would not be couered ouer with mould: for this is the onely ſeed that is ſowne vpon ground without any ploughing or digging: it would grow to chuſe,in a moſt grauelly,drie,and ſandy ſoile,and in no caſe can it abide any tending or husbandry about it:ſo affected is it to the earth,that caſt it vpon any rough ground,among buſhes,leaues, briers and brambles,it will chit
E and ſpurt neuertheleſſe,& neuer lin til it take root within the earth. If Lupines be ſowed either in vineyards or vpon corne lands, they inrich the ſame and make the ground better, as we haue before written: and ſo little need haue they of dung,that they ſtand in ſtead of the very beſt. To ſay a truth,there is no graine leſſe chargeable to be ſowne, than it; nay there is none coſteth nought at all,but it;for it needeth not ſo much as to be brought into the field:and why? it ſoweth it ſelfe preſently in the ſame field where it grew: and ſhedding as it doth of the own accord, a man neuer needs to caſt and throw it vpon the land,as other corne. It is firſt ſowne,and laſt gathered: and lightly both theſe ſeaſons fall out in the moneth of September,for if the Seed-nes preuent not the winter,ſo as it may haue good root before it commeth, it will be in danger of the cold. Ouer and beſides,if it chance to lie bare and vncouered aboue-ground, left careleſſely
F without any keeping, and that no raine come vpon it preſently for to driue it into the ground, it is ſafe enough and catcheth no harme; for ſo bitter it is,that no liuing creature will touch it: and yet for the moſt part the husbandmen beſtow a light furrow vpon it, and ſo couer it verie ſhallow. If the ground be faſt and heauie, it loueth that beſt which ſtandeth vpon a red clay. And for the maintaining and inriching of this kind of ſoile, it muſt be turned vp or eared

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after the third flouring;but in caſe it be grauelly or ſandy,it wil ſerue to do it after the ſecond. G
Chalkie grounds onely and myrie it hateth,and therein it wil not grow. As bitter as otherwiſe it is,yet if it be ſteeped and ſoked in hot water,it is mans meat alſo. Moreouer,one Modius,or pecke of Lupines is ſufficient for to ſatisfie and feed an Oxe or a cow at a time:and this kind of prouender will make beaſts ſtrong and healthfull. Moreouer, the meale of Lupines applied to the bellies of yong children that haue the wormes,is a ſingular remedy. For the good keeping of Lupines,all men agree that they ſhould be laid vp in ſome chimney or ſmokie place eſpecially;for if they lie in a moiſt roome,there be certain little worms that wil nibble off and eat the tip or nauill that it hath,and by that meanes marre it for euer ſprouting againe. Finally, if Lupines be eaten downe by beaſts,while they be greene in the leafe, the ground where they grew muſt preſently be ploughed vp. H

Chap. XV.

¶ *Of Vetches and Eruile.*

VEtches alſo do manure and fat the ground where they be ſowed;neither be they chargeable or ſtand the husbandman in much:they be ſown with one tilth;otherwiſe there needs no harrowing nor weeding: there is required no mucking; onely they would be couered with mould and the clods broken;for ſowing of vetches,there be three ſundry times;firſt,about the ſetting of the ſtar Arcturus,that by the moneth of December it may get a good head for to be eaten with beaſts;and it is generally holden,that being ſowne in this ſeaſon,it will bring the I
beſt ſeed;for ſay it be eaten downe then,it will carry the burden neuertheleſſe:the ſecond Seedneſſe is in Ianuarie: the laſt in March;and being then put into the ground,it will run vp moſt to blade, and yeeld the beſt forrage for cattell. Of all ſeeds that are caſt into the earth, it loueth drought moſt: it can brooke alſo ſhadie places well enough. The chaffe that commeth of the ſeed thereof,is excellent good;and better than any other,in caſe it were ripe when it was gathered. It robbeth vines of their nouriſhment,if it be ſowed neere thoſe trees wherto vines are wedded;inſomuch as a man may ſee euidently how they languiſh.

As touching Eruile,it asketh no great hand or trauell about it: yet thus much more attendance it requireth than Vetches,for that it muſt be weeded and grubbed about the roots. Beſides,this kind of Pulſe is of great vſe in Phyſick;for *Auguſtus Cæſar* was cured of a diſeaſe that K
he had,and recouered his health by the means of Eruile, as himſelfe reporteth in ſome of his letters now extant. Moreouer, fiue Modij or pecks of Eruile ſown, is ſufficient to maintain and find a yoke of oxen. As for that which is ſowne in March,it is hurtfull forage(men ſay)for kine and oxen:as alſo that which is ſowne in Autumne,maketh beaſts heauie and ſtuffed in the head: but that which is put into the ground in the beginning of the Spring is harmleſſe.

Chap. XVI.

¶ *Of Fœnigreeke: of Rie: of Dredge: of the prouender corne or Bolimong Ocymum: of Spaniſh Trefoile or horned Clauer-graſſe,called in Latine Medica: of the ſhrub Trifoile,named Cytiſus.* L

FOr the ſowing of Silicia or Siliqua,otherwiſe called Fœnigreeke, there needs no more but to ſcarrifie or ſcrape it lightly vp with a furrow not aboue foure fingers breadth deepe; for the leſſe coſt and husbandry that is beſtowed about it,and the worſe that it is vſed, the better it proſpereth and yeeldeth greater increaſe: a ſtrange thing to be ſpoken and ſeldom verified,*That Negligence ſhould be any waies profitable*;and yet herein it prooueth true. That which is called Secale and Farrago in Latine,(*i.*Rie)needeth no more adoe but to be harrowed & the clods well broken. There is a kinde of Secale or Rie, which the people called Taurines dwelling vnder the Alpes doe call Aſia: it is ſimply worſt of all other, and good for nothing but onely to driue away hunger:plentifull enough this corne is and yeeldeth good increaſe, but the ſtraw is ſlender:blacke it is and of an vnpleaſant colour, howbeit exceeding weightie and ponderous: M
they vſe to mingle the red wheat Far therewith,and make thereof a Maſcelline,to allay the bitterneſſe thereof;and yet for all that,the bread which it maketh is moſt vnſauorie to the mouth and ill for the ſtomack. It wil come vp in any ground whatſoeuer,and bring forth a hundred fold

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A ordinarily; neither doth it eat the ground out of heart, but rather maketh it more battle, and ſerueth in ſtead of compoſt or mucke.

As for that kind of dredge or farrage which commeth of the refuſe and light corne purged from the red wheat Far, it ought to be ſowne very thicke, with Vetches otherwhiles mingled among. In Africke, the ſame mixture is made of Barley. All theſe are good onely for prouender and beaſts forage: as alſo a baſtard kind of Vetches called * Cracca, which pigeons loue ſo well, that if they be fed once therewith, they will neuer leaue the place where they taſted it, nor flie far from thence. In time paſt our anceſtors had a kind of fodder or prouender, which *Cato* called Ocymum, wherewith they *vſed to ſtay the gurrie in kine and oxen. This forrage was made of *beane ſtalks cut downe greene as it ſtood before it was iointed and codded. But *Sura Manlius*

B taketh this dredge to be another thing, ſaying, that in old time they vſed to put vnto ten Modij of beanes, two of Vetches, and as many of Eruile, and ſo were wont to blend al together and ſow them in an acre of ground at the fal of the leafe; and (ſaith he) it would be the better balimong if there were ſome Greek Otes mingled withall, ſuch as neuer ſhed the ſeed out of the haw: this manner of dredge was called vſually Ocymum, and was woont to be ſowne for a kind of forrage to ſerue kine and Oxen. *Varro* ſaith, that it tooke that name becauſe it commeth vp ſo ſpeedily as being deriued from the Greeke word ὠκὺς, which ſignifieth, Quicke, or Swift.

As for the graſſe or herbe Medica (a kind of Clauer or Trefoile) the Greekes held it in old time for a meere ſtranger, as being brought into Greece from Media during the Perſian warres, which king *Darius* leuied againſt Greece: howbeit, an excellent Simple it is, and worthie to be

C written of in the firſt place. And to begin withal, this ſingular property it hath, That with once ſowing, it continueth aboue thirty yeares without any need of renewing. Like it is to Clauer or three leaued graſſe, both in leafe and ſtalke, but that the ſtemme is parted by knots and ioints. Moreouer, as it riſeth higher and runneth vp in the ſtalke, the leaues grow narrower: of this herb alone and of Cytiſus, *Amphilochus* compiled one whole book; howbeit, he wrote of them both confuſedly. The ground wherein it is to be ſowed, after it is well rid of ſtones and clenſed, muſt be broken vp and well tilled in the fall of the leafe. Soone after it needeth to haue another fallow and be harrowed withall, and then couered with hardles: this would be done two or three times (fiue daies between) and therewith it ought to be throughly dunged. This herb requireth a ſound dry ground, and yet ſuch as is full of ſucculent moiſture within, or elſe where water is

D neere at hand to command. The ground being thus prepared, ought to be ſowed in the moneth of May following, for otherwiſe the froſt would take it and marre all. Moreouer, requiſite it is, that it be ſowed very thick, ſo as euery place be taken vp therewith, thereby to exclude all other weeds and giue them no roome there to grow. To this effect therefore euery acre will take 20 Modij or pecks of ſeed. But take heed withall, that it be not burnt ſo ſoon as it is put into the ground, & therfore immediatly it muſt be couered with mould. If the ſoile be moiſt and giuen to bear other graſſe, the ſeed is ſoon ouergrown and choked, and then al wil run to graſſe, & turn to be a medow: which graſſe or coich when you ſee begin to ouerrun the ground, it muſt be all weeded out preſently an inch deepe within the ground, and by hand rather than any weeding-hooke or thiſtle ſpade. Now, when this hearbe Medica or Clauer graſſe begins once to floure

E cut it down: and ſo oftenas it floureth againe, downe with it. Thus you may haue ſix mathes in one yere or four at the leaſt. You muſt neuer let it ſpindle and beare ſeed: for better is it to take it thus in the growth, while it is but young and greene graſſe, for three yeares together: and the forrage or fodder is moſt profitable. Sowne (I ſay) it muſt be in the Spring, and weeded for the firſt three yeares. The green ſourd afterwards ought to be pared away with hookes and ſpades cloſe to the ground: for by this meanes you ſhall be ſure, that all other weeds will die, and this hearbe take no harme by it, for that by this time it is deepely rooted. If the weeds do get head and ouercome it, the onely remedie is by the plough, to turne vp the ground ouer and ouer ſo many times, vntill all other roots be killed. Moreouer, heed muſt be taken, that of this herbage or fodder, beaſts do not eat their fil; for feare you be driuen of neceſſitie to let them bloud, and

F take downe their rankeneſſe The greener that it is, the more profit commeth thereof, for it drieth branch after branch, vntil at length it will crumble like duſt or powder, and then is it good for nothing.

As touching Cytiſus, [*i.* the Shrub Trifolie] which is a ſingular kind of paſturage, & paſſes al the reſt, I haue written at ful in my diſcourſe of ſhrubs. For now at this preſent I am to proſecute

* Or rather *Arachos*

* *Siſebant Varro* ſaith *Citabant*, which is clean contrarie.

* *Fabali ſegete antiquam generet.*

cure and goe through the treatiſe of other ſorts of corne and their nature, if I had once written ſomewhat in one part thereof as touching the accidents and imperfections that happen among them. G

Chap. XVII.

¶ *The faults incident to corne, and their remedies. Alſo what corne is reſpectiue to this or that ſoile, for to be ſowne therein.*

THe firſt and principall defect obſerued in bread-corne, and Wheat eſpecially, is when it doth degenerate and turne into Otes: and not only it, but Barley alſo doth the like. Semblably, Otes otherwhiles ſerue the turne in ſtead of bread corne: as wee may ſee in ſome countries of Almaine, where they do vſually ſow it, and commonly they haue no other pottage there, than Oatmeale gruell [which they call Abremouz.] The foreſaid defect and imperfection is occaſioned chiefely by the moiſt ſoile or ouerwet weather. Another cauſe there followeth alſo thereupon, proceeding from the feebleneſſe and weakneſſe of the ſeed; namely, when it lieth long ſobbing in the ground, before it come vp: and hereto may be referred the faultines of the ſeed otherwiſe; namely, if it were worm-eaten or otherwiſe rotten at the time of ſowing: and verily, no ſooner appeareth it aboue ground, but the foreſaid change or baſtardie may be ſeene, whereby it doth appeare, that the cauſe is in the root. H

A ſecond defect or imperfection there is alſo incident to corn, which hath ſome neer reſemblance to the Otes aforeſaid; namely, when the graine being formed and newly come to the iuſt proportion of bigneſſe (howbeit, not yet full and ripe) before that it is firm and hard, is ſmitten with a noiſome blaſt, and ſo, like an abortiue fruit, decaieth and windereth away within the eare in ſuch ſort, as there is no ſubſtance left therein, but appeareth void and emptie. Now theſe aduerſe and malignant winds hurt all ſpiked corne, as well Wheat as Barly, at three ſeueral times, to wit, in their floure; preſently vpon their blooming, and laſt of all, when they begin to ripen; for then, namely when they are vpon the point of maturitie, thoſe blaſts conſume the grain, and bring it to nothing, which before was full: whereas at the two former ſeaſons they hinder it altogether from knitting and growing. The hot gleames moreouer of the Sun, betweene often clouding, do much harme to corne. I

Furthermore, there be certaine little wormes breeding in the root, that do eat it: which happeneth by occaſion of much raine falling immediatly after the ſeednesſe, eſpecially, when ſome ſudden heat and drowth enſueth therupon; which bindeth the earth aboue and ſo encloſeth the moiſture conceiued within, the very cauſe & nourice of putrifaction. Ye ſhall haue other ſuch like vermin engender likewiſe in the very grain of the corn, namely, when the ear doth glow within, and is chafed with ſultry hot rains. Ouer and beſides, there be certain [green] flies like ſmall Beetles, called Cantharides, which do gnaw and eat the corne. But al theſe, and ſuch like worms or flies die preſently, when the corn (which was their food) is gone. Moreouer, Oile, Pitch, and Tarre, all manner of greace alſo, be contrarie to ſeed-corne eſpecially; and therefore take heed that you ſow none ſuch as hath caught oile, pitch, or greaſe. As for ſhowers of raine, good they are for corne, ſo long only as it is in the green blade: when corne is blooming, be it either wheat or barley, or ſuch like) raine is hurtfull. Mary Pulſe takes no harme thereby, vnleſſe it be the Cich-peaſe. K L

All kinds of wheat and other bread corne, when they be toward ripeneſſe, catch hurt by ſhowers, but Barley more than any. Beſides all this, there is a certaine white hearbe or weed reſembling Panicke, growing among corne, and ouerſpreading whole fields; which not onely hindereth corne, but alſo killeth all the cattell that feedeth thereupon. For as touching ray or darnel, burs, thiſtles, and brambles, I may hold and reckon them, not ſo much for faults and imperfections of corn, as rather the plagues and infections proceeding from the very earth. And for blaſting, which commeth of ſome diſtemperature of the aire (a miſchiefe common as well to corn, as vines) it is as hurtful as any other malady whatſoeuer. This vnhappie blaſt falleth moſt often in places ſubiect to miſts and dewes, and namely, hollow vallies and low grounds lying vnder the winde: for contrariwiſe, windie quarters, and ſuch as are mounted high, are not ſubiect to this inconuenience. Alſo we may number among the faults incident to corne, their rankeneſſe; namely, when the blade is ſo ouergrowne, and the ſtalke ſo charged and loden with a heauie head that the corn ſtandeth not vpright, but is lodged & lieth along. Moreouer, when there fals M

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A a great glut of rain, inſomuch as the ground ſtands with water, there befalleth vnto all corn and pulſe, yea, and what ſoeuer is ſowne, a certaine diſeaſe called in Latine Vrica; inſomuch, as the very Cich-peaſe taketh hurt therby; for by reaſon that the rain waſhed from them that ſalt quality which was naturall thereunto, it becommeth ſweeter than it ſhould be, and loſeth the kind taſt. There is a weed that claſpeth and tieth about Ciches and Eruiles, wherby it choketh and killeth them both: and thereupon it is called Orobanctum, *i.* Choke Eruile. After the ſame maner dealeth * Ray or Darnel by wheat; wild Otes likewiſe, named by ſome Ægilops, with barly; as alſo the weed Securidaca, *i.* Ax-fitch, which the Greeks alſo (for the reſemblance that it hath to an axe head) call Pelicinon, * with Lentils. Theſe weeds (I ſay) kill corne by winding about it. Another herb there is, growing neere to the city Philippi, which killeth Beans: if the ground be fat and good, they name the ſaid weed Ateramnon; but if it be found in a hungry and leane B ſoile, and namely, when being wet, ſome vnhappy wind bloweth vpon it, they call it Teramnon. As for the graine of Raie or Darnell, it is very ſmall, and lieth incloſed with a ſharpe-pointed huſk. The bread which hath any of this ſeed in it, ſoone cauſeth dizineſſe and ſwimming of the head. And (by report) in Aſia and Greece the maſters of the common Bains and Stuphes, when they would keep away the great reſort of multitude thither, haue a deuiſe to caſt Darnell ſeeds vpon burning coles, for this perfume will quickly ſet them farther off. Moreouer, if the Winter proue to be wet and wateriſh, ye ſhall haue in the Pulſe called Eruile, a little vermin ingendred there called Phalangion, and it is of the kind of theſe ſpiders. Likewiſe vpon Vetches there wil breed naked dew-ſnails, yea, & otherwhile thoſe little ones with ſhels or houſes on their backs, which creeping from the ground, wil gnaw & eat them, that it is a wonder to ſee what foul work C they will make. Thus much concerning all the maladies and inconueniences (to ſpeak of) incident to corne. It remaineth now to treat of the remedies.

As touching the cure of thoſe harms that come by hurtful weeds to the corn in blade, it conſiſteth principally in two things: namely, either in the vſe of the weeding knife or hooke, when they be newly come vp; or els in ſtrewing aſhes when the corn is a ſowing. But as for thoſe dangers that touch the ſeed or grain in the eare and cod, as alſo that ſettle about the root, they muſt be preuented by good forecaſt, euen before it be thrown into the ground. It is generaly thought that if ſeed-corn lie ſteeped beforehand in Wine, it will be better able afterwards to reſiſt all diſeaſes whatſoeuer. *Virgil* giueth order to infuſe or ſoke the Beanes that muſt be ſown, in nitre D and oile lees or dregs; and he aſſureth vs, that they will proſper mightily beſides, and become exceeding great. But others are of opinion, that if for 3 daies before they be caſt into the earth they lie in vrine & ſhere water mingled together, they wil, being thus prepared come on apace, and thriue paſſing well. It is ſaid moreouer, That if Beans be thrice raked and rid from weedes, one Modius of them being whole and ſolid, wil yeeld a Modius again after it is husked & broken. As for other ſeed-corn, it wil eſcape the danger of the worme, if either it lie before among Cypreſſe leaues bruiſed; or be ſowed in and about the change of the Moon, namely, when ſhe is not to be ſeen aboue the earth in our hemiſphære. Many there be who practiſe other remedies: & namely for the Millet, they would haue a toad to be caried round about the field before that it be harrowed: which done, to be put cloſe within an earthen pot, and ſo buried in the middeſt E of the ſaid field: and by this meanes forſooth, neither Sparrows will lie vpon the corn, nor any worm hurt it. Mary, in any caſe this ſame toad muſt be digged out of the ground againe before the field be mowed, els will the Millet proue bitter in taſt. The like experiment they ſay is of a Moldwarps ſhoulder, for if any corn be ſowed or touched therewith before, it will come vp the better and bring more increaſe. *Democritus* had a deuiſe by himſelfe for all ſeed & corn whatſoeuer, namely, to temper & ſoke the ſame corn in the iuice of the herb houſleeke or Sen-greene, growing vpon houſes either tiled or ſhindled; which in Greeke is called Aizoon, and in Latine Sedum or Digitellum; for this medicine will ſerue for all maladies. The common practiſe of our husbandmen is this: in caſe through the ouerſweet ſap or juice in greene corne, wormes take to the roots: for to ſprinkle them with ſimple oile lees pure and clean without any ſalt, & afterF wards to rake it in. Alſo, when the corn begins to ioint and gathet into knots, then to clenſe the ground, and put off no longer, for feare leaſt the weeds do get head & ouergrow. This I am ſure vpon mine owne knowledge, that there is an herbe (but what proper name it hath I wote not) which if it be interred in the foure corners of a field that is ſown with Millet, it wil driue away Stares and Sparrows, which otherwiſe would by whole flights and flocks lie thereupon and do much

* ἀεγίλωψ, but more truly ἀραῖλον, out of *Theophraſtus*. Thus *Plinie* miſtaketh in many places: and for example, immediatly in the word *Ateramnos*, which is appropriate to all Pulſe that require much ſeething or be hard of digeſtion. *Theophraſt. c. 12. & 14. l. 4. de plant.*

much harme; nay I will ſpeake a greater word and which may ſeeme wonderfull, There is not a G
bird of the aire one or other, that dare enter or approch ſuch a field. Field-mice and Rats are
skared away and will not touch corne, which before the ſowing was either beſtrewed with the
aſhes of weaſels or cats, or els drenched with the liquor and decoction of water wherein they
were boiled; howbeit this inconuenience inſueth hereupon, That bread made of ſuch corn will
haue a ſmach, and ſent ſtrongly of ſuch cats and Weaſels: and therefore it is ſuppoſed a more
expedient and ſafer way to medicine our ſeed corne with oxe gall, for to preſerue it from the
ſaid Mice and Rats. But what remedy againſt the blaſt and mildew, the greateſt plague that can
befall vpon corn? Mary prick downe certaine Lawrell boughes here and there among the ſtan-
ding corne, all the ſaid miſts and mildewes will leaue the corne and paſſe to the Bay leaues, and
there ſettle. What ſhall we do then to corne when it is ouer-rank? Eat it me downe with ſheep H
and ſpare not, whiles it is young and in the blade onely, before (I ſay) it be knotted: and neuer
feare harm by the ſheeps teeth as neere as they go to the ground: for let it be thus eaten many
times, the corn will be the better, yea and the head will take no harme thereby but prooue the
fairer. If ſuch rank corne be once cut down with the ſyth, & no more, certain it is that the grain
in the eare will be the longer to ſee to, howbeit void and without any floure within it; for ſow
ſuch ſeed again, & it wil neuer grow nor come vp. And yet about Babylon, the maner is to mow
it twiſe firſt, and the third time to put in ſheep to it for to eat it down; otherwiſe the corn would
neuer ſpindle, but blade ſtill, and run all to leafe. But being thus cut and cut again, and eaten in
* *Fœlicitas ſoli* the end, ye ſhall haue it to increaſe and multiply 50 for one, * ſo fertile is the ſoile: and if the
owner be a good husband beſides, and vſe the ground accordingly, he ſhall reap thrice as much, I
euen a 150 ſold. And what carefull diligence is that which is here required? Surely neither
much, nor difficult: only he muſt be ſure to keep the ground well with watering for a long time
together, to the end that it may be diſcharged of the ouermuch fat within it, which by this
means will be waſhed all away, and the rankneſſe delaied. Yet as rich and fertile as this ſoile is,
the two riuers Euphrates and Tigris (which vſe to ouerflow and water the country) bring no ſli-
my mud with them, as Nilus doth in Egypt, wherby the ground is made ſo fat as it is: neither is
the nature of the earth there, giuen to breed herbs that it ſhould need any weeding: and yet ſo
plenteous and fruitfull it is, that it ſoweth it ſelfe againſt the next yere; for the corne that ſhed-
deth in the reaping and mowing, being troden vnder foot into the ground, is as good as a ſow-
ing, and riſeth of it ſelfe without any further labor. K

Seeing then there is ſo great difference in the ſoile, I am put in minde thereby to fit euery
ground with ſeed reſpectiuely, according to the nature and goodneſſe thereof. This therfore is
the opinion of *Cato*, that in a groſſe and fat ſoile, there would be wheat and ſuch like hard corne
ſown; and if the ſame be ſubiect alſo to miſts and dews, there may be ſown therein raddiſh, mil-
let, and Panick, muſt be ſowne firſt in a cold and wateriſh ground; and afterwards for change in
a hot ſoile. *Item*, the red bearded wheat Far or Adoreum, requireth a chalkie and ſandy ground,
and namely if it be well watered. *Item*, the common wheat loueth a drie ſoile, expoſed to the
Sun, and not giuen much to breed ſuperfluous weeds. *Item*, Beanes will doe well in a ſound and
faſt ſoile. As for Vetches, they care not how little they be ſowed in a moiſt piece of ground, and
ſuch as is apt to run to graſſe. Moreouer, for the fine winter wheat Siligo, whereof the beſt man- L
chet is made, and alſo for the common frumenty wheat, there would be choſen an open & high
ground, lying pleaſantly vpon the Sunne, that it might haue the heat thereof to parch it as long
and as much as is poſſible. As for Lentils, they doe like a good rough and ſhrubbie ſoile, full of
* οἱ τῷ δὲ σπλῷ σπείρω δ' ὁ κύριλ. *Plutarch.* red earth, ſo as it be not apt quickly to gather a green-ſord. * Barly would gladly grow vpon a re-
ſtie ground new broken vp, or elſe ſuch as be in heart to beare euery yeare. And as for Summer
(barley) of three moneths, it would be ſowne in a ground where it could not haue an earely or
timely Seednes, & which is ſo fat and rich, as it may affoord to beare crop, yere by yere: finally,
to ſpeak to the purpoſe indeed, this alſo is *Catoes* witty reſolution in one word for all: if the ſoile
be light and lean, ſeed it with ſuch grain or forage ſeed, as require no great nouriſhment, as for
example, with Cytiſus; and excepting the Cich-peaſe, with all pulſe that are vſed to be plucked M
out of the earth, and not mowed downe: and thereupon indeed are theſe pulſe called in Latine
Legumina, becauſe they are plucked and gathered in that ſort: but in caſe the ground be good
and fat, ſow ſuch things as require fuller food and nutriment; and namely, all garden worts and
pot-herbes; wheat, both the common and the fine; and Linſeed. Then, according to this rule, a

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A leane and hungry ſoile will well agree with barly, for the root is contented with leſſe nutriture: wheras contrariwiſe we allow both lighter, and alſo more maſſie and richer ground for our ordinary wheat. In a low and wet piece of ground, it is good to ſow the red wheat Adoreum, rather than the common wheat Triticum: but both it and barley will ſort well with a ſoile of a middle temperature. The hills yeeld a firm, faſt, and ſtrong kind of wheat, but the grain is but ſmal. And to conclude, the beſt kinds of wheat, to wit, Far and Siligo, challenge for their lot to bee ſeated in a chalky ſoile, and therwith alwaies wet and ſoked in water.

Chap. XVIII.

B ¶ *Of ſtrange prodigies and wonders obſerued in corne: the knowledge and skill of earing and tilling the ground: alſo diuers ſorts of plough-ſhares.*

ALbeit I haue in the title of this chapter purpoſed to write of prodigies ſeen in corne, yet to my knowledge, there neuer happened but once the like wonder and portenteous ſight to this which I ſhall tell, and which befell in the time that *P. Ælius* and *Cn. Cornelius* were Conſuls of Rome, that very yeare wherein *Annibal* with his whole armie was defeated and vanquiſhed: for then (by report) there was corne grew vpon trees.

But foraſmuch as I haue diſcourſed at large of the ſundry kinds as well of corn as of ground, I will proceed now forward and come to the manner of ploughing the earth, after I haue firſt ſet downe before all things els, how eaſie the husbandrie is in Egypt: for there the riuer Nilus ſeruing in ſtead of a good ploughman, beginneth to ſwel and ouerflow (aswe haue before rehearſed) at the firſt new Moone after the Summer Sunſtead. Hee beginneth faire and ſoftly, and ſo
C increaſeth more and more by little and little; but all the while that the Sun paſſeth vnder the ſigne Leo, he higheth apace vntill he be riſen to his ful heigth: being entered once into Virgo, his fury ſlaketh, then decreaſeth he as faſt, vntill hee be fallen againe into his wonted channell, which ordinarily happeneth by the time that the Sun is in Libra. Now this is obſerued, That if he riſe not plumb aboue 12 cubits high, the people are ſure to haue a famine of corn that yere: the like alſo do they make account of, in caſe he paſſe the gage of ſixteen cubits: for the higher that he is riſen, the longer it is again ere he be fully fallen, by which time the Seedneſſe is paſt, and men cannot ſow the ground in due ſeaſon. It hath bin generally receiued for a truth, That
D preſently vpon the departure of this deluge and ouerflowing of Nilus, they were woont to caſt their ſeed-corne vpon the floten ground, and preſently let in their ſwine after for to trample it with their feet into the earth whiles it was ſoft and drenched. And verily, for mine owne part, I beleeue wel, they vſed ſo to do in old time: for euen now adaies alſo, much more ado they make not about it. Howbeit, this is certaine, that firſt they caſt their ſeed vpon the ſlime and mud ſo ſoone as the riuer is downe, which commonly falleth out in the very beginning of Nouember: which done, they go ouer it with the plough and giue it a light tilth, ſo as it may be couered only and lie vnder a ſmall furrow. Some few there be that afterwards fall a weeding, which point of husbandry they call Botaniſmos: but the moſt part, after they haue once ſowed and turned their ſeed into the ground, neuer after make a ſtep into field to ſee how their corne groweth, vn-
E til they go once for all with ſyth on neck or ſickle in hand, namely at the end of March; for then they fall to reaping and cutting it downe; ſo as by the moneth of May they ſing in Egypt, Harueſt in, and all is done for that yeare. As touching this corne gathered in Baſe Egypt, the ſtraw is neuer a cubit long: the reaſon is, becauſe the ſeed lieth very ebbe, and hath no other nutriment than from the mud and ſlime aforeſaid; for vnder it is nothing but ſand and grauell. But thoſe that inhabit higher vp into the countrey, namely about Thebais, they be far better prouided for corne, becauſe Egypt indeed (for the moſt part) lyeth low vpon marais ground. Toward Babylon likewiſe and Seleucia (where the riuers Euphrates and Tigris doe ſwell ouer their banks and water the country) the ſame husbandry is practiſed, but to better effect and greater profit, by reaſon that the people may let in the water at ſluces and floud-gates, more or leſſe
F with their owne hands, according as they liſt themſelues. Alſo in Syria, they haue their ſmall ploughs for the nones to take a ſhallow ſtitch and make light worke: whereas in many places here with vs in Italy, eight oxen are little enough to euery plough, and to go away withall they muſt labor at it till they blow and pant again. It is an old ſaid Saw, and may goe for an Oracle to be practiſed in all parts of husbandry, but in this point of ploughing eſpecially, *Bee ruled by*

the nature of euery countrey, and see what each ground will abide. To come now vnto our ploughes. Of Shares, there be many sorts: first, there is that instrument called a culter, which serueth to make way before, cutting and cleauing the hard and thick ground as it goeth, before it be broken vp and turned atone side: this sheweth by the slits and incisions that it maketh (as it were by a true line drawn) how the furrows shal go; after which commeth the broad bit of the ploughshare indeed, lying flat-wise, and in earing casteth vp all before it, and cleareth the furrow. A second sort there is, commonly vsed in many places, and it is no more but a bar of yron pointed sharpe in manner of a beak-head or stem of a ship; and it may be called a Rostle. And when the ground is not stubborn but gentle to be wrought, there is a third kind vsed, which is nothing but a piece of yron not reaching all ouer the* plough head and shooing it to the full, but turning vp like a snout with a small point sharp at the end. This neb is somewhat broader in a fourth kinde of shares, but as it is broader in blade and trenchant withall, so it is sharper also at the end; insomuch, that both with the point forward & the edges of the sides, it not only pierces the ground before it poinctant like a sword, but also cutteth the roots of weeds which it incountreth: a deuise inuented not long since in Rhœtia. As for the Gaules, they set too besides, certain small roundles or wheels; & a plough thus shod & harnaised, they call in their language * Planarati: the head of their share is broad, fashioned like vnto the bit of a spade: and thus they sow their grounds for the most part, new broken vp and not tilled nor eared before. And for that their plough-shares be large and broad, so much the easier turn they vp good turfs of earth and make broad furrows. Presently after the plough, they throw in their seed, and mould or couer it afterwards with yron-toothed harrows drawn aloft. Lands in this manner sown, need no other raking or weeding; for commonly they make not past two or three bouts in a land, and as many ridges. Finally it is thought, that in this manner there may be sown in one yere by the help of one yoke of oxen, 40 arpens or acres of land ordinarily, if the ground be gentle and easie to be eared; but if it be stiffe and stubborne, they shall haue worke enough to go through thirty.

* *Dentali.*

* or as some think, *Plugradi.*

G H I

Chap. XIX.

¶ *The seasons that be proper for tilling the ground: also the manner of coupling oxen in yoke.*

IN this operation of ploughing ground, I am of mind to follow that Oracle or Aphorisme of *Cato*, who being asked which was the first and principall point of Agriculture, answered thus, *Euen to husband, order, and tend ground well*: being demanded againe, what was the second, hee made answer, *To plough well.* And when the question was propounded concerning the third point of husbandry, he said, *That it consisted in manuring and dunging it well.* There be other necessarie rules besides, set downe by him as touching this matter; namely, Make no vnequall furrowes in ploughing, but lay them alike with one and the same plough. Passe not the kindly season, but eare the ground in due time. In the warmer countries, lands would be broken vp and fallowes made, immediatly after the Winter Solstice or Sun-stead. In colder regions, touch them not before the spring Æquinox or Mid-march. In a drie quarter, plough more early than in a moist: sooner also in a fast and compact soile, than in a loose and light ground: in a fat and rich field, than in a leane and poore land. Looke in what climat the Summer is ordinarily drie and hot, it is thought more profitable to eare vp a chalky or a light and leane ground, between the Summer Sunstead and the Æquinoctiall in the fall of the leafe. If the climat be such as yeeldeth but little heat in Summer, and therewith many showers of raine, where the soile also is fat and beareth a thick green-sourd, it were better to break vp ground and fallow in the hotest season: where the soile is heauie, grosse, and fat, and wherein a man may tread deepe, I like well that it should be tilled and stirred in winter: but in case it be very light and drie withall, it would not be medled with but a little before *seednes. Here also be other proper rules set down by *Cato*, pertinent to Agriculture: Touch not (qd. he) in any hand a piece of ground that soon will turne to dust and mire. When thou doest plough indeed for to sow, imploy thy whole strength thereto: but before thou take a deep stitch for all, giue it a pin-fallow before; this commodity commeth therof, that by turning vp the turfe with the bottom vpward, the roots of weeds are killed. Some are of this opinion, that how soeuer we do els, a ground should haue the first breaking vp about the spring equinox: a land that thus hath bin once plowed in the spring, is called in Latin Vervactum, & hath that name of the foresaid time Ver [*i.* spring.] Indeed ley grounds & such as

* *Bene colere.*

* *Bene arare.*

* *Bene stercorare.*

* In the spring

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A reſt each other yere, muſt be in this wiſe followed. Now if you would know what the Latines mean by Nouale, they take it for a field ſowed euery ſecond yere. And thus much of the land.

To come now vnto our draught oxen that muſt labour at the plough: they ought to be coupled in yoke, as cloſe together & as ſtreight as is poſſible, to the end that whilſt they be at work and ploughing, they may beare vp their heads; for by that meanes they leaſt doe gall or bruiſe their necks. If they chance to goe to plough among trees and vines, they muſt be muzled with ſome frailes or deuiſes made of twigs, to the end they ſhould not brouſe and crop off the yong ſprings and ſoft tendrils. Moreouer, there ought a little hatchet to hang euermore faſt to the plough beame before, therewith to cut through roots within the ground, that might breake or ſtay the plough: for better is it ſo to do, than to put the plough to it, to keep a plucking at them
B or to force the poore oxen to lie tugging & wreſtling with them. Alſo in ploughing, this order is to be kept, That when the oxen are* gone down with one furrow to the lands end, they turne *Verſum peragi and goe vp againe with another; ſo that in ploughing of a land they * reſt betweene whiles as * Stigare. little as may be, but euermore go forward in their labour vntill they haue made an end of their * halfe acre, or halfe daies worke: and verily it is thought ſufficient for a teem of oxen to breake * Actu. vp (at the firſt tilth) in one day of reſtie or ley ground, one acre, taking a furrow or ſtitch of nine inches; but at the ſecond tilth or ſtirring, an acre and a halfe; which is to be vnderſtood of an eaſie and mellow ſoile to be wrought, for if it be tough and churliſh, it is wel if they eare vp at the firſt, halfe an acre; and at the next time they may go through with one whole acre, how hard ſoeuer the ground be; for thus haue poore beaſts their taske ſet, and their labour limited by Na-
C tures lore and appointment. Euery field to be ſown muſt be eared at firſt with ſtreight & direct furrows; but thoſe that follow after, ought to go byas and winding. If a ground vpon the pendant or hanging of the hil be to be broken vp, the furrowes muſt go croſſe and ouerthwart: howbeit, the point and beak of the plough-ſhare muſt be ſo guided, that one while it beare hard aboue on the one ſide, and another while beneath on the other ſide: and verily in this mountaine worke, the ploughman that holdeth the plough hath toile enough, and laboreth at it as hard as the oxen do. Certes, there be ſome mountaines that haue no vſe at all of this beaſt, but they eare their ground with raking and ſcraping hooks only. The ploughman, vnleſſe he bend and ſtoope forward with his body, muſt needs make ſleight worke, and leaue much vndon as it ought to be;
D a fault which in Latine we call Preuarication: and this terme appropriate vnto husbandrie, is borrowed from thence by Lawyers, and tranſlated by them into their courts and halls of pleas: if it be then a reprochfull crime for Lawyers to abuſe their clients by way of colluſion, wee ought to take heed how we deceiue and mocke the ground, where this fault was firſt found and diſcouered. To proceed, the plough-man euer and anone had need to cleanſe the culter and the ſhare with his ſtaffe, tipped and pointed at the end like a thiſtle-ſpade: he muſt beware that betweene two furrowes, he leaue no naked balks raw and vntilled: alſo that the clots ride not one vpon anothers back. Badly is that land ploughed, which after the corn is ſowed, needs the great harrows and clotting. Contrariwiſe, a man may know where there is good worke; namely, if the turfe be ſo cloſe couched that there be no ſeams to be ſeen where the plough-ſhare went: finally, it is a profitable point of husbandry and much practiſed (where the ground doth both beare
E and require it) For to draw here and there broad gutters or furrows, to drain away the water into ditches and trenches caſt for the nones betweene the lands, that otherwiſe would ſtand within and drowne the corne.

Chap. XX.

¶ Of harrowing and breaking clods. Of a certaine kind of ploughing vſed in old time. Of the ſecond tilth or fallow called Stirring: and of cutting.

After the ſecond fallow called Stirring, done with croſſe and ouerthwart furrow to the firſt; then followeth clodding, if need be, either with rakes or great harrowes: vpon which inſueth ſowing: and when the ſeed is in the ground, harrowing a ſecond time with the ſmal har-
F row. In ſome places, where the manner of the country doth ſo require, this is performed with a tined or toothed harrow, or els with a broad planke faſtened vnto the plough taile, which doth hide and couer the ſeed newly ſown: and in this maner to rake or harrow, is called in Latine Lirare, from whence came firſt the word Delirare, which is to leaue bare balks vncouered, and by a Metaphore and borrowed ſpeech, to raue and ſpeake idlely.

* *Illa ſeges demum votis reſpondet auari, Agricolæ, bis quæ ſoli bis frigora ſenſit.*

* 1 Breaking. 2 Stirring. 3 Cruſhing. 4 Setting vp. 5 Caſting downe.

It ſhould ſeem that * *Virgil* preſcribed, that the ground ſhould haue foure tilthes in all, by G theſe words, when he ſaid, That the corne was beſt, which had two Summers and two Winters. But if the ground be ſtrong and tough, as in moſt parts of Italy, there needs a * fift tilth before ſowing, and in Tuſcan verily they giue their ground, otherwhiles no fewer than nine fallowes, before it be brought into tillage. As for Beans and Vetches, they may be ſowed vnder furrow, without breaking vp the ground before; for this is a ready way, gaining time, ſauing charges, & ſparing labour.

And here I cannot ouerpaſſe one inuention more as touching earing and ploughing the ground, deuiſed in Piemont and thoſe parts beyond the Po, by occaſion of ſome hard meaſure and wrong offered to the people and peiſants of that country during the wars. And thus ſtood the caſe. The Salaſſians making rodes into the vale lying vnder the Alpes, as they forraied and H harried the country all ouer, aſſaied alſo to ouerrun their fields of Panick and Millet being now come vp and wel growne, meaning thereby to deſtroy it: but ſeeing the nature of that graine to be ſuch, as to riſe againe and to check this iniury, they ſet ploughs into it, and turned all vnder furrow, imagining by that means to ſpoil it for euer. But ſee! what inſued therupon? thoſe fields thus miſuſed (in their conceit) bare a twofold crop, in proportion to other yeres; & yeelded ſo plentifull an harueſt, as that thereby the peiſants aforeſaid learned the deuiſe of turning corn in the blade into the ground, which I ſuppoſe in thoſe days when it new came vp, they called Aratrare. And this point of husbandry they put in practiſe, when the corne beginnes to gather and ſhew the ſtem or ſtraw; to wit, ſo ſoone as it hath put forth two or three leaues and no more.

Neither will I conceale from you another new deuiſe, practiſed and inuented firſt, not aboue I three yeres paſt in the territory of Treuiers, neer to Ferrara. For at what time as their corn fields by reaſon of an extreme cold winter, ſeemed to be froſt-bitten and ſpoiled, they ſowed the ſame again in the month of March, raking and ſcraping the vpper coat of the ground onely without more ado: and neuer in their liues had they the like increaſe when harueſt came. Now as touching all other tillage and husbandry meet for the ground, I will write thereof reſpectiuely to the ſeuerall kinds of corne.

Chap. XXI.

¶ *Of the tillage and ordering of the ground.*

K THe fine Wheat Siligo, the red bearded Wheat Far, and the common Wheat Triticum; Spelt or Zea (generally called Seed) and Barly, when they be new ſown, would be wel clotted and couered firſt, harrowed afterwards, & weeded at the laſt to the very root; al at ſuch ſeaſons as ſhall be ſhewed hereafter. And to ſay a truth, euery one of theſe is a ſufficient worke for one man to do in a day throughout an acre. As for the Sarcling or ſecond harrowing, it doth much good to corn: for by looſening the ground about it, which by the winter cold was hardened, clunged, and (as it were) hide bound, it is ſomwhat inlarged and at libertie againſt the Spring tide, and full gladly admitteth and receiueth the benefit of the freſh and new come Sunſhine daies: let him take heed who thus ſarcles or rakes the ground, that he neither vndermine the roots of the corn, nor yet race or diſquiet & looſen them. The common wheat, Barley, the L Seed Zea (*i.* Spelt) and Beans, would do the better if they were thus ſarcled, and the earth laied looſe about them twice: the grubbing vp of weeds by the root, at what time as the corne is iointed (namely, when the vnprofitable and hurtful hearbs are plucked forth and rid out of the way) much helpeth the root of the corn, diſcharging it from noiſom weeds, procuring it more nutriment and ſeuering it apart from the other green ſourd of common graſſe. Of all Pulſe, the cich peaſe asketh the ſame dreſſing and ordering, as the red wheat Far. As for beans, they paſſe not at all for weeding; and why? they ouergrow all the weeds about, and choke them. The Lupines require nought els to be done to them but only weeding. Millet and Panick, muſt be clotted and once harrowed vntill they be couered: they call not for a ſecond raking & ſcraping about them, for to looſen the earth, and to lay freſh mould vnto them; much leſſe to be weeded. As for Silicia or Siliqua, *i.* * Fenigreeke, and Faſels, *i.* Kidney-beans, they care onely for clodding, & there M an end.

* For ſo he interpreteth it himſelf in the 1 chap. of this booke.

Moreouer, there be certain grounds ſo fertile, that the corn comming vp ſo thick & ranke in the blade, ought then to be kembed (as it were) & raked with a kind of harrow ſet with teeth or

ſpikes

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A ſpikes of yron:and yet for all this,they muſt be graſed or eaten down beſides neuertheleſſe with ſheep. Now we muſt remember,that after ſuch cattel hath gon ouer it with their teeth,the ſame corne thus eaten downe,muſt of neceſſity be farcled, and the earth lightly raked and raiſed vp freſh againe. Howbeit,in Bactriana, Africke,and Cyrene, there needs no ſuch hand at all: for the climate is ſo good,ſo kinde,and beneficiall,that none of all this paines is required: for after the ſeed is once ſowne,they neuer viſit it but once for all at nine months end,at what time they returne to cut it down and lay it vpon their thraſhing floores:the reaſon is,becauſe the drought keepeth downe all weeds;and the dewes that fall by night, are ſufficient to refreſh and nouriſh the corne.

Virgil is of opinion,That fallowes would be made euery yeare,and that our corn field ſhould
B reſt betweene whiles,and beare but each other yere. And ſurely,I doe find this rule of his moſt true,and doubtleſſe right profitable;in caſe a man haue land enough for to let his grounds play them,and reſt euery ſecond yere. But how if a man is ſtreighted that way,and hath no ſuch reach and circuit lying to his liuing? Let him help himſelfe this way:let him(I ſay)ſow his good red wheat Far againſt the next yere,vpon that ground from whence he gathered this yeare a crop of Lupines,Vetches,or Beans,or ſome ſuch grain as doth inrich and muck the ground. For this alſo is principally to be noted,that ſome corne is ſowne for no other purpoſe,but by the way as it were to aduance and help others to fructifie:howbeit,ſmall fruit and increaſe (to ſpeak of) ariſeth thereby,as I haue obſerued once for all in the booke immediatly going before, becauſe I would not willingly reiterate and inculcate one thing often. For herein regard eſpecially ought
C to be had,vnto the nature and property of euery ſoile.

Chap. XXII.

¶ *Of certaine countries exceeding fertile and fruitfull. Of a Vine bearing grapes twiſe in one yeare. Of the difference and diuerſitie obſerued in waters.*

THere is in Africke or Barbary a city called Tacape, ſcituate in the midſt of the ſands, as men go to the Syrts and Leptis the great:the territory lying about which city, by reaſon that it is ſo well watered,is maruellous fruitfull,and indeed paſſeth a wonder and is incredible. Within this tract there is a fountain,which ſerueth abundantly for three miles well neer,
D euery way;the head therof verily is large enough otherwiſe, howbeit the inhabitants about it are ſerued with water from thence by turns,and diſpenſed it is among them at certain ſet hours, and not otherwiſe. There ſtandeth there a mighty great date-tree, hauing vnder it growing an oliue,vnder which there is a fig-tree,and that ouerſpreadeth a Pomegranat tree,vnder the ſhade whereof there is a Vine: and vnder the compaſſe thereof,firſt they ſow Frument or cared corne, after that Pulſe,and then worts and herbs for the pot,all in one and the ſame yere. Euery one of theſe rehearſed,liue,joy,and thriue vnder the ſhade of others. Euery foure cubits ſquare of this ſoile(taking the meaſure of a cubit from the elbow, not to the fingers ends ſtretched out in length,but claſped together into the fiſt) is ſold for * 4 deniers Roman: but this one ſurpaſſeth all the reſt. The vines in the ſaid territory beare twice a yeare, and yeeld their grapes ripe for a
E double Vintage. So exceeding fruitfull is the ſoile,that vnleſſe the rankneſſe thereof were abated and taken downe, by bearing ſundry fruits one vnder and after another, ſo that it were imploied to one thing alone,the inhabitants ſhould neuer haue any good thereof:for by reaſon of the ouer-rankneſſe,each ſeuerall fruit would periſh and come to nought:but now by meanes of plying and following it ſtill with ſeed, a man ſhall gather one fruit or other ripe, all the yeare long. And for certaine it is knowne,that men cannot ouercharge the ground,no nor feed the fertilitie of it ſufficiently.

* 2.*ſh.*6.*d.ſterl.* By which reckoning one acre would coſt aboue 20: pound ſterling ſo much in proportion of the whole, as this cubit is vnder our halfe yard or 18 inches.

Moreouer,all kinds of water are not of like nature nor of equall goodneſſe,for to drench and refreſh the ground. In the prouince of Narbon,now Languedoc,there is a famous wel or fountain named Orge,within the very head wherof there grow certaine herbes, ſo much deſired and
F ſought for by kine and oxen,that to ſeeke and get a mouthfull of them, they will thruſt in their whole heads ouer their eares,vntill they meet therewith: but howſoeuer theſe herbs ſeeme to ſpring & grow within the water,certain it is,that nouriſhed they are not,but by rain from aboue. And therfore to conclude & knit vp all in one word,Let euery man be wel acquainted with the nature both of his own land which he hath,and alſo of the water wherewith he is ſerued.

Chap. XXIII.

¶ *Of the diuers qualities of the ſoile. Alſo, the manner of dunging or manuring grounds.*

IF you meet with a ground of your owne, which we called heretofore by the name of Tenera, the floure indeed and principall of all others; after you haue taken off a crop of Barley, you may very wel ſow Millet thereupon: and when that is inned and laid vp in the barne, proceed to Raddiſh. Laſt of all, after they be drawne, there may be barly or common wheat ſowed in the place, like as they do in Campaine; for ſurely ſuch a piece of ground needs no other tillage, but often ſowing. Another order there is beſides this in ſowing of ſuch ſoile; namely, that where there grew the red wheat Adoreum or Far, there the ground ſhould reſt all the four winter moneths, and in the Spring be ſowed again with Beans; ſo that it alwaies be imploied and kept occupied vntill Winter without any intermiſſion. And ſay that the ground be not altogether ſo fat, yet it may be ordered ſo, that it be euer bearing by turns in this ſort, that after the Frumenty or Spike corne be taken off, there be pulſe ſowne three times, one after another. But in caſe the ground be ouer poore and lean, it muſt be ſuffered to reſt and take repoſe two yeares in three. Moreouer, many husbandmen do hold, that it is not good to ſow white corne or Frument vpon any land, but ſuch as lay fallow and reſted the yeare before.

Howeuer it be, the principall thing in this part of Agriculture, conſiſteth in dunging, whereof I haue written already in the former book next to this. This one point only is reſolued vpon by all men, that none of our grounds ought to be ſowed, vnleſſe they be manured and mucked before. And yet herein muſt we be directed by certain rules peculiar and proper thereunto, as follow. Millet, Panick, Rapes, Turneps, or Navews, ought neuer to be ſowed but in a ground that is dunged. If there be no compoſt laid vpon a ground, ſow vpon it Frument or bread-corne, rather than Barley. Likewiſe in grounds that reſt and lie fallow euery other yere, albeit in all mens opinion, they are thought good for to beare Beans, yet notwithſtanding beans loue better whereſoeuer they come to be ſowed in a ground but newly mucked. He that mindeth to ſow at the fal of the leafe, muſt in the month of September before, ſpread his dung, turn it in with the plough, and ſo incorporat it with the ſoile preſently after a ſhower of rain: euen ſo alſo, if a man purpoſe to ſow in the ſpring, let him in the winter time diſpoſe of his mucke vpon the lands and ſpread it. The ordinary proportion is, to lay 18 tumbrels or loads therof vpon euery acre. Throwne abroad it muſt be alſo before it be dried, and ere you ſow, or els ſo ſoone as the ſeede is in the ground, that it may be harrowed in with the corne. But in caſe this manner of dunging be neglected, it followeth then before that you do harrow, to ſtrew the ſhort ſmall dung in manner of duſt gathered out of Coupes, Mues, and Bartons, where foule are fed; or els to caſt Goats treddles vpon the land, as if you would ſow ſeed, and then with rakes and harrowes to mingle it with the ſoile.

To the end now that we may determine fully as touching this care alſo, belonging to dung, euery ſheep or goat and ſuch ſmall cattell, ſhould by right yeeld ordinarily in dung one load in *ten daies: and euery head of bigger beaſts ten load; for vnleſſe this proportion and quantity of muck be gathered, plain it is, that the granger or maſter of husbandry, hath not don his part, but failed in litering of his cattell. Some hold opinion, that the beſt way of mucking a land is, to fold ſheep and ſuch like ſmall cattell thereupon, euen in the broad open field; and to this purpoſe they incloſe or impark them within hurdles. In a word, a ground not dunged at al, groweth to be cold; and again if it be ouermuch dunged, the heart thereof is burned away. And therefore the better and ſafer way is to muck by little at once and often, rather than to ouerdo it at once. The hotter that a ſoile is, it ſtands by good reaſon, that the leſſe compoſt it requireth.

*or rather (after *Columella*) 39 daies.

Chap. XXIIII.

¶ *Of good ſeed-corne. The manner of ſowing ground well. How much ſeed of euery kind of graine an acre will take. The due ſeaſons of Seedneſſe.*

THe beſt corne or Zea for ſeede, is of one yeares age, two yeares old is not ſo good: that of three, is worſt of all: for beyond that time, the heart is dead, and ſuch corne wil neuer ſpurt.

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A And verily this that is ſaid of one ſort may be verified of all kindes. The corne that ſetleth to the bottome of the mowgh in a barn toward the floore, is euer to be reſerued for ſeed. And that muſt needs be beſt, becauſe it is weightieſt, for therein lieth the goodneſſe: neither is there a better way to diſcern and diſtinguiſh good corn from other. If you ſee an eare of corn hauing grains in it here and there ſtaring diſtant aſunder, be ſure the corn is not good for this purpoſe; and therefore it muſt be caſt aſide. The beſt graine looketh reddiſh, and being broken between ones teeth, retaineth ſtil the ſame colour within: the worſe corn for ſeed is that which ſheweth more of the white flower within.

Furthermore, this is certain, that ſome grounds take more ſeed, and ſome leſſe. And hereby verily do husbandmen gather their firſt preſage religiouſly, of a good or bad harueſt; for when
B they ſee the ground ſwallow more ſeed than ordinary, they haue a ceremonie to ſay & beleeue that it is hungry, and hath greedily eaten the ſeed. When a man is to ſow a moiſt ground, good reaſon there is to make the quicker diſpatch, and to do it betimes, for fear leſt rain come to rot it. But contrariwiſe in dry places it is not amiſſe to ſtay the later, and attend till raine follow, leſt by lying long in the earth, and not conceiuing for want of moiſture, it loſe the heart & turn to nothing. Semblably, when a man ſoweth early, he muſt beſtow the more ſeed and ſow thick, becauſe it is long ere it ſwel and be ready to chit. But if he be late in his ſeednes, he ſhould caſt it thin into the ground, for thick ſowing will choke and kill the ſeed. Moreouer, in this feat of ſowing there is a pretty skil and cunning, namely to cary an euen hand, and caſt the ſeed equally thorowout the whole field. The hand (in any caſe) of the ſeeds-man muſt agree with his gate
C and march: it ought alwaies to go iuſt with his right foot. Herein alſo this would not be forgotten, that one is more fortunate and hath a more lucky hand than another: and the ſeed will proſper better and yeeld more encreaſe that ſuch a one ſoweth: an hidden ſecret ſurely in Nature, and whereof we can yeeld no ſound reaſon. Ouer and beſides, this is to be conſidered, that corn comming from a cold ſoile, muſt not be ſowne in a hot ground; nor that which grew in a forward and haſty field, ought to be transferred into lateward lands. How ſoeuer, ſome there be that haue giuen rule clean contrary: howbeit they haue deceiued themſelues with al their fooliſh curioſitie.

Now as touching the quantitie of ſeed that muſt be giuen, according to the varietie both of ground and grain, theſe principles following are to be obſerued: in a reaſonable good ground
D of a mean temperature, an acre in ordinarie proportion wil ask of common wheat Triticum, or of the fine wheat Siligo, 5 modij; of the red wheat Far, or of * ſeed [for ſo we cal a kind of bread corn] ten Modij; of Barly ſix; of Beans as much as of common wheat, and a fift part or one Modius ouer; of Vetches 12; of Cich peaſe the greater, Cichlings the leſſe, and of peaſe three; of Lupines ten; of Lentils 3; [as for theſe, folk would haue them ſowed together with dry dung] of Ervile ſix; of Silicia or Feni-greek ſix; of Phaſeols or Kidny beans foure; of Dradge or Balimong for horſe prouender, 20; but of Millet and Panick 4 Sextars. Howbeit herein can be ſet down no iuſt proportion, for the ſoile may alter all. And in one word, a fat ground will receiue more, and a lean leſſe. Beſides, there ariſeth a difference another way, in this manner; if it be a maſſie, faſt, chalky, and moiſt ground, you may beſtow in one acre thereof ſix Modij, either of
E common wheat or of fine Siligo; but in caſe it be looſe and light, naked, dry, and yet in good heart and free, it will aske but foure. For the leaner that a ground is, vnleſſe it be ſown ſcant, and the ſtraw come vp alſo thinne, the ſhorter eare will the corne haue, and the ſame light in the head, and nothing therein. Be the ground rich and fat, ye ſhall ſee out of one root a number of ſtems to ſpring; ſo that although the grain be thin ſown, yet will it come vp thick, and beare a faire and full eare. And therefore in an acre of ground you ſhall not do amiſſe to keep a meane between foure and ſix Modij, hauing reſpect to the nature of the ſoile. And yet ſome there be who would haue [of wheat] fiue Modij ſown at all aduenture, and neither more nor leſſe, whatſoeuer the ground be. To conclude, if the ground be ſet with trees, or lying on the ſide of an hill, all is one, as if it were lean, hungry, and out of heart. And hereto may be reduced that notable
F Aphoriſme, worthy to be kept and obſerued as a diuine Oracle: Take not too much of a land, weare not out all the fatneſſe, but leaue it in ſome heart. Ouer and aboue the rules aforeſaid, *Accius* in his Treatiſe called Praxidicus, comes in with one more of his own: Sow your ground (ſaith he) when the Moone is in any of theſe ſignes, Aries, Gemini, Leo, Libra, and Aquarius. And *Zoroaſtres* hath another Aſtronomicall obſeruation by himſelfe, That the Sun ſhould be entred

* He meaneth Zea or Spelt.

entred into Scorpio, and paſt twelue degrees thereof, the Moone being at the ſame time in Taurus. G

Now followeth the deep queſtion to be diſcuſſed and determined, As touching the fit time and ſeaſon of ſowing corn: which I haue put off and deferred to this preſent place. And this would be handled and conſidered vpon with exceeding great care and regard, as depending for the moſt part of Aſtronomie, and requiring good inſight in the courſe and motion of the Planets, in the order alſo and influence of the fixed ſtars: and therefore I purpoſe to lay abroad the opinions and judgments of antient writers principally in that behalf. To begin therefore with *Heſiod*, eſteemed the prince and chiefe of all thoſe that gaue precepts of Agriculture; hee hath ſet down one certain time of Seednes, to wit, preſently after the fall or occultation of the Star Vergiliæ, *i.* the Brood-hen: and no maruell, for he wrot that book of his in Bœotia, a countrey in H the very heart of Hellas or Greece, reſpectiuely to his own countrymen and that climat: and in very truth that was the time of ſowing there, as we haue noted and ſpecified already. The beſt Authors of name, and who haue written moſt exactly of this argument, are all agreed vpon this point and concluſion, ſaying, That as all fowles of the aire and foure footed beaſts haue their due ſeaſon of ingendring; euen ſo there is a certaine time when as the earth is as it were in the ruit, and hath a luſt to be conceiued. The Greeks in general termes haue deſcribed that ſeaſon in this wiſe, namely, When the earth is hot and moiſt. *Virgil* giueth a precept to ſow the common wheat Triticum, and the red bearded wheat Far, after the retrait or departure aforeſaid of the Brood-hen Vergiliæ. As for Barly, he would haue it caſt into the ground betweene the Æquinox in Autumne, and the winter Sun-ſted: but Vetches, Kidney-beans, or Lentils, at the ſet- I ting or going downe of the ſtar Boote. Which being ſo, it would do well to digeſt the riſing and falling both of theſe ſtars and alſo of others, into their ſet dayes; to ſhew (I ſay) at what fixed time they appear, and when again they are hidden. Some there be who are of opinion, that it is good ſowing euen before the occultation of the ſaid ſtar Virgiliæ, but in a dry ground only and in hot countries: for ſo (ſay they) will the ſeed ſwell and mortifie the better; which the naturall humiditie only of the earth is ſufficient to putrifie and prepare ſo, that when the next rain falleth, it will be ready to ſpurt and chit within a day. Others attend and wait ſeuen dayes after the retrait of the foreſaid Brood-hen, for the rain that commonly falleth about that time. There be again that begin to ſow in cold regions immediatly after the Æquinox in Autumne: but in hot countries they be later in their ſeednes, for fear that the corn would be winter-proud K and grow ouermuch before the cold weather come. But all writers accord herein, that it is not good ſowing before the winter Solſtice, when the daies be at the ſhorteſt: the reaſon is verie pregnant and apparant, for winter ſeed if it be ſown before mid-winter, will ſpurt and ſpring at the ſeuen-nights end; ſow after that time, you ſhall haue it lie in the ground forty daies before it make any ſhew of comming vp. Many make haſt and put their ſeed into the ground betimes, hauing this prouerbe vſually in their mouth, *Well may ouertimely and haſty ſowing oftentimes faile, but late ſowing ſhall euer miſſe and deceiue the maſter.* Contrariwiſe, others there are of this minde, That it were better ſtay vntil the ſpring to do it wel and ſurely, rather than to ſow in a bad Autumne, and haſard the loſing of all. If there be no remedie therefore but to take the ſpring ſeaſon, a man muſt make choiſe of the time betweene the midſt of Februarie [at what time as the L Weſt wind Fauonius doth riſe and begin to blow] and the Æquinox in March. Some haue no regard at all to the conſtitution and figure of the heauens in this caſe, thinking the riſing and falling of ſtars, the courſe and motions of cœleſtial bodies to be friuolous matters and nothing pertinent to this purpoſe, but content themſelues only with obſeruing the cardinall ſeaſons of the yeare, and ſome other times, in a generality. In the ſpring (ſay they) ſow Lineſeed, Otes, and Poppies, and ſo hold on vnto the feſtiuall holydaies of *Minerva*, called Quinquatrus; like as at this day throughout all Lombardie and beyond the Po, they go by no other rule. As for Beans and the fine wheat Siligo, put them into the ground in the moneth of Nouember. Let the winter red wheat Far take his fortune and be interred, from the end of September, vntill the midſt or fifteenth day of October. Others goe beyond that day, and continue their ſeedneſſe vnto to the Calends or firſt day of Nouember. Now as theſe men haue no regard at all to the ſpecu- M lation of Nature, and the courſe of the ſtarres; ſo the other before named are giuen too much thereto, and wrapt they are ſo high among the ſtars and planets, that their owne eyes be dazeled therewith: and beſides, their ſubtilties and quidities do blind others, conſidering that the pra-

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A ctiſe of theſe matters muſt paſſe through the hands of ruſtical peaſants, who are ſo far off from conceiuing Aſtronomy, & the conſtellations aboue, that they know not one letter of the book, nor neuer learned their A.B.C. Howbeit, we canot chuſe but confeſſe, that the true reaſon and knowledge of Agriculture, depends principally vpon the obſeruation of the order in heauenly bodies: for *Virgill* ſaith very wel, That before all other things, a husbandman ſhould be skilfull in the winds and haue the foreknowledge and prediction of them: alſo to haue an inſight into the nature and influence of the ſtarres, and in one word, to obſerue both the one and the other, as well as the Sailers and mariners at ſea. Certes, a hard peece of worke it is, and infinite; and ſmal hope I haue that euer I ſhal be able to driue into their heads that are ſo ignorant & groſſe of conceit, this high learning and heauenly diuinitie, as touching the Planets, the fixed ſtarres,
B together with the reaſon of their orderly motions and cœleſtiall powers: howbeit conſidering the great profit that may ariſe and grow therupon to mankind, I will caſt a profer and giue the attempt to make ploughmen Aſtrologers, or Aſtronomers at leaſtwiſe, if it may be. But firſt my purpoſe is, to lay open before their eies certain difficultys (which troubled alſo ſome of the auncient writers, and thoſe not vnskilfull in this part of Philoſophie) as touching the courſe and order of the Starres: which beeing not onely diſcouered, but alſo aſſoiled and cleared, their minds with better contentment may goe from the contemplation of heauen to the reſt of Natures workes, and ſee thoſe things by the effects, which they could not poſſibly foreſee by their cauſes.

C

Chap. XXV.

¶ *The times and ſeaſons of the riſing and ſetting of Starres, digeſted into order, as well by* * *day as night,*

* i. Euening and morning.

IN the firſt place, there offereth it ſelfe vnto vs one difficultie aboue the reſt, ſo intricate, as hardly is it poſſible to reſolue vpon it; namely, as touching the very daies of the yere, how many they be, in number; and the reuolution of the Sunne, how and when he returneth againe to to the ſame point? For wheras ſome do account the ſolare yere to be 365 daies juſt, others adde thereunto certaine quadrants or foure parts of day and night together, to wit, ſix houres euery yeare, which beeing put together, make the fourth yeare Biſſextile or Leape yeare: ſo as it is in
D manner impoſſible to aſſigne the certaine daies and houres of the Starres apparition or occultation. Ouer and beſides, how obſcure, how darke and confuſed all this matter is, appeareth manifeſtly herin, That the times and ſeaſons of the yere prefixed by ancient writers, fal not out accordingly; and namely, in the obſeruation of the winter ſeaſons & tempeſts by them ſet down: for one while you ſhall haue them to preuent and come ſooner by many daies than ordinarie, which the Greekes call προκμάζειν: another while to draw back and come later, which they terme ὀψικμάζειν. Yea and for the moſt part this happeneth, by reaſon that the influence of the cœleſtiall ſtarres reacheth ſooner or later to the earth, and therafter ſheweth the effects: ſo as, the common people, when they ſee the ſaid foule weather paſt, and all cleare and faire againe, ſay then and not before, That ſuch a planet or Starre hath performed his courſe, and is vpon the point
E of his Tropicke or return againe. Moreouer, conſidering that al theſe occurrents depend much vpon thoſe ſtars which be ſet & fixed in the firmament, yet ſhall ye haue the Planets play their parts beſides, which by their motions and operations, worke no ſmall effects vpon the earth, as we haue ſhewed before; and namely, cauſing betweene-whiles ſtormes of raine and haile out of courſe: no maruell then, if they trouble our heads and put vs out of our account, interrupting that order of the fixed Stars, vpon which we conceiued and built our hope of the faire ſeaſon, and our new ſpring. And herin, not we only that be men faile of our reckoning, but other liuing creatures alſo be deceiued, which naturally haue much more ſenſe and vnderſtanding of theſe workes of Nature, than we, in as much as their whole life ſtandeth thereupon: for the Summer-birds (as great fore-ſight as they haue of ſuch ſeaſons and tempeſts) are ouer-taken and killed
F by Winter froſts and cold, comming ſooner than they looked for, and before they be gone out of the countrey, as alſo winter foules miſcarrie by the hot weather of ſummer, continuing longer than it was woont, and holding on ſtill after they be come. Hereupon it is, that *Virgil* expreſſely willeth vs to learne throughly the skill of the wandring Starres or Planets alſo, and principally giueth vs warning to marke the courſe of that cold Planet Saturne.

But

But now to come more particularly to the ſigns which fore-token the Spring: ſome there be G
that goe by the Butterflie, and hold that their brood comming abroad, is an aſſured token that the Spring is come, for that theſe creatures ſo feeble, are not able to abide any cold: howbeit, this was checked that very yere, wherin I wrote this Book or Hiſtory of Natures work: for ſeen it was and marked very well, that 3 flights of them one after another were killed with the cold weather that ſurpriſed them thrice, for that they were ſtirring too early, and came abroad ouerſoon. Yea, and the very birds who are our gueſts in warm weather, viſited vs fiue or ſixe daies before Februarie, & made a goodly ſhew of a timely Spring, putting vs in good hope, that al cold weather was gone: howbeit, there enſued a moſt bitter after winter ſtreight vpon it, that nipped and killed them in manner euerie one. Hard and doubtfull therefore is the caſe, that whereas
firſt and principally we were to fetch our rule from the heauens to guide and direct vs, then af- H
terwards we ſhould be driuen to goe by other ſignes and arguments meere conjecturall. But aboue all, the cauſe of this incertitude and difficultie, is partly the conuexity of the cope of heauen, and partly the diuerſe climats obſerued in the globe of the earth, by meanes whereof, one and the ſame ſtar ſeemeth to riſe at ſundrie times in diuerſe countres, and appears ſooner or later to ſome than to others: and therefore the cauſe depending thereupon, is not in all places of like validity, nor ſheweth the ſame effects alwaies at the ſame times. And yet there is one difficultie more, ariſing from thoſe Authors who writing of one and the ſame thing, haue deliuered diuers opinions, according to the ſundry climates wherein they were, at what time as they obſerued the figure and conſtitution of the heauens. Now were there of theſe Aſtronomers three
Sects, to wit, the Chaldæans, the Ægyptians, and the Greekes. To which there may be added a I
fourth, which among vs *Cæſar* the Dictatour firſt erected: who obſeruing the courſe of the Sun, and taking with him alſo the aduiſe of *Soſigenes* (a learned Mathematitian and skilfull Aſtronomer in his time) reduced the yeare vnto the ſaid reuolution. Howbeit, in this calculation of his, there was found an error, and ſhort he came of the marke, which he aimed at, by reaſon that there was no Biſſextile or leap yere by him inſerted, but after 12 yeres. Now, when it was obſerued by this reckoning, that the ſun had performed his reuolution ſooner than the yere turned about, which before was wont to preuent the courſe of the Sun, this error was reformed: and after euery fourth yeare expired, came about the Biſſextile aforeſaid, and made al ſtreight. *Soſigenes* alſo himſelfe, albeit he was reputed a more curious and exquiſite Mathematician than the
reſt, yet in three ſeuerall treatiſes that he made, retracting or correcting that in one booke that K
he had ſet down in another, ſeemed euermore to write doubtfully, and left the thing in as great ambiguitie & vndetermined as he found it. As for theſe writers whoſe names I haue alleadged & prefixed in the front of this preſent volume now in hand, they haue likewiſe deliuered their opinions as touching this point, but hardly ſhal you find two of them in one & the ſame mind. Leſſe maruell then if the reſt haue varied one from another, who may pretend for their excuſe the diuers tracts and climates wherein they wrote. As for thoſe who liued in the ſame region, and yet wrot contrarie, I canot tel what to make of them: howbeit, I care not much to ſet downe one example of their diſcord & diſagreement. *Heſiodus* the Poet (for vnder his name alſo there goeth a Treatiſe of Aſtrologie) hath put down in writing the matutine ſetting of the ſtar Vergiliæ (which is the occultation thereof by the raies and beames of the Sunne toward morning) L
to begin ordinarily vpon the day of the Æquinox in Autumne. *Thales* the Mileſian ſaith, That it falleth out vpon the fiue and twentieth after the ſaid Æquinox. *Anaximander* writeth, That it is nine and twenty daies after: and finally, *Euctemon* hath noted the 48 day following the ſaid Æquinox, for the retrait or occultation of the forenamed Brood-hen ſtar Vergiliæ. Loe what varietie there is among theſe deepe clearkes and great Aſtrologers.

For mine owne part I hold well with *Cæſars* calculation, and wil keep me to his obſeruations as neere as I can, for that the ſame wil fit beſt with our meridian here in al Italie. Yet neuertheleſſe I will not ſticke to ſet downe the opinions of others, becauſe my deſſeigne tendeth not to one particular place alone, but I purpoſe and profeſſe to repreſent vnto the reader the vniuerſall hiſtory of Nature, and the whole world. But my meaning is not to rehearſe the names of euery Author one by one (for that were a tedious peece of work, and would require a long train M
of ſuperfluous words) but only to put down the regions of euery climate, and that as ſuccinctly and briefely as I can. Where, by the way I muſt aduertiſe the Readers, that they remember wel this one thing, how when for breuities ſake I name the land or region Attica, they muſt with-

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A all vnderſtand the Iſlands Cyclades: when I name Macedonie, I comprehend therewith Magneſia and Thracia: vnder Ægypt I compriſe Phœnice, Cyprus, and Cilicia: vnder Bœotia, the regions of Locris and Phocis: and in one word, alwaies the tracts and Countries adiacent and confining together. *Item*, In making mention of Helleſpontus onely, I take together with it, Cherſoneſus, and all the continent or main firme land, as far as to the mountaine Athos: in naming Ionia, I reckon alſo Aſia the leſſe or Natolia, and the Iſles thereto adioyning: vnder the name of Peloponneſus I count Achaia, and other lands in that climat lying to the Weſt. Finally, the Chaldæans ſhall make demonſtration, as in a map, of Aſſyria and Babylonia. As for Africke or Barbary, Spaine and France, maruell not if I paſſe them ouer in ſilence: for there is not a writer in all theſe Nations, one or other, who hath either obſerued or penned downe the
B time when theſe fixed ſtars riſe or fall. Howbeit it were no hard matter to come to the knowledge thereof in thoſe climats and countries alſo, by the meridionall lines and conformitie of the Parallele-circles, which I digeſted orderly in the ſixt book of this work. For thereby a man may vnderſtand the vniforme agreement in the poſition of the heauen, not only for whole Climats and countries, but alſo for euery ſeuerall city by it ſelfe, vnder the ſame meridian or Parallel: following ſtil the known paralels of theſe regions which we haue named, and taking withall the eleuation of any circle pertaining to euery ſuch land as a man wil ſeeke, and reſpectiue to the riſing of the ſtars, according to the equal ſhadowes throughout all thoſe paralel circles. Moreouer, it ought to be ſhewed and declared, that ordinarily the times and ſeaſons haue their temperature and influence euery foure yeres together: and thoſe lightly return the ſame with-
C out any great alteration, from yeare to yeare duly according to the courſe and recourſe of the Sun, during that term: mary in eight yeares they ſenſibly do increaſe, namely by what time as the Moon is in her hundreth reuolution.

Now all the knowledge of the heauens pertinent to Agriculture, ſtandeth principally vpon three ſorts of obſeruations, to wit, the riſing of the fixed ſtars, the ſetting of the ſame, and the four cardinal points, to wit, of the two Tropicks or Sunſteads, and the double Æquinox, which diuide the whole yeare into foure quarters and notable ſeaſons. Where note, that the riſe and fall of thoſe ſtars beforeſaid is to be conſidered and taken two waies. For firſt when the Sun approcheth vnto them with his beams, they be hidden and no more ſeen: likewiſe after his departure they ſhew themſelues again: and as the one, me thinks, might haue bin more aptly called
D an Apparition than a Riſing, ſo we ſhould haue framed our tongue in common ſpeech to haue termed the other Occultation, rather than Setting. Secondly, according as the ſaid ſtars begin either to ſhine out or be hidden in the morning before the Sunne be vp, or at euening after the Sun is ſet, they be ſaid to riſe and go downe, and thereupon are named Matutine or Veſpertine, Orientall or Occidental, according as the one or the other hapneth vnto them in the twi-light, morning, or euening. Certes, when they are to be ſeene Matutine or Veſpertine, it muſt be at the leaſt three quarters of an houre either before the Sun is vp, or after he is downe: for within that ſpace there is no looking after them. Moreouer, ſome ſtars there be that riſe and fal twice. But take this with you, ere I proceed further, that all this ſpeech of mine is to be vnderſtood of the fixed ſtars, which being ſetled faſt in the ſky, moue not of themſelues: and in no wiſe of the
E planets.

* *Ortus & occaſus Heliacus.*

* *ortus & occaſus Coſmicus.*

As touching the foure cardinal ſeaſons of the yeare, whereby it is diuided into foure quarters; limited they be according to the light more or leſſe, and as the daies be longer or ſhorter: for ſo ſoon as the winter Sunſted is paſt, the daies do lengthen; and by that time that 90 daies and three houres be gon and paſt, they be iuſt as long as the night, and this is called the ſpring Æquinox. From which very day, for ninety three days together and twelue houres, namely vnto the ſummer Sun-ſtead, the daies be longer than the night, and ſo continue vntill the Autumne Æquinox, at what time the daies and nights be equall againe; from which time they ſhorten and decreaſe as they grew in length and increaſed before, for eighty nine daies together, and three houres, vntill the foreſaid winter Sunſtead, when as the daies be ſhorteſt. And here you
F muſt note, that in all theſe additions of houres at this preſent, I mean thoſe only that be Æquinoctiall, which diuide the day and night equally in foure and twenty parts, and not the common houres of any other day artificiall whatſoeuer. Alſo take this with you, that all theſe diſtinctions and diuiſions of the foure ſeaſons, begin alwaies in the eight degree of thoſe ſignes vnder which the Sunne is at thoſe times: as for example, The winter Sunſtead or ſhorteſt day

of

of the yeare,called in Latine Bruma,falleth out in the eight degree of Capricorn,which light- G
ly is vpon the * 18 day before the Calends of Ianuary. The Spring Æquinox,when nights and
daies be of a length,in the eight degree of Aries. Semblably,the ſummer Sunſtead, or longeſt
day of the yeare, is alwaies when the Sun is entred eight degrees into Cancer. Laſt of all, the
other Æquinox in Autumne, when day and night is equall, lighteth vpon the eight degree of
Libra. And certes,ſeldom or neuer ſhall you ſee any of theſe foure daies without euident ſhew
of ſome notable change in the weather. Again,theſe cardinall ſeaſons or quarters of the yeare
admit alſo their ſub-diuiſions ſtill into ſome notable and ſpecial times,obſerued in the * very
middle ſpace from the one and the other. For betweene the ſummer Sunſtead and the Æqui-
nox in Autumne iuſt vpon the fiue and forty day after the ſame Sunſtead, the retrait or ſetting
of the ſtar called in Latine Fidicula,*i.*the Harp,beginneth the Autumne. Likewiſe,betweene H
that Æquinox and the winter Sunſtead or ſhorteſt day of the yeare, the Matutine or morning
fall of the ſtar Virgiliæ,vpon the three and fortieth day after the ſaid Æquinox, ſetteth the be-
ginning of the winter. So likewiſe vpon the fiue and fortieth day between mid-winter or the
ſhorteſt day of the yeare,and the ſpring Æquinox,the blowing of the Weſtern wind Favonius
beginneth the Spring. And laſt of all,vpon the three and fortieth day from the ſayd Æquinox
toward the Summer Sunſtead,at what time as the ſtar Virgiliæ doth riſe Matutine,begins the
Summer

* 15 of December.

*Called *Interualla* afterward in this chapter: and contain much about ſixe weekes.

But to returne again to our Agriculture, begin I will at the Seednes of Frument corne,that
is to ſay,at the riſing or apparition of the ſtarre Vergiliæ in the morning,without making any
mention at all of other pety ſtars,for to interrupt the train and courſe of our treatiſe,& to heap I
difficulties one vpon another,conſidering that the fierce and vehement ſtar Orion is departed a
great way off from vs by that time. I am not ignorant,that many fall to ſowing corne long be-
fore,and preuent this time,beginning their Seednes within 11 daies after the Æquinox in Au-
tumne, namely, at the approch and riſing of the ſtar Corona, *i.* the Crowne; promiſing them-
ſelues aſſuredly to haue rain vpon it for certain daies together. *Xenophon* would not haue vs be-
gin to ſow before that God giue vs ſome good ſigne and token ſo to do. And *Cicero* our coun-
tryman expounding this ſaying of *Xenophon*, taketh the raines in * Nouember to be that ſigne
which God giueth: whereas in very deed the true and vndoubted rule to goe by, is to make no
great haſt into the field for to ſow,before the leaues begin to fall: and this euery man holdeth
to be at the very occultation or retrait of the ſtar Vergiliæ. Some,as we haue before ſaid,haue K
obſerued it about 3 daies before the Ides of Nouember. And for that the ſaid ſtar is ſo euident
in the heauen,and eaſieſt to be known of all others,called it is by the name of a garment hang-
ing out at a Brokers ſhop. And therefore by the fall or retrait thereof, as many men as haue a
care and forecaſt to preuent the couetous dealing of the merchant-Tailor (as commonly ſuch
occupiers lie in the wind for gain) gueſſe aforehand what winter will follow: for if it be a clou-
die ſeaſon when the ſtar retireth,it threatens a rainy winter,and then theſe merchants preſently
raiſe the price of the clokes which they ſel: but if the weather be faire and cleare at the ſetting
or occultation thereof,it ſheweth a pinching and hard winter toward;and then they hold other
garments alſo very deare. But this Husbandman of ours,who cannot skill at all to looke vp and
to learn the order and poſition of the heauens,muſt ſpy this ſigne of winter amongſt his briers L
and brambles: he muſt find (I ſay) the time of Seednes as he looketh downe vpon the ground,
namely,when he ſees the leaues fallen and lying vnder his feet. Thus may a man know the tem-
perature of the climat,and the yeare,according as he perceiues the leaues be fallen more at one
time than another,ſooner alſo in ſome places,and later elſewhere. For as the ſeaſon is forward
or late,as the climate alſo is affected, ſo are the trees knowne to ſhed their leaues accordingly.
And in very truth this is the trueſt ſigne of all others. And the beſt thing therein is this, that
being generall throughout the whole world,and yet peculiar to each place,it neuer faileth. A
man might make a wonder hereat,if he did not ſee and remember, that vpon the very ſhorteſt
day in the yere,euen in midwinter when the Sun is entred Capricorn,the herb Penyroyal vſeth
of it ſelfe to floure,either ſet in chaplets, or otherwiſe hanging and ſticking in the ſhambles;
ſo willing is Nature to ſhew vs all her ſecrets, and to keepe nothing hidden from vs. For loe M
what ſignes and marks ſhe hath giuen vs,wherby we might know the time of ſowing corn; and
verily,this is the only true and infallible direction grounded vpon approoued experience, and
the ſame ſhewed firſt by dame Nature: for by this dropping & fall of leaues what doth ſhe els

*Called by our Husbandmen Gore-moone.

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A teach and counſell vs but to haue our eye vpon the ground, and to caſt ſeed into it, aſſuring vs of a certain ſupply of dung and compoſt, by ouerſpreading the ground, and caſt ſeed into it, that ſoon will turne into muck? what doth ſhe elſe (I ſay) but by couering the earth in this manner with leaues, ſhew how carefull ſhe is to defend it againſt hard froſts and pinching winds, and in one word, thereby putteth vs in mind to make the more haſt and get our ſeed vnder mould? As for *Varro*, he is of the ſame opinion for beans alſo, and willeth vs to obſerue the ſaid rule in ſowing them at the fall of the leafe. Others are of this mind, that the beſt ſowing thereof is in the full Moone. But for Lentils, we ſhould attend the laſt quarter toward the change, to wit, from the 25 day to the thirtieth. Alſo, that Vetches muſt be ſowed at the ſaid age of the Moon: for in ſo doing we ſhall preſerue ſuch pulſe from the naked ſnaile. Howbeit, ſome others there be
B that indeed would haue theſe kindes of Pulſe to be ſowed at this time of the yeare and age of the Moon for prouender and forrage to be ſpent out of hand: mary if we would keepe the ſame for ſeed, then we ſhould take the ſeaſon of the Spring.

Beſides thoſe rules and tokens aboue ſpecified, there is one more, which Nature vpon an extraordinarie prouidence ouer vs, hath preſented vnto our eies after a wonderfull manner, which *Cicero* expreſſeth in theſe termes

Iam vero ſemper viridis, ſemperq; gravata
Lentiſcus, triplici ſolita eſt grandeſcere fœtu:
Ter fruges fundens, tria tempora monſtrat arandi.

C
The Maſtick tree
All times, you ſee,
Is clad and richly dight,
With green in cold,
With fruit three-fold,
A faire and goodly ſight.

As ſhe therefore,
By Natures lore,
Doth fruit thrice yearely beare:
So thereby we
Know ſeaſons three,
Our land to duly eare.

Of which three ſeaſons, one is appropriate for the ſowing both of Poppy and alſo of Lineſeed: But ſince I haue named Poppy, I will tell you what *Cato* ſaith as touching the ſowing thereof: vpon that land (quoth he) where you mean to ſow Poppy, burn your winding rods, the cuttings
D alſo and twigs of vines, which remained and were left at the pruning time: when you haue burned them, ſow wild Poppy ſeed in the place; for it is a ſingular medicine being boiled vp to a ſyrrup in honey, for to cure the maladies incident to the chawes and throat. As for the garden Poppy, it hath an excellent and effectuall vertue to procure ſleep. And thus much concerning Winter corne and the Seednes thereof.

Chap. XXVI.

¶ *A ſummarie or recapitulation of all points of Husbandry: and to what outworks in the field a husbandman ſhould be imployed, reſpectiuely to euerie moneth of the yeare.*

E
BVt now to compaſſe vnder a certain briefe Abridgement or Breviarie, all points of husbandrie together: At the ſame time before named [to wit, at the falling of the leafe] it is good alſo to lay dung vnto the roots of trees; likewiſe to mold and bank vines: and one workeman is ſufficient for one acre. Alſo, where the nature of the ground will beare it, the husbandman ſhall not do amiſſe to disbranch and lop his tree-groues, to prune his vineyards, to hollow the ground of his ſeminaries and nourſe-plots with mattocke and ſpade, and dreſſe the mould light; to open his ſluces and trenches for water-courſe, to driue and drain it out of the fields; and finally, to waſh his Wine-preſſes firſt, and then to ſhut and lay them vp dry and ſafe. *Item*, after the Calends or firſt day of Nouember, let him ſet no hens vpon egs vntill the winter Sun-
F ſtead be paſt: when that time is come and gon, ſet Hens hardly, and let them couve 13 egs; marie better it were all Summer long to put ſo many vnder them; for in winter fewer will ſerue: howbeit neuer vnder nine.

Democritus giueth a gueſſe what Winter we ſhall haue, by the very day of the Winter Sunſtead: for look what weather is then and for threedaies about it, the like winter (he ſuppoſeth)

will enſue. Semblably, for the Summer he goeth by the other Sunſtead or longeſt day of the yeare: and yet commonly for a fortnight about the ſhorteſt day in the yeare (to wit, during the time that the fowles Halcyones do lay, couve, and hatch their egs in the ſea) the windes lie, and the weather is more mild and temperat. But as well by theſe ſignes as all other whatſoeuer, we muſt gueſſe the influences and effects of the ſtars, according to the euent, within ſome latitude of time; and not ſo preciſely to limit and tie them alwaies to certain daies prefixed, as if they were bound to make their appearance peremptorily in court, iuſt then, and faile not. G

Moreouer, in mid-winter meddle not at all with vines, touch them not in any hand, but let them alone. What then is the husbandman to do? Mary then (quoth *Hyginus*) after ſeuen daies be once paſt from the Sunneſtead, he is to refine his wines from the lees, and let them ſettle, yea and to poure them out of one veſſel into another, prouided withall, that the Moon be a quarter old. Alſo about that ſeaſon (to wit, when the Sun is in Capricorn) it is not amiſſe to plant cherrie trees, and ſet their ſtones: then is it good alſo to giue oxen Maſt to feed them; and one Modius or pecke is ſufficient to ſerue a yoke at one refection: allow them more at once, you glut them and fill them full of diſeaſes: but at what time ſoeuer you make them this allowance, vnleſſe you hold on thirty daies together, folke ſay, they will be ſcabbed and mangie when the Spring commeth, that you will repent for cutting them ſo ſhort. As for felling timber trees, this was the proper ſeaſon which we appointed heretofore. All other winter works for an husbandman to be buſied in, would be done in the night for the moſt part: ſit vp he muſt late, and riſe betimes by candle light, and watch hardly about them, for that the nights be ſo much longer than the daies: let him a Gods name find himſelfe occupied with making Wicker baskets and hampers, winding of hurdles, & twiſting of frailes and paniers: let him thwite torch wood taperwiſe with links and lights: and when he hath by day light made ready and prepared thirtie poles or railes for vines to run on, and ſixty ſtakes or props to ſupport them, hee may in the euening make fiue poles or perches, and ten forks or ſupporters; and likewiſe as many early in the morning before day light. H I

But now to come to *Cæſars* reckoning of the times & digeſtion of the cœleſtial ſignes: theſe be the notable ſtars which are ſignificant and do rule that quarter which is between the winter Sunſtead and the riſing of the Weſtern wind Fauonius. Vpon the third day (ſaith he) before the Calends of Ianuarie, which is the 30 day of December, the Dog-ſtarre goeth downe in the morning: vpon which day in Attica and the whole tract thereto adioyning, the ſtar Aquila, [*i.* the Ægle] ſetteth (by report) in the euening, and loſeth her light. The euen before the Nones of Ianuarie, *i.* the fourth day thereof, by *Cæſars* account [I mean for the meridian of Italy] the Dolphin ſtar riſeth in the morning, and the morrow after, the Harp-ſtar Fidicula; vpon which day, in Ægypt, the ſtar Sagitta [*i.* the Arrow] ſetteth in the euening. *Item*, from that time to the ſixt day before the Ides of Ianuarie [*i.* the eighth day of that moneth] when as the ſame Dolphin goeth down or retireth out of ſight in the euening, vſually we haue in Italy continual froſt and winter weather: as alſo when the Sun is perceiued to enter into Aquarius, which ordinarily falleth out ſixteen daies before the Calends of Februarie [*i.* the ſeuenteenth of Ianuary.] As for the cleare and bright ſtar, called the ſtar Royal, appearing in the breaſt of the ſigne Leo, *Tubero* mine Author ſaith, that eight daies before the Calends of Februarie, to wit, the 25 day of Ianuarie, it goeth out of our ſight in the morning: alſo ouer-night before the Nones of Februarie [*i.* the fourth day of the ſame moneth] the Harp-ſtar Fidicula goeth down and is no more ſeene. Toward the later end of this quarter, it is good and neceſſarie to dig and turne vp freſh mould with mattock and ſpade, againſt the time that roſes or vines ſhal be ſet, whereſoeuer the temperature of the climat will beare it: and for an acre of ſuch worke, ſixty labourers in a day are ſufficient to doe it well. At which time alſo old trenches and ditches would be ſcoured or new made. For morning worke before day the Husbandman muſt look to his iron tooles, that they be ground, whetted, and ſharpned; that their ſteles, helues, or handles, be fitted and ſet to their heads; that ſhaken tubs, barrels, and ſuch like veſſels, be new cowped, bound with hoops, and calfretted; that their ſtaues be well ſcraped and cleanſed, or elſe new ſet into them. And thus much of this Winter Quarter, as farre as to the comming of the Weſterne winde Fauonius. K L M

Now as touching the entrance of the new Spring, which is from the riſing of the ſaid winde to the Equinox in March; *Cæſar* ſets downe for it the time, which for three daies together is variable

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A riable and inconſtant weather, to wit, ſeuenteen daies before the calends of March, which is the thirteenth of Februarie. Alſo 8 daies before the ſaid Calends, which is the 22 of Februarie, vpon the ſight of the * firſt Swallow; and the morrow after, vpon which day the ſtar Arcturus riſeth Veſpertine, *i.* appeareth in the euening. In like manner, *Cæſar* hath obſerued, that the ſaid wind hath begun to blow three daies before the Nones of March, to wit, the fift of March, juſt with the riſing or apparition of the Crab-ſtar Cancer. Howbeit moſt writers of Aſtrologie do aſſigne the firſt entry of the Spring and the comming of this wind, to the 8 day before the Ides of March, which is the eight of that moneth, when as the ſtar Vindemiator, *id eſt*, the Grape-gatherer, beginneth to appeare: at what time alſo the Northerly ſtarre called the Fiſh, ariſeth: vpon the morrow whereof, to wit, the ninth day, the great ſtarre Orion ſheweth himſelfe in his

B likeneſſe. In the region Attica where Athens ſtandeth, it is obſerued, that the ſtar Milvus, *i* the Kite or Glede, appeareth then in that climat. *Cæſar* moreouer noted, that the ſtar Scorpio riſes vpon the * Ides of March, thoſe fatall Ides (I ſay) that were ſo vnfortunate vnto himſelfe: alſo, that vpon the 15 Calends of Aprill, which is the 18 of March, the foreſaid Milvus, *i* the Kite-ſtar, appeareth to them in Italie, and three daies after, the Horſe-ſtar is hidden toward the morning. This is the freſheſt, the moſt buſie or ſtirring interual or time between that husbandmen haue; and yet therin they be oftneſt deceiued, for commonly called they are not to their work the very ſame day that the wind Fauonius ſhould by courſe blow, but when it begins to be aloft; which is a point to be conſidered and obſerued with right great regard: for if a man would take heede and marke well, this is that moneth wherein God giueth vs that ſure and infallible

C ſign which neuer faileth. Now from what quarter or coaſt this wind doth blow, and which way it commeth, albeit I haue ſhewed alreadie in the ſecond booke of this ſtorie, yet will I ſpeake thereof more diſtinctly and exactly anon; meanwhile, from that day (whenſoeuer it hapneth) on which that wind beginneth to blow, come it ſooner (as namely, when it is a timely and forward ſpring) or come it later, if it be a long winter (for it is not alwaies the * ſixth day juſt before the Ides of February) from that time, I ſay, muſt the ruſtical paiſants fettle to their work, then are they to goe about a world of toileſome labour, then muſt they plie their buſineſſe and make ſpeed to diſpatch thoſe things firſt that may not be defer'd & put off, then or neuer would their ſummer three month corne be ſowne, their vines be pruned in manner aboueſaid, their Oliue trees dreſſed and trimmed accordingly: Apple-tree ſtocks and ſuch like fruits, are then to

D to be ſet and graffed; then is the time to be digging and deluing in vineyards, to remoue ſome yong plants out of their ſeminaries, and digeſt them in order as they muſt grow, and to ſupply their plots with new ſeed and impes: Canes and Reeds, Willows and Oſiers, Broom alſo would then ſome be ſet, and others cut downe: Elmes, Poplars, and Plane trees, ought then to be planted, as hath been ſaid before: then is the meeteſt ſeaſon to cleanſe the corne fields, to ſarcle and rid the winter corn from weeds, and eſpecially the bearded red wheat Far: in doing wherof, this muſt be the certain rule to direct the husbandmen, namely, when the root of the ſaid Far begins to haue foure ſtrings or threads to it. As for Beans, they muſt not be medled withall in that order, before they haue put out three leaues; and then verily they muſt be lightly gone ouer, and cleanſed rather with a light hooke, than otherwiſe. When Beanes be bloumed, for 15 daies to-

E gether they ought not to be touched. As touching Barley, it would not be * ſarcled or raked, but in a drie ground, and when the weather holds vp. Order the matter ſo, that by the Æquinox in March, all your pruning and binding of Vines be done and finiſhed. If it be a vineyard, foure men are enough to cut and tie an acre of vines: and if they grow to trees, one good workeman will be able to ouercome fifteen trees in one day. This is the very time moreouer of gardening and dreſſing roſe-plots or roſiers [whereof I mean to treat apart and ſeuerally in the booke next following] of drawing vinets alſo, knots, and fine ſtorie works in gardens: this is the only ſeaſon to make trenches and ditches: the ground alſo would now be broken vp for a fallow againſt the next yeare, according to the mind and counſell of *Virgil* eſpecially, to the end that the Sunne might throughly parch and concoct the clots, and thereby make it more mellow for the Seed-

F nes. Howbeit I doe like better of their opinion (as the more thriftie and profitable of the two) who aduiſe to plough no ground in the mids of the Spring, but that which is of a mean temperature: for if it be rich and fat, preſently the weeds will ouergrow and take vp the ſeams and furrowes: againe, ſay it be poore and leane, the hot weather comming ſo ſoon vpon the fallow, will dry it too faſt, ſpend all the moiſture, and kill the heart therof, which ſhould maintain the ſeed

* Whereupon the ſaid wind *Fauonius*, is called *Chelidonias* and *Ornethias*.

*13 of March: for vpon that day was he murdered.

*i the ſeuenth of Februarie.

*Sarrito.

to be ſowne therein. *Cato* ſetteth downe the Husbandmens worke for the Spring time, in theſe G
tearmes. Caſt trenches (quoth he) couch young branches, and interre them for ſeminaries by way of propagation, in caſe the ground be ſtrong, fat, and moiſt withal. Lay dung to your Elms, Fig trees, Apple trees, and others of like fruit; to Oliues alſo doe the like: neither forget to manure and mucke your medow grounds; but al in a drie Moon and about the change. Such fields as are not well watered, defend them as well as you can from the Weſt wind Fauonius: downe with ſuperfluous weeds and rid them out of the way; but if they be hurtful beſides, pluck them vp by the roots. Cleanſe Fig trees betweene, where need is: make new ſeminaries and nource-gardens, and repaire the old. All this would be done before the vine begin to floure. Moreouer, ſo ſoone as the Peare tree ſheweth bloſſome, begin to plough leane, light, and ſandy grounds, but afterwards you may be bold to goe in hand with the fatteſt, faſteſt, and moſt wateriſh that H
be: let theſe (I ſay) be laſt tilled. And to conclude briefely, as touching this time of ploughing, let this be the marke and rule to guide you; namely, to ſet vnto your worke and put plough in ground, when you ſee either the Lentisk tree to ſhew the hope of her firſt fruit, or the Pear tree to bloſſom and haue a white head. There would be alſo a third tilth or cruſhing of the ground, obſerued by the ſea onyon Squilla, among thoſe hearbes which haue bulbous roots: likewiſe among floures, by the Daffodill. For as theſe doe bloume thrice, ſo they point vnto three times of ploughing. For by their firſt bloſſom, they ſhew the firſt tilth or breaking vp of the ground, by their middle flouring, the ſecond fallow or ſtirring: and by their third, the laſt cruſhing. Wherein a man may ſee the wonderfull chaine (as it were) that linketh this world together, whereby all creatures therein contained, giue lightſome tokens and ſignes one to another. And I
this may be obſerued alſo in the yuie (a thing verily not of the leaſt and laſt regard) that muſt not in any caſe be touched or medled with all, ſo long as Beanes be in their bloume; for that is the very time and meane to hurt it moſt and kill it for euer. Now, as ſome plants there be that ſerue for ſignes vnto others, ſo there be other that carie about with them their own mark, as for ample, the fig-trees, for looke when they put forth in the head a few leaues hollow, and with the edges turning vpward in manner of a ſawcer or goblet, be ſure that is the right ſeaſon and beſt time to plant them.

Now is it time to returne from whence we were digreſſed, namely, to the calculation of the principall times and quarters of the yeres, and namely, to the Spring Æquinox, which ſeemeth to be come and gon alwaies by the 8 day before the Calends of April, to wit, the 25 of March. K
From which day forward, by *Cæſars* calculation, the calends of April, to wit, the firſt day of April, are ſignificant, as whereupon the ſtar Vergiliæ, *i.* the Brood-hen, begins to riſe or appear in the morning; howſoeuer in Attica and the parts therabout, the ſame ſtar ſeems to ſet or be hidden in the euening vpon the third day before the Nones of Aprill, *i.* the third of that moneth: and the morow after, the ſame ſtar doth the like in Bœtia. Howbeit, according to *Cæſars* Ephemerides for Italie, and the Chaldæans for Aſſyria and Babylon, the foreſaid ſtarre goes downe or retireth out of ſight vpon the Nones of Aprill, *i.* the fifth of Aprill: at what time in Ægypt, as well *Orion* as his ſword [both ſtars in heauen ſo called] begin to be hidden. After *Cæſars* reckoning, the ſign or ſtar Libra ſetteth in Italy the ſixt day before the Ides of Aprill, which is the eight of the ſame moneth, and ſignifieth ſtore of raine. The fourteenth day before the Calends
* or *Hyades*, which ſome ſay are fiue in number, as *Heſiod*: others 7, as *Proclus*. of May, which is the eighteenth of April, the * Suculæ (a violent and troubleſome ſtar cauſing L
ſtormes and tempeſts raging both on land and ſea) goe downe at euening in Ægypt, but in Attica two daies before, to wit, the ſixteenth of Aprill: and in Italy, by *Cæſars* booke, the day between both; that is to ſay, the ſeuenteenth day of the ſaid moneth; the influence whereof is effectuall for three daies together: but in Aſſyria it falleth out twelue daies before the calends of May, *i.* the nineteenth of Aprill. This is the ſtar or ſigne in the heauens commonly named Palilicium; becauſe the eleuenth day before the Calends of May, *i.* the 20 of April, the very birth-day and memorial feaſt of Rome cities foundation (on which day the weather commonly cleareth vp and is faire again) gaue folk a notable occaſion of obſeruing the ſaid ſtars retreat or occultation: howſoeuer the Greekes haue tearmed them * Hyades, by reaſon of the rain and foule
* Ὑάδες ἀπὸ τοῦ ὕειν, *i.* of raine. weather which ordinarily they bring. And wheras our countrymen haue called them in Latine M
Suculæ, *i.* porkets or ſmal ſwine (according to the apparent Greeke denomination, which they thought to be deriued of ὗς, ſounding in Latine *Sus*, *i.* a ſwine, their ſuppoſal was falſe, and bewraied their great ignorance. Moreouer, *Cæſar* noteth the eighth day before the Calends of

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A May,which is the 24 of Aprill,for the time that the ſtar Hœdi,*i.* the Kids,do riſe in Italy:but the next day after,they are obſerued to appeare in Ægypt, the morrow following,within Bœotia and Attica,the Dog-ſtar is marked to be hidden & gon in the euening, when as the Harp-ſtar is ſeene in the morning. Now the day after that,which is the 5 day before the Calends of May,*i.* the 27 of April,in Aſſyria Oryon is quite hidden,and two daies after,the Dog-ſtar. Alſo the ſixt day before the Nones of May, which is the ſecond of that moneth, *Cæſar* obſerueth, That in Italy the foreſaid ſtars Suculæ,riſe matutine and ſhew in the morning:like as alſo the rainy Goat-ſtarre Capella,vpon the eigth day before the Ides of May, which alſo is the eigth day of that month,and the very ſame day the Ægyptians do obſerue in their countrey, that the great Dog-ſtar goeth downe in the euening,and is no more ſeene. Thus you ſee how theſe fixed
B ſtarres and ſignes aboue rehearſed do ordinarily keepe their courſes,ruling and gouerning this time between,to wit,from the Spring Æquinox in March, vnto the ſixt day before the Ides of May,which is the ninth of the ſaid moneth. During the firſt 15 daies of which halfe quarter, the husbandmen muſt make haſt and take in hand that work that he was not able to go through with and diſpatch before the Æquinox; knowing full well,that vpon neglect of this buſineſſe, aroſe firſt, the opprobrious reproches that vine-pruners and cutters doe heare on both ſides of their eares,from paſſengers and waifaring men,by way of counterfeiting the ſong of that Summer-bird which they call the Cuckow:for it is counted ſo foule a ſhame, worthie a checke and rebuke,that the ſaid bird ſhould come and find a pruning hooke or bill in a vine at that time of the yere; that folk therefore ſtick not to let flie at them bold taunts,& broad biting ſcofs euen
C in the firſt beginning of the ſpring, And verily as theſe birds,ſo their ſong counterfeited in this ſort,ſeemeth to carrie an ominous and curſed preſage with them. See how the leaſt things belonging to Agriculture,are guided and carried by naturall reaſons! As for the later end of this foreſaid time,it muſt be employed in the ſowing of Panicke and Millet; for it is ordinarie and vſual to ſow this kind of graine after that haſtie Barley is ripe, and alſo vpon the the very ſame lands where it grew. Now the ſigne common to them both,teſtifying as wel the ripenes of one, as the Seednes of the other,are the glo-birds or glo-worms Cicindelæ, ſhining in the euening ouer the corne-fields, for ſo the ruſtical paiſants and country clowns cal certain flies or worms glowing and glittering ſtar-like;and the Greeks name them Lampyrides: wherein we may ſee the wonderfull bounty and incredible goodnes of Nature, in teaching vs by by that ſilly crea-
D ture.

Chap. XXVII.

¶ That Husbandmen ſhould not gaze at ſtarres ſo much, but rather goe by the ſeaſons of the yeare meet for ſowing. Alſo,that they ſhould marke the riſing, the ſetting,and the courſe of the Sun in ſome hearbes. And of the riſing and ſetting of other ſtarres.

E NAture contented not her ſelfe to aſſemble a troup of ſtarres together in a knot (I meane the Brood-hen Vergiliæ,wherby it is a ſign in heauen aboue, conſpicuous ynough alreadie,and of great mark)but ſhe would needs giue the Husbandman other ſtarres beneath vpon the earth, as ſignes to ſhew him the true ſeaſons and times when and how to go to worke: as if ſhe cried out and ſpake vnto him after this manner: Why ſhouldeſt thou looke vp to the heauens,thou that art to till the ground? Why keepeſt thou a ſeeking among the ſtars for thy countrey worke? Take thy reſt and repoſe thy wearied lims good man, for the nights be now ſhorter than they were:to bed therefore,for thou haſt but a while to ſleep: Behold I ſcatter and ſpread here and there among thy very weeds and graſſe growing vpon the ground,other eſpeciall ſhining ſtars, and thoſe I repreſent vnto thine eies in the euening,and when thou doeſt vnyoke and giue order thy daies work:and that thou ſhouldſt not either plead ignorance,or negle& the ſame,I prouoke thee to regard and looke thereat, as a ſtrange wonder. Seeſt thou not
F theſe flies or glo-birds aforeſaid couer their bright and glittering light, reſembling ſparckles of fire,when they keep their wings cloſe together, and carrie fire-light about them euen in the night? More than ſo, I haue giuen thee certaine hearbs to tell thee what it is a clocke,and how the day goes:and to eaſe thee more,that thou needſt not take the pain to auert thine eies away from the earth where thy worke lies,and caſt them ſo much as vp to the Sun,loe the hearb Heliotropium

Iiotropium and the Lupine turn about with him. What ſtandeſt thou ſtaring ſtill into the ſky, G
and holdeſt vp thy noſe aloft into the aire ? why art thou amuſed vpon the courſe of the ſtars,
and ſearcheſt into heauen ? Haſt thou not I pray thee another Brood-hen ſtar, other Vergiliæ,
I ſay, euen before and vnder thy very feet, I mean theſe prettie glo-wormes ? Surely theſe come
duly at their ſet days: theſe keep time iuſt with thoſe of the heauen, and ſo long as they appeare
and ſhine aboue, theſe glo and glitter beneath: as if they were linked to that ſtar by ſome neere
alliance & affinitie: in ſuch ſort, as a man may reſolue & hold for certain, that engendred they
be no otherwiſe but by the influence thereof, and are the very chickens and brood of the fore-
ſaid Hen. And therefore conclude we may, that whatſoeuer ſoweth his ſummer corn, and looks
to reap fruit accordingly before theſe are to be ſeen, deceiueth himſelfe, and loſeth all his coſt
and pains. In this meane time and ſpace between, the prettie Bee commeth abroad, and telleth H
vs that Beanes bloume, for it is the Beane bloſſome that calleth her forth of her hiue.

Wouldſt thou know another ſigne yet, that winter is paſt and all the cold clean gon ? when
thou ſeeſt the Mulberry tree to bud & put out yong leaues, fear no more froſt nor hard weather
to doe any harme for that yere. Then (hardly) go to thy worke appropriat for this ſeaſon: now is
it good to plant yong ſions and quick-ſets of Oliues; now is the time to ſcrape and cleanſe here
and there where need is, the old oliue trees; and now would meddows be watered, euen preſent-
ly after the Æquinox. What is elſe to be done in the field this Spring time ? Mary, ſo ſoone as
the graſſe in the medow is grown to a ſtem and begins once to ſpindle, then let forth the water,
and draine your meddowes. Then do the Vines looke for to be disburgened and rid from their
ſuperfluous leaues and needleſſe branches. And herein there is a certaine gage let, and a rule to I
goe by, namely, when as the ſaid burgeons are ſhot out foure-fingers in length. Where, note by
the way, that the disbranching of an acre in vineyard, is one mans work a day and no more. This
is the ſeaſon to giue corne lands their ſtirring, that is to ſay, the ſecond tilth or fallow. As for
the ſarceling or weeding of [Winter] corne, it would be done within twentie daies. For let this
Æquinoctiall ſeaſon paſſe, it is thought that ſarceling and weeding will hurt not only corne,
but vines alſo. To conclude, this is the very time alſo to waſh ſheepe.

And now to come againe to our ſtars where we left. The morrow after the riſing or apparitio-
on of the ſtar Vergiliæ beforeſaid. *Cæſar* reckoneth, that the ſign Arcturus loſeth his light and
is hidden in the morning. Alſo, that the third day before the Ides of May, to wit, the 13 day of
that month, the Harpe ſtar ariſeth and begins to ſhine. Moreouer, twelue daies before the Ca- K
lends of Iune, which is the 21 day therof, the Kid-ſtar goeth down in the euening: at what time
as in the region of Attica the Dog-ſtar alſo ſetteth after the ſame manner. The next day after
(by *Cæſars* account for the Meridian of Italy) Orions Sword beginneth by little and little to re-
tire and goe out of our ſight. The third day before the Nones of Iune, *i.* the third day of that
month (after *Cæſars* Ephimerides for our climate of Italie, as alſo according to the Chaldæans
calculation for the Meridian of Aſſyria) the Eagle-ſtar beginneth to riſe and appeare in the e-
uening. In which region, Arcturus goeth downe, and we loſe the ſight thereof in the morning,
eight daies before the Ides of Iune, which is the ſixt of the moneth: howſoeuer with vs here in
Italie, he ſetteth two daies later. As alſo two daies after that, *i.* the tenth of Iune, the Dolphin
ſtar appeareth and giueth light in the euening. But ſeuenteen daies before the calends of Iuly, L
which is the fifteenth of Iune, we in Italy ſee the riſing of Orions Sword, which they in Æ-
gypt do obſerue foure daies after. And eleuen daies before the ſaid calends, to wit, the one and
twentieth day of Iune, the ſame ſtar (I meane the Sword of Orion) beginneth to goe down and
be obſcured in Italy, if *Cæſars* Almanack be true. Now are we come to the eight day before the
Calends of Iulie, namely, that four and twentieth day of Iune, the very longeſt day and ſhorteſt
night of the whole yeare, and the Summer Sunſtead. In this ſeaſon alſo be vines disburgeoned
and cleanſed from their vnprofitable leaues and branches: then required it is, and care would be
had, that an old Vineyard ſhould haue once digging, and the new, twice. This is the time of
ſheepe-ſhearing. Now, would Lupines be turned in with the plough, for to enrich and manure
the ground. Now are the lands to be cruſhed and ſet vp againſt the ſeed time. Now Vetches
wouldſt and no longer, but be cut for to make forrage. Beans alſo would be now mowed downe: M
and thraſhed out of the way ſoone after.

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Chap. XXVIII.

¶ Of Medowes and lay grounds for hay and paſture. The manner how to refreſh and repaire a medow. Of ſith-ſtones and whet-ſtones: of Sithes and Sickles. Alſo, the time for ſowing corne, and the deſcription of thoſe fixed ſtarres that gouerne this ſeaſon.

THe ordinary ſeaſon to mow medowes, is about the Calends or beginning of Iune. And verily, albeit theſe kind of grounds ask leaſt care and toile about them for to be maintained, and ſtand the Husbandman in as little charges, yet ſomething would be ſaid thereof, and
B theſe few rules following obſerued. Firſt therfore, a ground would be hained in, left lay, and kept for graſſe and hey, which is for ſoile good and fat, for ſcituation lying either low and moiſt, or elſe hauing water at command from a brooke or riuer neere at hand: but aboue all, if it be poſſible, it muſt lie ſo, that it may haue the benefit of the rain by letting in land-flouds into it (running along the lanes and high-waies) for to refreſh and water the ſame. Alſo it is paſſing good otherwhiles to plough vp a medow ground (for the graſſe will come and grow afterwards the better) ſo it be wel harrowed or raked thereupon, and laid euen and leuel. Prouided alwaies that hey-ſeeds, floures, & al, be ſowed vpon it (ſuch as be found in hey lofts and ricks, or els that ſhed out from the rack into the crib or manger) which would be don before the ſame ground be harrowed as is aboueſaid. Howbeit, neither ought a medow that is laid for hey and paſture, be watered the firſt yere, ne yet graſed with cattell, before the ſecond math; for feare leaſt the beaſts
C pluck vp the graſſe quite ere it be well rooted, or kill the heart therof by ſteining and trampling it vnder their feet. Moreouer, it is to be noted, that ſuch medow grounds in time will age (as it were) and decay; in which regard, they ought to be helped and reſtored to their heart againe, by ſowing therein either Beans, Rapes, Navews, or Millet: and when you haue taken a crop of one of theſe from thence, the yeare following they would be ſowne with ſome Frument or bread-corne: and ſo the third yeare left lay for medow again. Ouer and beſides, this would not be forgotten, that at euery math, ſo often as the graſſe is mowed for hey with the ſyth, there come one after with an hooke, to cut downe thoſe tufts and manes which the mowiers paſſed ouer & left ſtanding behinde them: for there is nothing worſe for a medow, than to ſuffer graſſe grow to
D ſeed. The beſt hearbe in a medow is the Clauer graſſe or Trefoile: next vnto it is the common graſſe called Gramen, *i.* Coich or Dogs-tooth: the worſt is * Mimmulus. Alſo the Camocke or Whin, called Reſt-harrow, and ſuch like codded graſſe, is not for mowiers, for they cry out vpon ſuch, and curſe it. Moreouer, they cannot away with the herbe Equiſetis, *i.* Horſe-taile, ſo called for the reſemblance it hath to an horſ-taile or mane.

* Some read *Nummulus*, i. *Nummularia* Penny-graſſe.

The fit time to mow downe graſſe, is when the ſpike or head thereof beginneth once to ſhed floures, and to wax ſtiffe: for in no caſe muſt it ſtand vntil it be dr and withered. Be not too late (quoth *Cato*) in your hey harueſt, but down with your medows, before the ſeed of your graſſe be ripe. Some, the day before that they ſet ſyth into their medows, water them, if there be a brook at hand to be let in. And indeed the beſt cutting downe of graſſe is preſently vpon ſome good
E dewes that haue fallen ouernight. * In ſome parts of Italy the manner is to cut their medowes after corn harueſt. Moreouer, in old time it was more coſtly and painfull to mow (by far) than it is now adaies: for they vſed no other whetſtones, but ſuch as were known & ordinary, as brought out of Candy and from beyond ſea; which would not giue an edge to their ſythes and make them keen, without they were whetted with oile (as Barbers do their raſors, & grauers their fine chezils and caruing yrons:) and to that purpoſe the mowier went euer with a horne full of oile, tied faſt to his ſhanke. Since which time there haue bin found in Italy other manner of grind-ſtones, with water, which will bring any yron toole to an edge quickly, as wel as a file. But theſe water grindleſtones ſoone get a ſwarth and preſently become greene.

* Haply he meaneth a ſecond math.

As touching the very Sythes, there be two ſorts of them. For thoſe of Italy be ſhorter than
F other, eaſie to handle and weld, and it were among buſhes, briers, and brambles. In France where their fields and medows be large, they go a nearer and ſhorter way to worke, for they make no more ado, but cut the graſſe down at the middle, and let that alone which is ſhort. Our mowiers here in Italy, take but one hand to it, and that is commonly their right, and ſo cut downe their graſſe: thus you ſhall haue a man ordinarily in one day go ouer an acre and cut it down cleane.

Alſo

Alſo it is one mans work to bind the hay of one acre into bottles: and vſually you ſhal haue in G
* Which is almoſt three of our ſale lodes. ſo much ground * 1200 prety ones, of foure pound weight apiece. So ſoon as the graſſe is cut down and laid in ſwath, it muſt be tedded, brought into windrowes, and turned eftſoones with the Sun: neither ought it to be cocked vp but dry: for otherwiſe, if this be not carefully looked vnto, you ſhall ſee it reeke and ſmoke againe by the morning, for the heate that it hath caught within: but let the Sunne take it beſides, you ſhall be ſure to ſee the cockes kindle and be of a light fire.

So ſoon as this firſt graſſe is down and the hay made, the medow muſt preſently be watered
* Some call it woodcock hey again, to the end there may be a ſecond math of rowen hay in * Autumne, which the Latins cal Cordum. In the territorie of Interamna they vſe commonly to mow their medowes 4 times a yeare, yea, though they lie high and far from the benefit of water. And in moſt places of Ita- H
lie thrice is ordinarie: and the rowen graſſe afterward commeth vp ſo thicke and high for paſturage and forrage, that it yeeldeth as great a benefit as the crops of hay before: mary, to raiſe this commoditie and gain thoſe know full well who are drouers of greater cattell, breeders alſo of yong colts, and principally Chariottiers that keepe choach-horſes; for all theſe haue the beſt means to imploy this graſſe for their moſt behoofe.

To proceed now to the conſideration of the heauens. The ſummer Sunſtead falleth out alwaies [in Italy] to be iuſt vpon the 24 day of Iune, at what time as the Sunne is entred eight degrees within Cancer, as hath bin ſaid before. This is that great point & Tropick of the world: now is the heauen in moſt force, and the Sun at the higheſt of his power and vertue. From the midwinter or ſhorteſt day of the yeare, vnto this preſent, during the ſpace of ſixe moneths the I
daies lengthen: and now the Sunne being paſſed far into the North, and hauing mounted and raught to the higheſt pitch of his intended laborious iourney, beginneth to turn againe from this Tropick of Cancer in the North, and bendeth his courſe toward the other Tropick of Capricorn in the South, intending by this means for other ſix months to lengthen the nights and to ſhorten the daies proportionably. Which the husbandman no ſooner ſeeth, but hee taketh his opportunitie, and woteth well, that now is the time wherein he muſt of neceſſitie make haſt to gather and inne the fruits of the yeare, each one reſpectiuely in their ſeueral ſeaſons: now or neuer ought he to lay in his prouiſion againſt the winter: now muſt he arme and prepare himſelfe, no remedie, to withſtand the rigour of cold and froſty weather: and therefore meet it was, that dame Nature, our kind Nurſe and tender mother, ſhould giue vs warning hereof, and fore- K
ſhew this alteration of the yeare, by moſt vndoubted and infallible arguments. Hereupon ſhe hath preſented theſe marks and ſignes to the husbandman, & brought them euen to his hand, commanding ſundry trees vpon that very day of the Sunſtead to turne their leaues toward the Sunne, as if ſhe pointed vnto them by the finger, and ſhewed how that Planet began to retire from whence he came: ſo willing ſhe is, not to conceale from him theſe ſecrets, that ſhe hath not ſet theſe marks vpon wild and ſauage trees far remote, out of the way, (becauſe ſhee would not haue him take ſo much pains as to go into deſart forreſts, vnpaſſable welds and mountains, to ſeeke for the ſignes and tokens aforeſaid) ne yet vpon ſuch as grow within good townes and cities, much leſſe then thoſe that ſerue and are in requeſt for arbors and vines onely in Hort-
yards and gardens of pleaſure, that he ſhould be faine to leaue his terme in the country and go L
thither (and yet theſe trees alſo teſtifie of the Sunſtead and his returne:) what hath ſhe done then? Mary ſhe hath cauſed the oliue tree, which he ſeeth euery houre planted at his very foot, to turne about her leafe: ſhe hath willed the Linden, a tree that hee hath recourſe vnto euerie foot for a thouſand vſes, to doe the like: ſhe hath enioyned the white Poplar or Aſpe alſo the ſemblable, wedded as it is ſo commonly to Vines. Haſt thou not enough yet (quoth ſhe) and will not all this make thee perfect? Looke then to the Elme, at the foot whereof thou planteſt thy Vine, and which thou ſeeſt continually indowed and inriched therewith, I wil make it alſo to turn the leafe when the Sun returnes. Thou ſtrippeſt her of her leaues and branches for thy cattell to eat and brouſe; thou getteſt vp into it for to prune the Vine; How canſt thou chuſe but ſee the leaues turned? How canſt thou be ignorant, but take knowledge of the Solſtice M
and Suns return? Surely that ſide of the leafe which was from the Sunne but yeſterday, is now clean contrary and looks toward him; and in one word, all are turned vpſide down. Thou occupieſt the oiſier and willow twigs euer and anon, to bind and tie one thing or other; loweſt they grow of all the reſt, and higher thou art than they by the head: neuer looke vp nor caſt thine

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A eie aloft for the matter: thou ſhalt ſee how I wil haue them alſo, growing euen vnder thy noſe, to turn their leaues about and follow the Sun. Why complaineſt thou and whineſt, ſaying, I am a ſimple countrieman, I am not book learned, I neuer went to Grammer ſchoole, and I wot not what? Certes, I cannot do withall if thou be ignorant of the heauens, and canſt not skill of the cœleſtiall ſigns and courſe of the ſtars: it ſhal not be long of me, but thou maiſt be an Aſtronomer and Clearke ſufficient. For if all this teaching wil not ſerue, in caſe, I ſay, thine eies wil not inſtruct thee enough to learne theſe ſignes: one ſigne more will I preſent vnto thine eare. Doe but liſten to the groning tune and pitiful mone that the Quoiſt and Stocke-doue makes; and neuer think that the Sunſtead is paſt, before ſhe haue left ſinging, and that thou ſeeſt her couve and ſitting vpon her egs.

B But now to go on ſtill with our Aſtrologie and Speculation of heauen as we haue begun: among thoſe ſtars that rule this ſeaſon from the Sunſtead beforeſaid, vnto the ſetting or occultation of the * Harp-ſtar; *Cæſar* ſaith, that ſix daies before the Calends of Iuly; to wit, the 26 of Iune, Orion riſeth to the inhabitants of Italy: how ſoeuer the ſtar called Orions * girdle, appeareth not to the Aſſyrians before the fourth day of Iuly, vpon which day in Egypt the ſtar Procyon, *i.* the fore-runner of the Dog-ſtar Syrius, ſheweth in the morning, and commeth in very hot and fierie: and ſurely what Latine name this ſtar ſhould haue among the Romanes, I wot not, vnleſſe we would haue it to be Canicula (*i.*) the leſſe Dog-ſtarre, according to the pourtrait that it ſeemeth to reſemble among thoſe fixed ſtars in the firmament: and yet is this a ſigne in the heauen of great marke and conſequence, as anon we will declare more plainely. The third C day before the Nones of Iuly, *i.* the fift of the ſaid moneth, after the Chaldæans account in Syria and Babylon, the ſtar named Corona, *i.* the Crowne, goeth downe in the morning: but on the very ſame day to the people of Attica, Orion is ſeene to riſe all whole as he is. The euen of the Ides of Iuly, which is the 14 of that moneth, the ſame Orion ceaſeth to be ſeene of them that dwell in Egypt: and ſixteen daies before the Calends of Auguſt, to wit, the ſeuenteenth of Iuly, the foreſaid ſtar Procyon riſeth to them in Aſſyria. The morrow after, which is the 18 day, all Writers in manner doe agree vpon the riſing of that ſignificant and notorious ſigne, which commonly we call the Dog-ſtar; to wit, when as the Sun is entred the firſt degree of Leo, which falleth out to be the 23 day after the Summer Sun-ſtead. And in truth both ſea and land doe find and feele the arriuall or comming of this ſtar, yea, and many a wild beaſt beſides, according D as we haue ſhewed already in place conuenient. Neither is this ſtarre leſſe worſhipped and adored than thoſe renowned Planets which carrie the names of gods and goddeſſes, and haue Diuine honours done vnto them. He it is that inflameth and ſetteth the Sunne on fire: to him is imputed the greateſt cauſe of that extreame hot weather during the canicular daies. Two daies before, which is the fifteenth of Iuly: on which day the Ægle ſtar goeth downe in the morning, and then the Eteſian winds (called the Auant Curriers) begin, which *Cæſar* thought were not felt nor knowne in Italy vntill eight daies after, namely, the three and twentieth of Iuly: on which day the Eagle ſtar is knowne to ſet and goe out of ſight in the region of Attica and that tract, in the morning. As for the Roiall ſtar ſeated in the breaſt of Leo, *Cæſar* affirmeth, That it goeth downe and is all hidden betimes in the morning, the thirtieth day of Iuly, which is three E daies before the Calends of Auguſt. Now the eight day before the Ides of Auguſt, which is the ſixt day of the moneth, the one moity or halfe of Arcturus goeth downe: but the third day before the ſame ides, which is the eleuenth of that moneth, the Harpe ſtar by his occultation or going downe, beginneth Autumne, according as the ſame *Cæſar* noteth; but indeed and verily, as it hath bin found by true demonſtration, it is the ſixt day before the Ides; to wit, the eight of Auguſt. This halfe quarter or ſix weeks ſpace, is that which determineth of vines and vintage, by the meanes of that ſtar which wee called Canicula, the very ruler indeed ouer Vineyards, and whereupon dependeth the good or bad ſeaſon for all our grapes and wine the next yeare. From hence it is, and not otherwiſe, that the vines are ſaid to be blaſted, & the grapes burnt (as it were) to a coale. No haile ſtormes, no tempeſt of wind or raine is comparable hereunto, nor doth the F like harme to corn and grapes: this cauſeth many a time ſcarcitie, and bringeth extreame dearth and famine, which neither haile nor tempeſt doth. As for theſe tempeſts, they indomage haply, and hurt ſome fields here and there: but the blaſt beforeſaid plagueth whole countries, far and neare. Howbeit, it were no hard matter to deuiſe how to withſtand and remedy this miſchiefe, but that men haue more pleaſure to take occaſion for to blame Nature & her workes, vnder pretence

* *Fidicula.*
* *Zona.*

tence and colour of ſuch vntoward blaſts, than to ſeek and find means to do themſelues good. It G
is reported of *Democritus*, the firſt Philoſopher who vnderſtood himſelfe, and afterwards ſhewed
vnto the world, the great affinity and agreement that was between heauen and earth (which ſtu-
dy of his the richeſt and wealthieſt citizens where he liued, ſeemed to ſcorne and deſpiſe) fore-
ſeeing by the courſe of the ſtars, to wit, by the riſing that would be of the Virgiliæ or Broodhen
(according as I haue ſhewed already, and wil anon declar more at large) that oliues would faile
that yere, and conſequently a dearth inſue of oile; bought vp all the oile in that tract & coun-
try, which as then for the hope of great plenty of Oliues, bare no price: whereat the great mer-
chants of the city (who dreamed of nothing leſſe than of a ſcarcity of oile, conſidering the oliues
made ſo faire a ſhew vpon the trees) were aſtonied and maruelled much, that *Democritus* ſo lear-
ned a Philoſopher, & a man who they knew, was wont by his profeſſion to content himſelf with H
pouerty, to ſet his mind vpon nothing ſo much as a quiet life, and wholly to buſie his braine in
attaining of knowledge and learning, was now on a ſudden become a merchant. In the end, they
perceiued what the cauſe was, & acknowledged his diuine skill in foreſeeing & preuenting a
dearth, and he for his part ſhewed plainly, That it was not auarice & deſire of lucre that moued
him to take this courſe, but to let the world know, that if he were ſo diſpoſed, hee could by the
meanes of his learning only, be ſoon a rich man (as indeed he grew hereby to exceeding wealth)
for preſently of his own accord he reſtored again to the former owners, who God wot were diſ-
pleaſed with themſelues for that they had don, & wiſhed withall their hearts, that they had met
with the like bargain; he remitted (I ſay) all this commodity which he had gotten into his own
hands, at their own price: reſting herein, that he had made good proofe, how ſoone and eaſily he I
could be rich when he would. Long time after him, *Sextius* one of our Roman Philoſophers, did
the like at Athens, & after the ſame maner: wherby we may ſee, in what ſtead learning and lite-
rature ſerueth, if a man will imploy the ſame to his own benefit. And I care not much verily to
giue the countriman a taſt therof, as much as concerns the cauſe of the Blaſting aforeſaid, & to
intermeddle the ſame with his ruſtick affairs, but as plainly and with as great facility & light-
ſomneſſe as poſſibly I can. Moſt are of this opinion & haue deliuered in writing, that as wel the
blaſting in corn called Ruligo, as the ſindging & burning of vines named Carbunculus, proceed
from certain dews ſetling vpon them, which caught a cauſtick quality from the Acrimony and
extraordinary heat of the Sun. This conjecture and reaſon of theirs, I hold in ſome part to be
falſe, for the Sun neuer doth harm either to the one or the other in this reſpect; but looke what K
blaſt ſoeuer it be that ſindgeth or burneth corn and vines, it is occaſioned by cold only: & if you
take good heed and mark how this commeth about, you will ſay it is cleare & paſt all perad-
uenture: for firſt & formoſt this is well known, that it neuer hapneth but in the night, or at leaſt-
wiſe before the Sun is riſen: ſo as we may conclude wel & truly, that all this dependeth vpon the
influence of the moon. For neuer ſhall a man ſee any of theſe hurtful blaſts, but either about the
change or full of the moone, namely, when ſhe is in her greateſt force: for at both theſe times, as
well in the coniunction with the Sun, as in oppoſition, powerfull ſhe is, and in ſome ſort may be
termed Full, as I haue many a time already ſaid. But at the change, look what light ſhe receiued
from the Sun, the ſame ſhe ſendeth all vp again to heauen. Great difference therefore there is in
the effects of the moone in both theſe habits, and the ſame very euident and apparant: for be it L
in ſummer, hotteſt ſhee is in the change; but in winter, cold: contrariwiſe, the moone in Sum-
mer being at the full, maketh cold nights, and in winter is warme: the cauſe whereof is plaine
and manifeſt. Howbeit, *Fabianus* and the Greeke writers, render another reaſon: for in ſummer
time, the moone being in coniunction with the Sun, and meeting with him when he is in a cir-
cle neareſt vnto vs, muſt of neceſſitie be inflamed with the fire that it receiueth from the ſunne,
ſo neare vnto her and vs both: whereas contrariwiſe, during winter, in the time of the change or
conjunction, ſhe cannot chuſe but be cold, as being remote farre from vs; like as the ſunne alſo,
who is retired far South toward the Tropicke of Capricorne. Semblably, at the full in Sum-
mer, ſhe is far off from vs, as being oppoſite vnto the ſunne ſo neere vnto vs: no maruell there-
fore if ſhee be cold in regard of our climate: but in winter, at the ſame time of her oppoſition M
as ſhe is nearer vnto vs, taking her courſe through the ſummer circle of the ſun; ſo we may con-
clude, ſhe doth moderate the rigour of winter cold, and conſequently that then, ordinarily ſhe
is warme. Conſidering then that the moone being (at the full in ſummer) ſo cold, and charged
ordinarily as ſhee is of her owne nature with much dew, what wonder is it if at ſuch a time

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A the froſts and dewes that fall be exceeding cold and congealed againe, which are the cauſe of all the ſaid blaſtings? But aboue all we muſt remember, that there be 2 ſorts of accidents comming from aboue, that mightily do wrong and annoy the fruits of the earth. The one wee call tempeſts, which comprehend hails, ſtorms of wind and rain, and ſuch like impreſſions of the air, which whenſoeuer they do light, are termed by the Lawyers, *Vis maior*, *i.* the greater violence: and theſe for the moſt part proceed from ſome of the horrible and dreadfull ſtarres, as wee haue many times noted; to wit, Arcturus, Orion, and the Kids. Of the ſecond ſort of theſe calamities, be they which happen when the weather is ſtill and quiet without any trouble of windes, in the faireſt and cleareſt nights, and no man euer perceiueth them vntill the harme be done: theſe bee more publick and vniuerſall, theſe differ much from the former; ſome cal them Mildews, others
B Hot-Planets; ſome again term them blaſts and ſindging Carbuncles: but it skils not much what names they haue, for all men confeſſe that ſcarcitie and dearth is their effect. And foraſmuch as no man hitherto hath written of theſe Blaſts, &c. I mean to deliuer mine opinion of them, and firſt to ſet downe the cauſe and reaſon thereof.

or the hand of God.

Chap. XXIX.

¶ *Of the Tempeſts and calamities incident to the fruits of the earth, as well in Winter as Summer: the meanes alſo to remedie ſuch accidents cauſing ſterilitie and ſcarcitie.*

C THeſe Blaſts, theſe wicked Planets, that ſindge and burne the fruits of the earth, beſides the influence and power of the moone, proceed from other cauſes, and twaine eſpecially, and thoſe are not to be found in many coaſts and quarters of the heauen: for the ſtar Vergiliæ, regardeth principally the fruits of the earth, and ouer them is very predominant; as being the only ſtar, which in her riſing and apparition begins Summer; in her fal and occultation, ſheweth the entrance of winter; by which means for ſix moneths ſpace, whiles ſhe is in ſight, ſhe compriſeth harueſt and vintage, and generally cauſeth all fruits to ripen kindly or vnkindly.

There is beſides in the heauen, a certain white circle called the milkway [or Watling ſtreet] which is not imaginarie as others, but very conſpicuous and eaſie to be ſeene. By the influence of this circle, as it were out of ſome vdder, all plants receiue their milke, their humidity and nu-
D triment, and namely, by the means of two notable ſtars obſerued therein; to wit, the Ægle in the North-ſide thereof, and the Dog Canicula (whereof we made mention in place conuenient) ſcituate toward the South. This circle then paſſing through the ſignes of the Zodiacke, Sagittarius and Gemini, and ſtretching by the centre of the Sun, cutteth the Equinoctial line twice in two ſeuerall places: the commiſſures or ioints of which two ſignes, are poſſeſſed of the one ſide with the Eagle ſtar, and on the other ſide with the Dog Canicula beforeſaid. No maruell therfore if all countries habitable and fruitfull, be ſubiect to the influence of theſe two ſtarres and feele their effects; becauſe in thoſe parts only of the Zodiack wherein they are placed, the centre and middle of the earth, together with the centre alſo of the Sun, agree and meet juſt in one and the ſame point of the Equinoctial. Hereupon it is, that if in the ſeueral ſeaſons of theſe two
E ſtars aboueſaid (to wit, when the Egle and the Dog Canicula, doe either riſe or fall, appeare or couch) the aire be pure, cleare, and mild, and thereby the humour genitall diſtilling from that Milkeway or circle aforeſaid downe to the earth, meet with that faire and calme aire, then all plants and fruits of the earth are the better for it, and proſper mightily. Now in caſe the moone either at change or full, do ſend downe and ſprinkle vpon them a cold congealed dew (in manner aboueſaid) the humor and nouriture likewiſe deſcending from the Milk-circle, is infected therwith and becommeth bitter, killing all the fruit vpon which it falleth: much like as if a young babe or infant new borne, ſhould ſucke bitter and vnwholſome milke, and thereupon ſoon after die. Thus you ſee, how in euery climate whatſoeuer, the correſpondence of the moone and the ſtars aboueſaid more or leſſe, cauſeth thoſe vntoward Blaſts, Mildewes, and ſuch like; nor in like
F meaſure at one time and in euery place. Which is the cauſe that this kind of iniury and calamitie is not felt at one inſtant throughout the world, no more than the day is one and the ſame in all parts of the earth: for the Ægle (as I haue ſaid before) ariſeth to vs in Italy thirteen daies before the Calends of Ianuarie, *i.* the 20 of December: now before that day be paſt (by the ordinarie courſe of Nature) there can be no aſſured hope of the fruits of the earth, but that they

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may miſcarry: but if it fall out beſides, that the moon vpon that day do change, all fruits as well G
winter fruits as thoſe which be called Haſtie, muſt of neceſſity take harme and be hurt thereby.
Rude and ſimple, I confeſſe, were our anceſtors in old time, and altogether vnlettered, howbeit
as wittie (as ſhall appeare) in their obſeruations and ceremonies, as our Moderns in theſe daies
be reſolute, with all their skill they haue, grounded vpon reaſon and conſequence: for accor-
ding as they feared three ſeaſons aboue the reſt; leſt they ſhould do harm vnto the fruits of the
earth; ſo they inſtituted as many Holy-daies and ſet feaſts; to wit, Rubigalia, Floralia, and Vina-
lia. As touching Rubigalia, they were ordained firſt by King *Numa* in the eleuenth yeare of his
*S. *Markes* day with vs. raigne, which now we celebrate a * ſeuen-night before May-day, to wit, the 25 of April: the rea-
ſon is, for that about this time corne is ſubiect to the blaſt. Howbeit, *Varro* following the order
obſerued in his daies, ſetteth downe this dangerous time to be, when the Sun is in the tenth de- H
gree of Taurus, and occaſioned thereby. But indeed, according to the calcull of others, the true
reaſon and cauſe is this, That about nineteen daies after the Spring Æquinox, diuers nations
haue obſerued foure malignant daies, which reach to the 28 of Aprill: in which time, the Dog-
ſtar Canis coucheth (a violent and dangerous ſtar of himſelfe by nature) and before which of
neceſſitie the other little ſtar Canicula muſt retire and goe downe. And therefore thoſe ance-
ſtors and forefathers of ours, inſtituted the feaſt of Floralia, as they were aduiſed out of the
bookes of *Sibylla*, in the 516 yeare after the foundation of Rome citie: who ordained alſo, that
the ſaid feaſt ſhould be held the fourth day before the Calends of May; to wit, the 28 day be-
fore named of Aprill, for this intent, That all Plants might bloome kindly, and ſhed their bloſ-
ſoms as well. *Varro* ſetteth downe this day to fall out, when as the Sunne is entered foureteene I
degrees into Taurus. Therefore in caſe it be full moone during theſe foure daies of the Feaſt
Floralia, not onely corne, but all other plants what ſoeuer that ſhall bloſſome, are ſure to take
great harme thereby. As for the former feaſt called Vinalia, which is kept fiue daies before; to
*S. *George* day with vs. wit, the * 23 of Aprill, it concerns nothing at al the fruits of the earth, but was appointed onely
as a fit time for to taſt wines. And yet for all theſe obſeruations before-named, there is none of
them pertinent either to Vines or Oliue-trees, for their time of conception beginneth at the ri-
ſing of the ſtar Vergiliæ; to wit, ſix daies before the Ides of May, which is the tenth of that mo-
neth, as we haue before declared. About which time, there be other foure dangerous daies, in
which husbandmen in no wiſe would haue any groſſe and filthie ſtinking dewes to fall, for feare
of their Vines and Oliues (for aboue all, they ſtand in dread of the ſtarre Arcturus, which goeth K
downe the morrow after the riſing of Virgiliæ, and commonly brings with it raw and vnkindly
rimes) and much leſſe that the moone ſhould happen to be in the full at ſuch a time: the fourth
day before the Nones of Iune, which is the ſecond of the ſame moneth, the Eagle ſtarre appea-
reth the ſecond time in the euening: a judiciall day is this day, and it will goe hard with oliues
and Vines now in their flour, eſpecially if the ful moon alſo light therupon, and giue euidence
againſt them. For mine owne part, I would thinke verily, that the Summer Sunſtead ordinarily
vpon the 25 of Iune is as dangerous; as alſo the riſing of the great Dog-ſtar which alwaies fal-
leth out to be 23 daies after the ſaid ſunſtead, if ſo be that the moon doe change in any of thoſe
two daies; for then commeth the harm by extremity of heat, which doth ſo bake and harden the
yong kernels of the grapes and Oliues new knit, that they be tanned as it were into a tough cal- L
loſity, that they can thriue and grow no more from that day forward. Againe, the full of the
moone is as hurtfull as it, to vines and Oliues, if it happen the fourth day before the Nones of
Iuly; to wit, the fourth day of the ſaid moneth, at what time the leſſe Dog-ſtarre Canicula ri-
ſeth to them in Egypt; or at leaſtwiſe the ſixteenth day before the Calends of Auguſt, which
is the ſeuenteenth of Iuly, when we in Italy diſcouer the riſing of the ſaid Canicula. Likewiſe if
the moone chance to be in the full betweene the twentie and three and twentieth daies of the
ſaid Iuly, what time the Eagle ſtar goeth down, the ſame danger befalleth Vines and Oliues: as
touching the ſecond Feaſt Vinalia, which is obſerued & kept thirteen daies before September,
to wit, the 20 of Auguſt, it is not to be ranged among theſe, as being of another nature, and inſti-
tuted at firſt for other cauſes. *Varro* would haue this feaſt to beginne at the departure of the
Harpe-ſtar Fidicula, which beginneth to retire in the morning, and which day he ſetteth downe M
for the firſt entry of Autumn: ſaying moreouer, that this feaſt was inſtituted for appeaſing the
ſtormes and tempeſts incident to that ſeaſon. And now obſerued it is, that the ſaid Harp-ſtarre
Fidicula ſetteth ſix daies before the Ides of Auguſt, which is the 8 day of that moneth: Thus
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A much as touching the cauſes of ſterilitie and dearth, occaſioned by the conſtellations, according to ſundrie ſeaſons of the yeare, after that calculation which I goe by: But I will not bind euery man thereto, for well I know and cannot denie, but the readers may change and alter the ſame at their pleaſures, according to the diuerſitie of the climats, in regard whereof, the obſeruation alſo of thoſe dangerous daies may vary from mine account. For this preſent, it ſufficeth my turne that I haue ſet down the true cauſe in Nature, from whence proceed thoſe calamities: all the reſt beſides, I refer to each mans conſideration, who for any thing that I haue ſaid, may take their libertie and obſerue what they thinke good. Certes this ſhall be found cleare and doubtleſſe in the end, That theſe vnkind dews and daungerous blaſts are occaſioned by one of theſe 2 cauſes, to wit, either the full or chaunge of the Moone. And herein verily, I cannot chuſe but meditate vpon and admire the wonderful goodnes and bounty of dame Nature, firſt in this
B That ſhe hath ſo limited and determined the ſet courſe of the ſtars, that theſe calamities cannot poſſibly happen euery yere; neither yet oftentimes in the ſame yere, but only ſome few nights, to wit, in the chaunge or full of the Moone: and when they will boone, it is eaſy to foreknow and fore-tell. And to the end that we ſhould not need to feare thoſe daungers euery moneth, ſhee hath ſo ordered the matter, and diuided the influence of the Moone by night in ſuch ſort, that ſetting aſide two daies in Summer, the chaunges of the Moone do no harm at all: no more than the full in Winter: neither are theſe two new Moones to be feared, but in Summer nights, and thoſe ſhorteſt of all other: wherby they haue leſſe time and leaſure to offend the earth: for al the day long they haue not the ſame force, nor worke the like effects. Ouer and beſides, ſo eaſie a
C matter ſhe would haue it for to know either the conjunction or oppoſition of the Moone, that the very Piſmire (the ſilliеſt and leaſt creature of all other) by inſtinct of Nature, is our guid to the one and the other: for in the change ſhe is ſeen commonly to reſt and take her repoſe; whereas at the full Moone ſhe works and labours both night and day. And that we ſhould not be ignorant of the Dogge-ſtar Sirius his riſing, looke what day he ſheweth firſt, the little Nonett or bird, called in Latine Parra, goeth aſide, and appeareth not again before he be hidden and gone downe. Contrariwiſe, the Loriot, Greene-finch, or Canarie bird Vireo, commeth abroad the very day of the Summers Sunſtead, and not before, that we ſhould not pretend ignorance of the longeſt day in the yere, a time wheron dependeth ſo great a conſequence. But be it change or be it full, neither the one nor the other habit of the Moone is daungerous, no not in the very
D night ſeaſon, vnleſſe it be cleare and calme, that is to ſay, faire ſtarlight, and all winds laid: for neither in cloudy and cloſe weather, ne yet when the winds are aloft, doe any dewes fall. And at ſuch times alſo as they vſe to come, there is a remedie prouided againſt them: for when thou feareſt a blaſt or Mieldeaw, lay me altogether ouer the fields and Vineyards (by heaps) Vine-cuttings and ſuch drie ſticks, chaffe, ſtraw, and other like mullock, drie weeds and ſhrubs which haue been plucked out of the ground, and ſet them all on fire; the very ſmoake will helpe this matter, and auert the daunger from corne and grapes. And as for the fume of chaffe and ſtraw, it is good againſt ſtinking fogs and miſts, when they are thought to doe harme. Some there be that preſcribe to take three Crab-fiſhes aliue, and to burn them in hortyards among the trees: to preſerue and defend them againſt the ſindging blaſt called the Carbuncle. Others take the
E fleſh of the fiſh Silurus, & roſt or broile it ſoftly vpon the fire, on the wind ſide, to the end, that the fume and ſmoke thereof might be caried and diſperſed al ouer the Vineyard, to chaſe away ſcorching blaſt aforeſaid. *Varro* affirmeth, That if about the retrait of the Harpe-ſtar Fidicula, which is the beginning of Autumne, a man paint a cluſter of grapes, and conſecrate it to the gods among the Vines, the ſtormes and tempeſts of wind and raine will doe leſſe harme to the fruit hanging thereupon. *Archibius* in a book that he wrote to king *Antiochus*, ſaith, That if a land-toad be put into a new earthen pot that neuer was occupied before, and the ſame enterred and couered within the ground in the middeſt of a corn field, the corne ſhall take no harm that yeare by any tempeſts whatſoeuer.

As touching the ruſtical work which ſhould be don in theſe ſix weeks ſpace, the Husband-
F man ought to giue his lands a ſecond fallow, to dig about the roots of trees, & (where the heat of the countrey doth ſo require) to mould and banke them again: howbeit, ſuch as be budding and putting forth new ſhoots, would not be digged, vnleſſe the ſoile be very good and rank. Seminaries or nource-gardens would now be ſarcled & cleanſed. Addreſſe himſelfe he muſt, and make all ready againſt Barley harueſt. Now is he to prepare his barn plot and thraſhing floore,

and to paue it with a coat of chalk, tempered wel & wrought with oile dregs, by *Catoes* aduiſe; G
howſoeuer *Virgil* is more curious in this behalfe. For the moſt part of Husbandmen, after they haue laid it euen and leuell, they go ouer it again with Oxe dung, tempered to a thin conſiſtence with water, for to bind the ſaid floore: and this is thought to be a ſufficient remedy, that the duſt ſhall not riſe.

CHAP. XXX.

¶ Of Corne harueſt: of common Wheat: of Chaffe: and the order how to keepe corne.

AS touching the manner of cutting downe or reaping corne, there be diuers and ſundry de- H
uiſes. In France where the fields be large, they vſe to ſet a iade or an aſſe vnto the taile of a mightie great wheele barrow or cart made in manner of a Van, and the ſame ſet with keen and trenchant teeth ſticking out on both ſides: now is this carre driuen forward before the ſaid beaſt vpon two wheeles, into the ſtanding ripe corne (contrary to the manner of other carts that are drawne after) the ſaid teeth or ſharp tines faſtened to the ſides of the wheele barrow or car aforeſaid, catch hold of the corn eares, and cut them off: yet ſo, as they fall preſently into the body of the wheele-barrow. In ſome places the faſhion is to cut with a hooke or ſyccle the ſtraw in the middeſt: and betweene euery two ſheaues they ſit down, and then crop off the eares iuſt at the ſtraw. In other countries they vſe to plucke vp the ſtanding corne by the root: and in ſo doing, perſuaded they are that this is a very neer and ready way to ſaue charges, & may ſerue for I
one tilth well enough: but by their leaue, they rob the ground by the means of her kinde and naturall moiſture. The reaſon of this diuerſitie is this: in ſuch countries where they vſe to thatch their houſes with ſtraw, they ſaue it to the full length, and go as neare as poſſibly they can: againe, where there is but ſmall ſtore of hay, they make account of their ſhort chaffe for to litter, yea, and fodder their beaſts. As for Panicke haulme, it neuer ſerueth the turne in any place for thatch. And for Millet ſtraw, they burne it ordinarily. Barly ſtraw is kept and ſaued very carefully for an excellent fodder, that kine and oxen loue very wel. To conclude, in France they haue another way to gather their Panicke and Millet eſpecially; to wit, cutting the ſame eare by eare vpon a combe with a handle to it [as Barbers vſe to clip or poll mens heads.]

Concerning the deuiſe of thraſhing, it is practiſed ſundry waies. In ſome places they vſe to K
eruſh the corne out of the eares with heauie and rugged dreies drawne ouer it, as it lieth vpon the barn floore. In others, they ſet mares to ſtampe and trample it vnder their feet, and ſo driue it out: and there be againe who beat and flap it forth with flailes or cudgels.

Common wheat, the later that it is reaped, the better it is found of caſt: but the ſooner that it goeth downe, the fairer is the graine, and more full and weighty. The beſt rule for the one and the other, is this; to goe downe with it, and lay it along, before the corne be very hard, and when it beginnes once to looke ruſſet, and to haue a browne or reddiſh blee. And here, remember the old ſaid Saw, that may goe well for an Oracle, Better two dayes too ſoone, than as many too late.

For the inning of the fine wheat Siligo, and the common Triticum, it is much after one ſort, L
and they would be ordered alike, both in barne, rike, and thraſhing floore. The good red bearded wheat Far, becauſe it commeth hardly out of the huske, and asketh ſome painefull thraſhing, ought to be laid vp in the garner, huske, and all together, euen in the chaffe; only it would be rid from the main ſtraw, and deſpoiled of the eiles or beard growing to the eare. Chaffe is good chaffre in many countries, and ſerues in ſtead of hay. Where note, that the finer and ſmaller that the chaffe is, and inclining nearer to pouder, the better it is thought to be. And therefore the beſt ſimply is that which commeth of Millet: the next in goodneſſe, Barley maketh: but the common wheat Triticum yeeldeth the worſt, vnleſſe it be for poore hungry iades and ſuch laboring garrons.

The ſtraw or haulm that remaineth ſtanding as boltings when corne is reaped by the eare or M
after it be well dried, the manner is to lay vpon ſome hard, craggie, and ſtonie ground, then all to beat and belabor it with cudgels, that it may be ſoft and ſerue in ſtead of litter to lie vnder cattell. If chaffe faile for fodder, the very haulme or ſtraw left in the field, ought to be braied and beaten ſhort, to ſupplie forrage in manner following. Cut it downe ſo much the ſooner, let it be well

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A well ſprinkled and drenched a long time in brine: and when it is dried againe, make it vp round into certaine bottels or bals, and ſo giue it to kine and oxen for their fodder. There be that ſet fire on it, and ſtraw both, in the field whereas it grew. And ſurely, *Virgil* highly commendeth this for a great point of Husbandry: the chiefe reaſon herof was, to burn the ſeed that the weeds ſhed, and to kill their roots that remaine vpon arable ground. In ſum, the diuers faſhions and manners of reaping, proceed from this, That in ſome countries the haruеſts be gteater than in others: and beſides, Reapers and Mowiers are not to bee had in all places alike, nor ſo eaſily hired.

It followeth now by good order, as a matter hereunto annexed, to write of the manner how to lay vp and keep corne for ſtore. Some are very curious and indeed ouer preciſe in this point, and
B namely in building of barnes and garners. For they giue order, that in any wiſe their walls bee raiſed of bricke, and thoſe three foot in thickeneſſe. Alſo, that they be filled top full and cloſed, vp aloft, that they haue no windows at all, nor any place open to let in or admit wind. Others would haue windowes, but thoſe onely toward the Northeaſt winde, where the Sunne riſeth in Summer, or elſe into the North: and in any hand the bricke muſt not be laid with lime, for that it is moſt hurtfull to corne. For as touching oile dregs or lees, how they would haue it to be v-ſed, I haue declared already. Contrariwiſe, in ſome countries they build their garners of timber and ſet them aloft in the aire hollow from the ground, bearing vpon piles and poſts of wood: & ſuch are deuiſed of purpoſe with many ouertures on euery ſide to receiue wind, inſomuch, as from beneath alſo the bourds and plankes be open to take all aire. And yet others there be who
C miſlike altogether theſe kinde of frames, beeing of this opinion, That in ſuch ſolars and lofts reared ſo high into the aire, the corne will diminiſh and wither: yea, and if it lie neare to a roofe of tiles, it will be in danger to catch a fire and burne. There bee that would not haue corne to be turned in the garner, for to breath and take the winde: for that the mite or Weevill that eateth graine, neuer commeth within foure fingers of the bottome of the heap, ſo that beneath that gage there is no danger, and therefore it needs no ſuch ſtirring at all. *Columella* ſaith, That it were good to haue a garner open into the Weſt, for that the winde Fauonius is kinde for corn: whereat I maruell very much, conſidering that otherwiſe hee is carefull to ſeeke out the drieſt places. Laſt of all; there be ſome that would haue a land-toad tied by one of her hinder or lon-ger legges, and ſo to hang at the dore and entrie of the garner or barne where corne lieth. For
D mine owne part, if I ſhould ſpeake what I thinke, I hold, that the chiefe and principall thing for the keeping of corne well, is to know and vſe the very fit time and ſeaſon of laying it vp. For if it bee gathered when it is not fully ripe, and before it haue the due parching from the Sunne, and the firme ſubſtance hardened as it ought, likewiſe if it bee brought vnto the barne or garner hote, it cannot bee auoided, but Vermine will breed therein to doe it much harme.

That ſome kinde of graine will continue good and ſound, yea, and laſt longer than other, there be many cauſes. For either it proceedeth from the skinne or huske, when it is manifold, as in Millet; or the fatneſſe of the marrow and floure within, which maintaineth and feedeth the graine as the radicall and nutritiue humour, as in Seſama; or laſtly, of bitterneſſe, as in Lupines
E and the ſmall bitter Cichets. As for the Frument or wheat Triticum, apt it is moſt of all other to ingender and breed weeuils and ſuch like wormes, becauſe it ſoone catcheth a heat, and is quickly enchaufed, by reaſon of the thicke and faſt ſubſtance of the owne, and beſides incloſed and clad it is within a thicke and groſſe skin, which is the bran. Barly hath a finer and ſlenderer huſk: and ſome Pulſe a thinner than it: ſuch therefore are not ſubiect to the ſaid vermin: how-beit, Beanes be couered with thicke pillings or tunicles, and therefore eaſie to take an vnnatu-rall heat and putrifie. Some vſe a deuiſe to keepe Frument corne a long time, with oile lees, be-ſtowing onely the ſprinckle of one Quadrantall, to a thouſand Modij thereof. Others beſtrew amongſt it the powder of Chalke brought either from Chalcis or Caria; or elſe lay ſome Worme-wood among it. There is a kind of earth in Olynthus and Cerynthus within Eubœa, which is highly commended in this caſe, for it will not ſuffer corne to corrupt. And lightly,
F what corne ſoeuer it be that is laid vp in the eare, neuer taketh any harme, keep it as long as you will. Howbeit, the beſt and moſt aſſured way to preſerue corne, is in caues or vaults vnder the ground, which in Latine be called Siri, as the practiſe is in Cappadocia and Thracia. In Egypt and Barbarie, aboue all things they looke to this, That their garners ſtand vpon a drie ground:

and how drie ſoeuer the floore be, yet they lay a courſe of chaffe vnderneath between it and the corne. Moreouer, they put vp their corne in garners and bins, together with their ſpike or eare; by which deuiſe they are ſure (if no aire come in) that no hurtfull worme or vermine will breed among it. And verily *Varro* ſaith for certaine, That wheat in that manner laid vp, will laſt fiftie yeres, and Millet an hundred. He affirmeth moreouer, that beans and other pulſe wil keep good a long time in oile barrels, if they be calked with aſhes. Hee auoucheth moreouer, that beanes were knowne to haue continued from the time wherein king *Pyrrhus* liued, vnto the Pyrats war, which vnder the conduct of *Pompey* the Great was diſpatched & brought to an end; which prouiſion of beans had beene laied vp 120 yeares before, and kept cloſe in a certaine caue vnder the ground, within the citie of Ambracia. The Cich pea ſe is the onely graine that is ſubiect to no vermine breeding in it while it lieth in garner or barne. Some there are who take certaine pitchers of earth hauing vineger in them, vpon which beeing well bedded in aſhes and done ouer with pitch, they make their heapes of Pulſe, and by this meanes they are verily perſuaded, that no Meuils, mites, and other wormes will breed therein to doe harme. Others, for to preſerue their pulſe, put them into ſalt-fiſh barrels, but they dawbe the ſame firſt with a certaine kind of mortar made of plaſtre. Laſt of all, for to keepe Lentils, there be that drench them with the vineger confected with Laſerpitium, and when they be dried againe beſmeare them ouer with oile. But will you haue indeed one ſhort rule for all? To be ſure that no worme or vermine ſhall breed in your corne, cut it downe and gather it about the change of the moon. Therefore it skilleth very much to know a mans intention, whether he mean to keep or to ſell his corne: for certain it is, that as the moone groweth, ſo doth corne wax full and great, and therefore filleth the ſtrike a great deale better. G H I

Chap. XXXI.

¶ *Of Vintage: and the particular ſeaſons in Autumne.*

According to our partition of the yere into foure quarters, it followeth now by courſe and order, to treat of the Autumne, which beginneth at the retreat or occultation of the Harp ſtar Fidicula; and ſo forward to the Equinox in September: from whence I will proceed to the couching or going down of the Brood-hen Vergiliæ, the very beginning & firſt entrance of the winter. In which mean ſpaces and equall diſtances, both before & after the ſaid Equinox, theſe ſtars following are ſignificant, and ſet out the particular ſeaſons: firſt, the day before the Ides of Auguſt, (*i.* the twelfth of the moneth) the ſtar called the Horſe, appeareth in the Hæmiſphære to the people of Attica: but at euen-tide the ſame day, the Dolphin ſtar ſetteth vnto them in Egypt, and likewiſe to vs here in Italy, according to *Cæſars* account. Alſo eleuen daies before the Calends of September, which is the 22 day of Auguſt (by the calculation of *Cæſar* and the Chaldæans) the ſtar named in Latine *Vindemiator, *i.* the Vintager, beginneth to ſhew in the morning, both to the Aſſyrians and the Italians; a truſtie vaunt-curriour, bringing certain tidings with him, and promiſing aſſured hope of a vintage, & that the grapes will be ripe anon: and for a farther token and appearance thereof, marke the grapes then, for now beginne they to change colour. To the people of Aſſyria, the fift day before the Calends of September, *ideſt*, the 28 of Auguſt, both the ſtar Sagitta ſeemeth to go downe, and withall the Eteſian winds lie, and giue ouer blowing. The Vintager himſelfe, to wit, the ſtarre ſo called, to the inhabitants of Egypt riſeth vpon the Nones of September, *i.* the fifth day of the moneth: vpon which day to the people of Attica, the ſtar Arcturus riſeth in the morning; and the Sagitta, *i.* the Shaft, goeth downe in the euening. To come now to the Ides of September: fiue daies before them, that is to ſay, the ninth day of the moneth (after *Cæſars* card) the ſtar called Capella, *i.* the Kid, ſheweth it ſelfe here in Italy toward euening: but the day before the ſaid Ides, *i.* the twelfth day of the moneth, the one halfe of Arcturus appeareth to riſe: and then for fiue daies together (his influence is ſuch) hee keepeth ſuch foule work both by ſea and land, that both Sailer and Husbandman feele the violence of his arriuall: and this reaſon is giuen therof; for if (ſay they) at the fall or occultation of the Dolphin ſtar, there be no ſhowers of raine, none will Arcturus bring with him at his comming. An euident ſigne there is, that the ſtarre Arcturus will not be long before he ariſe, and that is this, The departure of the Swallowes; for this is certain, if he chance to ſurpriſe any of them, and that they be not gone before out of the countrey, they are ſure to pay for K L M

their

*rather, *Prouindemiator, i.* the forerunner of the Vintage, ὀπωρινὸς: for *Vindemiator* followeth afterward in September.

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A their long tarrying and to die for it. The 16 day before the calends of October, which is the ſixteenth day of September, the ſtar called Spica, *i.* the eare of corne, which the ſigne Virgo (*i.* the Virgin) holdeth in her hand, riſeth in the morning to them in Egypt; & then the Eteſian winds alſo are quiet & laid in that country. Howbeit after *Cæſars* calculation, this falleth out vpon the fourteenth day before the Calends of October, *i.* the 18 of September, to vs in Italy: and by the account of the Chaldæans, a day after to them that dwell in Aſſyria. Moreouer, the 21 of September (after the ſupputation of *Cæſar*) the Knot of the two fiſhes, a ſigne or ſtar ſo called, goeth downe to our ſight in Italy; like as the very Equinoctiall ſtarre it ſelfe three daies after. After which time, *Philippus*, *Calippus*, *Doſitheus*, *Parmeniſcus*, *Conon*, *Criton*, *Democritus*, *Eudoxus*, and *Ion*, agree all in this (and that is maruell to ſee ſo many Aſtrologers to accord) That foure daies be-
B fore the Calends of October, the ſtar Capella, *i.* the Kid, riſeth in the morning: and the morrow after, the [two] Kids doe the like. The ſixth day before the Nones of October, which is the ſecond day of the moneth, in Attica and the regions adioining, the ſtar named the Crowne appeareth betimes in the morning: but in Aſia, and to vs Italians (after the reckoning of *Cæſar*) the next day following, the ſtar Heniochus goeth downe in the morning. Two daies after that, to wit, the fift of October (according to *Cæſars* computation) the ſtar named Corona, *i.* the Crown, beginneth to ſhine in Italy: the next day after, the ſtars called the Kids, loſe their light in the euening: The eighth day of October, which is eight daies before the Ides thereof, the ſhining ſtar within the foreſaid Corona, ſheweth it ſelfe in Italy by *Cæſars* booke: but the thirteenth day of the ſame moneth, the ſtar Virgiliæ, *i.* the Brood-hen, ſheweth in the euening: and vpon the
C very Ides, which is the 15 day of the moneth, the Crowne ſtar aforeſaid appeareth full & whole. Now ſix daies before the Calends of Nouember, *i.* the 27 of October, the ſtars called Suculæ, or the rainie Hyades, begin to ſhew in the euening: and the laſt day of October, which is the Euen of the Calends of Nouember (if *Cæſar* ſay true) Arcturus ſetteth in Italy, and the ſaid Suculæ, or the rainie Hyades riſe the ſame day together with the Sunne. Foure daies before the Nones of Nouember, *i.* the ſecond day of the moneth, Arcturus goeth down in the euening: like as the fift day before the Ides, *i.* the ninth day of Nouember, the ſtar named Orions ſword beginneth to retire: and likewiſe two daies after, the Brood-hen Virgiliæ is hidden and appeareth no more.

As touching now the country worke that Husbandmen are to employ themſelues about du-
D ring this ſpace of time or halfe quarter thus deſcribed, they ought if they did well, to ſow Nawes, Turneps, and Radiſhes, vpon thoſe daies that I haue appointed heretofore: and let them neuer goe by the voice of the rurall ſort, who thinke it not good to ſow ſo much as Rapes, after the departure of the Storke: for bold may we be here in Italy, euen after the feaſt Vulcanalia to put them into the ground; as alſo our early white corne, together with Panicke. But after the going down of the Harp-ſtar, good I hold it to ſow Vetches, Phaſeols, or Kidney-beans; as alſo the dradge or bollemong for horſes, called Pabulum, *i.* Forage: howbeit, folke ſay, that this forage would not be ſowne but about the new moone. This is the time alſo to ſtrip greene leaues, and ſlip tendrons from trees, thereof to make fodder for beaſts in winter: and one good daies worke it is for a man to fill foure hampers made of purpoſe for ſuch brouſe. Now if theſe leaues
E be gathered and prepared before-hand when the moone is in the wane, they will neuer corrupt and putrifie. Greene muſt this brouſe be in any wiſe when it is gathered, and not ſeere or withered.

To come now vnto Vintage: men thought in old time that it was not ready nor the grapes ripe enough, before the Equinox in September: but now adaies I ſee how they goe to worke euery where ſooner, and fall haſtily to gather grapes halfe ripe. Therefore it were not amiſſe to ſet downe certaine markes and ſignes to direct the husbandman for this ſeaſon. The rules therfore to guid him, be theſe: gather no grapes hot, that is to ſay, when they be dry, nor vnleſſe a good ſhower of raine come betweene: yet take heed you muſt, that you pluck them not full of dew, namely while the dew that fell ouer-night, doth ſtand vpon them; nor before the Sun hath
F drunke vp the ſaid moiſture, and dried them. Set into thy vintage hardly and fall to gathering, when either the vine leaues or greene branches called the Portoirs, doe fall and reſt vpon the old wood: or when, after you haue taken one grape from the reſt of his fellows ſtanding thicke together in the cluſter, you ſee the void place not to fill vp again, whereby it appeareth that the grapes and kernels about it, grow no more. Very good it is for grapes, if they be gathered when

the moone is croiſſant, to wit, before the full. At one preſſing ordinarily, there ſhould be filled G
twentie meaſures called Culei, *i.* Cowles: now is this meaſure for liquours the greateſt of all o-
thers, and by which the reſt ought to be proportioned juſtly. For to preſſe thus many Cowls at
once, and to ſerue twenty acres of vineyard, one wine-preſſe is ſufficient; and likewiſe to hold
the ſame, one veſſell or keelvat. Some vſe but one plank or ſtocke to preſſe withall, but better it
is to haue them double: although thoſe that be ſingle be exceeding huge. As touching theſe
preſſing planks, it is not ſo much their thickneſſe and maſſiue ſubſtance that is to be regarded, as
their length; for indeed the longer and larger they bee, the better they doe their deed. In old
time they vſed Ropes, leather thongs, and leauers, and by force of them pulled downe and forced
hard the preſſe-Planks. Within this hundred yeres were the frames deuiſed which we cal Græ-
canica; wherein the maine planke or vpper ſtocke of the preſſe, went with a vice in manner of a H
skrew; for the wrinckles of the ſpindle were fitted and ſerued in an engine or windlace in maner
and forme of a ſtar, ſet faſt to the worm or vice of the ſpindle aforeſaid, and which as it was tur-
ned and wreſted, lifted vp or let downe the preſſe-planke or lid, together with the weights of
ſtones thereupon: and verily this faſhion of preſſes was held to be beſt and moſt approoued: how
beit, it is not 22 yeares ſince there came vp another deuiſe and inuention to make ſmall preſſe-
planks; leſſe winding pieces alſo, and the whole frame ſhorter: howbeit in the middeſt thereof
ſtood vp the ſpindle of the ſaid skrew or vice. Now when they purpoſed to ſqueize out the
grapes, they laid certain lids or planks thereupon called Tympana, and thoſe they forced with a
wreſt from aloft, vſing alſo the poiſe and weight of ſuch matters as they heaped vpon the planks
aforeſaid. I

Culeus containeth 20 Amphores, which is 320 *Congij* or gallons.

Moreouer, the cuſtome is to gather apples and ſuch like ſoft fruit, about this time, with this
obſeruation or direction; namely, To go in hand with this buſineſſe when any are ſeen to fal of
themſelues, as mellow and ripe, and not blowne downe by force of wind and tempeſt: now is the
ſeaſon alſo to preſſe out the lees or ſediment of the grapes: now the time ſerueth to ſeeth new
wine to the halfe, and make cuit thereof; with this regard and conſideration, that if the moon be
vpon the change, this be done by night; but if in the ful, by day-light. As for other daies, it mat-
ters not much, ſo that the cuit be boiled either before the moone riſe, or after ſhe be gon down.
Moreouer, heed is to be taken, that the grapes of yong vines or ſuch as grow vpon low and ma-
riſh grounds be not vſed hereabout; and much leſſe thoſe that be not fully ripe. In the ſcum-
ming alſo and clarifying of the liquor while it boileth, no other thing but leaues are meet for K
that purpoſe: for if any wood come neare & touch the veſſell or lead wherein the liquor is ſod-
den, it is thought that the cuit will be ſmokie and ſmell of the fire. Furthermore, the ordinarie
time of vintage holdeth forty foure daies; to wit, from the Equinoctiall in September, vnto the
going downe or occultation of the Brood-hen Vergiliæ: after which time, remember the ora-
cle and common prouerbe, That wine veſſels are not to be roſined, calked, and trimmed in cold;
for good husbands would do this before-hand in hot weather. Howbeit in theſe daies I haue
ſeene thoſe that for want of veſſels haue gone in hand to tun vp their wine in the beginning of
* Ianuarie: yea I haue knowne when the vintage hath beene ſo great, that wines newly preſſed
haue bin kept in fiſh ceſterns: and for default of other pipes & tuns, when the wine-cellars haue
bin full already, I haue ſeen them that would let the old run out into ſuch ceſterns, for to make L
roome for the new, and ſuch as a man would ſay were neither made nor vnmade. And yet this is
not ſo often practiſed by occaſion of the exceeding ſtore of new wine that lieth on mens hands,
as of a wicked and couetous mind that ſome carry to gather a deale together for to ſet vp a Mo-
nopolie, thinking thereby to make a dearth and to raiſe the price of their wines, to the great de-
triment and hinderance of a common-weale. But a good and honeſt minded houſholder wil reſt
contented to furniſh himſelfe with a competent prouiſion of wine, and lay vp no more than hee
ſhall ſpend euery yeare: and this is found alſo by experience the moſt profitable way for his
purſe. As for all other matters concerning wine, becauſe I haue already ſpoken at large thereof,
I will here lay a ſtraw and make an end. But this would not be forgotten, that ſo ſoon as grapes
be gathered, men muſt high them apace and make haſt to get in their Oliues: for preſently after M
vintage and wine-preſſing, they muſt thinke of drawing their oile, and employ themſelues in o-
ther works of this ſeaſon, which are to be done a little before and after the retreat of the Brood-
hen ſtar Virgiliæ.

* Some reade Nouember.

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CHAP. XXXII.

¶ *The conſideration of the Moone and her courſe, reſpectiue vnto Husbandrie.*

HEreunto ſhall be annexed a diſcourſe as touching the Moon ea nd the Winds, together with the Prognoſtication depending thereupon, as much as may be thought neceſſarie and pertinent to Agriculture; to the end, that our ruſticke Aſtrology may in all points be accompliſhed and perfect. For *Virgil* alſo was of this opinion, That ſome buſineſſe and workes
B of Husbandrie were to be digeſted and diuided according to the daies of euery Moone in order as they goe, following herein the vanity and oſtentation of *Democritus*. For mine owne part as I haue hitherto in all my work throughout reſted vpon the good & profitable rules of our anceſtors, ſo in this point alſo I meane to take their direction, and goe by no other. According to their ordinances and precepts therefore, this firſt is to be obſerued, That whatſoeuer is to be « cut, gathered, or laid vp, be it wood, fruict, or grain, it ought to be done rather in the wane of the « Moone, than whiles ſhe is croiſant toward the ful, & leſſe danger is it ſubject vnto. *Item*, Touch « no mucke, nor lay it vpon thy lands but after the full, when ſhee is in the wane. *Item*, Dung thy « ground, whiles the Moon is in conjunction with the Sun, and in the firſt or laſt quarter. Gueld « Bores and Steeres, lib Rams and Kids or yong Goats in the old moon. *Item*, Set Hens to couve «
C egs in the new of the moon. Make thy trenches by night in the ful Moone. Likewiſe, couer the « roots of trees with mould when the Moone is at the full. *Item*, In moiſt grounds ſow and ſet ei- « ther in the very chaunge, or 4 daies before and after. As for the winnowing, vanning, and laying « vp either of corne or pulſe, they would haue it done in the old Moon, about the laſt quarter. As « alſo, That Pepiniers, Seminaries, or Nource-gardens, be made when the Moone appears aboue « the earth. But grapes ought to be troden & new wine preſſed, whiles ſhe is vnder our horizon. « Likewiſe, timber is to be hewed, and many things elſe to be don accordingly, whereof we haue written alreadie in their ſeuerall places. And albeit the obſeruation of the Moone, her age and change is eaſie ynough, and nothing more familiar: whereof alſo I haue written ſufficiently in the ſecond volume of this worke: yet further to inſtruct the ſimple countreyman who knoweth
D neuer a letter of his book, and to ſet before his eies the true order and courſe of her motion and mutation, let him but obſerue and marke thus much, That ſo often as ſhe is ſeen Weſtward after the Sunne is gone downe, and ſhineth the forepart of the night onely, ſhe is croiſant, and in her firſt quarter, and then ſhall a man diſcerne euidently by the eie the one halfe of her bodie light: but looke when, as the Sun ſetteth in the Weſt, ſhe riſeth at the ſame inſtant oueragainſt him in the Eaſt, ſo as they may be both ſeene at once, but ſure ſhe is in the full. Againe whenſoeuer ſhe riſeth late in the Weſt, and ſhineth not in the fore-part of the night, but toward the morning, make account ſhe is in the wane, and ſheweth but her halfe part againe. But ſo long as ſhe appeareth not at all, and giueth no light, aſſure your ſelfe ſhe is in the conjunction with the Sunne all that while and this in Latine is called Interlunium, [*i.* the change.] Now at the
E very inſtant of her conjunction or change, and the firſt day, vntill ſhe be one day old, ſhe will remaine aboue the earth ſo long as the Sunne is there alſo with her: the ſecond day ſhe will be in our hemiſphære by night, tenne * twelue parts of an houre, and a quarter of one twelfth part. Thus in proportion will ſhe riſe vpon the fifteenth day after her change, multiplying euery day the ſaid portion of the houres. When this fifteenth day is come, ſhe wil be all the night whole aboue the earth, and all day long vnder. Vpon the ſixteenth day of her age ſhe will remaine beneath our Hemiſphære, after the firſt day, ten parts of twelue, and one qnarter of a twelfth part within night, before ſhe riſe and ſhew her ſelfe, and ſo will ſhe keepe daily the foreſaid proportion juſt, in late riſing: diminiſhing ſtill her light by the ſame degrees, vntill the chaunge. And looke how much ſhe ſtaieth in the beginning of the night vnder the earth ere ſhee appeare in
F our Horizon, ſo long in the next morning wil it be after day-light ere ſhe go downe. Finally, e- ſecond moneth the Moone hath thirtie daies full out, like as each other moneth betweene ſhee wanteth one of that number, and hath but nine and twentie. Thus much concerning the courſe of the Moone in regard of Husbandrie.

* 51 minutes & $\frac{1}{2}$

CHAP.

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Chap. XXXIII.

¶ *The consideration of the Winds, respective to Agriculture.*

AS touching the winds, the reason and quartering of them is more intricate, fuller also of scrupulous doubts and difficulties, than was the obseruation of the Moon: notwithstanding that, there is not a day in the yeare goes ouer our head, but we may easily find & mark both South and North. For if a man doe obserue the Sunne rising any day whensoeuer he will, and vpon the sixt hour of the same day (to wit at noon) stand so as he haue his left shoulder directly turned against the said Sunne rising, he may be assured, that he hath the South fall vpon his face, or before him, and the North behind his back. Now the line or streight way that runneth in this manner through a field North and South, is called in Latin * Cardo. When a man standeth thus, if he would see his owne shadow, he shall do well to turn his bodie round about: for otherwise it will be behind him. Chaunging sides therefore, so as he haue the Sunrising or Leuant of that day iust against his right shoulder, and the setting vpon his left, he may know midday or South point as wel las before, namely, when his body casts just before him the shortest shaddow, enclining to the one hand no more than to the other. Let there be then either a small furrow rased along just through the mids of the shadow with a spittle spade, or the point of some hooke; or else a line drawne with a train of ashes, for the length of some twentie foot or thereabout (to make the thing more plaine.) Which done, cut the said line or furrow crosse ouerthwart the middle, to wit, at the tenth foot, if the whole be twentie, and then make a round small circle about it, which may serue in stead of a Nauil, and be so called. That part of the line then which goeth directly forward from the crowne of the head in the foresaid shadow, points out the North wind. Thou therfore that art to lop ot prune trees, rake heed thou makest not thy cuts so, as they look into that coast: neither let thine hortyards or vineyards stand open to that wind, vnlesse it be in Affricke, Cyrene, and Ægypt. Againe, so long as the wind sits in that corner beware Ploughman [for now I speake to thee] thou breake vp or eare no ground, nor enter into any such worke in the field as thou art alreadie forbidden by mee to doe. But marke what part of the line shal come from the foresaid circle straight before thy feet regarding the noontide or mid-day, assure thy selfe the same telleth thee which is the South wind, called by the Greeks Notus, as we haue declared already. Doth the wind rise and blow from that side? meddle not Husbandman during that time with thy vine. Carpenter, fell no trees then for timber I aduise thee. A wet wind this is and hot, within the climat of Italy. In Affrick verily dry ynough it is, and bringeth faire weather with it, but with al his faire looks, he kindleth fire otherwhiles, and burneth many things. Let hardly the Vine spread her branches, and run into this wind, in al places of Italie: but leaue not the cuts of tree or vine looking that way. He that sets out a plot of ground for Oliues, and planteth them, hath cause to be afraid of this wind, especially for four daies together, about the rising or apparition of the star Vergiliæ or Brood-hen. They also that graffe sions in the stocke by cleft, or set bud in the scutcheon by way of inoculation, must take heed how they meddle in this wind.

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Moreouer, it will not be amisse to giue some caueat as touching the very houre of the noonday, which giues vs knowledge of this wind and this quarter; namely, what is to be don at such a time, and what not? Thou woodman and forrager both, see thou neither cut nor lop trees, see thou gather no greene leaues and tendrils for thy fodder at noon-tide. Thou sheepeheard, thou heardman whatsoeuer, when thou perceiuest in Summer time by the shaddow growing short, that noonestead is at hand, driue thy sheep and cattell out of the Sunne, into some worm-stall and place of shade. More yet I haue to say to thee, If thou keepe sheepe or other beasts at their pasture in Summer time, lead them or driue them before thee al the morning into the west before mid-day: but after noon turne thy face Eastward with thy flock and thy heard. Otherwise, and at other seasons, as namely, all Winter and in the Spring, thou shouldest doe thy cattaile hurt, to conduct or lead them after this manner out of the warme Sunne into moist places, and where the deaw falls. As charie also and heedfull must thou be to driue thy cattell Northward from the Sunne, and there to let them graze: for marke what I say, in so doing, they will not be able to hold open their eies; this wind wil make them bleared & bloudshotten; nay, it wil driue them into a gurry or flux of the belly, which will soone make an end of them. Howbeit, if thou

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* *Vltratus & citratus veteribus.*

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A wouldeſt haue the beaſts conceiue and bring forth females, force them when they be leaped and couered to ſtand with their heads in this wind, and thou ſhalt ſee the proofe hereof.

Chap. XXXIV.

¶ *Of the lines and limits that diuide and bound fields.*

WEe haue ſhewed in the next Chapter before, the manner how to draw a line or furrow North and South, and how in the middeſt thereof there ſhould be a round compaſſe made manner of a Nauill, which in Latine is called Vmbilicus. Now if you would know likewiſe the other parts of the heauen, let there run ſuch another line ouerthwart the Nauill or circle iuſt in the midſt: and then ſhalt thou ſee, that this line will direct thee to the Eaſt
B & Weſt points, Æquinoctial. [Now the way that thus cutteth through any field Eaſt & Weſt ought to be called Decumanus in Latine, or the Broad way.] Which done, draw other 2 lines through the centre of the foreſaid circle, cutting one another aſlant [like S. *Andrewes* croſſe] or the letter X, ſo as that line which at one end points to the right hand of the North, reach to the left hand of the South at the other. Likewiſe that which regards the left ſide of the North at the one end, run directly to the right hand of the South with the other. All theſe lines muſt be of an euen length, of equall diſtance one from another, and paſſe through the ſame Circle, which we call the Nauil. Hauing thus made the 4 croſſe paths or waies in euery field once for all, thou maiſt euer after know how the winds do ſtand. But if thou liſt to haue ſuch a deuiſe to ſerue thy vſe many times after, make a little inſtrument of wood, but the ſame as round as can
C be by the compaſſe, and therein draw or print 4 lines of an euen length and equal diſtance, paſſing as diameters al through the centre, to the circumference of the rundle: and this may ſerue thee in ſtead of a quadrant, where & whenſoeuer thou needeſt. The maner how to make and vſe this inſtrument I am content thus to ſhew, becauſe I haue to deale with ſimple ignorant men of dull wit and ſhallow conceit, who may ſoon erre and doe amiſſe. Let vs ſee then firſt for the meridian line and the South point of the noon day, for to be perfect therein, becauſe it is euer the ſame, and changeth not from one end of the yeare to another, whereas the Leuant varieth euery day, for that the Sun neuer riſeth the morrow morning, from the ſame point iuſt that he roſe the day before: which I note, leſt haply any man ſhould take one certain line for to point
D out the Sun-riſing or the Eaſt, and make his quadrant or compaſſe thereby. Now when thou haſt in this wiſe exactly ſet out the principall regions or quarters of the heauen, obſerue this, that the end or head of the line which is next to the North point Septentrio: on the Eaſt the ſame ſheweth the very place where the Sun riſeth at the ſummer Sunſtead, to wit, the longeſt day of the yere; and the wind there ſeated is called in Latine Aquilo, *i.* the North-eaſt winde, and in Greek Boreas. Thou knowing this perfectly, ſet thy trees and plant thy vines full vpon it. But ſo long as this wind bloweth, plow no lands, ſet no trees or plants that are to beare fruit, caſt no grain nor ſeed into the ground. For why? this wind pierceth, pincheth, and killeth the heart of any tree root aboue ground, that thou ſhalt bring to replant. Take warning therefore beforehand, and be aduiſed: for experience hath taught, that one thing is good for ſtrong and
E ſturdy trees, and another for yong and tender plants. Neither am I ignorant or forgetfull, that the Greekes haue placed in this corner the winds which they name Cæcias: but *Ariſtotle* himſelfe, a Philoſopher of an infinite ſpirit and high conceit (the man that hath ſo done) ſheweth a reaſon drawn from the conuexitie or bending cope of the heauen, wherby the Northeaſt wind or Aquilo bloweth ful oppoſit to the Southweſt Africus. Howbeit the husbandman is not afraid of this Northeaſt wind Aquilo all the yeare long, in thoſe particularities whereof hee is forewarned. For in the midſt of ſummer this wind doth moderat and temper the ardent heat of the ſtars raigning and raging in that time: then changeth hee his name, and [during the Dog-daies] is called Eteſias. When thou therefore feeleſt him blow cold, take heed and be not too bold. But learn this withall, that howſoeuer this wind may do harm, in ſome reſpect, for which
F thou art forewarned; yet the wind Septentrio that bloweth plumbe North is far more dangerous and miſchieuous than he. Againſt the Northeaſt wind aforeſaid, let both hort-yards, tree-rowes, groues and vineyards be ranged; in all Natolia, Greece, Spain, Maritime coaſts of Italy, Campaine, and Apulia. If thou deſireſt to breed males keepe thy cattell with their heads into this wind, and in that ſort let the females be couered.

* *Dextratus & Siniſtratus, Antiquis.*

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When thou haſt found out in this maner the North-eaſt wind Aquilo, be ſure that the wind G
which bloweth ful againſt it from the point where the Sun ſetteth in midwinter when daies be
ſhorteſt, is the Southweſt, called in Latin, Africus; and in Greek, Lybs. Obſerue this wind wel,
for if a beaſt after ſhe be couered, turn about directly into this wind, ſhe will for certaine con-
ceiue a female. And thus much of the Line in the Quadrant next to the North point on the
Eaſt ſide.

The third line from the North point (which we drew firſt through the latitude of the ſhadow
beforeſaid, and which we called Decumana) pointeth out the Equinoctial Sun-riſing in March
and September; directeth thee alſo to the Eaſt wind vnder it, called in Latine Subſolanus, and
in Greek Apeliotes. Where the climat is healthful and temperat, let vineyards be planted and
arranged into this wind: let ferm-houſes alſo in the country be ſo built, as the dores and win- H
dowes open into it. This wind loueth well to be dropping, and to diſtil gentle ſhoures of rain;
howbeit drier it is than the Weſt wind Favonius, which bloweth ouer-againſt him from the E-
quinoctial Sun-ſetting full Weſt, called in * Zephyrus. Vpon this Weſtern wind Oliue rowes
ſhould ſtand, according to *Catoes* mind. This wind is he that beginneth the Spring: this winde
openeth the veins and pores of the earth, and with his milde coldneſſe is healthfull and whole-
ſome for all plants, for man alſo and beaſt. This wind gouerneth this whole ſeaſon, and preſcri-
beth the time for pruning Vines, for ſarcling and dreſſing corne, for planting trees, for graffing
fruit, for trimming and ordering Oliues; and to ſay all in one word, ſo kind he doth breath, that
he cheriſheth and foſtereth the earth and all things thereupon.

The fourth line in your quadrant or compaſſe (reckoning from the North point, which alſo I
reacheth next to the South point on the Eaſt ſide) noteth the Sun-riſing in mid-winter when
the day is ſhorteſt; and withall the Southeaſt wind called in Latine Vulturnus, and in Greeke
Eurus; which as it is a drier wind than the two laſt named, ſo is it alſo warmer. In regard where-
of it is good to ſet Bee-hiues and plant vines tending into this courſe, I meane in other parts of
Italy remote from the ſea, and alſo in Gaule. Then ſhall you haue to blow full oppoſit vnto it
the wind Corus, directly from the ſun-ſetting in mid-ſummer when the day is longeſt: by-weſt
from the North; and this North-weſt wind the Greeks call Argeſtes: one of the coldeſt he is,
like as all they be wich blow from any point of the North. No maruell therefore if he be as
much dread and feared as the North winde Septentrio, for commonly he bringeth with him
haile ſtormes good ſtore. K

As touching the Southeaſt wind Vulturnus, if the coaſt be cleare where and when he begin-
neth to riſe, it will not be long ere he lie, and commonly hee is down before night; but the Eaſt
wind indeed continueth moſt part of the night. But be the wind what he wil be, if he blow ſen-
ſibly hot, you ſhall haue him hold many daies together. And to conclude, would you know
when to haue a North-weſt wind? marke when the earth drieth ſuddenly at one inſtant, it will
not be long but he wil be with you: contrariwiſe, when you ſee the ground moiſt and wet with
a kind ſecret dew vnſeen and vnknown, reckon vpon it that ſhortly you ſhal haue a South wind
to blow. And thus much for winds.

Chap. XXXV. L

¶ *Signes to prognoſticate what weather is toward.*

HAuing thus ſet down ſufficiently a diſcourſe of the winds, becauſe I would not re-iterate
one thing often, what remaineth now, but in good order to paſſe & proceed to the prog-
noſtication and fore-knowledge of the weather? and the rather, for that I ſee that *Virgil*
took great pleaſure herein, and ſtood much vpon this point: for thus he relateth vnto the rude
and ignorant men of the countrey, That oftentimes in the very mids of harueſt hee hath ſeene
whirle-puffs and contrarie winds encounter and charge one another as it were in battell, doing
much harme to corne. Moreouer it is reported, that *Democritus* at what time as his brother *Da-*
maſus was entred well into harueſt worke, taking the opportunity (as he thought) of a moſt hot M
ſeaſon, beſought him earneſtly to let the reſt of his corne ſtand ſtil a while longer, and to make
haſt to get that into the Barne vnder rouſe, which was cut and reaped downe; and this he did
without any reaſon by him made, why and wherefore. And what enſued hereupon? Surely
within few houres after, there poured downe a mightie ſhowre of raine, and prooued *Democri-*
tus

* ὦ ἐπιτρέχει Homer.

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A *tu* to be a wiſe man and a true prophet. Moreouer, it is a rule commonly giuen and obſerued, That neither Reeds would be ſet & planted but toward rain, nor corn ſowed but againſt a good ſhowre. And therfore ſince this skil is of ſuch importance, I am content briefly to touch thoſe ſignes that foreſhew what weather will be, and make choiſe of ſuch which by ſearch and experience are knowne principall and make moſt for this purpoſe.

And firſt begin I will at the Sun, the beſt prognoſticator of all others: When he riſes cleare and not fiery red, it is a ſigne that the day will be faire; but if he ſhew pale and wan, it preſages a cold winter-like haile-ſtorme that very day: but in caſe he went downe ouer-night cleare and bright, and ſo roſe the next morning, ſo much ſurer may you be of faire weather. If the Sunne in riſing ſeeme hollow, he foretelleth rain: and when before his riſing, the clouds be red, the winds
B will be aloft that day: but in caſe there be ſome blacke clouds intermingled among, you ſhall haue raine withall. If the raies and beames of the Sun be red, both when he riſeth and when hee ſetteth, there wil fall good ſtore of raine. Are the clouds red about the Sun as he goes downe? you ſhall haue a fair day the morrow after. If when the Sun doth riſe you ſee flying clouds diſperſed, ſome into the South, and others Northward (ſay all be cleer and faire otherwiſe about him) make reckoning that day of wind and raine both. Marke at his riſing or going downe, if his beames be ſhort and as it were drawne in, be ſure of a good ſhowre. If at the Suns ſetting it raine, or that his raies either looke darke and blew, or gather a banke of clouds, ſurely theſe be great tokens of tempeſtuous weather & ſtorms the morow after: when in his riſing the beams ſhine not bright and cleer, although they be not ouer-caſt with a cloud, yet they portend rain.
C If before he riſe, the clouds gather round together like globes, they threaten ſharpe, cold, and winter weather: but in caſe he driue them before him out of the Eaſt ſo as they retire into the Weſt, we haue a promiſe thereby of a faire time. If there appeare about the bodie of the Sun, a circle of clouds compaſſing it round, the nearer they come about him and the leſſe light that they leaue him, the more troubled and tempeſtuous weather wil follow: but in caſe he be enuironed with a double circle, ſo much more outragious and terrible wil the tempeſt be. If peraduenture this happen at his riſing, ſo as the ſaid clouds be red againe which compaſſe the Sun, look for a mighty tempeſt one time or other of that day. If haply theſe clouds encloſe him not round, but confront and ſeeme as if they charged vpon him, look from whence they come, from that quarter they portend great wind: and if they encounter him from the South, there will
D be raine good ſtore and wind both. If as the Sun riſeth he be compaſſed with a circle marke on what ſide the ſame breaketh and openeth firſt, and from thence look for wind without faile: but if the ſaid circle paſſe and vaniſh away all at once equally, as well of one part as another, you ſhal haue faire weather vpon it. If at his riſing you ſee him to caſt his beams afar off among the clouds, and the mids between be void therof, it ſignifieth raine. If he ſpread his beames before he be vp and appear in our Horizon, look for wind and water both. If about him toward his going down there be ſeene a white circle, there will be ſome little tempeſt and troubleſome weather that night enſuing: but in ſtead thereof if he be ouer-caſt with a thicke miſt, the tempeſt will be the greater and more violent. If the Sunne couchant appeare fierie and ardent, there is like to be wind. Finally, if the circle aforeſaid be blacke, marke on which ſide the ſame brea-
E keth, from thence ſhal you haue bluſtering winds. And ſo an end of the Sunne and his prognoſtications,

Now by right, the Moone challengeth the next place for her preſages of weather to come. Firſt and foremoſt, the Ægyptians obſerue moſt her prime: or the fourth day after the change: for if ſhe appeare then, pure, faire, and ſhining bright, they are verily perſuaded that it will bee faire weather: if red, they make no other reckoning but of winds: if dim and blackiſh, they look for no better than a foule and rainie moneth. Mark the tips of her hornes when ſhe is fiue daies old, if they be blunt, they foreſhew raine; if pricking vpright and ſharp pointed withall: they alwaies tell of winds toward: but vpon the fourth day eſpecially, this rule faileth not, for that day telleth trueſt. Now if that vpper horne of hers only which bendeth Northward, appeare ſharpe
F pointed and ſtiffe withall, it preſageth wind from that coaſt: if the nether horne alone ſeem ſo, the wind will come from the South: if both ſtand ſtreight and pricking at the point, the night following will be windie. If the fourth day after her change, ſhe haue a red circle or Halo about her, the ſame giueth warning of wind and raine. As for *Varro* he (treating of the preſages gathered from the Moone) writeth thus: If (quoth he) the new moon when ſhe is juſt foure daies old,

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put her horns direct and ſtreight forth, ſhe preſages therby ſome great tempeſt at ſea preſently to follow, vnleſſe it be ſo that ſhe haue a guirland or circle about her, and the ſame cleer and pure; for then there is good hope that there wil be no foule nor rough weather before the full. If at the full, one halfe of her ſeeme pure and neat, a ſigne it is of a faire ſeaſon; if it be red, the wind will be buſie; if enclined to blacke, what elſe but raine, raine. Doe you ſee at any time a darke miſt or cloud round about the body of the moone? it betokeneth winds from that part where it firſt breaketh: and in caſe there be two ſuch cloudie and miſtie circles enuironing her, the tempeſt will be the greater: but how if there be three of them for failing, and thoſe either black, or interrupted, diſtracted and not vnited? ſurely then there wil be more ſtorms & more. The new moone whiles ſhe is croiſſant, if ſhe riſe with the vpper tip or horne blackiſh, telleth beforehand that there will be ſtore of raine after the full, and when ſhe is in the wane: but if the nether tip be ſo affected, the rain will fall before ſhe be at the full. But what if that blackneſſe appeare in the middle of her body betweene; then (ſaith *Varro*) it will poure of rain in the very full. A full moone hauing about her a round circle, ſheweth that there will be wind from that part, where the ſaid circle is moſt ſplendant. If her hornes appeare when ſhe riſeth, more groſſe and thicke than ordinarie, look ſoon after for a terrible tempeſt and and ſtormie weather. If ſhe ſhew not in our Horizon before the prime or fourth day after the chaunge, and the Weſt wind blow withall, then that moone throughout threatneth cold and winter weather: and if the day after the full ſhe ſeeme extraordinarily enflamed, ſhe menaceth vnto vs ſharp ſhowres and bitter tempeſts. Finally, in euery moon there be eight points and ſo many daies (according as ſhe lighteth vpon the angles of the Sunne) which moſt men obſerue onely, and take their preſages of future weather by, to wit, the third, ſeuenth, eleuenth, fifteenth, ninteenth, one and twentieth, ſeuen and twentieth, and the very day of her conjunction or chaunge.

In the third place, a man may know the diſpoſition of the ſeaſons by the fixed ſtarres, and therefore it behoooueth to obſerue and marke them. They ſeeme otherwhiles in the sky to flit and run too and fro, and then we ſhal not be long without great winds, riſing from that quarter where ſuch appeared and gaue token.

The ſtarrie skie, if it ſhew cleare and bright al ouer, and in euery part alike, during that particular ſeaſon [namely, between the occultation of the Harp-ſtar, and the Æquinoctiall point] which I propoſed and ſet downe heretofore, it is a fore-token of a faire and drie Autumne, but yet cold.

If the Spring add Summer both, paſſed not cleare without ſome raine and wet weather, it will be an occaſion that the Autumne following ſhall be drie, and leſſe diſpoſed to wind; howbeit, thick, muddy, and enclined to miſts. A faire and drie Autumne, bringeth in alwaies a windie winter.

When all on a ſudden the ſtars loſe their brightneſſe and looke dim, and that neither vpon a cloud nor a miſt in the aire, it ſignifieth either raine or grieuous tempeſts.

If the ſtarres make ſemblance as if they flew vp and down many together, and in their flying ſeem whitiſh, they denounce winds from that coaſt where they thus do ſhoot. Now if it ſeeme to the eye, as if they ran and kept one certaine place, thoſe winds will hold and ſit long in one corner: but in caſe they do ſo in many quarters of the heauen, they betoken variable and inconſtant winds, going and comming, and neuer at reſt. [When you ſee a circle about any of the other fiue planets or wandring ſtars, you ſhall haue powring ſhowres ſoone after.] Within the ſigne Cancer, there be two prettie ſtars which the Mathematitians call Aſelli, [*i.* little Aſſes] betweene which there ſeemeth to be a ſmall cloud taking vp ſome little roome, and this they name in Latine Præſepia, [*i.* a Crib, Cratch, Bowzey, or Manger:] now if it chaunce that this Racke or Crib appeare not, and yet the aire bee faire and cleare otherwiſe, a ſigne it is of cold, foule, and winter weather. Alſo if one of theſe two little ſtars, to wit, that which ſtandeth Northerly, be hidden with a miſt, then ſhall you haue the South wind to rage; but in caſe the other which is more Southerly, be out of ſight, then the Northeaſt wind wil play his part.

As touching the Rainbow, if it appear double as if there were two of them at once, it telleth of raine toward. A Rainebow preſently after raine, is a ſigne of faire weather: but this is not ſo certaine, neither will it hold long. Alſo, when a man ſeeth new circles ſtill about any planets, there will be much raine ſoone after.

In Summer time, if there chaunce to be more thunder than lightning, it threatneth winds from

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from that coaſt where it thundreth: contrariwiſe, if it lighten much & thunder little, looke for rain plentie: when you ſee it lighten, and the skie otherwiſe cleare & faire, it is a token that rain and thunder will follow thereupon, yea and rigorous cold weather beſides: but the cruelleſt and moſt bitter impreſſiions of the aire, enſue vpon ſuch lightnings as come from all the foure quarters of heauen at once: if it lighten from the Northweſt only it betokens rain the day following; if from North, it is a ſigne of wind from thence: if from the South, Northweſt, or full Weſt, it happen to lighten in the night & the ſame be faire, it ſheweth wind and rain from out of thoſe coaſts: morne thunders foreſhew winds, but if they be heard at noon, they preſage rain.

As touching clouds, if you ſee the rack ride apace in the aire, the weather being faire & drie,
B looke for wind from that quarter whence thoſe clouds doe come; and if they ſeeme to gather thick in that place, diſpearſed they will be and ſcattered when the Sun approacheth: but more particularly, if this happen from the Northeaſt, they portend rain; if from the South, ſtorm and tempeſt: if at the Sun ſetting the rack ſeeme to ride from both ſides of him into the open aire, they ſhew of tempeſts toward: if the clouds be very blacke, flying out of the Eaſt, they threaten rain againſt night: but if they come out of the Weſt, it will ſurely raine the morrow after, if the clouds be diſparkled many together out of the Eaſt, and flie like fleeces or flocks of wooll, they ſhew rain for 3 daies after: when clouds flie low, and ſeeme to ſettle vpon the tops of the hills; looke ſhortly for cold weather, contrariwiſe, if you perceiue thoſe tops of mountaines cleare without moiſt or cloud, the weather will ſoone take vp and turne to be faire: when the clouds ſeeme to be heauily charged and full, and yet looke white withall (which * conſtitution of the aire is called commonly the white weather) there is an haile-ſtorme at hand: moreouer, be the
C skie neuer ſo cleer, the leaſt cloud appearing therein, is enough to engender and foreſhew wind and ſtorme: miſts if they come downe and fall from the mountaines, or otherwiſe deſcend from heauen and ſettle vpon the vallies, promiſe a faire and drie ſeaſon.

* Some call them Towers.

Leauing the ſtars and clouds aboue, let vs come to our fires that we make and keepe in our houſes here beneath, for they are to be raunged in the next place of our prognoſtication. If the fire then burne in the chimney pale, and keep there with a huzzing noiſe, we find by experience it foreſhewes tempeſt and ſtormie weather: as alſo wee may be ſure of rain, in caſe we ſee a fungeous ſubſtance or foot gathered about lampes and candle ſnuffs: if you ſee the flame either of fire or candle mount winding and wauing as it were, long you ſhall not be without wind. The
D like is to be ſaid of fire and candle light, if either they ſeem to go out of themſelues, or to kindle and take fire with much adoe. Alſo, when we diſcern in the fire a number of ſparkles gathered together and hanging one to another: or if when the pot is taken off from the fire, the coles ſticke to the bottome and ſides: or when the fire being raked in embres, keepeth a ſpitting and ſparkling from it: alſo, if the aſhes lying vpon the hearth grow together: and laſt of all, when the liue-cole ſhineth brighter or ſcorcheth more than ordinarie, all theſe be ſignes of rain.

Goe we a little lower to the water, for that element alſo giues ſignes of the weather: and firſt of all, if you ſee the ſea within the hauen, after the floud is gone, in a low and ebb water to bee calme, and yet heare it keep a rumbling noiſe within, it foreſhews wind: if it doe thus by times and fits one after another, reſting ſtil and quiet between whiles, it preſages cold weather & rain.
Item, if in calme and faire weather the ſea ſtrond or water banks reſound and make a noiſe, it is a
E token of a bitter tempeſt: ſo it fares alſo with the very ſea it ſelfe; for if it be calm, & yet make a roaring; or if the ſome thereof be ſeen to ſcatter to & fro, or the very water to boile & buble, you may be bold to foretell of tempeſts: the Puffins alſo of the ſea, [*i.* fiſhes named in Latin Pulmones] if they appear ſwimming aboue water, foreſignifie cold weather for many daies together: oftentimes the ſea being otherwiſe calme, ſwells, & by hoouing higher than ordinarie, ſheweth ſhe had wind good ſtore encloſed within her, which ſoon after will breake out into a tempeſt.

Let vs come aland againe, and marke the diſpoſition of woods and hills: you ſhall heare the mountains and forreſts both, keep a ſounding and rumbling noiſe, and then they foretell ſome change of weather, nay you ſhall mark the leaues of trees to moue, flicker, and play themſelues,
F & yet no wind at all ſtirring: but be ſure then you ſhall not be long without. The like prediction is to be gathered by the light downe of either poplars or thiſtles flying too and fro in the aire; alſo of plumes and feathers floting vpon the water. Goe down lower to the vales & plains: if a man chance to heare a buſtling there, he may make account that a tempeſt will follow. As for the rumbling in the aire, it is an vndoubted ſigne and token thereof.

Moreouer, the verie bruit and dumb creatures preſage and giue warning what weather there G
will be. To begin with the fiſhes of the ſea: the dolphins playing & diſporting themſelues in a calme water, doe certainely fore-ſhew wind comming from that coaſt whence they fetch theſe friskes and gambols: contrariwiſe, if they fling and daſh water this way and that way, the ſea at that time being rough and troubled, it is an infallible ſigne of a calm and of faire weather toward. The Cuttle or little Calamarie Loligo, launching it ſelfe and flying aboue the water; the Cockles & winkles cleauing and ſticking hard to the grauell, the Sea-vrchins thruſting themſelues into the owſe and mud, or otherwiſe balaiſed & couered with ſand, be all ſignes of tempeſts neare. The like may be ſaid of Froggs, when they crie more than their cuſtome is, and of Seamews alſo, when they gaggle in a morning betimes extraordinarily, ſemblably, the Cormorants, Gulls, Mallards, and Ducks, when they keep a proining of their feathers with their bills, H
foreſhew wind: and generally, when you ſee other water-foule to gather and aſſemble together and then combat one with another, or Cranes make haſt to flie into the midland parts of the maine. The Cormorants and Guls flying from the ſea and ſtanding lakes, and Cranes ſoaring aloft in the aire ſtill, without any noiſe, doe put in comfort of a faire and drie ſeaſon: ſo doth the Howlat alſo, when ſhe cries chuitt in rainie weather: but if it be then faire and drie, we ſhall be ſure to haue foule tempeſts for it afterwards: Rauens crying one to another as if they ſobbed or yexed therewith, and beſides clapping themſelues with their wings, if they continue this note, doe portend winds; but if they giue ouer between-whiles, & cut their crie ſhort as if they ſwallow it backe again, they preſage rain and wind both. Iacke-dawes, if it be late ere they returne from their reliefe abroad, foretoken cold and hard weather; ſo do the white-birds when they aſ- I
ſemble and flock together, as alſo when land-foule (and the crow eſpecially) keep a crying againſt the water, clapping their wings, waſhing alſo & bathing themſelues. If the Swallow flie low and ſo neere the water, that ſhe flap the ſame oftentimes with her wings, it is a ſign of rain and foule weather. Semblably, all other birds that neſtle in trees, if they ſeem to make many flights out, but returne again quickly to their neſts. Moreouer, if Geeſe hold on a continuall gagling out of all order vntunably, a man may gueſſe no better by them, no more than he can of the Heron which he ſeeth heauy and ſad vpon the ſands.

And no maruell that theſe riuer-foules, or generally any other birds of the aire whatſoeuer, ſhould haue a ſecret preſage and foreknowledge of the diſpoſition of the aire; for the very four-footed beaſts of the earth doe make ſhew thereof by their behauiour. The ſheep and ſuch ſmall K
cattaile, leaping and playing wantonly, dancing alſo as vntowardly without meaſure, doe teſtifie ſome change of weather: nay the dull and heauie oxen holding vp their noſe and muzles, ſnuffe and ſmell into the aire, yea and keep a licking againſt the haire [toward rain.] Alſo when you ſee the foule and filthie hogs, rend, teare, and fling about them bottles of hay, and yet they care not for it when they haue done, becauſe it is no meat for them: likewiſe if you perceiue the piſmires or ants either lying cloſe and idle, full againſt their nature (whoſe propertie is to be induſtrious and euer buſie) or encountring one another in battailewiſe, or elſe carying their egs abroad out of their holes. Finally, when the mads or earthwormes come forth and appeare, a man may be bold to foretel of a change in the weather.

What ſhould I ſay more? It is knowne for certaine, that Clauer-graſſe or hearbe-Trefoile L
will looke rough againſt a tempeſt, yea and the leaues thereof will ſtand ſtaring vp as if it were afraid thereof. And to conclude and make an end once of this diſcourſe, whenſoeuer you ſee at any feaſt the diſhes and platters wherein your meat is ſerued vp to the bourd, ſweat or ſtand of a dew, and leauing that ſweat which is reſolued ftom them either vpon dreſſer, cupbourd, or table, be aſſured that it is a token of terrible tempeſts approching.

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An Index pointing to the principall matters contained in the first Tome of *Plinies* Naturall Historie.

A B

ABdace, a roe-bucke in Affricke. 331.d
Abdomen, what it is. 344.i
Abricots. 436.k. of two sorts. ibid. good for sicke folke. 436.f. must be soon spent. ibid.
Abſides what they are. 10.k
Abſtinence of Iulius Viator. 166.g

A C

Acacia Ægyptian thorne. 390.l.m
Acacia, a gum. 391.g
Acapnon the best kinde of hony. 478.7
Acarnania drowned. 40.l
Acca Laurentia, nource to Romulus, and his foſter-mother 549.c.
Accord among beaſts. 308.l.m
Acedon, a kinde of good hony. 317.b
Achaia the deſcription thereof. 74. h. drowned in Corinth gulfe. 40.l
Achilles Iſland famous, and why. 83.c
Achilleum, a kinde of ſponge. 262.b
Acilius Sthenelus a good husband. 411.c
Acontias a kinde of comets. 15.c
Acorne the best maſt. 458.m. of diuerſe ſorts. 459.a
Acre what it was at Rome. 550.g
Actus what meaſure in Rome. 565.e
Acylon, what it is. 458.m

A D

Adarce what it is. 483.d
Adlipſos, the Ægyptian Date. 344.l.m
Ad-Gallinas, what place. 553.f
Adelphides, Dates, why ſo called. 387.e
Adorea, glory, why ſo called. 551.a
Adoreum. 562.m
Adrachne, a tree. 541.e. 399.c
Adulteries imagined among the gods. See gods.
Adonis, a fiſh. 247.b

A E

Ægilops, an oke. 459.e
Ægis what it is. 487.b
Ægle, free from the ſtroke of lightning. 27. e. her nature. 273.d. burneth her ſelfe. ibid.f. of ſix kindes. 271. d. quicker of ſight than men. 305.f. how they build, breed, and hatch. 172.l. their manner of preying. 273.a. they die for famin. ib. their feathers deuoure other birds feathers. 273.b. they prey vpon deere. 273.c. they be at mortall warre with dragons. 273.d. an Ægles loue vnto a virgin. ibid.e.f
Ægle, the chiefe ſtandard of a Romane legion. 273.c
Ægle imagined to be Iupiters armour-bearer, & why. ib.b
Ægocephalus, a bird without a ſpleene. 343.c
Ægypt not ſubiect to earthquakes, and why. 38.h. brag of antiquitie, and wherein eſpecially. 98. l. Ægypt a mightie country. 545.l. free from lightning, and why. 25.d

A E

Æmylius Paulus ſacked in one day 702 cities in Macedonie. 77.e
Æolus how he is ſaid to gouerne the windes. 63.a
Æquinox of ſpring. 581.c. of Autumne. ibid.
Æſalo a kinde of Hawke. 274.k
Æthiopians, why blacke. 26.m
Æthiopia the deſcription. 96. their manners. ibid.g
Æſchylus the Poet killed with a Tortoiſe ſhell. 271.f
Ætites a precious ſtone. 272.k. medicinable. ibid.l
Ætna the hill alwaies burning. 47.b

A F

Affricke full of ſtrange beaſts. 200.k. plentifull in corne 430.k. deſcription thereof. 93.d
Affricus wind. 22.l

A G

Age vnmeet for generation. 303.a
Agelaſtus, who ſo called, and why. 166.h
Agrophagæ, what kinde of people. 147.e
Agriculture. See Huſbandry.
Agrion. 384.f
Agrippæ who ſo called. 139.f
Agrippa his infortunitie. 160.g
Agrippina, two vnhappie imps of his. ibid.
Agaricke, where it groweth. 461.b. how it is gathered. ib. for what it is good. ibid.
Ague of Antipater the Poet yeerely on his birth-day, whereupon he died. 184.g. C. Mecænas neuer free of an ague. ib.

A I

Aire, element. 2.l. giueth life for all things. ib. by the power thereof the earth hangeth. ib. the properties thereof. 18.m
no Airie of agles in Rhodes. 289.c
Aiax, the name of an Elephant. 194.k. he died for ſhame of a diſgrace. ibid.

A L

Alauda, a legion of the Romanes. 331.a
Albanes, people eied like owles, alwaies gray headed, and ſee better by night than day. 154.i
Alce, what kinde of beaſt. 200.d
Alcibiades, a ſtout wine-knight. 427.d
Alcippe deliuered of an Elephant. 157.f
Alcman a Poet in Greece died of lice. 329.d
Alec, a kinde of dripping. 246.k
Alexandria the deſcription therof. 99.b. who built it. 122.b. called Seleucia, and why. ibid.
K. Alexander the great his victory at Arbela. 35.a. his care to know the nature of liuing creatures. 200.l. how he honoured Homers books. 108.l. 171.c. he ſpared the family of Pindarus the Poet. 171.d. his commandement for his ſtatue. 175.b
Alburnum in wood, what it is. 486.i
All-heale, what it is. 497.c
Alica of three ſorts. 568.g

Alica Exceptitia, Secundaria, Crebraria. ib. k. where and how it is maae. ibid.g
Almonds described. 446.h
Almond trees having no greene leaues. 473.f. *when to be planted.* 522.k. *how sweet Almonds are made bitter.* 343.c

[illegible] 259.f
Amphisbæna, a serpent. 208.g.
Amalchium, what it is. 85.c
Ambre, where ingendred. 86.l.
Ambracia the hauen, left dry land. 39.e
Amia a kinde of fish. 243.d
Ammoniacum a gum, why so called. 375.c. *the kinds thereof.* 375.d. *the best and the price, ibid. how it is sophisticated.* ibid.
Amomis. 365.d.
Amomum. 395.c. *the price. ibid. d. sophisticated.* ibid.
Amomum, why it entreth into aromatical ointments. 382.l
Amomum, why it will not liue in Arabia. 478.l.
Amurca, what it is. 430.l
Amylum how it is made. 562.g. *why so called. ibid. sundry sorts thereof.* ibid.b

A N

Anataria. See Morphnos.
Andrachne an herbe. 399.e
Androcides his sage counsell to Alexand. the Great. 413.b
Andrógini, who they be. 154.m
where ladie Andromeda was exposed to a monster. 110.l
Angeronа, a goddesse. 59.c
Anthus, a bird neighing like an horse. 293.a
Antigenes, a famous minstrell. 484.g
Antichthones. 129.b
Annibal his falshood. 195.e
Antei, transformed into wolues. 207.c
Anthiæ fishes how they be caught. 268.m.269.c
C. Antonius nicknamed Hybrida. 231.e
Ants, their common weale. 338.k. *their forecast. ibid. how they liue. ibid. their passage weareth pibble stones.* 328.l *they onely burie their dead.* 328.a. *they flie not in Sicilie. ibid. they cast vp gold in India.* 329.a. *where, as big as wolues. ibid. they deuoure men.* 329.b. *loue gold well. ibid. they will not touch some kind of liuer.* 342.g. *hurtfull to trees.* 547.d. *gather about fishes.* ibid.
Anthropophagi, what they are. 154.h
Antipodes, whether there be any such. 31.b

A P

Apathes, who they be. 166.h
Apes most like to mankinde. 231.e. *differ from monkies. ib. craftie to beguile themselues. ibid. play at chesse or tables. ibid. shee-apes fond ouer their little ones.* 231.f
Apes store vp victuals within their cheekes. 207.c
Apharema what it is. 568.g
Apicius a famous glutton. 296.g
Apis, the Ægiptian bœufe. 226.g. *honoured among them. ibid. serueth as an oracle.* ibid.h
Apharce a tree. 399.d
Aplusiæ, the worst spunges. 263.a
Apogæi, what winds. 21.c
Apolecti, what they be. 243.b
Apothecaries craft who first practised. 188.k
Apua, a kinde of fish. 265.d
Apparition of fixed starres at set times. 587.d
Appluda what it is. 556.f
Apples beare names of countries. 438.k. *Camerina, Græcula. ibid. Gemella, [illegible]. ib. Serica, why so called. ibid. [illegible], why so called.* ibid.
hastie Apples Mustea. 438.l. *Melimela, Orbiculata, Epirotica, Orthomastica, Spadonia, Melofolia, Pannucia, Pulmonea.* ibid.
all Apples red on the Sun side. 438.m
Apples Dacian. 439.a. *winter apples.* ibid.f
Apples de guard. 440.l. *how to be kept.* ib.g.b
what Apples will last, and what will not. ibid.
Apple trees bearing fruit twice a yeare. 474.m
quince Apples. 438.i. *Apples Appian, Matian, Sectian, Manlian, Claudian, Scantian, Sceptian, Quirian, Petisian, ibid. Apples what fruit properly.* 437.f
Apples haue eternized the name of their first inuentors & graffers. 438.i. *Apple trees dearely rented at Rome.* 499.d. *tendrest of all other trees.* 540.k. *diseased. ib. how they be made fruitfull.* 545.d. *apples how kept from rotting.* 574.d. *apple trees when to be graffed.* 518.l
Apyrinon, a kind of Pomegranat. 398.b

A Q

Aquiceti, pine nuts confected. 436.g
Aquifoliæ. 458.l
Aquitania described. 87.d

A R

Arabia, why called Happy. 365.f. 371.d
Araneus, an imperfection in wines and oliues. 540.a
Aratrare, what point in husbandry. 580.b
Araxi, or Oraxi, springs medicinable. 568.i
Arbute tree described, and the fruit. 447.d
Archers & arrowes haue conquered halfe the world. 482.k. *Candiots excellent archers.* ibid.
Arcturus the star cause of tempests. 19.c
Arethusa a strange lake. 137.b
Argatilis a bird. 288.l
Argo a ship, of what wood it was made. 399.b
Architecture, who excelled therein. 175.b
Arimaspians, with one eie in their fore-head. 154.h
Arinca, a graine all one with Olyra. 568.k. *it makes sweet bread. ib. hard to be clensed. ib. what kind of corn.* 559.c
Aristæus mingled hony with wine. 412.h
Arion mounted vpon a dolphins backe. 239.f
Aristomenes the Messenian had a hairy hart. 340.k. *slew three hundred Lacedemonians alone.* ibid.
Aristotle employed by K. Alexander the Great about the liuing creatures. 200.m
Armes of men not all of a iust measure. 549.d
Arnuphea, people, their life and strange manners. 121.a
Armeniaca. See Abricocts.
Armor heard rustling in heauen. 28.g
Artabita, men wandring like foure-footed beasts. 147.e
Artenon, a man like to Antiochus K. of Syria. 161.d
Arteries from the heart minister vitall bloud to all parts. 340.h. *how to obserued in their pulse or beating.* 345.b
Articulatio, a disease proper to vines. 540.h
Artisans excellent. 175.b
Artolaganus. 566.l
Artopta, what it is. 567.b
Artoptitius panis. 566.m
Arunctus, what it is. 229.e

Asarum

20030
copy 1

A S

Aſarum or Aſara-bacca deſcribed. 365.*b*
Aſcia, places where no ſhadowes be yeelded. 36.*h*
Aſcitæ, Arabians, why ſo called. 144.*m*
Aſclepiades recouered one that was carried forth as dead. 175.*a*
Aſh-tree, where it is alwaies greene. 48.*g*. *aſh tree deſcribed.* 465.*e*. *commended by Homer. ibid. the wood of the aſh in Ida like to Citron. ibid. aſh of two kindes.* 465.*f*. *the leaues hurtfull to what beaſts.* 466.*g*. *the iuice of the leaues medicinable. ib. the ſhadow skareth ſerpents. ibid. the leaues driue away ſerpents.* 466.*h*
Aſia a kinde of Rie. 572.*l*
Aſia, the deſcription thereof. 96.*a great part thereof vnhabitable by reaſon of cold.* 120.*m*
Aſiæ. See Otys.
Aſphalathus, a ſhrub. 376.*g*. *the price. ibid.h*
Aſphaltites, lake of Sodome. 101.*e*. *no liuing creature therein. ibid.*
Aſpe trees turne to be Poplar. 543.*c*
Aſpis the ſerpent hath her affection, and is a iuſt reuenger. 309.*a*. *diſchargeth her poiſon by the teeth.* 337.*c*. *the nature of Aſpis.* 208.*h*
Aſſabinus, the god of Cinamon plants. 372.*l*
Aſhes of fuell burnt, much ſet by beyond the Po. 507. *a*. *ſerue to enrich ground. ibid. of the ſame nature that ſalt.* 546.*l*.
Aſhes of lime-kils encreaſe oliue trees. 507.*e*
Aſſes cannot away with cold. 223.*b*. *when they ſhed teeth.* 338.*h*. *their ielouſie and leachery.* 212.*l*. *of great price.* 223. *a*. *their manner and time of generation. ib.b*. *the gaine that they bring by breeding. ibid.c. their foles good meat. ibid.e. their other properties. ibid.c*
Aſſes of India with one horne. 351.*b*
Aſſes wild. 20.*g*
Aſſyrian tree. See Citron tree.
Aſtomes, people without a mouth. 156.*i*
Aſtronomers their commendation. 8.*m*. 9.*a*. *who moſt excellent.* 174.*l*. *their three ſects.* 586.*h*
Aſtronomie neceſſarie for agriculture. ibid.a
Aſtrologie who firſt deuiſed. 189.*d*
Aſtrologers opinion touching the length of mans life. 181.*f*
Aſturcones, what horſes. 222.*m*
Aſturius Celer, a prodigall ſpender. 246.*k*

A T

Atabulus, an vnluckie wind in Apulia. Ateramum. 575.*b*
Atlas hill. 92.*g*. *the ſtrange trees thereon growing.* 92.*h*
Atlantes people, their ſtrange manners. 96.*i*. *they dreame not in ſleep. ibid.*
Atlanticke ſea ſometime the continent. 40.*l*
Atomus, what it is. 367.*e*

A V

Augurie and Auſpices by birds, who firſt inuented. 189.*c*. *honoured in Rome.* 211.*f*
Auguſtus Cæſar, whether he were happy. 179.*c*. *his fortunes compared. ibid. he deſired Proculeius to kill him.* 179.*e*. *faſted foure daies and foure nights. ibid. hee ſaw his lineall deſcent vnto the fourth degree.* 162.*l*. *his conduct diſcouered many ſeas.* 32.*k*. *ſuperſtitious in preſaging that his left foot ſhoo was put on before the right.* 4*l*
Augytæ, people worſhipping onely the diuels beneath. 96.*i*
Auiola burnt quicke. 184. *h*. *he reuiued in the funerall fire. ibid.*
Auleticus Calamus, a kind of reed. 483.*b*.*e*

A X

Axis, an Indian beaſt. 206.*k*

B A

Babylon territory exceeding fruitfull. 576.*i*
Babylon the citie deſcribed. 136.*h*
Babylonicæ veſtes, what they are. 228.*i*
Baccharis. 364.*l*
Bacchi, a kind of codfiſh. 245.*e*
Bacchus, when borne, how. 128.*l*
Bacchus firſt wore a coronet or garland. 456.*m*
Backebiters haue venomous tongues. 548.*m*
Bactrian, a plentifull country for corne. 581.*a*
Bactrian corne exceeding big. 561.
Bagous what he is. 387.*b*
Baliffes of husbandry. 555.*a*
Bakers when they began in Rome. 557.*b*
Balauſtia. See Pomegranate flowres.
Bald-rauens. See Plugeons.
Balena what fiſh. 235.*f*. 236.*l*
Balena and Priſtis, greateſt fiſhes in Indian ocean. 235.*f*
Balls of the cheeks forbidden by law to be ſcratched. 336.*i*. *the ſeat of baſhfulneſſe and modeſty. ibid.*
Balme trees of three ſorts. 376.*l*
Balme tree groweth no where but in Iurie. 478.*k*
Balme trees brought to Rome. 376.*i*. *how they are planted and ordered. ibid.k. their deſcription. ibid.*
Balme trees ſaued by the Romanes at the deſtruction of Ieruſalem. 376.*k*
Balme fruit or graine. 377.*e*
Balme graine how ſophiſticated. ibid.
Balme barke. ibid.
Balme liquor moſt pretious. 376.*i*. *balme liquor how ſophiſticated, and how diſcerned.* 377.*e*. *balme liquor how it is drawne.* 376.*m*. *balme liquor which is beſt.* 377.*c*
Balſamodes Caſſia. 373.*e*
Bands or bindings in husbandry, of what trees and plants they are to be made. 445.*b*
Barbatæ, a kinde of hawke or egle. 272.*k*
Barbers firſt entertained in Rome. 190.*m*
Barble fiſhes. 246.*h*. *their deſcription and nature. ibid. why called in Latine, Mulli.* 246.*i*
Barke of trees is their hide. 486.*h*
the barke moiſture of trees is their bloud. 486.*g*
Barke of trees how to be vſed. 541.*e*
Barking of trees. 487.*d*
Barks of ſundry trees, how emploied. 461.*d*
Barks of trees different. 477.*a*
Barley a tender corne. 562.*h*. *how to be cut downe, and at what time. ibid.*
Barley how it is eared and iointed. 558.*k*
Barley where it groweth twiſe a yeare. 503.*e*
Barley doth degenerate into oats. 574.*g*
Barley a moſt ancient meat. 561.*c*. *condemned. ibid.e*
Barley vſed in Phyſicke, and to feed cattell. 562.*h*.*i*
Barley different in eare and otherwiſe. 562.*i*
Barnes, how and where to be built. 603.*b*

Barraine beaſts ſoone fat. 344.k
Barraineſſe of earth,how it is found. 504.i
the Baſiliske. 196.l. *his properties.ibid.his venome.*207 *a killed by the weazill.* *ibid.*
*Battaile firſt fought.*189. *a. battaile at Sibaris.*197.*d. in two battailes in one day, both on ſea and land, Numenius defeited the Perſians.* 140.*b*
a Bat or winged mouſe only amongſt the foules,hath teeth. 337.*d.Bats bring forth young aliue.*301.*f.the onely bird that gineth wilke.* 302.*g*
Bay trees:ſee Lawrell. Bay leaues purge the gorge of birds. 211.*c.*

B D

*Bdellium.*362.*m. ſophiſticated.* 363.*a. See Brochos. the triall.*363.*b.the price.* *ibid.*

B E

*Beans principall of all pulſe.*568.*l.beane meale. ibid. beane ſtalkes in Ægypt full of pricks.*569.*d.beanes how to be prepared before they are ſet or ſowne.* 575.*d. beanes and vetches ſowne vnder furrow.* 580. *g. beanes yeelding great encreaſe.*565.*b. beanes forbidden by Pythagoras to be eaten.* 569. *a. the arch Flamin abſtaineth from beanes,wherefore.*569.*b.beanes vſed in portſales.*569.*b when they are to be ſet or ſowne. ibid. b. kidnie beanes.* 570.*l.beanes ſowing doth enrich a ground.*569.*c.beans growing of their owne accord,* *ibid.d*
Beares onely haue no marrow at all. 344.*m. how they engender.* 302.*l. beares haue the tendereſt ſculls.* 332.*l. beares cure themſelues with piſmires.*211.*c.bears,their manner of generation.* 215. *f. their young imperfect.* 216.*g.they grow exceeding fat. ibid.h. their fat medicinable.ibid.they ſeeke to the herbe Wake-robin. ibid.i they are ſubiect to dimneſſe of ſight. ibid.i. weake in the head.ibid.k their braine venomous. ibid. hunted in the ſhew-place at Rome.* *ibid.l*
Beaſts accounted for gods. 3. *e.beaſts of India very bigge.* 155.*b.beaſts engendred in the vnhabitable places of the earth,and the reaſon.* 11.*b. beaſts that dranke laſtly, bleed moſt at their death.*346.*h.beaſts bring forth yong according as they are whole hoofed or clouen.* 303.*a. beaſts, which bring their young perfect, which imperfect. ibid. beaſts will not touch where beares haue breathed.* 356.*a. beaſts foure-footed commonly reſt on their right ſide.*350.*k.beaſts by whom firſt killed.*190.*k.*
Beech wood highly eſteemed. 486.*m. a beech groue finely kept and conſecrate to Diana,* 496.*g*
*Bees,their order and nature.*312.*i. when they goe abroad. ibid.l.their firſt worke. ibid. their care of their kinde. ibid.their regard of their worke.* 313.*a. their munition. ibid.b. their greateſt ſwarmes among oline trees. ibid.d.they hurt no fruit. ibid they wander not from their hiue aboue ſixtie paces. ibid. they ſend out ſpies. ibid.e. how they watch. ibid. iheir foreſight.* 314.*g. how they lade themſelues. ibid.h. their ſenerall offices. ibid.bees of two ſorts in one hiue. ibid. k. they goe with the wind. ibid.l. their pollicie againſt the wind. ibid. they puniſh ſlothfulneſſe. ibid. their cleanelineſſe. ibid. their ſilence towards night. their hatred to the drones.* 315.*b. their buildings for their captaines. ibid.c. how they are driuen away.* 316. *k. bees, when they are nouriſhed with ſleepe onely.* 317.*e. they abhor a theefe. ibid. their fidelitie to their king.* 319. *c. bees ſetled on Plato his mouth. ibid.d. bees in the campe of Generall Druſus. ibid. why ſometimes they fight.*320.*g. bees after they haue ſtung,be no better than drones. ibid.k. drone bees are biggeſt.* 315. *a. they take vp leaſt lodgings.ibid. Of bees worke, three foundations.* 313.*b. whom they will ſting.* 320. *k. bees are often ſicke.* 320. *m. bees ſorrow for their dead king.* 321.*a. bees performe a ſolemnitie of exerciſe. ibid.e. they liue not aboue ſeuen yeares. ibid. how they are repaired.* 322.*g. bees will not touch a dead carkaſſe. ibid. i. bees onely make their owne meat.* 328.*i*
*Beetles haue no ſting.*326.*k.they are remedies for children. ibid.they are delighted in roſes..* 355.*e*
Bellerophon his letters in tables. 394.*l*
of the Belly. 342.*k*
Bellies that be fatteſt,cauſe groſſeneſſe of capacitie. ibid.l
Belus,inuentor of Aſtronomie. 136,*h*
*Ben,or Behen.*374.*f.a nut onely for ſweet ointments.* *ib.*
Benacus a lake in Italy. 248.*g*
Beotia riuer. 51.*f*
Berenice haire,a ſtarre. 34.*l*
Berries different. 447.*f*
Besbicus Iſland ſometimes ioined to Bithinia. 40.*i*

B I

Bills giuen to birds in ſtead of monthes, and their vſe. 336.*l.m.*
Biacon,a kinde of wine medicinable. 416.*i*
*Bieuers gueld themſelues.*212.*m. where they breed, their nature.* 213.*a*
Birch tree deſcribed,and how it is emploied. 468.*i*
Bird-ganders. 281.*b*
Birdlime how it was made. 497.*a*
*Birds ſinging when they ordinarily doe breed.*287.*c. birds very few haue gawles in the liuers.*341.*f.birds hatched with their tailes forward.* 272.*e. birds hauing neither veines nor arteries.* 345. *c. birds with hooked talons prey all.* 278.*k. birds how they tranſlate their egges from place to place hauing no hooked tallons.* 289. *a. birds differ one from another in flight and gate.* 291.*f. birds how they drinke.* 295.*c. birds of diuers feedings. ibid.c.birds ſinging,alter their notes.*285.*e.new birds.* 296.*k.birds there be none without feet.* 351.*d. birds language how to be vnderſtood.* 296.*l. birds of prey leaſt fruitfull.* 297.*f. birds that lay moſt. ibid. birds how they engender.* 298. *g. birds how they differ in laying and couring. ibid.i.* 300.*k. birds ſmall be fruitfull.*301.*d. blackbirds counterfeiting mans ſpeech.* 293.*d.blackebirds are gone for a time.*284.*g. blackebirds change both hew and tune.* *ibid.*
Births ſtrange for number, for defects and ſuperfluitie. 164.*h.i.*
Births of children vncertaine. 158.*k*
Birth at ſeuen months liue:alſo at the eleuenth.ib.A child legitimat borne within thirteene months,after the ſuppoſed father deceaſed. 159.*a*
Biſontus or Bxufes of Germanie. 199.*f*
Biſſextile yeare. 585.*b*
Bitches differ in their litters. 303.*c. bitches engender with Tigres.*219.*e. with wolues.ib.how long they goe with young.*220.*h.their whelpes blind.* *ibid.h.i*
Bithya, Women witches, who haue a double ſight in their eie. 155.*a*

20030
copy 1

Biting if a mad dog cured by Eglantine. 220.k
Bitumen comparable to the water of Styx. 47.d
Bitumen a ſtrange ſlime. 163.e

B L

Bladder where it is placed. 343.f. *bladder nut tree.* 467.c. *bladder onely there found, where is lungs and bloud.* 343.f. *of the bladder in man and beaſt.* 343.f. *bladder being wounded cannot be cured.* 344.g
Blaſted corne, 574.i
Blaſts how they be occaſioned. 574.l.m. *blaſts ſuddaine their names and nature.* 24.k
Blattæ flies are nouriſhed in darkeneſſe. 326.m
Blazing ſtarres. See comets. Voluſius Saturnius how hee vſed to bleed. 346.h
Bloſſoming time of trees how long it laſteth. 473.b
Bloud apples. 438.l. *bloud rained. See Raine. bloud fat and groſſe breedeth anger and choller.* 345.f. *of bloud a diſcourſe. ibid. bloud of males blacker than of females. ib. bloud containeth a great portion and treaſure of life.* 346.g. *it is without ſence and feeling. ibid. bloud that is thinneſt, cauſeth ſtrength in creatures. ibid. bloud that is thinneſt maketh men wiſe. ibid where it is but little maketh men fearefull. ib. bloud of bulls ſooneſt congealeth. ib. it is poiſon to be drunke. ibid. bloud of Aſſes moſt fattie and groſſe. ib. bloud of man thinneſt and beſt. ibid. bloud is but little in thoſe that be fat. ib. bloud caſt vp by many at the mouth. ib. h. bloud quickeſt encreaſeth of all parts of the body. ib. bloud changeth with anger and furie.* ibid.
in Blooming time raine hurtfull to corne. 574.k

B O

Boa, mightie great ſerpents. 199.e. *why ſo called.* ib.
Bodies of men and women different beſide the diſtinct parts of ſex. 165.e
Boats of one entire piece of wood. 490.g
Bœtica, ſo called of Bœtis. 51.d
Bœufes of India. 224. k. *bred by king Pyrrhus. ibid. l. their manner of engendring and breeding. ibid. of feeding.* 224.a. *when they are to bee drawne and yoked. ibid. b. ſufficient for ſacrifice. ibid. c. knowne to ſpeake. ibid.*
Bolides, flaming launces in the skie. 17.b
Bombycea, reeds or canes. 484.g
Bombycina, garments of ſilke. 322.m
Bombyly, the greater kinde of Bombyces. 322.l
Bombyx, a flie breeding in Aſſyria. ibid their hard neaſts. ibid. how they engender. ibid.
of Bones. 345.a
Bonaſus, what manner of beaſt, and his properties. 200.h
Bondwoman brought forth a ſerpent. 157.f
Bones of Aſſes legs ſound ſhrill. 345.a. *bones in ſome men without marrow.* 165.f. *bones ſometime found in the hearts of beaſts.* 340.i
Bore, his owne Phyſitian. 210.m. *bore ſerued whole vnto the bourd.* 230.l
Boreas wind. 23.a
Boryſtenes riuer. 154.i
Boſphori the ſtreights (Thracius and Cimmerius.) 117.f. *why ſo called.* 115.a. *Boſphori, ſometime land.* 40.l
Botaniſmos, what it is. 577.a
Boulters and Raungers. 567.c
Box tree wood commended in the root moſt. 467.c. *box tree ſerueth for arbours. ibid. of box tree three kindes. ibid. c. where it delighteth to grow. ibid. d. the nature of the floure and wood. ibid. box tree beareth varietie of fruits.* 476.g

B R

Brake, ſee Ferne.
Braine of a Date tree. 386.m
Brambles of three ſorts. 485.e. *with a blacke berry, with a roſe, and a red berry. ibid. f. the bramble Idæa, which is Raſpis.* ibid.
Brance, what corne. 559.d
people Branded with hot yrons. 116.h
Braſſe, where firſt found. 80.m. *braſſe-founders the firſt.* 188.k. *braſſe forges and furnaces, who deuiſed.* ibid.k.
Brawne of wilde bores in great requeſt. 230.l
Braines the coldeſt part of mans body. 332.m. *they are without bloud or veines. ibid. by ſeething they waxe hard.* 333.a. *without fleſh, bloud, filth or ordure. ibid. braines, the fort and caſtle of the ſences. ibid. braines and eies die firſt.* 340.g. *of braines and the braine-pan.* 332.l.m.
Bread of ſundry ſorts, according to the meat eaten therewith. 566.l. *bread Parthicke or water-bread.* 567.a
Breadth of the earth. 48.i
Breath of Lions ſtinketh. 255.a. *breath of beares peſtilent and deadly. ibid. breath of men by what meanes it is infected. ibid. b. breath of man ſhall returne into the aire. ibid. it is corrupted by much drinking of wine. ib. breath of Elephants, what vertue it hath.* 355.c
Breeding time in plants. 471.e
of the Breſt in man and beaſt. 343.e.f
Breaſt apples. 438.l
Bricke and tile who deuiſed. 188.k
Bricke and tiles raigned. See Raine
Brimſtone mine. 568.i
Brim of the eie-lids being wounded, cannot be drawne together. 336.i
Brittaine, an Iſland renowmed. 86.k
Brocci, who they were. 336.l
Brochos what it is. 363.a
Brood-hen ſtarre, Virgiliæ. 588.h
ſetting of brood-hens. 589.f
Broome, where and when to be ſet. 523.c
Bruſcum in maple. 467.a
Bruta, what tree. 371.a
Brutium a promontory. 51.b
Bryon (Aromaticum) what it is. 375.d
Bryon a weed in the ſea. 401.e

B V

Bubetij, what plaies they are. 550.k
Bubulcus, ſurname to the houſe of Iunij, whereupon. ib.h
Bucephalia the citie. 221.a
Bucephalus King Alexanders horſe. 220.l. *his deſcription and rare qualities.* ib.m
Bucklers of what wood they be made. 590.k
Buffles horne of eight gallons. 331.f. *buffles horne how it is vſed.* 332.g
Building vpon land in the country. 554.g.h
Bull baiting. 225.e
Buying and ſelling who deuiſed. 187.e
Bulls wild vntameable. 206.i
Bullais. 437.a

Bumaſti

Bumasti grapes. 405.a
Bumelia, a kinde of Ash-tree. 465.f
Bunches in wood. 487.l
Bura citie. 41.a
Burning and burying of dead-bodies after diuerse sorts. 186.l.m.
Butter hath the vertue and properties of oyle. 340.k
Butterfly how it is bred. 329.e
Butterflies no good signe of the Spring. 586.g
Buteo. See Triorches.
Buteo gaue the name to the house of Fabij in Rome. 274.k
Buzzards good meat. 296.k
Buzzard. See Buteo.

B Y

Byzacium territory of Affricke. 505.e. *most fruitfull ground.* ibid.
Byzia a castle of Thracian kings, hated of Swallowes, and why. 278.l

C A

Cachrys in an Oke, what it is. 400.l. *the vse and manner thereof.* ibid.
Cadytas, what it is. 496.i
Cadmus, where borne. 108.g. *first found out for to write prose.* ibid.
Casias wind. 23.a
Cecina his practise by Swallowes. 283.a
Cæsares and Cæsones, why so called. 160.i. *such commonly fortunate.* ibid.
Cæsar his breast-plate made of English pearle. 256.k
Cæsar Dictator his liberalitie in wines. 420.h
Cæsar ript out of his mothers belly. 160.i
C. Cæsar his quickenesse of spirit. 168.k
Cæsar repented him of his clemencie. ibid.l
Cæsar his fidelitie concerning writing. 168.m
Cæsaris Thronos, a starre. 34.l
Cæsaria, a citie in Mauritania. 53.d
Caius Hirtius inuented stewes for Lampries in Asia. 267.c.
Caius Marius first aduanced the Ægle in the Romane ensigne. 273.c
Caius Caligula the Emperour his saying of Surrentine wines. 414.h
Caia Cecilia. Looke Tanaquill.
Calpe, a Promontory. 51.b
Calpe, a mountaine. ibid.e
Calculosa, a kinde of Purples. 259.b
Calydna Island. 316.b
Calamus Aromaticus. 375.a
Calculation of the yeare by Cæsar the Author followeth. 586.l.
Calamaries, fishes. 244.b
Calaminth first vsed by Lizards. 210.l
Sea-Calfe his qualities. 213.b
Calues chosen for sacrifice. 235.e
Callithriches, a kind of Apes. 225.b
Camalodunum, a towne in Brittaine. 36.k
Cammell hath no fore-teeth in the vpper iaw. 337.b
Cammels how they engender. 302.l
Cammels their diuerse kinds. 205.b
Camelopardalis, what kinde of beasts. 205.d
Campaine in Italy a most fruitfull country. 567.e.f
Canell. See Casia.
Canes. See Reeds.
Canes of India serue betweene ioints, for boats 482.m
Canes of diuerse sorts. 483.b
Canes and reeds how they grow. ibid.a
Canarium what sacrifice. 551.b
Cancamum. 374.b
Canetias, the workemen that made the stature of Diana at Ephesus. 491.c
Canopus the name of a starre, where and in what manner it appeareth, and where not. 34.l
Canopus, a goodly starre seen in Taprobane about the pole Antarticke. 130.i
Canterius in a Vineyard, what it is. 528.i.k
Cantharolethus in Thrace. 327.a. *why so called.* ibid.
Capnumargos, a kinde of red marle. 506.b
Capparis, the plant of the fruit capres. 400.i
Caprification to be practised after raine. 546.b
Caprification what it is. 444.k
Caprificus what it is. ibid.h
Cappadocians how they tooke their names. 116.h
Caprimulgi, what birds. 292.i
Carambus promontory. 49.a
Carbunculus, burning earth. 503.b
Carbunculus in corne, what it is. 598.i
Cardamomum, foure kinds. 365.e
Cardiaca, disease of the heart. 341.a
Cardo, what it is. 598.i
Carpinus, what manner of trees. 466.m
Carginon, what it is. 476.g
Carpheotum. 367.d
Caryota dates, why so called, and the wine thereof. 387.d
Caryopon. what drug. 397.e. *the worth.* ibid.
Carob-tree, 390.g
Carobs or caracts, what kinde of fruit, 447.b
Carpentry and the tooles, whose invention. 188.l
Carpophilon. 452.m
Carseoly territory. 537.f
Carthegon, what it is. 476.g
Casia. 372.i
Casia, the sweet spice where it groweth. 373.e. *the plant described.* ibid. *Casia the best.* ibid.
Casius a mount of admirable height. 102.g
Caspiæ, gates so called. 122.g
Caspia part not the streights of Caucasus: they be described 455.a.b.
Castor and Pollux star, what is to be thought of them. 18.k *wherefore men invocate them at sea.* ibid.l
Castoreum what it is. 212.m
Cat of gold worshipped as a god. 546.b
Cats how they ingender. 302.l. *Cats how subtill in hunting.* 308.g.
Catacecaumene, a region. 415.f. *why so called.* 416.g
Caligula his eies stiffe in his head. 334.k
Cataractæ. See Diomedian birds.
Cato Censorius commended. 410.l. *his precepts touching Vines.* 411.a
Cato perswaded the Senate of Rome to destroy Carthage, by occasion of a figge. 443.a.b.c
Cato his praise and commendation. 169.f

20030
copy 1

Catorchites, what kinde of Dates. 421.*a*
Catoblephas, what kinde of beaſts. 206.*l*
Cati and Corculi, why ſo called. 173.*b*
Cauſe of vomit. 342.*l*
Cannians naturally ſubiect to the ſwelling of the ſpleene. 331.*k*.
Cauneas preſaged ill fortune to M. Craſſus. 445.*a*
Cauchi, a people without trees, their habitation and country deſcribed. 455.*a.b*
Cauatica, a kinde of Snailes. 218.*i*

C E

Cea Iſland. 41.*a*
Cedar gum. 424.*g*
Cedars, which be beſt. 489.*a*
Cedar oyle. *ibid.*
Cedar for Maſts. 490.*g*
Cedars of dwarfe kinde. 388.*l.m*
Cedrelate. 389. *a. the timber thereof euerlaſting.* *ibid.*
Cedrelæon. 434.*h.i*
Cedrium, what it is. 46.*h*
Celendine reuealed by Swallowes. 210.*l*
Celtium, a kinde of Tortoiſe. 241.*e*
Celtie. See Lote-tree.
Centigranum wheat. 565.*b*
Cephus a beaſt. 205.*e*
Cephenes or Serenes, young drone Bees, and how they be fed. 318.*i*
Ceratias, a kinde of Comet. 15.*e*
Cervus a Maſt-tree. 458.*m. the maſt thereof.* *ibid.*
Ceraſtes what worme. 492.*g. wormes in figge-trees.* 539.*c*
Ceraſtæ ſerpents. 208.*g. Ceraſtæ ſerpents haue hornes of fleſh.* 331

C H

Cheapeneſſe of all victuals in Rome. 551. *d. the cauſe thereof.* *ibid.f*
Chalcedon, why called the citie of the blind. 114.*g*
Chamædaphne. 452.*m*
Chameceraſti. 448.*h*
Chameleons lights are very big. 341.*a*
Chameleons roll their whole eies. 331.*f*
Chamelæa. 398.*k*
Chamæropes, what they be. 387.*a*
Chamæmyrſine. 434.*h*
Chani fiſhes without males. 244.*m*
Characias, a kinde of reed or cane. 483.*e*
Charitoblepharon, a ſhrub within the ſea. 402.*k*
Charcoale of Oke-wood. 459.*c*
Charcoale of young tree beſt. *ibid.*
Charcoale how it is made. 459.*d*
Charcoale worſt, made of the Oke Hatiphleos. *ibid.*
Charme to driue away haile. 547.*f*
Charmidas his memory. 168.*g*
Chaſma what it is. 17.*h*
of Chaſtitie rare examples. 173.*f*
Chats or Catkins vpon diuers trees. 459.*d*
Chaus a beaſt. 205.*e*
Chalenophagi hairie all but head. 134.*i*
Chelidoniæ, Iſlands in Aſia. 368.*l*
Chelidony, ſtones in mawes of young birds. 343.*b*
Chenelopes. See Birganders.
Chenerotes. 281.*b*
Cheeſe vnknowne to barbarous nations. 348.*k*
Cheeſe of the beſt ſort made in Dalmatia. *ibid.l*
Cheeſe excellent at Vatuſium. *ibid.m*
Cheeſe of diuers ſorts. 349.*a*
of Cheeſe a diſcourſe. 348.*l*
a Cherrie tree bearing armes of a mighty bigneſſe. 476.*m*
Cherrie trees when to be graſted. 523.*b*
Cherries of a middle kind between berries & grains. 448.*g*
Cherrie trees brought into Italy. *ibid.h. they will not grow in Ægypt.* *ibid.*
Cherries, Apronian, Actian, Cæcilian, Iulian, Duracin, Plinian, of Portugall, Laureat, Macedonian. 448.*b*
Cherries how they be kept. *ibid.i*
Cheſtnuts rather no be called Maſt than nuts. 446.*l*
Cheſtnuts deſcribed. *ibid. their kernils ground into meale for bread, ibid. how to be eaten.* *ibid.*
Cheſtnuts called Sardinian nuts, and why. *ibid. named* Διὸς βαλανὸς. *ibid.m*
Cheſtnuts, Tarentine, Balanitis. *ibid.*
Cheſtnuts, Salarian, Corellian, Meteran, Coctiua. 447.*a*
Cheſtnuts which be beſt. *ibid.*
Choughs filch mony. 285.*c*
Chine-bone. 339.*e. the vſe of it.* *ibid.*
Chin, man onely hath. 337.*a*
Chickins how they be hatched. 298.*l*
Children begotten and borne, at what age of the parents. 163.*a.b.*
Children not alwaies anſwerable to their parents in euery reſpect. 160.*l*
Children twelue diſtinct caſt away at one ſlip from a woman. 160.*k*
Children of the Dukes carry the marke of their parents to the fourth generation. 161.*a childrē changelings.* 158.*b*
Children breed their teeth in the ſeuenth moneth of their age. 164.*b*
Children aboue three at a birth, is monſtrous. 157.*d*
a Child returned into the mothers wombe. 158.*g*
Chimæra, a hill in Phoſelis, burning both night and day. 47.*b.*
blacke Choller cauſe of fury. 341. *e. caſt vp by vomit deadly.* *ibid.*
Choromandæ, what people. 156.*h*
Chilo his ſayings counted Oracles. 173.*c. how he died and was honoured.* *ibid.d*
Chronicles who firſt deuiſed. 189.*f*
Chryſomela, a kinde of Quince. 436.*h*
Chydæi, certaine Dates. 388.*g*

C I

Cich-peaſe and the nature thereof, how to be ſowne. 569.*f* 570.*g. ſundry kinds of ciches.* 370.*g*
Cich-peaſe how codded. *ibid.*
M. T. Cicero the elder his praiſe. 172.*m*
M. Cicero the younger challenged for a drunkard. 428.*g*
Cicercuta. 370.*g*
Cicero his commendation, 272.*m*
Cici. Looke Ricinus.
Cichorie, medicinable to diuerſe birds. 211.*d*
Cilicia, the deſcription thereof. 104.*m*
Cinnamologus a bird. 288.*m*
Cinnamon. 372.*f.g*
Cinnamon groweth in Æthyopia. 372. *i. exchanged for what commoditie.* 372.*k*
Cinnamon plant deſcribed. *ibid.*

Cinna-

Cinnamon the best. 373.a.b
Cinnamon of two kinds. ibid.b
Cinnamon the price. ibid.
Cinnamon root set into the ground in the temple of Augustus. ibid.c
Cinnamon garland dedicated by Vespasian. 373.d
Cinnamon shrub will not prosper in Syria. 478.l
Circos, a kind of Hawke. 274.k
Circei, Islands (by the retiring of the sea) ioyned to the continent. 39.e
Circeus, the name of a wind. 23.b
Circumference of the world. 49.e
Citron tree. 359.c. *the fruit a counterpoison.* ibid.
Citron tree fruitfull. 359. d. *it liketh not to be in strange countries.* ibid.
pome-Citron kernils good against a stinking breath. ibid.e
Citron tree. 395.c
Citron tables. ibid.
Citron tree beareth not but in Assyria. 478.k
Ciuicke coronets six, giuen to Manlius Capitolinus. ibid.
Ciuicke coronets. 456.h. *compared with all others.* ibid.
Ciuicke coronets fourteen giuen to Siccius Dentatus. 454.e
Ciuicke coronet or garland, wherof it was first made. 457.b
lawes appertaining to Ciuicke coronets. ibid.d
Ciuicke coronet at Rome comparable to the best among the Greekes. ibid.c

CL

Clamatoria, a bird. 277.c
Clapping of hands reioice Bees. 231.e
of Clawes a discourse. 351.c
Cleopatra her lauish expence. 257.a
Q. Cleopatra her rich pearles. ibid.
Cleostratus found out the signes in the Zodiake. 5.e
Clerus a bitter thing found in hony combes. 318.l
Climastericke yeares. 182.h
Clodding of lands. 579.e
Clodeus the son of Æsope, his expence and riot in pearles. 257. d.
Clogs hanging from Rosin trees all but the Larch. 463.
Cloth of gold when it was inuented. 226.i
Clothes of diuers colours wouen. 228.i
Clouds, their shapes. 29.c
Cloues, a spice. 362.h
Cluina or Cluuina, a bird. 277.c
Clupea, a fish, killeth another called Attilus. 243.a

CN

Cneston, Cneros. 398.k

CO

Cocks go about with chickens when the hen is dead. 299.e
Cocks watchfull and desirous of glory, 279.c. *Astronomers.* ibid. *Sentinels.* ibid. *they loue soueraignty and win it by fight.* ibid.c.d
Cockes dreadfull to the Lion. ibid.e
Cockes of kinde fighters. ibid.
Cockes beare great sway in Auspices. 279.f
Cockes carued and made capons. 280.h
Cocke fighting. ibid.
a Cocke shake. ibid.
Cocolobis. See Vine Basilica.
Coctura, what it was. 412.k
Coelites, who they were. 335.b
Cod-fish. 245.b
Coggygria a tree, the proprieties of it. 399.c
Coine stamped with the image of sheepe, kine, and oxen. 550.l.
Colaria, a sort of cod-fish. 245.e
Colon, a gut so called. 343. a. *in it is the paine of the collicke.* ibid.
Colostratia, a disease that commeth of Bee-stings. 348.b
Columbinum Cicer. 570.g
Colour of the king of Bees. 318.i
Colours in the eie, why they are. 335.b
Colymbades, what Oliues. 432.g
Comagenum, a precious composition. 381
Comata, part of France. 332.i
Comarum, what it is. 447.e
Comets white with siluer haires. 15.f. *shaggie and like a mane: when such a one appeared, and the continuance of such when they doe appeare.* 16.g
Comets what they doe fore-token. ibid.g
Comets neuer lightly seene in the West part of the heauen. 16.h. *were worshipped for gods.* ibid.i
Combat betweene Buls and Elephants. 195.f
Cambat betweene an Elephant and a Roman. ibid.d.e
Commodities in a farme, which be most gainefull. 553.e.f
Commosis, first foundation of Bees worke. 313.g
Conception, at what time. 164.h
signes of Conception. 159. a. *of a boy and a girle distinct.* ibid.d.
Conception double. 160.l
Conchylium, a shell-fish. 246.i
Conchylia, what fishes. 258.i
Conger, a fish. 246.b
Conferration what it was. 550.i
Connies kinnle euery moneth. 303.d. *they admit superfœtation.* ibid.
Connies exceeding fruitfull. 232.h. *why they be called in Latine Cuniculi.* ibid.i
Connies haire employed for cloth. ibid.k
Connies admit superfœtation. ibid.
Connies vndermine a towne. 212.g
Connies with double liuers at Grenada in Spaine. 342.g
Cookes in price. 246.l
Conopas, a dwarfe. 165.c
Connolvulus, a worme that breedeth in a Vine. 547.b
how it is remedied. ibid.
Cophantus, a hill in Bactriana, burning by night. 47.c
Coracinus, the best fish in Ægypt. 246.m
Coracini, fishes. 245. b
Corellius his graffing. 520.l
Cords, what they be. 226.l
Corsideus his recouery from death. 184.l
Cordylæ fishes, a kinde of Tunies. 243.c
Cordum, what kinde of hey. 596.g
Corke tree. 461.e. *the barke thereof.* ibid. *the vse it is put vnto.* ibid.
Cornei, who they be. 166.i
Corneill tree, how it beareth. 473.c. *the wood how to be employed.* 490.h
Corneill berries preserued. 449.k
Corne offered to the gods in Numa his time. 546.d
Corne parched for sacrifice. ibid.e
Corne sowing, grinding, and kneading who deuised. 187.e
Corne gaue names to families in Rome. 550.h

20030
copy 1

Corne giuen as a reward to worthy warriorrs. ibid.
Corne cheape at Rome. 551.b
Corne diuided into two generall heads, Fourment and Pulſe. 557.c
Corne of all ſorts when it commeth after it is ſowne. ibid.e
Corne how it beareth head and carieth ſeed. 558.g
Corne ſpiked what leafe it beareth. ibid.m
Corne ſpiked bloweth at once. 559.a
Corne differing in ripening. ibid.a.b
Corne differing in ſtalke and eare. ibid.
Corne how to be threſhed and cleanſed. ibid b.c
Corne how it differeth in weight. ibid.c.d
bread-Corne doth degenerate into Oats. 574.g
Corne in the field how to be preſerued and kept from field-mice. 576.g
Corne how to be ſowne reſpective to the ſoile. ibid.k
Corne growing vpon trees. 577.b
Corne how to be laid vp for ſtore. 603. a. b. what corne will keepe beſt. ibid. d. c. how corne may be kept ſweet and good long. ibid. e. cutting of corne after diuerſe ſorts. 602.b
Coronets Murall. 456.i. Vallare. ibid. Nauale. ibid. Roſtrate. ibid.k
Coronets how they came firſt. 456.l
Coromandæ, a ſauage ſort of people. 156.g without ſpeech. ibid. toothed like dogs. ibid.
Corus wind. 22.l
Coos Iſland. 323.a
Coſci, wormes bred in okes. 539. c. they be daintie meat. ibid.
Coſtus a ſpice. 384.b the kindes and price thereof. ibid.
Cotinus, what tree. 468.b
Cotton trees. See Goſampine.
Cotton trees in Æthyopia. 395.a

C R

Crab-fiſhes their nature. 252.k.l
Crab-apples. 438.m
Crab-trees bearing twice a yeare. 474.m
Crabs onely foure-footed among fiſhes. 351.l
Crœſus his ſonnes vntimely ſpeech. 353.e. it was prodigious. ibid.
Cranes how they flie. 281.c
Cranes tamed, very plaiſull. ibid.f
Cranes a daintie diſh. 282.g
Crapula what it is. 464.k
Crapula, what mixture it is, and what effects it worketh. 424.h.
Craſſus Agelaſtus was neuer knowne to laugh all his life time. 166.h
Craſſinenium, a kinde of Maple. 466.m
Crater Nymphæi, a hollow burning furnace, and vnfortunate to the Apolloniates. 47.d
Craterus Monoceros, a moſt excellent Hunter, or Hawker. 294.k.
Creatures that lie hidden in the earth, at times haue no blood at all. 346.h
Creatures are not all hairie that bring forth quicke young. ibid.m.
Creatures none of them haue an odde foot. 351.e
Creatures which onely be round. ibid.
Creatures whole houfed, their legs grow not in length. ibid.f
what creatures will not liue nor breed within ſome countries. 234.g
Creatures hurtfull to ſtrangers and none elſe. ibid.b
Creatures without blood haue no liuers. 341.d
C. Criſpinus Hilarius his traine of children and iſſue in lineall deſcent liuing. 162.m
Critobulus healed king Philip his eie. 174. m. his reward. ibid.
Crocodile of the riuer. 337. a. moueth the vpper iaw. ibid.
Crocodiles male and female ſit by turnes. 302.b
Crocodiles wilie and induſtrious. 346.l
Crocodiles their deſcription. 208. m. they haunt both land and water. 209.a
Crocuta, what kinde of beaſts and their nature. 206.g
Cromes, a kinde of fiſh. 245.e
Crotalia, what pearles. 256.g
Crow, a ſubtill bird. 276.h. ſhee feedeth her young being fledge. ibid.i
a Crow taught to ſpeake. 294.k

C T

Cteſias of Gnidos. 47.b
Cteſiphon framed Dianaes temple at Epheſus. 175.b

C V

Cuckow reckoned a Hawke. 275.b. his time of appearance. ibid. killed by his owne kinde. ibid.
Cuckowes lay in other birds neſts, and why. 275.c
they deuoure the young birds of their nource. 275.d
young Cuckowes fat and delicate meat. ibid.
Cuckow checketh the idle husband that is behind hand with his worke. 593.b
Cucuus a tree. 390.k
Cuit wine, Melampſithium, Pſithium. 416.k
Cuits of ſundry ſorts. 416.m.417.a
Culeus, the biggeſt meaſure of liquors that was among the Romanes. 606.g
Countries, the varietie and diuerſe diſpoſition therof. 36.m
Curites towne. 40.m
Curtius, a noble knight of Rome. 443.f
Cuſculium, what it is. 461.a
Cutting of corne after diuerſe ſorts. 602.b
Cuttle fiſh. 256.g. their nature. 250.g

C Y

Cybia, quarters of Peſaurides. 243.d
Cycæ, certaine Dates. 388.g
Cyclopes, monſters of men. 154.g
Cychramus, what bird. 283.a
Cyneas his merrie ſcoffe at a Vine that bare hard wines. 405.b. his memorie. 168.g.
Cynæ trees. 363.f
Cynobates. 401.a
Cynoſura, what kinde of addle egge. 301.e
Cyonoides, water-ſerpents. 243.b
Cynocephali, a kinde of Apes or Monkies. 232.g
Cypreſſe tree will not be dunged nor watered. 544.e it is worſe for good Phyſicke. ibid.
Cypreſſe trees beare ordinarily thrice a yeare. 475.a
Cypreſſe tree deſcribed at large, with the properties thereof. 479.c. conſecrated to Pluto, and why. ibid.
Cypreſſe tree good to make vinets and borders. 479.d
Cypreſſe woods gainefull to the Lord. ibid.e
Cypreſſe trees loue the Iſle Candy beſt. ibid.
Cypreſſe wood faire and ſhining. 491.d
Cypreſſe tree Roſin. 424.g

Cypri-

Cyprinum oyle. 376 g. 382 h
Cypros, an Ægiptian tree. 375 f
Cyprus Island. 48 k. *ioined sometimes to Syria.* 405
the compasse and length thereof. 110 m
Cyrene, the description thereof. 94 k. *famous, and why, ibid.*
Cytisus highly commended for feeding sheep and other cattell. 400 l. m. *it encreaseth nurses milke.* 401. a. b. c
how it is to be planted and ordered. *ibid.* c

D A

Dabula what they be. 386 g
Dactyli, certaine grapes 405 f. *why so called* *ibid.*
Daffodill flowreth thrice, and sheweth three seasons of plowing. 592 h
Daphnoeides Isocinnamon. 374 g
Daphnoeides. 453 a
Daphnitis. 452 m
Date trees their sundrie kindes. 384 m. 385 b
Dates how they be imploied. *ibid.*
Of a date tree and other plants prospering vnder it, a wonder incredible. 581 d
Date trees described. 385 c. d
Distinguished by sects euidently. *ibid.* d
Iacke Dawes. See Choughs.
Dates how they are to be set. 385 e
Demanetus turned into a Wolfe. 207 d
Date in Ægypt. 374 l
Dates conceiue by the presence of the male. 386 g. h
Date trees corne of slips and branches, as well as of kernils. *ibid.* i
Date trees spring of their owne leaues. 508 m
Dates guelded. 386 l
Date tree growing in the Capitoll of Rome. 143 e
Dates of 49 sorts. 387 b
Dates Royall. 161 d
Dates of Iurie best. 387 e
Dates of sundry sorts. 388 h
Dates serue to franke Swine. *ibid.* i
Damascene prunes. *ibid.* l
Date tree leaues serue for cordage. 470 l. *how to be pulled and ordered.* 470 l
Date trees like not in a strange country. 478 k
Date tree of great antiquitie. 495 e
Dathiathum what it is. 367 d
Daies how they come to be vnequall, and not of certaine length. 13 f
Daylight in the night. 18 g
Daylight vpon earth, the reason thereof. 35 c
Day where it is longest and where shortest. 36. i
continuall day for six moneths. *ibid.* *how daies are obserued.* 36 l
Day for six moneths together, where. 84 i
the kindenesse of a Daughter to her mother. 174 b
Daughters of Agrippa deliuered of two tyrants. 160 g
Daphnis a bondslaue how highly praised. 175 e
Dando a Sclauonian, liued fiue hundred yeares. 181 a
Dactyle fishes. 209 f
Daughters of Marcus Curiatius, why they were called Sedigitæ. 349 c
Dauncing whose inuention. 189 e

D E

Death suddaine. 185 c. d. &c.
Dead supposed recouer. 184 b
Deale. See Firre.
Deaw when it appeareth. 29 b
Signes of Death in sickenesse. 183 e
Dead bodies weigh more than quicke. 156 e
Deafe naturally be dumbe. 306 g
Decumanus lines, what it is. 609 b
Deere, where they haue foure kidnies apeece. 343 d
Decapolis, why so called. 701 e
Defrutum, what it is. 416 l
Delos Island. 40 g
Delos Island famous, and why so called. 81 b. *the diuerse names thereof.* 161 d
Demetrius spared to burn Rhodes for the loue of a picture. 175 d
Democritus foreseeing by the starres a dearth of oile, bought vp all aforehand. 598 g. *hee fained two gods, Punishment and Benefit.* 3 d
Democritus in hot weather fore-saw a shoure of raine and foretold it. 610 m
Deuteria what wines. 417 e

D I

Dials, where first inuented. 191 b. *not serning for all places.* 35 d
Dialeta, a kinde of Purples. 29 b
Dianitis Murrhe. 369 b
Dianaes temple at Ephesus, foure hundred yeares in building. 491 b. *of what timber it was built.* 161 d
her image of wood. 491 c. *by what meanes it endured so long.* *ibid.*
Dianaes temple at Saguntum. *ibid.* d
Dibapha, what Purple dies. 260 i
Dianaes temple in Aulis. 491 e
Dia Pasmata, what they be. 383 c
Dicearchus his commission. 31 d
Digestion of meat worse in Summer than in Winter. 355 f
Digestion in sleepe of what effect. 356 g
Diademe first inuented. 187 e
Diuination by beasts who deuised. 189 d
Dinochares, a renowned Architect. 99 b
Diomedian birds described, and why so called. 294 m 295 a. b.
Dibapha, what dies. 260 i
Dioscurias, a famous citie of the Colchians. 117 c. d
by whom founded. *ibid.* d
Diuinors, or men of a propheticall spirit. 173 d
Dionysius being deposed from his kingdome, the sea-water grew to be fresh. 44 i
Dionysiodorus a Geometrician. 49 c. *and his Epistle found in his sepulchre, and the contents thereof.* *ibid.*
Diomedes his lake. 94 g
Diomedes his horses. 78 h
Diribitorium. 489 d
Discord betweene beasts. 308 b
Diuersitie of childrens resemblance of their parents. *ibid.* b
Diuision of fishes. 247 d
Difference betweene brains and marrow of the bones. 333 a
Difference of eie-sight in men. 334
Diuersitie of mouthes in creatures. 336 l
Diuersitie of teeth in creatures. 337 a

20030
copy 1

Diſeaſes ſtrange incident to men and women. 182.*l. as ſtrangely cured.*183.*a. who liued long without diſeaſe. ibid.b.*
Diſeaſes of ſundry ſorts. *ibid.c.d*
Diſeaſes that haunt trees. 538.*m*
Diſtances in planting how to be obſerued. 514.*l*

D O

Docus ſhining beames in the skie. 17.*b*
Dogs louing and faithfull to their maſters. 218.*l*
*Dogs reſtore a king to his crowne againe.*218.*m. their affection to their maſter.* 219.*a*
*Dogs employed in wars.*218.*m. their rare properties.*219.*c*
one Dog ouercommeth a Lion and an Elephant. 220.*g.h*
*Dogs mad.*220.*i. how they be preſerued from madneſſe. ib.*
a Dog ſpeaketh. 220.*k*
Dogs come into Hercules temple in the beaſt-market at Rome. 285.*d*
Dogs will not liue in the Iſle of Sygaros. 141.*e*
Dog-ſtarre his power. 19.*f*
Dog-ſtarre powerfull on the ſea. 245.*e*
Dog-ſtarre of great effect and precious. 597.*d. highly honoured. ibid.*
Dolphins their nature. 238.*h.i*
*Dolphin ſwifteſt of all fiſhes and creatures.*238.*m. ſwifter than an arrow out of a bow. ibid. ſort themſelues like man and wife.* 238.*i*
Dolphins louingly affect men and muſicke. ibid.l. they loue mankind, diuerſe examples thereof. 238.*m*
*Dolphins know the name Simo. ib. they helpe fiſhers to catch fiſh.*240.*i. they haue a certaine commonwealth. ibid.l*
Dolphins haue no eares. 333.*c*
Dolphins enemies to Crocodiles. 209.*c*
Dormice kept tame. 233.*b. they ſleepe all winter. ibid.c kinde to their ſires. ibid.*
Doricke tune. 14.*l*
houſe Doues chaſt. 290.*g. hen-Doues meeke. ibid h. the cocks iealous. ibid. kinde to their pigions. ibid.i. how they drinke. ibid.*
*ſtocke-Doues liue long.*290.*k. their tune. ibid.*
Doues winke with both their eie-lids. 336.*i*
houſe-Doues glorious. 290. *m. taken in their pride by the faulcon.* 291.*b. they loue the Keſtrell or Stanell, and wherefore. ibid. doues employed as poſts and courriers betweene. ib.c. how they be kept to their owne doue-cote. ibid. doues and pigeons of great price.* 291.*d*
Doues how often they ſit and lay in a yeare. 298.*i. houſe-doues hatch a cocke and a hen pigeon.* 300.*k. hen-doues tread one another for want of a cocke. ibid.l*
Donax, a kind of reed. 485.*c.k*
Dough how it is made. 560

D R

ſea-Dragon. 249.*d*
Dragons in vines what they be. 536.*h*
Dragons fight with elephants, and their ſubtiltie. 198.*k where they breed.* 199.*c. Dragons procure appetite to meat with the iuice of wild lettuce.* 271.*a*
ſome men neuer Dreame. 309.*c*
diuination by Dreames who firſt practiſed. 189.*d*
Dreames common to all creatures that bring forth their young quicke. ibid.
Drepanis the ſea-ſwallow ſeldome ſeen. 351.*d*
Drinke may be forborne altogether. 166.*g*
Drupæ, what oliues. 379.*b* 30.*g*
Drypetæ what olines. 430.*g*
Dryos hyphear. 496.*k*
Dryidæ in France. 497.*b. why ſo called. ibid. Dryidæ their ceremonies in gathering of okes miſſelto. ibid.c*
againſt drunkenneſſe and Drunkards. 426.*i*
M. Antonius a Drunkard, and maintainer of Drunkenneſſe. 428.*g*
the behauiour of Drunkards. 427.*a*
Parthians great Drinkers of wine. ibid.d
Dromiſcos Iſland. 40.*k*

D V

Dung of blackebirds for what it is good. 507.*c*
Dunging of land, when and in what order. 582.*l*
Dunghill cockes beſt adorned on the heads. 331.*b*
Dung how it is to be raked. 582.*l*
Dunging of grounds inuented by King Augeas. 507.*b*
Duracina, certaine grapes 405.*e*
*Duracina peaches.*436.*k. why ſo called. ibid.*

D W

Dwarfes in both ſexes. 165.*c*
Dwarfes there be in all kinde of creatures. 352.*g*

D Y

Dying wooll who deuiſed. 188.*i*
Dyals by whom deuiſed. 191.*b*
water Dyals or Clepſidres whoſe inuention. 191.*d*

E A

EAle what kinde of beaſt it is. 206.*b*
Eares tokens of courage. 333.*d*
Earth, what portion thereof is habitable. 33.*c. how it appeareth that the earth is in the mids of the world.* 34.*b*
Earth in the middeſt thereof an wholeſome mixture from both ſides. 37.*b*
*Earthquakes the reaſon thereof.*37.*c. when they commonly happen.*38.*h. ſignes of earthquakes comming. ibid. remedies againſt it. ib. ſtrange and monſtrous earthquakes.* 39.*a. wonders of earthquakes. ibid.*
*Earth hath deuoured her ſelfe, and what lands haue ſwallowed vp themſelues.*40.*m. parts of the earth that euer tremble and ſhake.* 41.*e*
the meaſure of the earth in length and breadth. 48.*k*
Earth element. 2.*d*
Earth loweſt and in the midſt: earth hangeth by the poles of the heauens. 2.*m*
*Earth peiſeth all other elements.*3.*a. earth vnmoueable. ib.*
Earth leſſe than the Sun. 8.*i*
Earth no place therof inhabited which lieth vnder the Zodiacke. 11.*b*
Earth defended by an apologie of the author. 548.*i.k*
Earth ſcorneth and repineth to be tilled by ſlaues. 552.*h*
Earth engrauen in Achilles his armour. 504.*l*
Earth how it is ſubiect to old age. 504.*k*
Earth, the nature thereof requiſite to be knowne. 515.*b*
Earth deſireth the act of generation. 523.*a*
Eaſie is the deliuerance of a man child. 159.*a*

E B

*Ebene, a tree of India.*360.*g. the wood paid as tribute. ibid.*
Ebene of two kindes. 360.*h*
Ebene a tree ſhewed in a triumph. ibid.

Ebene wood maketh a sweet perfume. ibid.
Ebrus riuer. 503.d

E C

Echeta, a kinde of grashoppers. 325.e
Echinometræ, fishes. 253.b
Echineis a fish. 248.m. it staieth the flux of women. ib.a
Echini, vrchins of the sea. 253.a
Echo, and the reason thereof. 21.d
Eclipse of the Sun and Moone. 7.d. why they are not eclipsed at set times. ibid.
Eclipse, who were the first findes out thereof. 8.l
Eclipses much feared, and of whom. 9.a
Eclipse of the Moone thought to be by enchantment, and to be helped by dissonant ringing of basons. ibid.
Eclipses, in what time they haue their returne to the former points. 9.g
Eclipse of the Sun when it happeneth. 9.g
Eclipse of the Moone alwaies in the full. ibid.
Eclipses how often, in what space, and the first finder out thereof. 9.d
Eclipse longer than ordinary when Cæsar Dictatour was murdred. 17.e

E G

Egs diuerse in colour. 298.g
Egs of birds of two colours within the shell. ibid.
Egs of fishes of one colour. ibid.
Egs of birds, serpents, and fishes, how they differ. ibid.
Egs best for an hen to sit vpon. 299.a
Egs hatched without a bird. 299.c. onely by a kind heat. ib.
Egs how they be marred vnder an hen. 299.b
wind-Egs called Hypenemia. 300.l. how they be engendred. 301.e wind-Egs Zephyria. ibid.
Egs drawne through a ring. ibid.
Egs how they be best kept. ibid.
Egnat. Mecennius killed his wife for drinking wine. 418.k
of Eye plucking out, vomit followeth. 334.d

E L

Elaterium what it is. 369.a
Elate. 379.e
Electrum a kinde of mettall. 260.l
Elements three, Water, Aire, and Fire, haue neither sauour nor taste. 449.b
Elenchi, what pearles. 255.f
Eleomeli, what it is. 435.a
Elephants cure themselues by the wild oliue. 211.e
Elephants bring forth but one at once. 303.d
Elephants tooth. See Yuorie.
Elephants haue broad tongues. 339.a
Elephants haue foure bellies or paunches. 343.b
Elephants most industrious and wittie. 346.l
how they bend their hams. 350.g
Elephants capacitie, vertue, religion, desire of glory. 192.i The biggest of land beasts. ibid. they adore the new Moone. 192.k subiect to sickenesse. 197.f. their docilitie. 192.l. 193.b. they plough the ground. ibid. they draw in a chariot. ibid. their manner of dauncing. ibid. their feats of actiuitie and nimblenesse. 193.a. an Elephant goeth vp and downe ropes. 193.b. writing Greeke characters. ibid. embarked and their manner of landing. 193.c. their armes called hornes or teeth. ibid. they hide their teeth. ibid.
Elephants young how they be knowne. 193.d. how they order their teeth. ibid. what vse they make of them. ibid. they know wherefore they are hunted. 193.e. their clemencie to man. 193.f. their feare of mans footing. 194.g
Elephant how he vttereth his voice. 353.e. their manner of march. 194.i. their passage ouer riuers. ibid.
Elephants bashfull and shamefull. ibid. k. l
Elephants two of K. Antiochus. ibid.
Elephants, their time of generation. 194.l. their affection in loue. 194.l.m. 195.a. both to their owne and also to mankind. ibid. their memorie. 195.a. their iustice. ibid. when they were first seene in Italy. 196.b. baited in the cirque of Rome. 195.c
Elephants fight in the cirque of Rome. ibid.c
an Elephant of wonderfull courage. 196.g. their industrie. ibid. moone people to pittie. ibid.h. Elephants fight. ib.i.k
Elephants gentle to weaker beasts. ibid.k
Elephants harmelesse, vnprouoked. ib. their maner of fight. ibid. how they be tamed. ib.l. 197.d
Elephants how they be taken. 196.l. 197.a.b
Elephants mad in time of rut. 197.c. how they serue in warre. ibid.d
Elephants affrighted at the grunting of swine. ibid.
Elephants how long they goe with young. 197.e.
Elephants in India bigger than African. 197.e. 198.k they loue waters. 191.i. can abide no cold. ibid. their food. 198.g. their trunke and the vse thereof. ibid. they cannot abide a mouse. ibid. they take harme by swallowing a horse-leech. ib.h. their skin. ib. it serueth to kill flies. ibid.
Elephants teeth of great price. ib. and the vse of them. ibid.
Elephants trunk vsed for meat. 198.i. where they breed. ib.k their policie, and the reason thereof in nature. 199.a
Elder tree good for pipes. 485.e. the berries for what vse. 486.g. their stakes best to prop vines. 526.g
Elegia. 483.g
Elme seed when to be gathered. 512.g. how to be sowne. ib.
Elmes of diuerse kindes. 467.e.f
Elme Atinia not good for vines. 535.a
Elmes husbands to vines. 512.b
Elops, a fish. 245.e
Elpis taketh a bone from betweene a Lions teeth. 203.d
Elleborine. 398.i. the leaues medicinable. ibid.

E M

Emperour Nero drawne by monstrous beasts. 352.i
Embrodered workes, whose deuise. 228.i
Emerita, a place in Portugall. 261.b
Emplastration, what manner of grafting. 519.d.e

E N

Endimion, when that fable first sprang vp of being in loue with the Moone. 7.a
what beasts engender backeward. 302.k
Engines of battery whose inuention. 189.b.c
English oysters best of all others. 267.a
Enhamon, a soueraigne salue. 370.l
Enuious persons are venomous. 548.m

E O

Eone a tree, 399.b

E P

Ephemerides, who first deuised. 188.g
Epirus description. 72.k
Epimenides his sleepe. 184.i
Ephesus a famous citie of Asia. 109.b

20030
copy 1

Epilepſie, whence it is. 335.a
Epiglottis, a little tongue at the root of the other. 339.b
it is in no creature that layeth egs. ibid. *vſe of it.* ibid.
it is two fold. ibid.
Ἐπιμύζειν, what it is. 585.d
Epipactis. 358.i. *the leaues medicinable.* ibid.
Epheſus, ſometime it was ſo neere the ſea that it did beat vpon the temple of Diana. 39.e
Epopos hill. 40.h
Epidaurus Iſland. 40.k

E R

Eratoſthenes meaſured the globe of the earth, by what light and direction. 44.g
Eratoſthenes a moſt cunning clearke. 49.b.36.h
Eratoſthenes a writer his great praiſe. 49.b
Erithace, Sandaracha Cerinthus, food of bees. 313.b
Erithace effected of ſpring dew. ibid.
Erithace. See Robin-redbreſt.
Ericæum, a kinde of wild hony. 317.d
Eruile not chargeable in ſowing. 572.i
Eruile medicinable by the teſtimony of Auguſtus Cæſar. 572.k. *when to be ſowne.* ibid.
Etrour in numbring of yeares. 181.a
Eryſinum, what kinde of corne. 565.b
Erythini, fiſhes altogether female. 244.m
Erythræa, myrrhe. 369.d
Eryſiſceptron. See Aſpalathus.
Erythrocoma, Pomegranats. 398.g.h

E S

Eſculetum, a groue neere Rome. 462.g
Eſculus the maſt thereof. 458.m
Eſculus runneth as deep into the ground as it riſeth aboue the ground. 477.c
Eſſeni, people throughout the world moſt wonderfull. 101.d *carnall luſt they know not.* ibid. *keepe company onely with date trees.* ibid. *continued many thouſand yeares without generation.* ibid.

E T

Eteſiæ, the name of winds. 23.d
Eteſiæ winds. 97.f.473.b

E V

Eumecos. 376.l
Euonimus, a tree. 399.b
Eurotas riuer flowing ouer Peneus riuer like oile, not mingled therewith. 76.l
Europe the meaſure thereof. 89.d
Euphorbia hearbe the wonderfull vertue thereof. 92.i
Euphrates a famous riuer, the deſcription thereof. 103.d
Eupetalon. 453.a
Europe not the third part of the earth. 51.a. *but the one halfe.* ibid.
Eutheriſtos. 376.l
Eutyche, a woman of Tralleis deliuered in her life time of thirtie births. 157.e. *carried to her funerall by twentie of her children.* ibid.
Euthimines his ſonnes growth. 165.c
Euthimus a wreſtler honored as a god. 180.k

E X

Exacetus what fiſh. 247.b.488.i
Experience beſt proofe. 502.k
Excrements of mans body beſt dung for ground. 507.c
Exalumnus pearles of commendation. 255.f

E Y

Eyebrowes of man like the eaues of a houſe. 333.d
Eyebrowes the ſeats of pride. ibid.e
what liuing creatures haue no Eies. 333.f
one Eye in ſome Herons. 334.g
Eyes of ſundry colours. 334.g.h.i
ball or apple of the Eye different from the other parts. ibid.k
Eyes ſhew the affection and diſpoſition of the mind. 334.k.l
membranes of the Eye. 335.a.b
opticke nerues of the Eyes whether they reach to the braine or ſtomacke. ibid.d
Eyes why they be cloſed ceremoniouſly in the dead. ibid.
Eyes yeeld forth teares. 334.k
Eyes, ſometime why they ſee not and be well. 335.a
Eye ſight how it is placed. ibid.b
Eyelids, their vſe. 336.g. *why they ſhed their haire.* ibid.h
Eytooth of a wolfe on the right ſide worketh wonders. 337.f
of Eye-ſight quicke, wonderfull examples. 167.b

F A

Fabaria. 569.a
Fabaria certaine Iſlands. 596.d
Face proper onely to mankinde. 333.d
Factus what it is. 433.d
Fall of leafe a good rule for husbandmen to direct them to ſeedneſſe. 588.l
Falcon helpeth the owle in fight. 277.f
Fallowing each other yeare. 581.b
Fagutalis, Iupiter at Rome. 461.f
Farrago. 572.b
Farrage corne or dredge. 573.a
Farina, whereof it is deriued. 564.g
Fabius a Senatour of Rome ſtrangled with a haire. 159.e
Fauonius the Weſterne wind, why ſo called. 471.d. *why called Chelidonius.* 23.c. *why named Orinthius.* ibid. *highly commended.* 569.a
Fairies ſeen oftentimes in the deſarts of Affricke. 157.c *they vaniſh away like illuſions.* ibid.

F E

Feaſt Fornacalia inſtituted by Numa. 549.e
Fœcatum what it is. 417.f
L. Sylla called Felix, yet vnhappy. 177.e
Felicitie diuerſly vnderſtood. 276.b
Feeling a ſenſe common to all creatures. 306.t
Femals may certainly turne to be males. 158.b
Femals haue ſmaller voices than males, except kine. 353.e
Female firrs taller than the male. 563.h.i
Fenigreeke to be ſowne negligently. 552.b
Ferrets naturally hunt conies. 232.b
Ferula, two kindes. 399.d. *root of Ferula dangerous.* 399.f
Ferula maketh excellent fine matches. 400.h
a Ferme houſe how to be purchaſed and choſen. 553.b.c.d
Ferne or brake how to be killed. 556.m
Feſant baſtards. 288.c
Feſants of Colchis daintie birds. 296.g
Feſant will die of iyee. 329.d
Feuer, a chappell dedicated to her. 3.e

F I

Figtree beare fruit contrary to other trees, and why. 474.k
Figtrees beare twice a yeare: wild figtrees beare thrice a yeare. ibid.l

Figtree milke or ſap ſerueth for rendles. 486.g
Figs Liuian. 442.i. *Pompeian. ibid. Figs mariſcæ.ibid. ſpeckled figs.ibid. Herculanian.* 442.i. *Albicerate.ibid. Aratian. ibid. Porphyrite.* 442.k. *Popular. ibid. Chelidonian. ibid.*
Figs both early and lateward. 442.k. *Figs Duracinæ.ibid. Chalcidian figs beare three times in one yeare. ibid. Tarentine figs called Oinæ or Oenades. ibid.*
Figs as big as peares. 442.g
Figs of Ida deſcribed. ibid.
Figtree Alexandrina.ib. Figtrees of Hyrcania. 442.h
Figs: Chalcidian. 442.h. *Chian.ib. Lydian.ib. Mamillane or teat figs.ib. Calliſtruthian. ib. African.* 442.i. *Alexandrine or delicat.ib. Rhodian.ib. Tyburtine. ibid.*
Figdates when to be planted. 442.l
Figs African, Saguntine, Tellian. ibid.
winter figs. ibid.
Figs fall from the tree, if it thunder at the feaſt Vulcanalia. 546.k
Figs of Mœſia ripen when other bloſſome, by what deuiſe. 442.m.
a Fig the occaſion of Carthage ouerthrow. 443.b.c
Figtree Nania in Rome. 443.d
Figtrees Ruminalis. ibid.
Figtree in the Forum at Rome. ibid.
Figtree before the temple of Saturne in Rome. 443.l
Figs ripen altogether on the tree. 444.h
wild Figtrees. ibid.
Figs ripen the ſooner by the meanes of wild figtrees.ib.h.i.k
Figs of the Iſle Ebuſus the beſt. 444.l
Figs how they be put vp and kept. ibid.
Figs good victuals. ibid.m
Figs: Coctanæ, Caricæ, Cauniæ. ibid.
Figtree made fruitfull by the ſea onion Squilla. 514.g. *it is drier in the mids than at the head.* 517.c
Figtree how it is made to beare oliues. 524.g
Figtree of all other ageth the ſooneſt. 526.m
Figtree groweth beſt by the water ſide. 544.i
Figs how they are ripened by caprification. 545.e
Figs how they are made ſmooth and pleaſant. 547.b
a Figtree of India. 360.k. *the deſcription thereof. ibid. it ſetteth it ſelfe. ibid.*
Ægiptian figtree. See Sycamore.
Syrian figtree. 389.e.f
Fields in Æthiopia about the hill Heſperis ſhine and glitter like ſtarres. 47.d
Filberds called Abellinæ, whereupon. 446.h
Filberds: Caluæ, Præneſtine, Thaſian, Albenſian, Tarentine, Molluſcæ. ibid.i
Fines paſſed vnder the name of ſheep & oxẽ at Rome. 550.k
Firrs taller than any roſin tree. 465
Firrs topped die, topped liue. 476.i
Firtrees how emploied and how to be choſen. 488.l.m
Firre maſts for ſhipping. 489.f
Firre is good for plankes. 547.a
Firre how it will not putrifie in water. 492.i
Firre wood highly commended in carpentry and ioyners worke. 493.a.b
Fire bird. Looke Incendiaria.
Fire in the hill Chimera flamed with water and quenched with earth. 47.c
Fire the maruailes thereof. 46.m
Firie glaſſes oppoſite to the ſun-beames ſooner inflame than fire. 47.f
Fire the higheſt element. 2.l
Fires about the body of men. 48.b
Firmament ſeen to chinke and open. 17.g
Fiſhes feed on land. 235.e. *diuided according to their ſundry ſhapes.* 247.d
Fiſhes of all ſorts breath after a manner. 237.e
Fiſhes both heare and ſleepe. ib. & 306.h. 309.b
Fiſhes changing colour. 249.d
Fiſhes which be bloudleſſe. 249.c
Fiſhes eſteemed diuerſly in ſundry places. 246.m
Fiſhes are not all alike couered. 242.h
Fiſhes ſome miſlike in cold, others in heat. 245.b
a Fiſh leapeth out of the water at Cæſars feet. 244.l
Fiſhes how and where they like and liue beſt. 245.a
Fiſhes, of what kinde they be all ſpawners & no milters. ib.
Fiſhes haue ſenſe. 261.d
Fiſhes, of all creatures haue the biggeſt heads. 332.g
Fiſhes their eies ſhine by night. 335.c
Fiſhing time which is beſt. 244.m
Fiſhes that be ſoft haue no bones. 345.a
Fiſhes female commonly bigger than male. 244.l
Fiſhes doe ſmell. 306.h
Fiſhes preſage things to come. 244.l
Fiſticke nuts, and their nature. 388.l

F L

the Flap Epigloſſis. 339.c
Flies drowned will reuiue kept in aſhes. 330.l
Fleas engendred of duſt. 329.e
Flies enter not into Hercules temple in the beaſt-market at Rome. 285.d
Flies breed in the fire at Cyprus. 330.i
Floore for threſhing how to be tempered. 602.d
Floralia a feſtiuall holiday. 600.g
Flacci why ſo called. 333.b
Flockeworkes. 277.e

F O

Forehead ſheweth the nature of man or woman. 333.e
Food of ſundry creatures. 307.d
Foules diſtinguiſhed generally by their feet. 276.g
Foules why they pecke at the eies of a man. 335.c
Fortune a goddeſſe, her vniuerſall power. 4.k. *her mutabilitie.* 177.a. *variable fortunes of diuerſe perſons.* 177.b
to bad-Fortune a temple. 3.e
Foules that haue crooked talons be long legged. 351.d
Foliatum ointment. 382.k
Fountaines of wonderfull and ſtrange natures. 45.a.b
Fountaine from vnder the ſea yeelding freſh water. 110.l
Forreſts in Germany. 455.c
Foxes very quicke of hearing. 222.g. *how they engender.* 302.m. *ſea-Foxes.* 262.g
ſtrange Foules in the Iſland Area. 120.l

F R

France not ſubiect to earthquakes, and why. 38.h
Fraud of Toranius a merchant ſlaue-ſeller. 162.g
Frogs force inhabitants to abandon a citie. 212.h
Frogs Rubetæ. 213.a
Frogs how they make their noiſe. 338.l
Frankincenſe male what it is. 367.d
Frankincenſe beſt how it is knowne. 368.i
Frument what it is, and of how many kindes. 557.c.d

Frankin-

20030
copy 1

Frankincenſe onely in Arabia. 366.g
Frankincenſe tree deſcribed. ibid.k
Frankincenſe gathered. 367.a *the manner thereof.* ibid.b
Frankincenſe paieth much toll. 368.b. *high price of Rome.* ibid.i.
Frize mantles. 227.f
Fronditius paſſed ouer the riuer Vulturnus in ſpight of Annibal. 499.c
Froſt how it is engendred. 29.b
Fruits how to be preſerued. 440.m.441.a.b
Fruits grow after diuerſe ſorts. 450.g.h. *in what regard they be ſet by.* ibid.i
Frument or ſpike-corne. 582.h
Frumentie corne. 559.d
Frumentie baſtard. 568.i

F V

Fullers craft who found out. 188.i
C. Furius Creſinus a notable good husbandman, accuſed and acquit. 556.g.h
Furlong how many paces. 14.l
Furnaceus panis, what it was. 566.m
Furrowes direct. 579.e
Furrowes ouerthwart, ibid.l
Fuſius Saluius his ſtrength. 166.l.m
Fuſterna in trees what it is. 488.f

F Y

Fyre ſtriking out of a flint, who deuiſed. 188.m

G A

Gabalium. 314.h
Gabara. 165.b
Gades. 48.i
Gagates. See Aetites.
Gall in ſerpents is their venome. 337.c
Gall hangs at the liuer. 341.c. *it is not in all creatures.* ib.
Gall of a Deere where it lieth. 341.d
Gall infecteth the body with the yellow iaundiſe. ibid.e
Gall of ſeals good for many purpoſes. 342.g
Galbanum a gum. 518.i. *the beſt how it is knowne.* ibid. *the vertue and the price.* ibid.
Galguli what birds, and how they build. 288.l
Gallia the deſcription thereof. 87.a
Gall-nuts of the oke Hemeris beſt for curriours. 460.g
Gall-nuts appropriate to maſt trees. ibid.
Gall-nuts, which be beſt. ibid.
Gall-nuts breake forth all in a night. ibid.
Gamale, a territory in Phœnicia. 40.m
Games publique who firſt ordained. 189.f
Games ſolemne: Olympia, Iſthmia, Pythia, Nemea. 457.a
Ganders and geeſe how they do engender. 301.b
Ganges the deſcription thereof. 126.h
Ganges a riuer. 48.k.156.i
Ganzæ what geeſe. 281.a

G E

Geeſe baſhfull and modeſt. 279.a
wild-Geeſe in what manner they flie. 282.k
Geeſe watchfull. 280.i. *ſaued the Capitoll.* ibid. *prouided for with the firſt ſtate of Rome.* ibid.
Geeſe giuen to loue mankind. 280.k
Geeſe ſeeme to haue vnderſtanding. ibid.
Geeſe liuer is excellent meat as is it ordered. 280.i. *who deuiſed the ſame diſh.* ibid.
Geeſe trauailed afoot from Terwin and Turney in France to Rome. 280.m. *their feathers and downe.* ibid.a
Geeſe how they ſit and hatch. 301.b.
Geirs exceed vs in ſmelling. 305.f
Geirs where they build, and how they breed. 274.g
Geometritian who was excellent. 175.a
Generation of mankinde, the reaſon thereof. 162.i.k
Geſ-clithron a famous caue. 154.k

G H

Ghoſt of Aretæus in forme of a rauen. 184.i
Ghoſt abandoning the bodie at times. ibid.h

G I

Giants in times paſt. 165.a.b
Giddineſſe in the braine ten daies after the women hath had company with the man, ſheweth conception. 159.a
Gilthead a fiſh. 245.b
Ginney or Turkie hens. 296.g

G L

Glandules or kernels in ſwine. 339.b
Glanis a fiſh, her nature. 262.g
Glauce loued of a gooſe. 280.k
Glaucus a ſea-fiſh. 245.b
Gledes. See Kites.
Glew made of an oxe hide ſodden. 347.c. *what woods will not be glewed.* 493.c. *the beſt glew is made of bulls hides.* 347.c.
Glo-birds or Glo-wormes, what they betoken. 593.c
Glottis what bird. 283.a
Glo-wormes, why they be called Lawprides. 326.l *when they firſt appeare.* ibid.
Glynon a kinde of Maple. 466.l

G N

Gnats. 310.l
Gnat hath all the fiue ſenſes. ibid. *is thirſtie of mans bloud.* ibid.
Gnat-ſnappers what kinde of birds. 286.m. *when they be called Ficedulæ.* 287.a. *when they be called Melancoryphi.* ibid.
Gneſios the royall Ægle. 272.g
Gnomon, what. 35.e

G O

God, what he is. 3.d
Gods thought to be many, and how this fooliſh opinion firſt ſprang. 3.d. *To aſſigne any forme to God is mans weakeneſſe.* 3.i. *Plagues accounted as Gods.* ibid.
Gods more in heauen, than men in earth, if they ſhould be ſo many as men do feigne. 3.e
men haue accounted beaſts, and other filthy things to bee Gods. 3.e
Gods that they be married, vaine it were to beleeue. 3.e
God feigned yong and old, winged and lame. 3.f
Gods, in them are feigned adulteries, hatred, and wars. ib.
Gods worne vpon fingers in rings. 4.b
Gods cannot do all things, as to die. 5.a
Gods not innumerable. 3.d
Gods, Democritus maketh two onely. ibid.
a God canonized here vpon earth. 180.i
Gold, what people hath it. 138.b
Gold mines who diſcouered. 188.k
Gold melting, trying, and fining, whoſe deuiſe. ibid.

Goats, their manner of breeding. 229.a. both male and female, ibid. how they helpe their eie-sight. 229.b. their wit. ibid. male goats which be best. ibid. female goats how to be chosen. ibid.

Goats euer in an ague. 229.d. their haire in stead of woll vsed in cloath ibid. they barke and kill trees. ibid.e. the goats beard. ibid. how they breath. 229. d. they see by night. ibid. they kill olive trees by licking them onely. ibid.e.

Goats wilde of sundry kinds. 231.c

Goats not sacrificed to Minerua. 229.e

Goslings stung with a nettle die vpon it. 301.b. greedie feeding the bane of goslings. ibid.

Gossampine trees bearing cotton. 363.e.f

Goggle eies dim-sighted. 334.h

GR

Gray eies in the darke see better than others. 334.h

Graies how they escape the hunter. 218.g

Graines in fruit different. 447.e

Graine. See corne.

Graine of three sorts esteemed by the Greekes: Dracontias, Strangeas, Selinusium. 360.g

Grafting how it is. 517.a

Grafts ought to be taken from the top of the tree. ibid.g

Grafts how to be taken from boughes that beare well. ibid. how they are to be set. ib. how they are to be thwighted. ibid. not to be sharpened in the wind. 518.b. they are to be set before the moone is in the full. ibid.

Grafting in scutcheon. 519.e.f. 520.g.h. Rules to be obserued in grafting. 521.c

Grafts of cherrie trees how to be vsed. 518.i

Grafts of vines how to be vsed. 519.b

Grafts of wild trees will not grow in the tame. 519.e

Grafting more plentifull than sowing of seeds. 520.k

Grafts of olives when they are to be set in dry places. 522.g

Grafts of olives how they are to be vsed in Barbary. ibid.h

Grammarian, who excellent. 174.l

Grapes how they are preserued from pullain. 420.k

Grapes that loose the belly. 423. a. grapes that bind the belly. ibid.

Grapes Echoledes, why so called. ibid.

Grapes de-guard. 440.i

Grape bunches how to be gathered for guard. ibid.m

Grapes of diuerse sorts. 45.e

Grapes how preserued. 406.g

Grapes dried in furnaces. ib. grapes sodden in wine must. ib.

Grapes hanging all winter on the vine till new come. 406.h

Greeke grapes of Corinth. 407.c

Grapes Variane, and why so called. 408.g

Grapes Inerticulæ might be called the sober grapes. ibid i

Grapes of the free towne Pompeij. 409.d

Grapes Tiburtine. ibid.

olive Grapes. ibid.

Grapes Vinaciolæ. ibid.

Grapes Capciades. 409.k

Grapes Bucconiatis. ibid.

Grapes Tarruspiæ. ibid.

Grapes Phariæ. ibid.

Grapes Prusiniæ. ibid.

Grapes streptos. ibid.

Grapes Thasiæ. ibid.

Grapes Mariotides. ibid. grapes Lageæ. ibid.

Grapes Bimammæ. 410.g

Grapes of Spaine. ibid.h

Grapes Escariæ. ibid.

Grapes Bumasti. ib. Ounce grapes. 410.h

Grapes Ægiptian. ibid.

Grapes Rhodian. ibid.

Market grapes. ibid.

Grapes Cinereæ. ibid.

Grapes Scirpulæ. 416.m

Grapes Ægiptian, Thasia, Æthalos, Peuce. 415.f

Grashoppers how they liue. 325. d. their sundry kindes. ibid.d.e. they be dim-sighted. 326.g. they may be reduced into three kindes. ibid. they be meat to some nations. ibid. when they flie. ibid. they be not euery where. ibid. they haue wings onely without mouth. ib.f. where they be mute. ibid.

of Greece. 344.k

Greekes full of lies and vanities. 207.d

Griffons defend golden mines. 154.b. what birds. 296.k

Grind-stones and whet-stones for sithes. 595.c

Gristles broken will not close together. 345.b. more of gristles. ibid.

Grounds ouergrowne with bushes how to be clensed, 505.b

Ground how to be trenched. 559.a.b

to chuse ground, rules infallible. 505.b

Grounds which are principall. 504.k

Ground must be bettered by sowing some graine in it. 508.h

Ground burned by cich-pease. ibid.

the Growth of man or woman. 345.b

GV

Guarlands giuen to victors in the foure great games. 457.a

a Guild instituted by Romulus ouer corn fields seege. 549.c

Guarlands of corne-eares first knowne at Rome. ibid.

Guelded apples. 438.i

Gueldings cast not their teeth. 338.h

Sea-guls, where they breed. 287.f

Gums of diuers sorts. 391.c.d

Gum Arabicke. 424.g

Gum of Iurie. ibid.

Gum Colophonian. ibid.

Gum Spagas. ibid.

Gum Cypryan. ibid.

Gut Longaon how it maketh creatures insatiable. 343.b

of the Guts. 342.k.l.m. 343.a.b

GY

Gymnosophystes, certaine Philosophers of India. 155.a they can looke against the Sun. ibid.

Gymnetes, people liuing aboue a hundred yeares. 147.a

Gynacocratumeni, people why so called. 118.b

HA

HAdrosphæron. 364.k

Hadrobolon what it is. 363.a

Haddocke, a kinde of cod-fish. 243.e

Haile how it is engendred. 29.b

Halcyones the name of birds: their hatching. 287.e

Haliattes. 8.l

Haliaetos, what kinde of egle. 272.g. shee traineth her young ones to looke against the Sun. ibid.a

Halfe our time spent in sleepe. 183.a

20030
copy 1

Halcion daies. 287.d
Halciones of diuerſe kinds. *ibid.*
Halciones when they breed. *ibid.*
Haliphleos, a kinde of Oke. 450.d. vnfortunate. *ibid.*
Hammoniacum. See Ammoniacum.
Hanno baniſhed for taming a Lion. 203.b
Hanno his booke and commiſſion to ſuruey the compaſſe of Affricke. 91.b
Hanno his nauigation. 33.a
Hangings of exceeding great price. 228.k
Happie is no man in this life. 176.b
who was deemed moſt happie by the Oracle. 180.b
Hares admit ſuperfœtation. 303.d
Harpe ſtarre Falcula. 588.g
Harrowing how it is performed. 579.f
Hares ſleepe open eied. 335.a
Hard and ſtiffe harted folkes are accounted brutiſh. 340.i
Hardiſhrews if they go ouer a cart-tract, ſtreight die. 244.g
Hares in ſome places haue two liuers. 341.c
being then tranſported they loſe one of them. *ibid.*
Hare will neuer be fat. 344.k
Hares admit ſuperfœtation or double conception. 232.k
Hare the hairieſt creature. 347.a
Hares how their age is knowne. 232.i. both male and female. *ibid.*
the ſea-hare a venomous fiſh. 191.b. 264.i
Hares very fruitfull. 232.k
Hares haire very good to make cloth. *ibid.*
Harmonie of Planets. 14.k
Harts ſhewed the vſe of the hearbe Dictamnus. 210.k
cure themſelues with craiſiſhes. *ibid.*
Harts and Hinds are cured by the Artichoke. 211.c
Harts. See Stags. 214.g.h
Haſtie apples. See Apples Muſtea.
Haſell nuts. See Filbards.
Haulme. See Straw.
Hawkes. 272 f. their kinds. 274.k. where they breed on the ground. *ibid.* l
Hawkes and men catch birds together. 274.m
and part the prey equally. *ibid.*
of *Haire.* 332.i.k
Haires and ſtones engender in mens bladders. 344.g
Haires out of a thicke skin are groſſe and hard. 347.a
they grow long vpon Horſes and Lions. *ibid.*
ſwallowing downe of an *Haire* the death of Fabius a Roman Senatour. 159.e
Haires of Connies long on their cheekes. *ibid.*
Hairie men more lecherous than others. *ibid.*
Haires come not ſometime without the helpe of art. 347.b
Haire of the head in men groweth moſt. ib. it groweth not at the cut end but from the roote. *ibid.*
Haire groweth vpon dead bodies. 347.b
Hairie beaſts, except the Aſſe and the ſheepe, are troubled with lice. 329.b
Haires white. 232.h

HE

Heads adorned with creſts, tufts, and combes. 331.a
Heads cut from the bodie licked vp their owne blood. 242.b.
Heart in man and beaſt how it is ſcituate and made: alſo to what vſe it ſerueth. 340.g.h
Heart of fiſhes pointeth vp to the mouth. *ibid.*
Heart firſt formed in the mothers wombe. 340.a. it dieth laſt. ibid.b. it panteth like a liuing creature by it ſelfe. ibid.b. the treaſure of life. ibid. the ſeat of the mind and ſoule. 340.b
Heart cannot abide paine. ibid. paine of it bringeth preſent death. *ibid.*
Hearts, they that haue little, are valiant. *ibid.*
Heart of a man how much it groweth yearely. 340.f. how long it groweth. ibid. when and how much it decreaſeth. *ibid.*
Hearts of ſome men all hairie. 340.i
Hearts hairie ſhew ſtrange and valorous men. *ibid.*
Heauen full of pourtraits. 2.g
Heauen and *World* all one. 1.c
Heauen in the motion thereof an harmonie. 2.h
Heauen called Cœlum, and why. *ibid.*
Heauen diuided into ſixteene parts by the Tuſcanes. 7.a
See more in World.
Hebre riuer. 53.b
Hecuba her tombe and name thereof. 79.a
Hedgehogs how they engender. 302.l
Hedyſmata. 381.d
Helix of three ſorts. 481.a
Helix, a kinde of Yuie. 480.k
Hellenes, whence they tooke their name. 76.b
the three names Homer gaue vnto them. *ibid.*
Helena, a Meteor ſo called. 18.l
Heliotropium turning alwaies with the Sunne. 20.b
Helleſpontias, the name of a wind. 23.b. the time of it. *ibid.*
Helleſpont, ſometime a land. 40.l
Helix, a kinde of Willow or Oyſier, 485.i
Heliotropium the hearbe, a direction vnto the Husbandman. 593.f
Hemeris, a kinde of Oke. 459.b
Heneti, from whence the Venetians. 175.b
houſe-Hens ſeeme religious. 292.m
Hens or Pullets great layers. 298.i
Hens bring vp Ducklings. 299.e
Hens which be kindly. 300.g
grig-*Hens*. *ibid.*b
Hens and Pullein firſt crammed. 297.a
Hens fat how they are knowne. *ibid.*b
Hephæſtij, mountaines in Lycia. 47.c
Hepſema, what it is. 416.l
Herculespillars. 48.i
Hercules his altar. 96.l
Hermotimus Clazomenius his ghoſt. 184.e
Hercules his ſphere, the planet Mars ſo called. 6.g
Hercules Ruſticellus, who ſo called. 166.l
Hercynia forreſt. 455.e. the wonderfull trees that are there growing. 455.f
Marcus Herennius a Counſellor ſtruck with lightening in a cleare day. 25.f
Hermaphrodites. See Androgini.
Hermines. See Menuuer.
Heroum, what it is. 273.f
Herophilus, a renowned interpreter of Phyſicke. 345.b
Herons of three ſorts. 301.l. they engender with great paine. ibid. and lay with as much. *ibid.*
Heſperius, a mountain in Æthyopia. 47.c
Hexametre verſe, who firſt deuiſed. 189.e

The Table to the first Tome

H I

Hiera an Iſland of Ætolia, neere Italy. And the burning thereof. 47.d
Hiera Iſland. 40.g
Hierapolis citie. 104.l
Himantipus, what kind of birds 295.d
Himilco his nauigation. 33.a
Hinds, their nature and manner of breeding. 213.d
Hinds and ſtags how they engender. 302.m
Hinuti, what they be. 224.h
Hinus, what it is. ibid.i
Hippanis, a riuer in Pontus, it bringeth downe bladders, 330.l. wherein it encloſed the flie Hemerobion. ibid.
Hipparchus his Ephemerides what they contained. 8.l
his inuention concerning the Eclipſe of the Sunne and Moone. 9.d
Hipparchus his opinion of the ſtars, his praiſe, and opinion of the ſoule. 16.e. he findeth out a new ſtarre riſing in his time. 16.m
Hipparchus. 49.c
Hippae, a kinde of crabfiſh. 252.l
Hippaus, a kinde of Comet. 15.f
Hippocrates honoured like Hercules. 17.h. he foretold of a peſtilence. ibid.
Hippocentaur borne in Theſſalie. 157.f
Hippomanes, what it is. 222.k
Hippopheſtar, good to purge the body for the falling ſickneſſe. 496.k
Hippoglottian. 452.m
Hippuri, a ſort of Lobſtars. 245.b
Hirpie, certain families, wherein they be all witches. 155.c 155.e.
Hiſpalis, a Colonie. 52.h
Hiues of Lanterne hornes. 318.k
driuing of Hiues. 317.b. what muſt be left for the Bees. ibid.

H O

Holmes, three at Tiber very old. 458.l
a Holme tree of a wonderfull age. 495.b
a Holme tree of a monſtrous bigneſſe. 496.h
a Maſt-Holme tree of two ſorts. 458.l
Holothuria, fiſhes of the nature of plants. 264.g
Holydaies vnto Vulcan. 48.g
Homers Ilias couched within a nut-ſhell. 167.b
thicke Hony nothing commendable. 317.b
thin Hony will not thicken. ibid.
Hony engendreth in the aire. 317.b. when it is engendred. ibid. of what mater. ibid. how it is corrupted. ibid. it is diuerſe, according to the tokens of good hony. ibid. regions. 316.h
a Honey-combe eight foot long. ibid.i
Honey-combes beſt about Sunne-ſtead in Summer. 316.i
Honey when it is moſt gathered. 317.a
Honey in ſome ſort hurtfull for Bees 321.d
Hondearia, a kind of Plums. 436.m
Honey apples. See apples Melimela.
Honey who made firſt. 188.l
Hornes of great bigneſſe. 331.f
How they ſtand, and to what vſe they are put. ibid.d.e
what beaſts haue hornes. 331.b
Hornes of ſundry ſhapes. ibid.
Hornets, whether they haue ſtings or no. 322.k
Horologies how deuiſed. 191.b.c.d
Horſes wild. 200.g
Riuer-Horſe his deſcription and properties. 209.f
inuented Phlebotomie or bloud-letting. 210.i
Horſe of Cæſar Dictatour. 221.a
Horſe entombed by Auguſtus Cæſar. ibid.
Horſes entombed at Agragentum. 221.a
a Horſe loued by Semiramis. ibid.
a Horſe reuengeth his maſters death. 221.b
Horſe furniture and harneis who firſt inuented. 189.c
Horſes loath to couer their dams. ibid.
Horſe-fight, who firſt deuiſed. 189.c
Horces of ſernice vſed to daunce to Muſicke. 221.a
their kind affections to their maſters. ib. their docilitie. ibid. their perceinance. ibid.d. deſiring of praiſe. ibid.e. their age. 222.h. their breeding. ibid.
Horſes where they be worth a talent of gold. 148.b
Horſes ſubiect to many diſeaſes. 222.m
Horſes age how it is knowne after their ſhedding of teeth. 358.i.
Horſes and men alone haue teeth of one leuell. 337.d
Horſes teeth wax white by age. 338.h. their age knowne by their teeth. ibid.
a Horſe where he is worth a talent of gold. 148.b
Horſes, where they are thought to haue no gall. 341.d
Hordearij, who they be. 561.c
Horminum. a kinde of graine. 565.b
Hortenſius wept for the death of a Lamprey. 261.d
Hornets are not vniforme. 322.h. they die when Winter is come. ibid.c
Hornes of a Hart kept as monuments in India. 324.a
Hornes of Acteon and Cippas fabulous things. 331.b
Hounds. See dogs.
Hound-fiſhes their nature. 263.c
a Houſe in the country how to be ſeated. 554
Houſeleeke medicinable for all maladies incident to corne. 565.e.
Houſes of what beaſts will heale being cut. 351.a
of Houſes a diſcourſe. ibid.

H V

Huboles or Houps gon ſo ſoon as they haue hatched. 284.i
a filthie bird. 287.a
ill Husbandry cenſured by the Cenſors. 550.i
to be a good Husbandman, a credit. ibid.
Husbandrie in old time, by whom it was performed. 551.f
by whom in later daies. 552.h
Husbandrie, a Prince-like profeſſion and ſtudie. ibid.i
Husbandry ſtudied by what kings. 552.i
Husbandry profeſſed of what warriors. ibid.
bookes of Husbandrie written by Mago, ſaued by the Senate of Rome, and tranſlated into Latine by D. Syllenus. 552.k
Husbandmens outworkes after the fall of the leafe. 589.e
the Husbandrie in Ægypt about ſowing and reaping of corne. 577.d.e
Husbandmens worke in Winter Interuali, what they bee. 590.g.h. their workes in the Interuall of the Spring. what they be. 591.e. their workes in the Spring according to Cato. ibid.
M. Varro, a writer of Husbandry. 553.b
Husbandry workes preſently vpon the Spring Æquinox. 593.b.

Husban-

20030
copy 1

Husbandry workes in the Summer Solſtice. 594
Husking of corne. 565.c
Husbandry after the Summer Solſtice. 594.i
Husbandrie at the entring of Autumne. 605.d

H Y

Hyades, what ſtarres, and why ſo called. 562.l
Hyæne change their ſects. 212.i
Hyades. ſtarres called otherwiſe Sucula. 19.e
Hybandia Iſland. 40.k
Hybridæ, what they be. 232.c
Hylas, a great writer of Augurie by the nature of birds. 277.e.
Hypelate. 496.c
Hyphear, what it is. 476.g
Hyphear. 496.c. *the properties it hath.* ibid.
Hyperborei, people ſo called: bleſſed, liuing long. 84.i
ſtrange reports of them. ibid.

I A

IAcke Daw. See Chough.

I B

Ibis inuented the clyſter. 210.k
Ibes deſtroy ſerpents. 284.m. *where they be blacke, where white.* 287.b

I C

Ichneumones, a kinde of Waſpe. 322.h
Ichneumon, the nature of it. 208.k. *his combat with Aſpis.* ibid. *he killeth the Crocodile.* 209.a
Ichthyophagi, people that feed of fiſh, and ſwim naturally in the ſea. 145.a

I D

Ides of March fatall to Cæſar. 591.b
Idoll of the Meremaid where honoured. 103.b. *the names thereof.* ibid.

I L

Ilex. See more in Holme.
the Maſt of Ilax. 458.m. 100.i
Ilium and all the tract thereabout ſometime main ſea. 39.e

I M

Imaus, a mountaine. 154.b
Imageures famous. 175.d
Imperfections incident to corne ſowne. 574.g.h.i

I N

Incendiaria, a bird vnluckie. 277.b. *the reaſon of the name.* ibid.
Incenſe. See Frankincenſe.
India full of ſtrange and miraculous things. 155.d
India, by whome diſcouered. 152.b. *the force of that nation.* ibid. *the long continuance of their kingdome.* ibid. *ſixtie riuers therein.* 125.c
Indian trees vnnamed. 361.b
a hundred & twentie nations of India lacking twain. 125.c
the nation of Indians deſcribed beyond Nilus. 126.k
India bringeth forth all things bigger than other. 155.d *the reaſon thereof.* ibid.
Indians ſubiect to no diſeaſes. 155.e. *engender with beaſts.* 157.a.
Indian ſea fiſhes bigger than others. 235.b.c
Indus the riuer. 106.l. *receiuing into it ſixtie other riuers.* ibid. *more of this riuer.* 127.c
Infants borne before the ſeueth moneth, neuer liue. 158.k *knowne oftentimes to want the paſſages of noſthrils and eares.* 336.l
Infants toothleſſe, not to be burned in a funerall fire. 164.l
Infants how they lie in the mothers wombe. 304.i. *they ſleepe much and dreame, how they be formed there. how they come forward afterwards.* 164.b
Inoculation. See Graffing in Scutcheon.
Inning of corne after ſundry ſorts. 602.l
Inſects how winged. 326.i. *how they be offenſiue.* ibid.
Inſects do breath and ſleepe. 311.c. *none haue teeth.* 327.a *hauing legs, go not directly.* ibid. *how engendred.* 329.d *what they be & why ſo called.* 310.i. *they haue no bones.* 345 a. *they haue no taile ſaue onely ſcorpions.* 327.a
Inuentors of ſundry things. 187.c. & deinceps.

I O

Ionian characters firſt vſed generally. 190.k
Iordan riuer, the praiſe thereof. 100.m. & c.
Iouis Barba, a plant good for arbors in gardens. 468.k

I R

Ireland the deſcription thereof. 86.k
Irio, what kinde of graine. 565.b

I S

Iſidorus, a writer. 48.i
Iſidos-Plocamos. 402.s
Iſis, the Planet Venus. 6.i
Iſocinnamum. 374.g
Iſlands that newly appeare out of the ſea, and the reaſon thereof. 39.f
when Iſlands haue ſprung vp. 40.g
what Iſlands haue ioined to the maine. 40.k
Iſlands in the Gaules Ocean. 86.i
Iſlands in the Ocean. 88.k

I T

in Italy lightenings be common, and why. 25.d

I V

Iuba, a king memorable for learning. 92.i
Iugerum. See Acre.
Iudiciall court of Capitol matters, who firſt inuented. 189.a
Iu iubes, what fruit. 437.f
Iuncus Odoratus. See Squinanth.
Iunipers. 489.a
Iuno the Planet Venus. 6.i
Iuno Lacinia. 48.g
Iupiter Planet his colour. 13.c. *to him lightenings are attributed.* 14.g
Iupiter Lycæus, and his chappell. 75.b
Iupiter Olympius, and his chappell. 74.i. *famous for the games there vſed.* ibid.
Iupiter Caſſiopeus his temple. 79.d
Iulius Cæſar Dictatour his ſingular parts. 168.k
Iurie renowmed for Date trees. 384.m. *the deſcription thereof.* 100.l. *how diuided into ten gouernements.* ibid.
Iuie vnwilling to grow in Aſia. 480.h. *employed in ſolemnities to Bacchus.* ibid.i. *an enemie to other plants.* 480.i *male and female.* ibid.k. *both male and female of three ſorts.* 480.k
Iuie, Nyſia, Bacchica. ibid.l
Iuie Erythranos. 480.l
Iuie Chryſocarpos. ibid.
Iuie wood of a wonderfull propertie te trie wines delaied with water. 481.e. *Iuie garland the firſt.* 456.m

K E

Kernils in fruit different. 447.e
Kell in man and beast. 343.c

K I

Kidnies. 343.d.e
Kidnies are in all fourefooted beasts that bring their young quicke. ibid.e
Kindnesse naturall examples thereof. 174.g
Kings fishers. See Halcidones.
Kine and Buls how they engender. 302.m
King of Taprobane how he is chosen. 130.m. *he may be deposed, condemned, and put to death, the manner of his execution.* 131.a.b
King of bees described. 318.m. *exempt from labour.* ibid.
Kinning in an egge, what it is. 298.h
in Bœufes, Kine haue bigger voices than Buls. 353.e
Kites reckoned among Hawkes. 275.e. *their nature.* ibid. *they taught the vse of the Helme in the ship.* 275.f *are troubled with the gout.* ibid.
Kissing of women by kinsfolke vpon what occasion. 418.k

K N

Knees being wounded in their hollowes, bring present death. 350.i
of Knees a discourse. ibid.
Knurs in timber. 489.b

L A

Laburnum, what manner of tree. 468.k
Labeones who they were. 336.l
Laboriæ in Campane, a most fruitfull tract. 567.f
Labruscæ, bastard wild Vines. 538.g
Lacta, the best Casia or Canell. 373.e
Lactes placed next to the bag of the stomacke. 342.l
Lacydes accompanied with a Goose. 280.k
Ladanum the best. 370.k. *the price thereof.* ibid.
Ladanum how it is gathered. 370.g
Ladanum of two kindes. ibid.i
Læstrigones, monsters of men. 154.g
Laërtes, a king mucked ground with his own hands. 507.b
Lagopus, a bird why so called. 296.h
Lalisiones, what they be. 224.i
Lama what tree. 369.e
Lambes named Cordi. 226.l
Lambes how to be chosen. ibid.
Lampades, flaming torches in the skie. 17.b
Lampadias, a kinde of Comet. 15.f
Lampido, the onely woman knowne to haue been daughter to a king, a kings wife, and mother to a king. 176.l
Lampries in France how they are marked. 248.i
Lamprey, a fish. 245.b
Lampreies of fresh water. 246.g
sea Lampreies their nature. 248.h
Lampyrides what they are. 593.c
Lanata, what apples. 438.g. *why so called.* ibid.
Lanati, a sort of Pikes. 245.e
Land in the country made distinction of states at Rome. 550.m.
Land worth fortie denarij, the short cubit. 581.d
Land Mediterranean fittest for fruits. 501.c
Land how much assigned by king Romulus to his subiects. 549.d.
Land of whom to be bought. 553.e
little Land well tilled. 554.m
Lands may be ouermuch tended. 555.b
Lanists of Lacedæmon his swiftnesse. 167.a
Lanterne, a sea fish. 249.d
Laodicea a citie, the description thereof. 107.a
Larch tree. 462.l. *the timber and the liquid rosin thereof.* ibid. *how it is drawne.* 465.b
Larch tree female. 487.b
Larch tree of great length. 489.d
Lares, a temple to them: neere to which an altar erected to Orbona. See Orbona.
Large space between the stomacke and the paunch, is cause of more hunger. 342.l
Lawes who first inuented. 187.e
Lawrea, the leafe of Lawrell. 454.g
Lawrell tree not smitten with lightening. 27.e
Lawrell grones, why called Triumphales. 454.g
Lawrell a medicine for the Rauens. 211.d
the mad Lawrell. 495.d
Lawrell tree how it was employed at Rome. 452.i
Lawrell, Delphicke, Cyprian, Mustacea. ibid.
Delphicke Lawrell described. 452.k
Cyprian Lawrell described. ibid.
Lawrell Tinus or wild Lawrell. 452.k
Lawrell Augusta or Imperiall. ibid.
Lawrell Baccalia. 452.l
Lawrell Triumphall. ibid.
Lawrell Taxa. 452.l
Lawrell Spadonia. ibid.
Lawrell Alexandrina. 452.m
Lawrell Idea. ibid.
Lawrell, token of peace. 453.b
Lawrell much honoured at Rome, and why. ibid.c
Lawrell fairest vpon Parnassus. 453.c
Lawrell not smitten with the lightening. ibid.
a Lawrell Chaplet vsed by Tiberius Cæsar against lightening. 453.d
Lawrell why vsed in triumph. ibid.
Laurcola. 453.a. *described.* ibid.
Laurices, young Rabbets or Leuerets. 232.h
Laurus, the onely tree in Latine that giueth name vnto a man. 454.g
who laughed the day that he was borne. 164.m
Lax, a fish. 243.a

L E

Lead, who first found out. 188.l
League who first deuised. 189.i
Leape yeare. 6.h
Learned wits honoured. 171.f
Leaues of Aspen tree neuer hang still. 514.l
Leaues that alter their shape & form vpon the trees. 470.h
Leaues of some trees turne about with the Sunne in the Tropicke of Cancer. 407.i
Leaues of the trees how they be framed aboue and beneath. 470.k.
Leaues of trees distinguished by their bigneſſe, forme, and substance. 470.l.m

20030
copy 1

Leaues diſtinguiſhed by other qualities, and their order. 471.*a.*
Leaues of trees, good fodder. 471.*b*
what Leaues are apt to ſhed, and which are not. 469.*d*
a Philoſophicall diſcourſe touching the cauſe of ſhedding or holding Leaues. 469.*e.f*
Leaues of what trees hold their colour. 470.*g*
Lectos, a promontory in Troas. 471.*f*
Ledon. 370.*i*
Lemnos Iſland. 378.*g. their manner.* *ibid.*
Length of the legs and necke, anſwerable for the proportion in all creatures. 339.*e*
Lentill where and when to be ſowne. 569.*e*
Lentills of two kindes. *ibid.*
Lents and Lenes in Latine whence derived. 569.*e*
Lentiske berries preſerued. 448.*k*
Lentuli, why ſo called. 550.*h*
Leococruta, what kind of beaſt. 206.*h. and what of nature.* *ibid. how engendred.* 212
Leonides rebuked Alexander the Great for burning too much Frankincenſe. 367.*f*
Leontophonus, what beaſt. 217.*e. and why ſo called.* *ibid.*
Leopards how they lie in wait. 308.*g*
Leptorhages, what grapes. 495.*m*
Lepo or Mole, a kinde of fiſh. 249.*c*
Letters or characters who inuented. 187.*f*
Lenaines. 566.*h.i. the nature thereof.* *ibid.l*
Leuci, kinde of Herons with one eye. 334.*g*
Leucocomum, a kinde of Pomegranats. 398.*h*
Leucogæon, a place. 568.*h. it yeeldeth chalke to make white frumentie, and a great reuenue yearely.* *ibid.*
Leucoſia Iſland ſometimes ioined to the promontory of Syreus. 540.*i*

L I

Libanus mount, the deſcription thereof. 102.*i*
Liciniani, why ſo called. 163.*a*
Licinius Stolo condemned by vertue of his owne law. 551.*d*
of mans Life, the tearme vncertaine. 180.*l*
Life ſhort, a benefit. 183.*b*
Licorne. See Monoceros.
Lignum, a fault in Cytron wood. 396.*h*
Lightenings attributed to Iupiter. 14.*g. the reaſon thereof.* *ibid. preſages of future things.* *ibid.*
Lightenings ſeldome in Summer or Winter, and the reaſon. 25.*c. in what lands they fall not.* *ibid. the ſundry ſorts and wonders thereof.* 25.*e. diuerſe obſeruations touching them* 26.*g. raiſed by coniuration.* *ibid.k. generall rules of lightening.* *ibid.m. it is ſeene before the thunderclap is heard, and why.* *ibid. what things are not ſtrucken with lightenings.* 27.*e*
Lights, the ſeat of the breath. 341.*a. ſpongeous and full of pipes.* *ibid.*
Limoſa, what fiſhes. 243.*c*
Lime at the root of Cherrie-trees haſtens their fruit. 546.*k*
Limning. See Painting.
Linden trees differ in ſex. 466.*i. their fruit no beaſt will touch.* *ibid.*
the Linden tree yeeldeth fine panicles for cordage. 466.*i*
the timber will not be worme-eaten. *ibid.k*
Linnen fine cloath whence. 80.*l*
Linnet very docible. 293.*a*
Likeues of children to parents, grandſire, or others. 160.*m* 161.*a.b. the reaſon in Nature.* 161.*c*
Likeneſſe of one man to another diuerſe examples. 161.*d & deinceps.*
Lions of the right kinde how they be knowne. 200.*i.k*
Lions bones will ſtrike fire. 344.*m*
Lions how they will walke. 350.*k*
Lioneſſe lecherous. 200.*k*
Lioneſſes engender with Pardes. *ibid.*
Lion iealous of the Lioneſſe. 200.*k*
Lioneſſe, how oft ſhee beareth young. 200.*l. and the manner thereof.* 201.*b*
of Lions two kindes. *ibid. their nature and properties.* *ibid.*
Lions long liued. 201.*c*
Lions crucified. *ibid. and why.* *ibid.*
Lions gentle to thoſe that ſubmit themſelues. 201.*d*
Lions ſpare women and babes. *ibid.*
Lions entreated with faire language, 201.*e. their diſpoſition knowne by their tailes.* *ibid.f. their generoſitie and magnanimitie.* 202.*g. whereat they be affrighted.* 202.*i their diſeaſes and remedies.* *ibid.*
Lions firſt ſhewed at Rome in the cirque. 202.*k. how they be taken.* *ibid.l*
Lions yoked and put to draw at Rome. 202 *m*
a Lions thankefulneſſe. 203.*d*
Lions die with taſting Leontophonus. *ibid. or drenched with the vrine.* 217.*f*
of Lips. 336.*l*
Liquor falling from heauen. 316.*m. how good.* *ibid.*
Liſards their nature. 218.*k*
Liſimachus ſtrangled a Lion. 201.*m*
Liuer lieth on the right ſide. 341.*b*
Liuers found in ſacrifice without the head or fibres. *ibid. ſeene with twaine.* *ibid. what they foreſhewed.* *ibid.*
Liuers in ſacrifice found inward, to the number of ſix. 341.*b*
Liuer found cut, preſageth ill hap. *ibid.c*
Liuer receiueth blond from the heart. *ibid.d*
Liuer of Mice and Rats groweth at mid Winter. 342.*g hath ſo many fibres as the Moone is daies old.* *ibid.*
Liuers continued in ſalt a hundred yeares. 342.*h*
who Lined a long time. 180.*l*
Liuia Auguſta made triall by an egge whether ſhee went with a boy or a girle. 259.*d*
Liuia Druſilla Auguſta preſented with a bay branch in a Hens bill falling into her lap. 453.*e*
Lizards tender skinned and foure-footed. 336.*b*
Lizards how they engender. 302.*m. they deliuer their eggs at their mouth.* 305.*a*

L O

Lobe, the ſtalkes of Millet. 558.*i*
Lobſtars want blond. 252.*i. they caſt their coats in Spring* *ibid. dieth for woe.* 270.*g*
Lobſtars their nature. 252.*i*
Locry, a free ſtate: with the deſcription of their country. 73.*c.*
Locupletes (i. Rich men) why ſo called. 550.*i*
Locuſts how they vtter their voice. 353.*a*
Locuſts and Graſhoppers haue no eies. 334.*g*
Locuſts lay egges in Autumne. 327.*b. their young creep on their wings.* *ibid.c. the mother of them dieth at the bringing forth of her young.* *ibid.c. they can kill ſerpents.* *ib.d*
Locuſts in Indæa three foot long. *ibid. they are caried away with wind.* 327.*d. they flie many daies without reſt.* *ib.*

foreſee

foresee a famine. ib.e. darken the sunne with their flight ibid. burne corne with their blast. ibid.
Lollia Paulina how shee was adorned with pearles. 256.k the price of them. ibid.
Lomentum. 568.m
Lora, what it is. 417.e
Loretum, a place. 454.g
Lote tree Capillata, and why so called. 495.a
Lote trees of long continuance. 494.m.495.a
Lotophagi, people. 397.b
Lots taken for a god. 4.k
Lotus tree in Affrick. 397.a. the description thereof. ibid. the fruit, ibid.b. it serueth for meat and drinke. 397.c
Lotus the hearbe. ibid.
Lotus tree wood. ibid.
Lotus of Ægypt. 397.c.d. the strange nature of the head and floure. ibid.e. the root feedeth hogs. ibid.f
Lotus tree why it is regarded much at Rome. 476.k. the description thereof and the vses. ibid.
of the Louse disease, Pherecides died. 184.g

L V

Luceia acted on the stage a hundred yeares. 181.c
Lucentum a towne of the Latines. 53.d
Lucerna, a shining fish. 249.d
Lucifer, why so called. 6.i
Lucina, the name of Diana, and whereupon. 494.m
Lucini, men so called. 335.e. why so called. ibid.
Lucius Martius. 48.h
Lucius Cossitius turned from a woman to a man on the very mariage day. 158.h
Lucius Sylla vnworthily named Fœlix. 177.d
Lucius Metellus onely suffered to ride in his coach vnto the Senat. 138.h. thought most happie. ibid.g
Lucius Apronius his sonne how fat he was. 334.l
Lucius Opimius and Quintius Fabius, when they were Consuls an arch seen about the Sunne. 17.e
Lucius Portius and Marcus Acilius when they were Consuls, a round circle about the Sunne. ibid.
Lucullus resisted by the muddie slime Maltha at Samosatis. 46.m
Lungs are but in few fishes. 335.e
Lungs that are little cause the body to be swift. 341.a
Lupi, a sort of spiders. 323.d. they spin not. ibid.
Lupine a direction to the husbandman. 594.g
Lupine meat medicinable. 272.g
Lupines not easily mowed downe. 571.c
Sympathie betwixt Lupines and the Sunne. ibid.d. wonderfully affectionat to the earth. ibid.
Lupines sow themselues. ibid.e
Lupines sowing is as good as soile or compost. 571.f.572.g
Lupines steeped mens meat. ibid.
Lupines how to be kept. ibid.
Lupines profitable to be set in ground. 508.g
Luca-bones what they be. 195.b
Lusitania whence it hath the name. 51.f
Lusitania, the description thereof. 88.i
Lutarius, a kinde of Barble. 246.h
Lutense, a kinde of Pelagia purples. 259.a

L Y

Lyncurium what it is. 217.f
Lycus riuer. 268.b
Lyræ what it is. 579.f
Læstrigones, monsters of men. 154.g.
Lycion, what composition it is. 362.h

M A

Macrobij, and other people liuing long. 156.l.m
Macedonia the description thereof. 77.a
Macer. 362. the medicinable vertue of the rind. ibid.
Machlis, what manner of beast. 200.g
Macius Island sometime ioined to Eubœa. 4.i
Macrinus Vistus how he vsed to bleed. 346.g
Meander riuer where it now runneth by goodly medowes, in times past was all sea. 39.e. the description thereof. 108.h.
Menander how he loued his studie. 172.m
Magnesia, the description thereof. 36.m
Magnesia Island. 40.k
Magna, what it is. 383.c
Maid child in Rome became a boy. 158.h
Males in all beasts stronger than females. 352.k. some are excepted. ibid.
Males haue more teeth than females. 338.g
Maladies and death consumes bloud. 346.i
Maldacon. See Brochos.
Malacha. See Brochos.
Maleus a mountaine. 36.g
Maladies of trees what it is. 541.c
Malis bonis what it meaneth. 555.d
Malobathron, a plant. 378.l. the description thereof. ibid. and the kindes. ibid.m
Malobathrum the leafe. 379.a
Malt made stronger drinke in old time. 428.h.i
Maltha, a slimie mud so called. 46.m
Maltha, a kinde of mud in a pond of the citie Samosatis. ibid. the strange nature of it. ibid.
Man how long he groweth. 345.b
Mans brest onely broad and square. 343.e
Man onely bleedeth at the nose. 346.g
Man onely two footed. 349.b
Man onely hath a cannell bone, and shoulders. ibid.
Man onely hath palmes on his hands. 350.l
Man in Ægypt hath foure eies. 354.b
Man for his proportion hath most braine. 352.b. hath more braines than woman. ibid.
Man his braines onely panteth and breatheth. 333.a. they are not setled before he speaketh. ibid.
Man onely wanteth power to shake his eares. 333.b
Man onely hath face and visage. 333.d. his forehead declareth his nature. ibid.
Man onely borne without teeth. 337.e
Man, than whom nothing more proud and wretched. 4.m
Man, the best gift he hath bestowed vpon him, that he can rid himselfe by death out of his miseries. 5.a
Mans flesh sacrificed and eaten. 154.g
Man to man a god. 4.g
Man compared with other creatures. 152.i
Man hath no certaine time to abide in the wombe. 258.k
Mankind more inordinate than other creatures in the act of generation. 302.m
the Mani-foot fish Ozæna. 250.m
Manilius wrot of the Phœnix in Arabia, dedicated vnto the

20030
copy 1

the Sunne. 272.b. the age of this bird and manner of dying. ibid. hence the young Phœnix is bred. 271.c
Mandri people women bring forth children at ſeuen yeares of age. 157.a
Manlius Capitolinus, firſt that was rewarded with a mural crown. 170.k his deeds and rewards. ib. his praiſe. ib.
Manna, what it is. 376.h
Manna Thuris. 367.e
Mantichora, what kinde of beaſt. 206 k. reſembleth mans language. 222.l
Maples of many kindes. 466.k. the wood commended for fine graine, and ſerueth in curious workemanſhip. 466.l
Maquerels. 243.e
Cn. Martius firſt deuiſed to cut out arbors at Rome. 359 b
Marcellus Eſurinus brought plain trees into Italie. 358.m
Mareolis Lybia bordering vpon Ægypt deſcribed. 95.d
Mares of the nature of Hermophrodites. 352.i. ſeene they were at Rome. ibid.
a Mare in fole wan the prize in the Olympian race. 304.g
Mares better than ſtallions in war ſeruice in Scythia. 222.l
Mares conceine by the wind. ibid.
Mares how they be brought to admit Aſſes to couer them. 303.e.
Mares with fole labour as well as before. 303.f. they ſteale their foling many times. 304.g
Margarides, Dates. 387.b
Margo, a kinde of Limeſtone. 505.d
Mario a fiſh of pleaſant taſt. 243.b
Marioram oyle the beſt. 382.g
C. Marius commended by Sylla Fœlix for building a manor houſe in the countrie. 554.i
Marmoſets where bred. 106.g
Marmotanes their nature. 226.m
Maiorine, what Oliues. 432.g
of Marrow. 344.l.m
Marrow neuer found but in hollow bones. 344.l
Marrow of the Vine tree and nature thereof. 526.i
Marrow of the backe deſcendeth from the braine. ibid.
Marrow of a mans backe proueth a ſnake. 305.b
Marſians endued with a vertue againſt ſerpents. 154.l
Mars his nature and motion. 6.g
Mars his courſe leaſt of all others can be obſerued. 12.m his colour. 13.c
Mars his motion and light. 10.b
Marſyas hung himſelfe in a Plane tree. 495.d
Marſyans deſcended from ladie Circes ſonne. 154.l
Martia, the name of a ladie, which was ſtrucken with lightening, being great with child, her child killed, and ſhee without harme. 25.f
Martines, enemies to Bees. 292.i
Martines called Apodes. ibid.
Martines or Martinets. See Swallowes.
Martius Muſician ſtroue with Apollo. 107.b
Martius in an Oration of his, his head was on a flaming fire. 48.h
Maſſaris, what it is. 379.d
Maſt trees honoured eſpecially by the Romanes. 456.g
Maſt, a great reuenewes in ſome countries. ibid. ground for bread. ibid. ſerued vp to the table for delicates. ibid.
Maſt of different kindes. 456.h
beech Maſt ſweeteſt of all others. 458.i
beech Maſt deſcribed. ibid.k
Maſt of ſundry trees. ibid.l
Maſt differ ſundrie waies. 459.a
Maſt which is beſt for feeding cattell. 459.e.f
Maſt of a ſhip of maine bigneſſe. 489.e
Maſt tree how it groweth. 525.f
Maſticke tree ſheweth three reaſons of plowing ground. 599.b.
Maſticke the roſin of the Lentiske tree. 424.g
Maſticke gum. 369.c. the beſt. ibid.f. iſſueth of the Lentiske-tree. 370.g
of the Matrice. 344.g.h
Mattimacians their preſumptuouſneſſe. 15.b
Matutine riſing or ſetting of fixed ſtarres. 587.d
Mauiſes change their colour. 285.f
Mauritania, the deſcription thereof. 90.i

M E

Meaſure of the ſea. 149 d
Meaſure of the parts of the world. ibid.e
Medow grounds how to be choſen and ordered. 595.b. when to be mowed. ibid.
Medea burnt her husbands concubine by force of Naptha. 47.a.
Medowes called Prata or Parata. 553.f
Media the deſcription thereof. 122.i
Medica deſcribed 573.b. how and where to be ſowed. ib.c.d a ſingular forage. ibid.
Medicines not applied in due ſeaſon, be miſchiefes. 546.g
Melampus taught to vnderſtand birds language. 296.l
Melitæi, dogs, whence ſo called. 71.f
Meleandrya. 243.d
Mellaria, a towne. 51.d
Members of mens bodies of miraculous effects. 168.h
Memorie loſt by ſundry occaſions, 155.
Memorie rare examples. 167.f. reduced into art. 168.g
Members genitall of a bonie ſubſtance. 352.h. in what creatures. ib. are medicinable for the diſeaſe of the ſton. ib
Memmonides, birds. 284.k
Memphis, ſometime neere the ſea. 36.e
Men ſlaine for ſacrifice. 154.g
Men converſing generally with beaſts. 154.h. their deformitie and ſwiftneſſe. ibid.
Men headed like dogs, their manners. 155.e
Men aboue fiue cubits tall, their ſtrong conſtitution of bodie. ibid.
Men without noſes and mouthes in Ægypt. 146.l
Men that know not the vſe of fire in Ægypt. ibid.
Men that goe euer naked. 177.b
Men eight cubits high, called Olabij. 147.b
Men headed like dogs, called Cynamolgi. ibid.e
Men in Æthiopia which liue onely on wild locuſts. 147.f
Men and women greateſt ſooted for their proportion. 150.l
Men ſurnamed of trees. 499.c
Men made to husband the earth. 516.g
Men weigh heauier than women. 165.e
Men haue been ſlaine and yet not bled. ibid.
Men canonized, wherefore. 54.g. their ſtrange ſhapes. 155.f
Menoba, a riuer. 52.i
Mentor plucked a ſpill out of a lions foot. 203.b
Mercurie, ſo named to expreſſe his nature. 4.g
Mercurie his nature and motion. 6.k. of ſome called Apollo. ibid.

Mercurie his stations. 10.*i.* *wherefore his starre differs not from the Sunne aboue three and twentie degrees.* 12.*h*
Mercurie his colour. 13.*c*
Meremaides. 236.*h.* *no fabulous things.* *ibid.*
Meremen, or Seamen. *ibid.i*
Meroe, an Iland. 36.*g*
Merops a bird. 289.*b*
Mese wind. 23.*a*
Mosostpheron. 364.*k*
Messalina, the Empresse of vnsatiable lusts. 302.*i*
Lu. Messalinus Cotta deuised a dish of meat made of Geese feet and Cockes combes. 280.*l*
L. Metellus his rare praises. 177.*f*
Metellus Macedonicus highly commended. 178.*i.* *his vnhappie fortune.* *ibid.k.l*
Meteagrides, what birds. 284.*k*
Motopia, what trees. 375.*d*

M I

Mice and Rats indocible. 295.*b*
Mice presage the fall of an house. 211.*e*
Mice forced a people to void out of an Iland. 212.*h*
Mice great theeues. 233.*a*
Mice presage shining things to one. 232.*m.* *they gnaw yron and steele.* *ibid.*
Mice engender more in a drought. 305.*a*
Mice of Ægipt prickely and goe on their hinder feet. 305.*a*
Mice most fruitfull. 304.*l.* *they engender by licking.* *ibid.*
young Mice found with young in the bellie of the old dam. 304.*l*
Mice forced the inhabitants of Troas to abandon the region. *ibid.m*
Mice and rats ominous in some cases. 233.*f*
field-Mice sleepe all Winter. *ibid.c*
against Mice, Rats, and Dormice to be serued vp to the table, an Act made. *ibid.*
of the Midriffe. 342.*h*
Miel-dewes remedied in corne. 576.*g*
Miletus, the head citie of Ionia. 108.*g.* *the diuerse names thereof in former times.* *ibid.* *it brought forth that noble Citizen Cadmus.* *ibid.*
Millet how it groweth in the head and beareth fruit. 558.*h* *it maketh diuerse kindes of bread.* *ibid.*
Milke rained. See Raine.
Indish Millet of greatest encrease. *ibid.i*
Milke of a woman before shee haue gone seuen moneths, is not good. 548.*g*
Millet where it is much vsed. 555.*f.* 556.*g*
Milke vsed in sacrifice. 418.*h*
of Milke a discourse. 348.*h*
Milke of a woman how it is most pleasant. *ibid.*
Millet how to be ordered for preuenting maladies incident thereto. 575.*d*
Milke that commeth first from a Cow, is called Beestings, it will be as hard as a pumish stone. *ibid.*
Milke of shee Asses when it is not good. *ibid.*
Milke of Cammels most thin. 348.*i*
Milke-way what circle. 599.*c*
Milke of Asses most thicke. *ib.* *it whiteth womans skin.* *ibid.*
Milke of all sorts will thicken by the fire. *ibid.*
Minutius Augurius honoured with a statue. 551.*c*
Misselto a wonder in Nature. 496.*h*
Misselto vpon the Oke. 460.*m*
Misselto of three kindes. 496.*g*
Misselto of what tree it groweth. *ibid.k*
Misselto how it groweth and whereupon it commeth. *ibid.m*
Misselto for what it is thought good. 497.*d*
Mines of brasse who first digged. 188.*i*
Mists when they are seene. 29.*b*
a kinde of Mist like vnto a pillar, and so called. 23.*a*
Milo his strength. 166.*m*
Militarie orders and discipline who first deuised. 189.*c*

M O

Modenna, a territorie. 39.*d*
Mola, a Moone-calfe. 163.*c*
a Monster embaulmed and preserued in hony. 158.*g*
Molluscum, what it is. 467.*a*
Monstrous births. 157.*f*
Monarchie, who first erected. 189.*a*
Mona an Iland. 36.*k*
Monkie. 206.*b*
Monoceros, what kinde of beasts. 212.*b*
Monosceli, what kinde of men. 156.*g*
Moon her nature, motion, and effect. 6.*l.* *the diuerse motions hereof obserued first by Endimion, who therefore is said to be in loue with her.* 7.*a.* *eclipse thereof in the night only, and why.* 7.*d.* *See further in Eclipse.*
Moone lesse than the other Planets, and the reason thereof. 9.*f.* *what difference there is betweene the earth and the Moone.* 14.*i*
Moon how many furlongs from the cloudy region vnder her. 14.*m*
Moone in the middest between the earth and the Sun. 15.*b*
Moon-calfe, what it is. 163.*e*
Moon to be obserued in cutting hair of head & beard. 488.*i*
Moone to be obserued in falling timber. 487.*e*
Moones three appeared. 18.*g.* *by her power grow the bodies of fishers Muskles.* 20.*i.* *foresheweth wind and weather.* 611.*e*
Moone with all power it hath ouer things on earth, and in the sea. 44.*c.* *creatures that haue no bloud, doe most of all feele her power.* *ibid.* *a Planet femmine, and of her nature.* 44.*k.* *nourished by the fresh water.* *ibid.* *how to be knowne croisant, in the wane, full, and change.* 607.*d* *to be obserued in some points of husbandrie.* 607.*b*
Moone-calues how engendred. 304.*n*
Moramarusa, what. 85.*c*
Morphnos, a kinde of Ægle. 271.*e*
Mosses sweet. 375.*e*
Mouldwarpes vndermine a towne. 212.*h*
Mouldwarpes passe vs in the sence of hearing. 306.*g*
Mould blacke and red not alwaies best. 502.*k*

M V

Mucke when best to be spread. 508.*i*
Muckhils how made and where. *ib.* *how kept frō snakes.* *ib.*
Muing of foules who first deuised. 297.*c*
Mulberry tree lasteth long and why. 474.*g*
Mulberries described. 447.*c.* *it is of three colours.* *ibid.*
Mulberies of the bramble. 447.*d*
Mulberrie trees the wisest of all others. 472.*l.* *how to be cut for the liquor thereof.* 486.*h.* *they giue signe that cold weather is gone.* 494.*b*
Mules how engendred. 223.*f.* *which be so called properly.* 224.*h.* *bearing foles, prodigious.* *ibid.* *in Cappadocia they engender and beare.* *ibid.*
Mullets their nature. 245.*i*

a Mule

20030
copy 1

a Mule eighteen yeares old. 224.i
Mulviane Quinces. 436.h
Mures Marini, what they be. 247.b
Murex, what fiſh, 249.a
Munkies and Marmoſetes adore the new Moone. 231.e
Muſcadell grapes and wines. See Apiana.
Muſicke who firſt inuented. 189.d
Muſicall inſtruments. ibid.
Muſhromes. 460.l
Muſtea, what Quinces. 436.h

M Y

Myagirus, the god of the Eleans. 285.a
Myrobalanus. See Ben.
Myrobalanos Petræa. 374.k
Myrtles of ſundry kindes. 451.d
Myrtle Hexaſtica. ibid. why ſo called. ibid.
Myrtle tree laſteth long. 494.l
Myrtles of three principall kindes. 451.c
Myrtle berries vſed in ſtead of Pepper. 450.l
Myrtle growing in the place where Rome ſtandeth. ibid.m
Myrtle Plebeia and patritia at Rome. 451.b
Myrtle Coniugula. ibid.c
Myrice. 398.m
Myrrhina, what wine. 419.a
Myrrhe Atramiticke. 369.b
Myrrhe Auſaritis. ibid.
Myrrhe Duſaritis. ibid.
Myrrhe trees where they grow. 368.k. *their deſcription.* ib.l
Myrrhe of ſundry ſorts. 369.b
Myrtle berries of diuerſe kindes. ibid.d *how counterfeit.* ib.
Myrtle leaues in pouder very good. 451.e
Myrtle wine, how made. 451.d
Myrtle oyle, the vſe thereof. ibid.e
Myrtle coronets vſed in triumph. 452.g
Myrtle rods and rings to what vſe. ibid.

N A

NAcre, a kinde of fiſh. 261.c
Nævius Pollio, a giant. 165.h
Names of Vine ſprigs or ſets. 526.k.527.a
of Nailes a diſcourſe. 349.f
Naphtha, the ſtrange nature thereof, and affinitie it hath with fire. 47.a
Naphtha, what it is. ibid.
Nard leaſe of three ſorts. 364.k
Nard the beſt. ibid.l
Nard Celticke. ibid.m
Nard Ruſticke. ibid.
Narciſſimum ointment. 381.d
Nardinum oyle. 382.k
Nardus ſophiſticated, and true, how diſtinguiſhed. 364.k
root, ſpike, and leaſe. ibid.
Actius Nauius the Augur. 443.d
Nathecuſa Iſland. 40.k
Nature onely accounted of diuine power. 5.b
Nature of wild trees mitigated by tranſlating them. 510.l.
Natures ſecrets not to be attained vnto. ibid.i
Nature or ground diuerſe. 506.l
Nauell, the place where veines do meet. 345.e
Nabis, a kinde of beaſt. 205.d
Navew. See Rape.
Navigation, who deuiſed. 190.g
Nauigations vpon the ſea. 32.k. *by whom the parts thereof were ſailed and diſcouered.* ibid.
Nauplius a fiſh, how it ſwimmeth. 252.b
Nautilos or Pompilos, a fiſh, and wonder of Nature. 150.l
Nayles grow in dead men. 550.g
Nayles are the extremities of the fingers. 345.e
Nayles in creatures except the Elephant. ibid.

N E

Nea Iſland. 40.g
Necke how it is compoſed. 339.a
Neckes of all beaſts may turne about. ibid.
Needle fiſhes Belonæ. 266.b
Needle worke whoſe inuention. 228.i
Nemeſis her place behind the right eare. 250.k
Neptune his chappell, famous for the games there vſed euery fine yeares. 74.m
Nereides. See Meremaids.
Nerion. See Oleander.
Nero how he tooke out the blew and blacke markes in his face, after beating. 400.b
Nero borne with his feet forward. 160.b
Nero, how much Incenſe he waſted at the funerall of Poppea. 371.e
Neaſts wonderfully made by birds. 288.l
ſea-Nettle, a fiſh. 262.i

N I

Nicæus, borne of his mother a faire woman, reſembled his Grand-father a blacke Æthiopian. 161.b
Nicias ouer fearefull of the Moone Eclipſe. 9.a
Nicolas Dates. 287.e
Nightingales contend who ſhall ſing beſt and longeſt. 586.i
Nightingale a wonderfull bird for ſinging. 286.g. *preſaged ſingular skill in Muſicke to Steſichorus.* ibid.i
Nightingales dearer than men. 286.k. *a white Nightingale.* ibid.
Nightingales ſinging counterfeited by men. 286.l. *not tongued like other birds.* ibid.m
Nightingale parle Greeke and Latine. 293.e
Niger riuer and nature thereof. 96.b
Nigræ, people whoſe king hath but one eie, and that is placed in his forehead. 147.e
Nilus the ploughman of Ægypt. 577.b. *his manner of riſing.* ibid.c
Nilus riuer deſcribed. 97.b. *hidden for twenty daies iournie.* ibid. *ſurnamed Aſtapus, and why.* 97.d. *the diuerſe names therof.* ib. *when he riſeth & when he falleth.* 98.h *the ordinary height of his riſing is ſixteene cubits.* ib. *the greateſt eighteene cubits, in the time of Claudius.* ibid.i *the leaſt that euer was, againſt the death of Pompey and the reaſon.* ibid.
Nilus water helpeth generation and conception. 157.d

N O

of the Noſe and noſthrils. 336.k. *man onely hath his noſe bearing forth.* ibid

O B

OBeliske in the Vaticane. 489.e
Oblinion. See Memorie.

The Table to the first Tome

OC

Ocellæ, who they be properly. 335.e
Occhi trees. 362.m
Occultation of fixed ſtarres. 587.d
Ocymum, a kinde of prouender. 573.b

OD

Odoraria, Myrrhe. 369.d

OE

Oenanthe, a bird. 287.a
Oenanthe, the grape of the wild vine. 379.d
Oeſypum. 370.b
Oeſtrus, a bad kinde of Bee. 318.h

OI

Oiſters haue hearing. 306.g
Oiſter bread. 566.g
Oiſiers emploied in wicker ware 486.a
Ointment or oyle of Cinnamon, 382.k
Ointments odoriferous, whoſe inuention. 380.k
Ointment of Marioram. ibid.
Ointment of Saffron. 381.b
Omtment odoriferous how they be kept and tried. 383.c
to what vſe they ſerue. ibid.e. they may be ſpared. ibid.
againſt ointments an edict. 384.i

OK

Okes of great age. 495.c
Okes of ſundry kindes. 459.a
Oke droppings are hurtfull. 51.h
Oke Maſt. See Acornes.
an Oke in Calabria alwaies greene. 469.c
Okes fruitfull. 460.l
Oke Robur beareth Catkins. ibid.
Oke aſhes. 461.a
mightie Okes ſailing vpright in the ſea. 455.d
Oke Quercus beareth berries like bull heads. 463.i. it beareth bals, pils, calloſites. ibid.

OL

Olalygones, names of Frogs. 338.l
Oleander, what kinde of plant. 469.a. poyſon to certaine beaſts. ibid. counterpoiſon to man. ibid.
Oleaſtrum a kinde of Box tree. 467.c
Olenus loued by a Gooſe. 280.k
Old oyle of Oliues, the vſe thereof. 435.a
Old forme of Spaine changed. 53.h
an Oliue tree made barraine by the licking of a Goat. 542.h.
Oliue burnt vnto the very ſtumpe, hath reuiued againe. ibid.
Oliue garden in the Marrucine territory, croſſeth the highway. 544.g. it exchangeth her place with a plot of corne. ibid.
Oliue trees require greateſt diſtance. 515.b
Oliues to bee graffed in Autumne. 521.e. not to bee ſet in a holme, whereout an Oke hath beene ſtocked. 522.h.
Oliue plot how long it hath proſpered. ibid. when they are to bee cheriſhed. ibid. in their blooming they are moſt hurt by violens raine. 540.m
Oliue chaplets. 432.l
Oliue branches. ibid.
Oliues how to be planted and ordered, according to Cato. 432.m.
Oliue Hort-yards where to be made. 433.a
Oliues how to be gathered, prepared, and dreſſed. 433.b
Oliues how to be kept after Catoes precepts. ibid.
Oliues, what fire they require in preſſing. ibid.c
Oliue trees hurt by the licking of Goats. 435.d
Oliue in the Forum of Rome. 444.g
Oliue trees neither in Italy, Spaine, or Affricke, during the reigne of the kings of Rome. 429.e
of Oliues, the opinion of Heſiodus, where they loue to grow. ibid.d
of Oliues three kindes according to Virgill. 429.e
Oliue trees require pruning and other dreſſing. ibid.
Oliues when to be gathered. ibid.
Oliues which are beſt. 430.l
Oliue dregs or lees. ibid.
Oliues blacke, what they ſignifie. 431.a
Oliues when they need watering. ibid.
Oliues to be gathered by hand, or ſhaken gently, and not to be beaten downe. ibid.b.c
Oliues of diuerſe kinds to be gathered at ſundry times. ib.d
Oliues royall. ibid.
Oliues when to be preſſed after gathering. ibid.e
Oliues the greateſt, not moſt oleons. 432.g
Oliues of Italy fulleſt of oile. ibid.
Oliues outlandiſh kept to be eaten. 432.g
Oliues of Decapolis no bigger than Capers. ibid.
Oliues confected or condite. ibid.
Oliue trees of India. 361.c
Oliues how they are made pleaſant to taſt. 432.h
Oliues purple. ibid.
Oliues pleaſant of themſelues. ibid.
Oliues proud. ibid.
Oliue trees of long continuance. 449.h
Oliue wild of great antiquitie. 495.e
Oliue trees liue ordinarily two hundred yeares. 446.c
Olyra, what kinde of corne. 559.d

OM

Omphacium, what it is. 430.l

ON

Onces where they breed. 206.g
Oneſicratus, Alexander his captaine and writer. 36.h
Onocrotali, what birds. 295.e

OP

Opheoſtaphyle. 400.i
Ophiogenes, people, their ſtrange nature. 154.l. they cure the ſting of ſerpents. ibid.
Opinions diuerſe concerning the generation of Bees. 318.g
Opinion of the learned concerning nature of marrow. 339.e
Opinions concerning the dammage of cattell. 507.e
Lu. Opimius and Q. Fabius, when they were Conſuls, an arch ſeene about the Sunne. 17.c
Opimian wines. 419.d
Opobalſemum. 377.a. how it was ſold. ibid.b
Opopanax. 378.l
Opiet, a tree whereunto a Vine is wedded. 535.b

OR

Oracles or ſage ſentences of Cato and others concerning Husbandry. 555.b
Orbona, an alter erected to her. 3.e
Orcades Iſlands. 86.l
Orchitæ, what Oliues. 429.e. why they are ſo called. 433.b
Oreſtes his body. 165.a
Orge, a ſtrange fountaine. 58.i

20030
copy 1

Oricum Iſland. 40.k
Order of their digeſting which chew not the cud. 343.a
Origan found by the ſtorke to be medicinable. 210.m
Orion or Otus. 165.a
Orites, people of India. 157.b. *eat fiſh onely, roſt it againſt the Sunne.* ibid.
Oripelargus. See Percnopterus.
Oryx, a beaſt with one horne in the middeſt of his forehead. 331.d
Oryx, a wilde Goat. 231.d
Oryx, a Goat that drinketh not. 307.f. *a remedie againſt thirſt.* ibid.
Oryx a wilde beaſt in Ægypt, ſtandeth full againſt the dog ſtarre when it ariſeth. 19.f
Orobanche. 575.a
Orpheus his deſcent. 78.g
Orphe, a fiſh. 245.b
Ortygometra, what bird it is. 283.a

O S

Oſcines, what birds they be. 278.l
Oſprey or Orfrey, what kinde of foule. 272.k
Oſtris or Oſtria. 398.m
Oſſer, a towne. 52.h
Oſſigi, a towne. ibid.g
Oſſifragi, a kinde of Ægle. 272.k
Oſſonoba, a citie. 51.d
Oſtippo, a towne. 51.i
Oſtriches naturally bald. 332.k
Oſtriches the biggeſt foules that bee. 270.l. *their deſcription.* ibid. *their ſwiftneſſe on foot.* ibid. *their egges and feathers.* ibid.m. *their fooliſhneſſe.* ibid.l.

O T

Otis, why ſo called. 283.c
Otes vſed for bread. 574.h
Otides, what kinde of birds. 281.c
Otus and like-Owles onely haue feathers like eares. 33.d

O W

Owles their wit when they fight with other birds. 277.f
Owſels depart for a time. 284.g

O X

Oxen of the Troglodites hang their hornes downewards. 331.d.
Oxen at two yeares age change their teeth. 338.i
draught Oxen how to be coupled in yoke, and how they labour at the plough. 579.a. *how much they plough in a day, according to the ground.* ibid.b
Oxe gall dedicated to Nature. 342.g
Oxen how highly honoured in old time. 225.c
Oxycedrus. 388.l
Oxymyrſinum. 434.h

O Y

Oyle, who drew firſt out of Olives. 189.a
Oyle of wild Olives. 433.e
Oyle of Chamelæa. ibid.
Oyle of Cicior Ricinus. ibid. *how it is made.* 434.g. *the vſe thereof.* ibid.
Oyle of Almonds bitter. 434.g
Oyle of blacke Myrtle berries. ibid.h
Oyle of garden Myrtle. ibid.
Oyle of Cypros and Cipreſſes. 434.i
Oyle of Lentiske, Ciprinum, of Cheſtnuts, Seſame ſeed, Rice. ibid.
Oyle Melinum. 382.h
Oyle of Oenanthe. 434.i
Oyle of fiſhes. ibid.
Oyle of Plane berries. ibid.
Oyle of Quinces. 382.g.h
Oyle de Bais. 382.g
Oyle of Myrtles. ibid.
Oyle of Quinces. See Melinum.
Oyle of Lillies. 382.h
Oyle of Fenigreeke. ibid.
Oyle of Myrrhe. 382.m
Oyle, an acceptable liquor to be vſed outwardly. 428.i
Oyle, the vſes thereof. 432.k
Oyle Licinianum. 430.i
Oyle abuſed by the Greekes. ibid.
Oyle de Bays how it is made. 434.g
Oyle Oliue, the price at Rome. 424.c
Oyle Oliue of greene Olives. ibid.f *worſe for age.* 430.g *and why.* ibid. *it hath three degrees in goodneſſe and no more.* 432.i
Oyle of Graine Gnidian. 434.i
Oyle Gleucinum. ibid.k
Oyles of Aſphalathus. ibid.
Oyles of ſweet Calamus, Baulme, Iris or Floure de Lus, Cardamomum or graines of Paradiſe, Melilot. French Nard, Panax, Maiorã, Elecampane, Cinnamon root. ib.
Oyle Roſat. 434.l
Oyle of Squinanth, of Henbane, of Lupines, of Daffodill. ibid.
Oyle of Radiſh ſeed. 434.l. *the root of Gramen.* ibid.
Oyle Cortinon. ibid.
Oyle Cnecinum or Cnidium. 434.l
Oyle of Lillies. ibid. *Selgeticum.* ibid. *of Pitch.* ibid.
Oyle liquor will turne into lees. 430.m
Oyle contrary to venome of Scorpions. 325.g
Oyle lees or dregs, wherefore it is good. 435.b
Oyle killeth Inſects. 355.e
Oyle of Saffron. 504.m

O Z

Ozanitis, what it is. 364.i

P A

PActolus, a famous riuer. 107.e. *the names thereof.* ibid.
Padians, a people gouerned by women. 118.h
Pæti, families in Rome. 335.e. *why ſo called.* ibid.
Pæzon, an Eunuch how he was ſold. 175.f
Pagri, fiſhes. 245.a
Pala, a tree of India. 361.a
Palatium, a mount wherein a chappell was dedicated to the goddeſſe Feauer. 3.e
Paleſimundum, a famous and populous citie in Taprobane. 130.g
Palilicium, what ſtarre. 592.l
Palmyra, a noble citie, with the deſcription thereof. 104.i.
Paliurus, a thorne plant. 398.g
Palma Chriſti. See Ricinus.
Palme. 379.e

Palmestrie friuolous. 354.k
Palmiprimum, what wine. 421.a
Pamphylia of Coos, inuentresse of weaning silke. 323.a
Pan gouernour of Lucitania. 51.f
Panaces or Panax what manner of plant. 378.k
Panathenaicum ointment. 381.c
Pandore, a kindred of Indians that liue in vallies vntill two hundred yeares age. 156.m
Panicke of many kindes. 558.h. *it yeeldeth very much flowre.* ibid.
Panicke with Beanes, much vsed in Piemont. 566.g
Panicke, a corne, why so called. 558.g
Pantheon, a temple of Venus in Rome. 257.d
a Panther seeketh helpe at mans hand. 204.g. *her thankefulnesse.* ibid.i
Panthers skins. ibid.i. *their sweet smell and hideous lookes.* ibid.k.
Panthers marked in their shoulders. ibid.
Panthers exhibited in shewes at Rome. ibid.l
Panthers how they be poisoned with Aconitum, and cured againe. 211.b
Pantherine, what manner of Tables. 396.g
of Paps a discourse. 346.k. 347.d
Paps of a Dolphin placed in the bottome of her belly. 248.g
Paps of a Sow hauing beene newly farrowed, bee excellent meat. 344.i
Paps how they are placed in creatures. 347.i
Paps of Elephants are vnder their shoulders. 347.e
Papyr cane in Ægypt. 391.c
Papyr when it was first made, and where. ibid.
Papyr reed or cane how it groweth. 392.g.h
the vse thereof besides Papyr. 392.h
Papyr Hieratica. ibid.k
Papyr Augusta. ibid.
Papyr Liuia. ibid.l
Papyr Amphitheatrica. ibid.
Papyr Fanniana. ibid.
Papyr Saitica. ibid.m
Papyr Taniotica. ibid.
Papyr Emporetica, or shop-papyr. ibid.
Papyr how it was made. 393.a
Papyr Macrocola. ibid.c
Papyr Claudian. ibid.
Parchment deuised at Pergamus, and vpon what occasion. 392.g.
Pardalium, an ointment. 381.c
Parietarie, a medicine to diuerse birds. 211.c
Parkes when first deuised. 231.a
Parræ, certaine birds. 288.l
the Parrat what manner of bird. 293.b. *named Sittace.* ibid. *can prate, and pronounce χαῖρε.* ibid. *hard headed, feeble footed.* ibid. *loueth wine.* ibid.
Parrats haue the hardest scules. 332.l
Parrats are first seene in the Island Gagandus. 446.b
Parts most principall of man, are skinned by themselues. 342.l.
Parts genitall make difference in nations. 352.h
Parts genitall of Hermophrodites, serue for both sexes. ibid.
Parthenius promontory. 40.k
Parthians subiect to corrupt breath. 335.b
no Partridges in Bœotia. 289.g
Partridges of Paphlagonia haue two hearts. 340.i
Partridges will neuer be fat. 344.k
Partridges, how industrious they are in building their neasts. 289.b
Partridges exceeding letcherous. ibid.c
Cock-Partridges tread one another for want of Hens. 289.c
Hen-Partridges conceiue with the very aire of the Cockes. 289.d. *their iealousie.* ibid.e.f. *their pollicie to sane their young.* ibid. *their age.* 290.g
Pascua the reuenewes at Rome. 550.k
Passienus Crispus fancied a beech tree. 496.g
Patales, a famous port in India. 36.g
Pateton, a kinde of Date, why so called. 387.f
of Patience sundry examples. 167.e
Patroclus, the name of an Elephant. 194.k. *his hardie aduenture and reward.* ibid.
Paulinus Suetonius, a Romane that went first ouer Atlas. 92.b.
Paunches of hoofed beasts hard and rough. 343.a
Paunch neuer compassed with bones. 343.e
Pausia, what Oliues. 429.e

P E

Peaches foure kindes. 436.b
Peaches, why called Persica. 437.c
Peaches in Persia, whether they be venomous or no. ibid.d
Peacockes crowned with hairie feathers. 331.a
Peacockes beautifull, wittie, and proud. 278.m. *his life.* 279.a. *they be malicious.* ibid. *made fat and serued vp to the table first.* ibid.b
Peacockes letcherous. 301.a
M. Ansidius Lurco fed Peacockes, and made a gaine thereby. 379.b
the Pea-hen how shee layeth. 300.m. *and hatcheth.* 301.a
Peares more pointed than Apples. 439.f
Peares how preserued. 440.g
the properties of Peares and their vses. ibid.
Peares how they are kept long. ibid.k
Peares Barbarian, Uenerian or coloured, Royall, Patrician, Voconian, Uolenian. 439.d
gourd Peares. ibid.
Peares called Libralia. 436.k
Peares proud. 439.a
Peares Crustumine. ibid.
Peares Falerne, why so called. ibid.
milke Peares. ibid.
Syrian Peares, why so called. ibid.b
Peares Dicimiana. ibid.
Peares Dolabellian. ibid.
Peares Pseudodecimiana. ibid.
Pompeian Peares. ibid.
pap Peares. ibid.
Tyberian Peares, why so called. 439.c
Peares taking name of countries. ibid.
Peares Licerian, Senerian, Tyrannian, Fauonian, Laterian, Axitian, Amerian. Picentine, Numantine, Alexandrian, Numidian, Grecian, Tarentine, Signine. ibid.b
Peares Testacia, why so called. 439.b. *Onychine.* ibid.
purple Peares. ibid.
Peares Myrapia, Lauret, Nard, Barley, Bottle, Thickskin. Coriolana. 439.d.
Pearles how they be engendred, why they be called Vnions. 254.m. 255.e.
Pearles the soueraigne commodities of the world. 254.k

20030
copy 1

the cause of their dimnesse or cleerenesse. 254.l
Pearles much in request with the Romanes. 256.g
Pearles out of Arabia. 371.f
Pearles found in Acarnania will lose their colour. 256.i
Pearles their price and estimation. 254.k
Pease, when to be sowne. 569.c. how codded. 570.g
Pecunia, whence derived. 550.h
Pegasi, what birds. 296.k
Pegasi, winged horses. 206.g.
Peinting who first deuised. 190.g
Pelagiæ, a kinde of purples. 259.a
Pelamides, fishes. 243.c
Pelasgum. 453.a
Pelecinon. See Securidaca.
Pelion, a hill measured and the height thereof. 31.d
Peloponnesus, the description thereof. 73.e
Penens a famous riuer. 76.l
Peniroyall flowres in mid-winter. 588.l
Peneroyall floureth fresh in mid-winter. 20.h
People of the East feed of grashoppers. 325.a
People without heads. 156.g
People with eares that couer their whole body. 157.a
Pepiniers how they are to be made. 510.l
Pepper trees. 361.c. long pepper. ibid.d. white pepper, blacke pepper. ibid.
Pepper sophisticate. 361.e
Peppers their price. ibid.
Percnopteros, what kinde of Hawke. 272.g. and her properties. ibid.
Percnos. See Morphnos.
Perfumes. See Ointments odoriferous.
Periurie euen in the very Capitoll. 4.i.
Perne Island. 40.k
Persea, a venomous tree. 437.d
Persica, what manner of tree, and the fruit. 390.i. the wood durable and serueth for images. ibid.k
Pestilence beginning in the South goeth to the West. 183.d continueth but three moneths. ibid.

P H

Phalangia, a sort of spiders. 322.h
Phalangium engendred in Eruile. 575.b
Phalerides, daintie water-foules. 296.g
Pharnaces, a people in Æthiopia. 155.b.
Pharus, an Island cut from Ægypt by the sea. 39.e
Phaulæ, what olues. 432.g
Phedius was accounted most happie. 180.h
Pherecides, Pythagoras his master fore-telling an earthquake. 37.d
Phiala, a place in Nilus. 226.c
Philip of Macedony fighting against Greece, the skie appeareth bloudie. 17.c
Philippides his swiftnesse. 161.m
Philoxenus how he loued Bees. 313.f
Philomides, the courrier or Post of Alexander. 35.c
Phœmonoe male of Ægles. 322.h
Phœnicobalanus. 374.i
Phœnicopterus tongues. 296.g
Phœnicurus. See Robin-redbreast.
Phœnix what manner of bird. 271.e
Phœnix the bird, why it tooke that name. 387.c
Phœnix adorned with a plume of feathers. 331.a
Phrygian tune by which Iupiter moueth. 14.l
Phthorium, a wine to cause abortiue fruit, how it is made. 422.g.
Phu. 364.l
Phycos. 401.d
Phygemata, vntimely fruits of shell-fishes. 255.a
Phyros, what it is. 401.d
Physeter, what fish. 235.f
Physicke, who deuised. 188.i
Physicians taxed for dealing with dangerous medicines. 400.g.
Physicians that excelled. 174.l

P I

Pietie. See Kindenesse, Naturall.
Pia mater, a tunicle of the braine. 332.m
Pictures of great price. 175.c
Pies learne to speake. 293.c
Pig taken from the pap, maketh it returne flat to the bellie. 347.f.
Pigs know their owne paps. 547.f
Pikes of the sea. 245.c
Pillers of Crassus did beautifie the theatre. 499.b
Pilummi, why so called. 550.h
Pindarus feared the Suns eclipse. 9.a
Pine tree and Pinaster. 462.h
Pine tree chaplets. 434.g
Pine nuts or apples how they grow. 435.e
Pine trees euer full of fruit. 473.e
Pinna, a cockle in Acarnania. 256.h
Pinnotar, what fish. 253.a
Pip in hens. 300.h. the cure. ibid.
Pipes of Canes, Reeds, Shanke-bones, Siluer, Box and Lotos. 484.i
Pipes made of reeds and canes. 844.l
Pyrrhus his great toe, and vertue thereof. 155, c. it was reserued for a holy relique. 155.d
Pirrie or wine of peares. 421.a
Pisles of Camels serue for bow-strings. 352.h
Pismires greedy of Cypresse seeds. 512.c
Pismires shew the change and full of the Moone. 601.c ruled by the power of the Moone. 20.i
C. Piso a notable drinker, aduanced therefore by Tiberius Claudius. 427.e
Pisones, why so called. 550.h
Pisse of Beares hard as horne. 152.h
Pissoceros, the second foundation of the worke of Bees. 313.b
Pistores, who they were in Rome. 567.b
Pitch trees of six kindes. 462.h
Pitch plaisters. 424.h
Pitch wine. ibid.
Brutian or Calibrian Pitch. 424.l
Pitch how it is knowne good from bad. ibid.
Pitch where it hateth to grow. 462.i. the description thereof. 462.k
Pitch trees commended for their rosin. ibid.l
timber of Pitch tree for what it serueth. ibid.
Pitch tree how it differeth from the Larch. 463.b
Pitch trees grow againe if they be burnt to the root. ibid.
Pitch tree why it is called Phthiriophoros. 463.e
Pitch both liquid and stony, how it is drawne and made. 464.h.i.
Palimpissa or stone pitch. ibid. Brutian pitch. ibid.
Pitch rosin out of the pitch tree. 465.a

The Table to the first Tome

ſtilled Pitch, what it is. 464.k
Piſſaſphalta, Pitch. 465.b
Pitch, where and when it is gathered beſt. ibid.
Pitch hurtfull to trees. 541.e
Pithecuſæ Iſlands. 40.h
Pithous, a kinde of Comet. 15.e
Pitydia, what Pine nuts they be: good for the cough. 435.f
Pits for wells who ſunke firſt. 118.i

P L

Plaice, a fiſh. 145.b
Players vpon the ſtage rich. 175.e.f
Plane tree wherevpon Marſyas hung himſelfe. 495.d
Plane tree honoured for ſhade onely. 358.g
Plane trees nouriſhed with wine at the root. ibid.h
Plane of admirall bigneſſe in Lycia. 358.h.i
the Plane tree of C. Caligula. ibid.k
the Plane tree of Candie ſo much renowmed. ibid.l
dwarfe Plane trees. 359.b
Plane tree turned to an oline in Laodicea. 543.d
Planets, by whoſe motions are occaſioned the ſeaſons of the yeare. 19.i
Planets keepe their power as well vnder the earth as aboue. 42.l
Planets and their motions to bee conſidered in husbandrie. 585.f.
Planets ſeuen. 3.a
Planets their mooning: they goe a contrary courſe to the ſtarry heauen. 5.f
Planets fed with earthly moiſture. 7.c
Planets, touching their motions and lights. 10.c
Planets their circles or angles. ibid.k
Planets, why ſome ſeeme higher, ſome lower. ibid.m
the opinion of them confuted that thinke Planets doe ariſe and mount from earth to heauen. 11.d. *whence their ſtations tooke their name.* ibid.f
generall rules as touching Planets. 12.h. *their ſeuerall diſtinct colours.* 13.c. *their diſtances one from another.* 14.i
Planets of their muſicke and harmonie. ibid.k
Plants winding about others & growing vpon them. 496.i
Plants haue an appetite to incorporat one in another. 523.a
Plants in what regard they be accepted. 450.i.k
Plants of peares and apple trees how to be nouriſhed. ibid.
Plataniſtæ, fiſhes in the riuer Ganges, 143.b
Plato how he was honoured of Denis the tyrant. 171.f
Platter of Æſope. 297.d
Platycerotes, a ſort of ſtags, why ſo called. 331.c
Plagues accounted gods. 53.d
Plaines of Roſea the very fat of Italy. 504.g
Plenty of corne among oliue trees in Bœtica. 515.c
Plinie confeſſeth himſelfe beholden to former writers. 10.k
Plotia a reed. 483.e
Plough, who firſt deuiſed. 189.a
L. Plotius found by the ſmell of a pretious ointment. 384.l
Plumgeons, what birds. 296.h
Ægyptian Plumtree. 391.a
Plums of ſundry ſorts. 436.m
aſſe Plums. 437.a
purple Plums. ibid.
wheat Plums or wax Plums. ibid.
nut Plums. ibid.
apple Plums. 437.b
almond Plums. ibid.
damaſcen Plums. 437.b

P O

Poetry, who inuented. 189.f
Polenta, how it was made. 561.c
Pogoniæ a kinde of Comets. 15.e
Poiſons, food to ſerue creatures. 307.a
Poiſoning deuiſed by man onely. 548.k
Poles two, where ſuppoſed to be. 84.i
Polydorus his tombe. 78.b
Polypes or Pourcuttles. 250.b 251.a
Polypi, how they liue. 251.a. *one of them robbed the fiſhers.* ibid.b.
of a theeuing Polype a wonderfull example. 251.d
Pollen. fine floure. 564.b
Polybius his ſearch into Africke, and opinion concerning the deſcription thereof. 91.c
Polymita, what kinde of cloaths. 228.i
Pomecitrons, why called Medica. 437.f
Pomegranats, how to be kept. 440.i.k
Pomegranats appropriat to the territory of Carthage. 398.h
diuerſe kindes. ibid.
Pomegranate rindes. 398.i
Pomegranate floures. ibid.
Cn. Pompeius praiſed. 168.l. 169.a
Cn. Pompeius no purchaſer of his neighbours land. 555.a
hated for his crueltie to Elephants. 196.i
Pompeius magnus, why ſo called. 169.a. *compared to Alexander and Hercules.* ibid.b
Pompey ſubdued 876 townes of Spaine. 169.b
how he came to be called Magnus. ibid.
Pompey dis inſcription on the temple of Minerua. ibid.d
his deeds. ibid.
Pompili, certaine fiſhes. 244.b
Pome-poires, or Peare-apples. See apples Melapia.
Ponticke nuts. See Filberds.
Pontus, the Iſlands thereof. 85.b
Poplars their diuerſe kindes. 470.b
Poplar wood good timber but for often lopping. 490.a
white Poplar moſſe. 379.d
Poppie-worke cloth. 228.b
Poppies both wilde and tame, when to be ſowne. 589.c.d
their medicinable vertues. ibid.
Poppæa wife to Nero, how ſhee bathed her body. 348.i
Popular gouernement, who firſt erected. 189.a
Popularia, a kinde of Abricocks. 436.l
Porkepines, their deſcription and nature. 215.e
Porphyrio, what manner of bird, and how hee drinketh. 295.d.
another Porphyrio. 296.k
Porpuiſſes, fiſhes. 241.a
K. Porſena raiſed vp lightning by coniuration. 26.k
Porcius Cato his commendable parts. 169.f. & deinceps.
Poſidonius the Mathematician. 14.l
Poſidonius honoured of Pompeius. 172.b
Pottery, whoſe deuiſe. 188.l
a Poulter cunning in egs. 299.e
Pourcuttle, a fiſh. 247.e
Poyſon of Scorpions is white. 325.a
Poyſon of ſerpents proceedeth from the gall. 341.e

P R

Præcordia, the vpmoſt inwards of man. 342.i
they be a defence to the heart. ibid.

Præſages

20030
copy 1

Præſages of fortune by the teeth. 164.*l*
Præſage by fiſhes. 244.*l*
Præſages by the ſetling of Bees. 519.*d*
Præſages by weaning of ſpiders. 324.*i*
Præſages by flight of Herons. 334.*g.* *by lightenings, ſneezings, ſtumbling with the foot.* 4.*l*
Præſtar, the name of a blaſt and the nature thereof. 25.*a*
Prætextæ, garments, when deuiſed. 228.*h*
Præuarication, what it is in Husbandry. 379 *c.* *a word borrowed by lawyers.* *ibid.*
Praſon. 401.*d*
Praxitales his grauen image. 175.*d*
Price of Iſocrates his oration. 151.*f*
Prieſts of Cybele their manner. 352.*h*
Principles about Husbandry. 555.*a.b*
Prieſts, fiſhes two hundred cubits long. 235.*c*
Procella a ſtorme. 25.*b*
Procyon, what ſtarre. 597.*b*
Prochyta Iſland. 61.*c*
in Prodigies who were firſt skilfull. 189.*d*
Prodromi, what figs. 474.*k*
Prodromi ſo called, are the Northeaſt winds, and why. 23.*d.*
Prognoſtications of weather and wind. 610.*l*
Prognoſtications by the eyebrowes. 354.*l*
Prognoſtication by the eyes. *ibid.*
Prognoſtication of weather and other future things by dumbe beaſts. 211.*e*
Prohibitory, what bird. 277.*c*
Promontory Nymphæum. 48.*g*
Promontory Saturnes cape. 53.*d*
Promontory Taurus. 268.*l*
Propagation of trees two waies helped. 516.*g*
Propolis the third foundation of the worke of Bees. 313.*b*
προπάτωρ, what it is. 585.*d*
Protropum, what it is. 487.*d*
Pruſias K. of Bithynians his ſon was borne hauing a bone in ſtead of a gum in the vpper iaw. 164.*i*
Proſe, writing and ſpeaking who inuented firſt. 189.*f*

P S

Pſeudonardus. 364.*k*
Pſyllians named of king Pſyllus. 154.*k*
Pſyllians venomous by nature. *ibid.*
Pſyllians how they make triall of their wiues chaſtitie. *ib.* *their bodies kill ſerpents.* *ibid.*

P T

Ptæambati, people which haue a dog to their king. 147.*c*
Ptiſana, how it is made. 561.*e.* *highly commended.* *ibid.*
Phthongus, Mercuric his tune. 14.*l*

P V

Publius Catienus Philotimus burned himſelfe for loue of his maſter. 174.*k*
Publius Rutilius died ſuddenly. 134.*i*
Puffe apples. 438.*l*
Pulmentaria. 563.*b*
Pulpa in trees, what it is. 486.*k*
Pulſe, what it is. 557.*c.* 558.*i.* *how it is rooted.* 557.*e*
Pulſe of all ſorts how it groweth. 558.*l*
Pulſe called in Latine Legumina, and why. 576.*m*
Pulſe of the arteries bewraieth hidden diſeaſes. 345.*d*
Pulſe what kinde of leafe they haue. 558.*m.* *long in blowing and not at once.* 559.*a*
Purple fiſhes 258.*g*
Purple colour from whence it commeth. *ibid.h*
Puteal Libonis. 443.*d*
Puttockes. See Kites.
Purple fiſhes of two ſorts, Purpura, and Buccinum. 258.*l* *their difference.* *ibid.*
Purples Pelagiæ, Tænienſe, a kinde. 259.*a*

P Y

Pyannets what kinde of birds. 285.*d* *they remoone their neſts.* 289.*g*
Pygargi, a kinde of goats. 231.*d*
Pygargos, a kinde of Ægle. 271.*c*
Pygmæi Spythamei, a people in India three handfuls high. 156.*i.* *their warre with cranes,* *ibid.k*
Pyræum, an Athenian hauen, by the retiring of the ſea left drie land. 39.*e*
Pyromantie whoſe deuiſe. 189.*d*
Pyroſachne, a plant. 398.*k*
Pyrrhæum the forreſt, burnt and reuiued. 463.*b*
King Pyrrhus his great toe and other parts medicinable. 155.*d.*
Pyrrhus bearing twice a yeare. 474.*m*
Pyrrhus K. of Epirus intended to ioyne by a bridge Greece vnto Italy. 64.*g*
Pyrrocorax, what bird. 296.*b*
Pythagoras firſt found out the nature of Venus planet, and when. 6.*d*
Pythagoras found out the diſtance betweene the earth and the Moone. 14.*a*
Pythius of Maſſiles a writer. 43.*c*
Pyxacanthus Chironius. 36.

Q V

Quadrant for an husbandman. 609.*c*
Quailes flie by troups. 282.*l*
Quailes how they helpe themſelues by flying. 283.*a.c* *they feed vpon white Ellebore ſeed.* *ibid.* *they be ſubiect to the falling ſickeneſſe.* *ibid.*
foure Quarters principall in Rome. 551.*a*
Quickeneſſe of ſpirit, examples thereof. 168.*i*
Quicke creatures come naturally into the world with their heads forward. 304.*i*
Querquetulana, a gate in Rome. 462.*g*
Quinces, why called Cydonia. 436.*g*
Quinces of diuers kindes. *ibid.h.* *how to be kept and preſerued.* 440.*i*
Quinctius Cincinnatus ſent for from the plough to be Dictatour of Rome. 552.*g*
Quintiana Prata. 552.*g*
Quiſquilium. See Cuſculeum.

R A

Radij, what olives. 429.*c*
Radiſh keepeth away drunkenneſſe. 242.*l*
Ragged apples. 438.*l*
Raine, food of trees. 500.*i*

Raine in midsummer nought for vines. ibid.k
Raine in Winter most in season for plants. 501.b
Raine at the same time helpeth not all trees. ibid.
Raine by night better than by day. 501.e
Raine how it is caused. 20.k
Raine strange and prodigious, of milke, bloud, brickes, tyles. &c. 27.f.28.g
Raine not at all in some lands. 42.h
Raine water saued for ordinary vse to drinke. 146.m
Raine-bow sheweth what weather. 612.m
Rainebow the nature and reason thereof. 28.l.m
Ram-fish his manners. 262.h
Rams and their nature. 226.m
Rams generally armed with crooked hornes. 331.c
Ranke corne how to be remedied. 576.
Rankenesse hurtfull to corne. 482.g
Rapes, and their vse. 570.i.k. *their plentifull commoditie, they grow euery where.* ibid.k
Rapes male and female. 570.l
Rapes of three sorts. 570.m
wilde Rapes medicinable. 571.a
Rapes with what ceremonie to be sowne. ibid.b
Raspis described. 485.f
the floures of Raspis medicinable. ibid.
Ratumena the gate of Rome, and whence it tooke that name. 212.g
Rats of Pontus their nature. 216.m
a Rat sold for two hundred sesterces. 233.a
Rauens taught to speake. 293.f
Rauens their properties. 276.i. *how they conceiue with young.* ibid.k
a Rauen saluted the Emperour. 294.g. *solemnely interred.* ibid.h. *his death reuenged by the people of Rome.* ibid.
Rauens employed by an hawker. 294.k
a Rauen made shift to drinke at a bucket. ibid.l
Ray killeth wheat. 575.a

R E

Red Deere. See Stags.
Red sea, why so called. 134.g
Reeds of strange bignesse. 155.e
Reeds where they grow. 524.m. *they multiplie and encrease of themselues.* 515.a
Reeds and Canes to be set before the Calends of March. ib.
Reeds cease to grow at mid-winter. ibid. *alwaies to be cut in the wane of the Moone.* 525.b
Reeds employed to many vses. 482.g
Reeds vsed to calfret ships. ibid.h
Reeds serue Easterlings for arrowes. ibid.f
Reeds of Italie compared with those of Candie and Picardie for making of shafts. ibid.k.l
Reeds differ in leafe. 483.c
what part of the Reed fittest for euery pipe. 484.i
Reeds for Faulconers poles. ibid.
Reeds for angle-rods. ibid.
Reeds for vine pearches. ibid.
Reeds and canes how to be planted. ibid.k
Reeds, how to be killed. 557.a
Reremice. See Bats.
Refriua or Refrina. 569.b
Region in Thessalia, how it grew to be cold. 503.d
Attilius Regulus slew a monstrous serpent. 199.d
Religious reuerence in the knees of men. 350.h
Remedie against stinging of scorpions. 325.c
Remedies of trees common and proper. 546.l
Remedies against sundry maladies in corne. 575.c
Rennet of a Rabbet medicinable for the flux of the belly. 346.k.
Report of Hercules and Pyrene or of Laturne is fabulous, 51.f
Residence vpon land. 555.a

R H

Rhaphanus, a venomous shrub. 362.l
Rhododendron, a beast. 205.e
Rhododendron. See Oleander.
Rhemnius Palæmon an excellent good husband. 411.d
Rhinoceros, what beast it is. 205.e. *his fight with the Elephant.* ibid. *horned in the nose.* 133.e
Rhododaphnis. See Oleander.
Rhodes Island. 40.g

R I

Ricinis. 433.f. *why so called.* ibid.
Rice corne described. 561.b.c. *and the vse thereof.* ibid.
Rie. 572.l
Riuer-horse in some sort his owne physitian. 346.l
Riuers of a wonderfull and strange nature. 45 a.b
a Riuer warme in Winter, and exceeding cold in Summer. 545.a

R O

Robin Redbreast. 287.a
Rocke of stone of a strong and wondrous nature. 42.h
Rockes in Syria burne corne. 503.e
Royall ointment, what it is. 383.b
Roiot and excesse of Romane Senatours. 91.f
Romanes kinde and good one to another in old time. 4.g
Romanes trafficke into India. 133.b
Romanes excell all nations in all kinde of vertues. 176.h
Rome diuided into quarters according to woods adioyning. 461.f
Rooke. See Crow.
Root of an oke taking an acre in compasse. 477.e
a Root of a rape weighing foure hundred and one pound. 570.l. *how dressed for the table.* ibid. *how preserued coloured artificially.* ibid.
Roratio a blasting of vines after their blouming. 540.i
Rosat oile in great request. 382.g
Rosin trees of six kindes. 462.h

R V

Rubigo in corne, what it is. 598.i
Rubigalia, a festiuall holiday. 600.g
Rue discouered by the Weasill. 210.m
Rumbotinus, a tree. 405.b

S A

Saba, & Sabota, the proper place for frankincense. 366.g
Sabis a god. 368.g
Sabines called Sevini, and why. 65.a
Sacrifice young beasts when they be in their season. 230.g
Sagunt a child being borne presently returned into his mothers wombe againe. 158.g
Saltpeter earth good for plants. 503.c
Salt cannot be made without mingling of fresh water. 46.k.
Salamander his description and nature. 305.e

20030
copy 1

Salamander not distinguished by sex. 305.d
the Salmon fish. 247.a
Sallowes. See Willowes.
Samara, what it is. 1468.g
Samosatis, a citie in Comagene. 46.m
Sambri, people where fourfooted beasts haue no ears. 146.k
Sandalum, what corne. 559.d
Sandalides, Dates. 387.d
Sangualis, what bird. 274.h
Sapa, what it is. 416.l
Sapa in Æthiopia what it signifieth. 147.b
Sap of trees. See Alburnum.
Sapium, what it is. 465.d
Sapinus, what it is. ibid.
Sapinus in trees, what it is. 488.l
Sarcocolla, a tree and gum. 391.d
Sarcling, what it is, and of what vse. 580.k
Sardis the capitall citie of Lydia. 107.e
Sardane a shel-fish. 244.i
Sargus, what fish. 246.h
Sari, a shrub. 400.k
Sarpedon his letters written in papyr. 394.l
Saturne what he is, and nature and motion thereof. 5.f
Saturne causeth raine, &c. 19.e
Saturne colour. 13.c
Satyres their shape. 96.i
Satyres haunt mountaines in India. 156.g
Satyres what they are. 156.g
Sauces how they be dangerous. 355.e
Sauine how it is helped in growing. 516.i
Sauorie or Cumlabubula found in the land Tortoise. 210.l
Sauromates eat but one meale of meat in three daies. 154.i
Sauours different in fruit. 449.d
Sauce, called Garum Sociorum. 246.k

S C.

Scallops. 253.d
Scallop fish like to the sea vrchin. 256.h
Scarus, a kinde of fish. 245.f
Scaurus Consull, found out a vaine obseruation of lightening. 27.c
Scenitæ, people why so called. 139.f
Sceptrum. See Erysisceptrum.
Schœnus, what measure it is. 366.h
Sciotericon, a diall, and the finder out thereof. 36.k
Sciene, fishes. 244.h
Scincus bred in Nilus. 209.b. *the vertues thereof in Physicke.* ibid.
in sundry Sciences excellent men. 174.k
Sciopodes, a people in India. 156.g
Scipio Africanus the former cut out of his mothers wombe 160.i.
Scipio Africanus the second his trench separating the two prouinces of Africke. 93.e
Scipio Nasica his hard hap. 173.e. *his praise.* ibid.
Scolopendres, fishes. 262.g
Scolopendres chase people out of the countrie. 212.h
Scolopendres without wings. 327.b
Scordastus, a tree. 363.a
Scorpions and Solpages depopulate a countrie. 212.h
Scorpions perish by their young ones. 324.l
Scorpions their stings dangerous as serpents. 324.l. *how they exercise them.* ibid. *they cannot quench their thirst.* 325.a. *they are harmelesse in Italy.* ibid.b. *they are harmelesse to things without bloud.* 325.c
Scorpions, where they be harmelesse to strangers, and noisome to inhabitants: they reuenge their brethrens death. 325.c.
Scutcheons for grafting how to be made. 520.b
Scyros wind. 23.a
Scythia free from lightening, and the reason. 23.c
Scythian nation, the description thereof. 123.e. *called by Persians Sacas.* ibid.
Scythian sea the water thereof fresh. 124.g
Scythians feed on mens flesh. 153.f

S E

Sea engendreth the like of all that is in the world besides. 235.a.
Sea-Rams. 236.k
Sea Elephants. ibid.
Sea-calues or Seales. 243.a
Sea, where it is deepest. 44.l
Sea hotter in winter. 46.k. *made calme with oile.* ibid.
Seas in the reflux and ebbe thereof liuing creatures die, and not else. 43.e
why the Sea is salt. 44.b
Seas the reason of their reciprocall ebbe and flow and where they keepe no order. 42.k
marualles of the Sea. 43.f
Sea, what lands haue been turned wholly into. 40.i
Seas how they haue gone backe and deuided lands. 39.f
what lands they haue broken in betweene. 4.b
Seareeds. 401.d
Sea trees. 401.d e.f
Sea cobs. 287.f
Sea water vnwholesome to be vsed in making dough. 560.i
Sea about Tabrobane full of trees. 130.b
Sea snakes twentie cubits long. 132.k
Sea-merle fish. 244.b
Sea-thrush fish. ibid.
Sea yeeldeth pretious coquils and pearles. 254.i
Sea nettles and Spunges, neither liuing creatures nor yet plants. 262.i. *their manners.* ibid.
Sea-hare. 261.g
Sea Tortoise hath neither tongue nor teeth. 339.f
Seales haue not bones. 345.a
Seale fishes haue no eares. 333.g
Seasoning time of the yeare in plants when it is. 471.d
Sebesten, what fruit. 388.l
Sebesten. 437.c
Sebesten and Seruices may be graffed both in one stocke. 511.f.
Volcatius why he was called Sedigitus. 349.c
Seed, what it is. 563.a
Seed-corne of all sorts how to be chosen. 582.m
Seed how to be dispensed for sundry grounds. 483.d
ground take Seed, some more than other. 483.b
Seed falling from heauen engender all things. 2.b
Segesta, a goddesse. 549.e
Seia, a goddesse. ibid.
Selenitium an Iuie. 480.l
Seleucus Nicator purposed to cut the land through between Cimmerius Bosphorus and the Caspian sea. 120.d
Seleucides, birds enemies to locusts. 284.l
Sementine or Autumne corne. 557.d

Sembracend.

Sembracena, myrrhe. 369.*b*
Annæus Seneca. 411.*f*
Senses wherein men excell other creatures. 305.*e*
Sences wherein other creatures excell them. *ibid.*
Septentrio, a wind. 22.*l*
Seres a people described. 130.*i.k*
Seres, people famous for fine silke. 124.*i. their nature.* *ibid.*
they cannot abide to merce with others. *ibid.*
M. Sergius (grandsire to Catiline) his cõmendation. 170.*l*
Sergius Arata first deuiser of oyster pits. 266.*l*
Serichatum. 374.*h*
Serpents hauing lost their eies will haue new. 336.*g*
Serpents haue but one venomous tooth. 337.*d*
Serpents of great bignesse. 199.*d. assaile foules of the aire.* *ibid.*
Serpents destroy a citie. 212.*h*
Serpents and lizards haue long liuers. 343.*h*
Serpents haue thirtie ribs. 343.*f*
Serpents some of them footed like Geese. 351.*d*
a Serpent barked. 202.*k*
Serpents how they engender. 301.*g. they lay egs.* *ibid.*
chained together about vipers. 302.*h*
father of the Gracchi found two serpents within his house. 174.*i. what they presaged.* *ibid.*
Serpents chased away with the perfume of harts horne. 306.*k.*
Serpents loue egs. 307.*a. they loue wine.* *ibid.b*
Servius Tullius being a child sleeping, had a light fire shone ouer his head. 48.*g*
Seruants and slaues of great price. 175.*e*
Sesame. See Ricinus.
Sestius a Romane Astronomer foresaw a dearth. 598.*i*
Sesels or Siler-mountaine, helpeth hinds to calue. 213.*d*
Senta, a cane in Dalmatia wherin breedeth the wind. 21.*e*
Sewing with the needle or nall who first deuised. 188.*i*
Sexes distinct in all plants. 385.*d*

S H

Shadow of the walnut tree noysome to men. 514.*k*
Shadowes of trees. *ibid.*
Shadow of the Palme tree pleasant and comfortable. *ibid.l*
Shadowes of some trees no better than poison. 515.*a*
Shadowes are not to be seene in some part of India. 156.*l*
Shadowes when and where there be none at all. 35.*f. where twice in the yeare they fall contrary.* 36.*h*
Shee asse much pained with paine of their vdders. 347.*e*
suckle their young but six moneths. *ibid.*
Shee Beares haue foure paps apeece. 348.*g*
Sheepe how necessarie. 226.*k*
their time of engendring. *ibid.l*
of Sheepe two principall kindes. 227.*b*
Sheepe which eate kindely. 228.*k*
Sheepe rotten how to be cured. 496.*l*
Sheepe without galls in Eubœa. 341.*c*
Sheepe in Naxus haue two gals. *ibid.*
Sheepe good to eate downe ranke corne. 576.*h*
Shearing trees when first deuised. 359.*b*
Shields burning in heauen. 18.*h*
Shelfish the occasion of much royot and excesse in the world 254.*g.*
Shindles of that wood best. 461.*e.f. they couered the houses at Rome a long time.* *ibid.*
Ships with proes at both ends. 129.*d*
Ship that brought the Obeliske out of Ægypt. 489.*e. sunk in the hauen of Ostia.* 14.
Ship of K. Demetrius of a mightie bignesse. 490.*g*
Shipping of sundry sorts. 190.*g*
Ship tackling, cables, ankers, &c. who deuised. *ibid.i*
Shouelars what manner of birds. 292.*l*

S I

Sicilie sometimes ioyned to Italy. 4.*i*
Sider or wine of apples. 421.*a*
Signes of short life. 534.*i*
Signifer circle in heauen. See Zodiacke.
Signes of the spring. 586.*g*
Signes of good earth. 505.*a*
Silkewormes how to be ordered. 323.*b*
Siligo. 562.*m. commended.* 563.*c. the finest wheat for manchet and pastrie worke.* 563.*d. a fine floure.* 564.*b*
the wheat is a tickelish corne. 564.*i*
Silicia or Siliqua. See Fenigreeke.
Silurus, riuer whale. 243.*a*
Similage a fine floure. *ibid.*
Simones and Silones, sirnames. 336.*k. why so called.* *ibid.*
Simach the fruit. 389.*c*
Sinewes bind the bones together. 345.*b. being cut cause much paine.* *ibid. where they are hidden.* *ibid.c*
Siluer mines who first found out. 188.*k*
Singing whose inuention. 189.*e*
Siphylus. 40.*m*
Silurus a fish, supposed to be a sturgeon. 243.*a. his properties.* 245.*e*
of Sinewes, cords, and ligaments. 345.*b*
Sirbon lake carrying a circuit of 150 miles. 100.*i*
Sithes of two sorts. 395.*f*

S K

Skarlet graine of the oke Ilex. 461.*a*
Skie, strange sights seen therein in time of Octauius, Consull. 18.*i*
Skill in planting directed by the nature of the soile. 501.*e*
of the skin a discourse. 346.*k*
Skin subtile and thin causeth fineness of spirit. 346.*k*
it hath no fellowship with vnderstanding. *ibid.l*
Skin of Crocodiles hard. 346.*k*
Skin of Riuer-horse turneth iauelines and speares. 346.*l*
Skin of Elephants not to be pierced. *ibid.*
Skins of Gorgon women hung vp in Iunoes temple in Carthage. 148.*l*
Skritchowle flieth not directly. 277.*a. one of them entred the sanctuarie of the Capitoll of Rome.* *ibid.*

S L

Slauerie who brought in first. 289.*a*
Slaues deuoured of Lampreys. 348.*i*

S M

Smell most pleasant that commeth from the earth. 505.*a*
Smell of a snuffe of a candle causeth vntimely birth. 159.*c*
Smilaces. 558.*l*
Smilax one of the names of Teugh. 463.*f*
Smilax how it is described. 481.*d. supposed to be vnluckie and why.* *ibid. the name of a young damsell turned into the plant Smilax.* 481.*d. the vse that the wood is employed vnto.* *ibid.c*
in Smyrna a boy changed into a girle. 158.*h*
Shouelars what manner of birds. 292.*l*
Snailes. 218.*i*

Snake

20030
copy 1

Snake caſteth her ſlough, and by what meanes. 211.a. *in Syria they hurt no Syrians, but deadly to ſtrangers.* 234.i
Snow falleth not where ſea is deepe. 46.k. *how it is engendered.* 29.b. *how it is good for trees.* 500.i

SO

Socrates kept one countenance alwaies. 166.h
Socrates iudged the wiſeſt man. 173.c
Socrates neuer knowne to change countenance. 166.g
Soles, fiſhes. 244.h
Soruiſes trees how they be kept long. 440.l. *of foure kindes.* 445.c. *round as apples, pointed as peares, long as egs.* ib.
Soruiſe Torminale, why ſo called. ib.d. *preſerued in cuſt.* ib.e
Oſigenes. 6.k
Sonth wind when it bloweth, cauſeth creatures to be leſſe hungrie. 24.g. *it raiſeth more ſurging waues than the North-wind, and why.* ibid.h
Soules of men parcell of heauen. 16.m
Soules whether immortall. 187.a.b
Southerne winds make trees feeble. 600.h. *a rocke conſecrated vnto it.* 21.e. *riſeth from mid-day.* 12.l
Sowes eat their owne Pigs. 230.g. *how they be ſplaied.* ib.k *their liuer made into a daintie diſh.* ibid. *they vſe not their teeth to ſtrike as Bores.* 337.b. *enraged when they goe a brimming, and how remedied.* 304.g.h. *that bee wild, breed but once a yeare.* 231.a. *raging in their farrowing.* ibid.
Sophocles enterred by warning from Bacchus. 171.d
Sowing of corne. 579.e. *in the right ſeaſon.* 583.b
art in Sowing. ibid.
late Sowing more dangerous than earely. 584.k
in Sowing the Moone and ſignes to be obſerued. ibid.

SP

Spadonei Dates. 449.c
Spagos. 424.g
Spaine, the deſcription thereof. 87.f
Spathe, what it is. 379.e
Sparrowes ſhort liued and letcherous. 290.m
Sphagnos, ſweet moſſe. 375.d
Sphinges, a kinde of Monkey or Marmoſets. 232.i
Spikenard. See Nard.
Spinturnix, what bird. 277.b
Spiders greateſt enemies to Bees. 321.c. *where ſhe beginneth her web.* ibid.e. *hunt after Lizards.* 324.i. *lay egs.* ibid.k *being young, eat their mothers.* ibid. *the vſe of their web.* 323.b. *drinketh vp the moiſture of cloth.* 330.h
Springs colder in Summer than in Winter. 46.k. *leape vpward.* ibid.l
Spittle noiſome to ſerpents. 154.l
Springs entrance when it beginneth. 590.m. 591.a
Spring corne. 557.d
Spiders how they engender. 324.i. *why they ſcatter their egges.* ibid.i
Sponges of ſundry ſorts. 262.l
Speights, birds called Pici Martij. 278.g. *why.* h. *effectuall in preſages.* ibid.i. *their admirable nature.* ibid.k. *no Speights at Tarentum.* 285.c
Spu. Tarpeius ſerued in 120 foughten fields. 170.h
Spindle tree. 399.b. *the properties thereof.* ibid.
Spadones, certaine reeds. 484.g
Spelt. 363.a
Spiders foreſhew the fall of an houſe. 211.c
Spleene faſtened in the left ſide of the bellie. 343.c. *thought to be in ſerpents.* ibid. *it hindereth the running.* ibid. *profeſſed runners waſt it in a hot yron.* ibid. *may be taken out of the bodie without harme.* ibid. *being taken away, the laughter is gone.* ibid.
Spikenard will not thriue in Arabia. 478.l
Spindle and ſpinning whoſe inuention. 188.i
Spira, fault in wood. 489.a
Spirit. See Aire.
Spondilium, an hearbe and fruit. 378.l
Spinter and Pamphylus, two players, how they reſembled Lentulus and Metellus Conſuls. 161.f
Spring when it beginneth. 23.c
faſting Spittle killeth ſerpents. 154.l
of the Spleene. 343.c

SQ

Squali, fiſhes. 248.l
Squilla floureth thrice, and ſheweth three times of ploughing. 592.h
Squinanth where it groweth. 375.a. *the beſt, and price of it.* ibid.b
Squirrils, their properties. 218.g

ST

Stacte, the beſt Murrhe. 368.m
Stadiſes, a towne in Ægypt where the fall of Nilus maketh men deafe. 145.e
Stagonius. 367.e
Stagonitis. 378.i
Stag enuious to man. 213.c *in danger ſeeketh to man.* ibid.
white Stags of Q. Sertorius. 214.k. *enemies to ſerpents.* ib. *long liuers.* ibid.l. *their fleſh good for the liuer.* ibid.l. *haue vnder their tongue twentie little wormes.* 333.b
Stags and Hinds. 213.c. *they teach their young to run.* ibid. *how they behaue themſelues when they be hunted.* ibid.e *their ſundrie qualities* ibid.e.f. *how they ſwim ouer ſea.* 214.g. *they caſt their hornes yearely.* ibid. *how their age is knowne.* ibid.h
Staphylodendrum, what it is. 467.c
Stature of man decreaſeth. 165.a
fixed Starres and ſtarrie skie preſage future weather, how, and after what ſort. 612.a.k
Stars predominate after the Spring of Equinox. 592.k
Stars fixed, their riſing and ſetting to be taken two waies. 587.c.d.
Stars none leſſe than the Moone. 19.d
Stars ſeene with the Sunne all day long. 17.d
Stars fixed which haue influence till the comming of Fauonius. 590.i
Stars & ſigns whether to be regarded for Seednes. 584.l.m
Star fiſh. 269.e
Star-lizards, ſtellons caſt their skins. 213.b. *their venom.* ib
Stars wandring. See Planets. to them attributed the euent of things when they begin to gouerne the ſeas. 597.b
Stars or Planets not appointed for euery man according to his ſtate or condition, as ſome vainly haue imagined. 5.c
Stars obiected in nauigation firſt by whom, &c. 190.i. *their ſhooting and falling, what it is.* 5.d. *their power and operation.* ib. *that be fixed, ſhine as well by day as night.* 9.f *their vnequall riſing.* 34.i. *whether to bee regarded for ſeednes.* 584.l.m. *riſing and ſetting of which be diuerſly taken.* 587.c.d. *predominant after the Spring Æquinox.* 592.k. *how they preſage future weather.* 612.i

The Table to the first Tome

Stelus, what it is. 496.k
Stellions liue onely by deaw and spiders. 325.d
Stares could parle Greeke and Latine. 293.e
Sterlings depart for a season. 284.g. *their manner of flight.* ibid.h
Stephanos Alexandri. 453.a
Stesichorus feared the eclipse of the Sunne. 9.a
Starch. See Amylum.
Starres running too and fro. 18.i
Stature in men and women is now decaied. 165.a
Stewes for fishes who deuised. 266.m
Straw serued for bedding. 551.a
Strength of body many examples. 166.k
Stimmata. 381.d
Strabones, who they be properly. 335.e
Stimphalides crisped on the head. 331.a
Straw how to be vsed and ordered. 602.l.m
Stones greased and enflamed with fire. 48.g
Stones of beasts how they are placed. 352.k
Stone quarries who first digged. 188.i
Stones found in trees. 489.b.c
white Stones in the maw of young birds, vsed in Magicke. 343.b.
Stone of a strange power. 42.h
Stones raining downe. 28.h
Stone in young heifers good for women. 343.c
Stones raining downe. 19.c
Stomacke how it is framed, and the vse. 340.g
Stockdoues out of the way for a time. 284.h. *sit vpon their egges, Cocke and Hen by turnes.* 300.k
Storks esteemed better meat than Cranes in old time. 282.g *their manner of flight.* ibid.h
to kill a Storke, fellonie in Rhessalie. ibid. *kinde to their parents.* ibid.k
no Storkes within eight miles of the lake Lurius. 285.c
Starres and other flames seene about the Sunne. 17.d
Stay-ship fish. See Echeneis.
Straw, how it is a signe of good ground. 503.a
Straw of barly, the best. 562.k
Strix, a word of cursing. 347.d
Strabones, families in Rome, why so called. 335.e
Strategiæ, what they be. 119.d
Strawberrie tree. See Arbute.
Strobos plant Ladeum. 370.h
Strobon in Ceraunia. 321.a. *a sweet tree.* ibid.
Storax, a sweet odour. ibid.c. *the effects thereof.* ibid.
Storax (Calamita.) 378.g
Styrax or Storax the tree. ibid.
Styrax gum of diuerse kinds. 378.k
Struthea, what Quinces. 436.h
Struthopodes, what people. 156.h
Sturgeon fish much set by of our ancestours. 245.e

S V

Subis, a bird. 277.c
Sugar. 362.k
Suns motion, what it is. 13.f. *wherefore it burneth not the earth.* 14.m. *what Summer we shall haue, Democritus shewed by the Solstice.* 590.g. *how many furlongs from the cloudie region to the Sunne.* ibid. *how to know the heights of it from the earth vp to the Sunne.* 15.a
Summan, what kinde of dish. 230.l
Suns heat causeth monstrous shapes in Ægipt. 146.k
Superfluitie of meat alwaies dangerous. 356.h
Subulones, a kinde of stag. 331.c
Subsolanus wind. 22.l
Sunne, a diuine power. 36.c. *his Eclipse. See Eclipse.*
Sulpitius Gallus first found the reason of the Eclipse. 8.l
Sulpetia, a Matron that consecrated Venus image. 173.f
Superstition in chusing Marget. 4.i
Superfluitie in pretious ointments. 384.g.h
Superfluous expence in Seeling and inlaid workes. 494.h
Sun greatest of the Planets. 3.b. *the soule of the world.* ib.
Island of the Sunne described. 132.i
Suns many seene at once. 17.f. *in midwinter maketh tempests.* 20.g
Suns motion, what it is. 13.f. *the strange colour appearing therein.* 17.g. *the signes of weather depending of his rising or setting.* 611.a.b. *lends his light to the other stars.* 3.c
why the Sun departeth from vs in Winter. 8.g.h
Sunsteads when. 13.i
Sunne his race. 2.k
Sunne the greatnesse thereof. 8.g. *by how many demonstrations it appeareth bigger than the earth.* ibid.
Sunne, the best prognosticator of weather. 611.a
Signes depending on the Suns rising or setting. 611.a.b
Sunstead of Summer. 587.e. *what weather we shall haue, Democritus gesseth by the Solstice day.* 590.g
Sunne his power. 44.h. *fed by the salt sea.* ibid.l
Sumach, a plant. 389.b
Sunnes Oxen, whence the fable arose that they were kept in stall. 43.f
Supernata, a kinde of Abricocts. 436.l
Sucula, what starres. 592.l
Surname Stolo, whence it came. 489.c
Surus the name of an Elephant. 194.i
Susinum. See Oile of Lillies.
Superfitation. See more in Conceptions.

S W

Sweate of the Pharnaces dangerous to be touched. 155.b
Swine when they goe a brimming. 229.f. *how long they breed.* ibid. *eat their owne Pigs.* ibid.g. *their age.* 230.b *their diseases.* ibid. *they know the swinards voice.* ibid.i *how they are knowne sicke or sound.* ibid. *their subtiltie and wit.* ibid. *their flesh yeeldeth varietie of dishes.* 230.k. *haue ten ribs.* 243.f
Swallowes feed flying. 284.h. *they are indocible.* 295.b *of diuerse sorts.* 288.h. *how they feed and keepe cleane their young birds.* ibid. *their neasts make a banke to Nilus.* ibid.i. *how they build.* ibid.g. *they fortifie an Island yearely.* 288.i
Swallowes enemies to Bees. 320.i
young Swallowes being calcined, doth cure the squinancie. 288.k
Swallowes haning lost their eies, will haue new. 336.g *they are gone in Winter.* 283.d. *why they build not in the citie Thebes.* ibid.l. *nor in Byzia.* ibid.
wild Swans how they flie. 282.i
Swans sing not before they die. 284.l
of Swiftnesse in running many examples. 166.m

S Y

Syrians warre against Locusts. 328.h
Sylke-wormes how to be vsed. 328.b
Sylla Dictatour died of lice. 329.d
Sybilla excellent at diuination. 173.d

Syria,

20030
copy 1

Syria, a renowned region, the description thereof. 99.f
Syrenes fabulous birds. 296.k
Syagri, kinde of Dates. 387.b
Sycomore tree. 389.d. *passing fruitfull.* *ibid.*
Syræum, what it is. 416.l
Syce, what kinde of rosin. 463.a
Syene, a towne, at noonetide in the middest of the Summer, no shadow is to be seene there. 35.f
Syringias, a kinde of Cane or Reed. 483.b
Syrites, a stone found in a Wolfes bladder. 344.g
Syrictæ, people that haue legs like Snakes. 156.h

T A

TAder riuer. 53.d
of Tailes a discourse. 352.l
Taprobane Island. 157.a
Taprobane the manner of the people, and their long life. 131.b.
Taprobane thought to be a second world. 129.b
Taprobane Island description thereof. *ibid.* b. *king of Taprobane, admitted the Romans vpon relation of their iustice and seeing their peeces of coin all of equall weight.* 129.f *the maner & fashions of the Island of Taprobane.* 130.k
Tamarix. 398.m
of Tastes thirteene kindes. 448.l
of Tallow. 344.k.
Tallow whether it lieth in the breast. *ibid.*
Tales there be of Scritch-owles feeding young infants with their milke. 347.c
Tanaquils distaffe and spindle. 228.g
Tarre out of what tree it is boiled. 464.h. *whereto it is emploied.* *ibid.* *the manner of drawing it.* *ibid.*
Taprobane and Toidis, countries most fruitfull of pearles. 254.k.
Tarum. 298.m
Tarandus, what beast. 215.c
Tastes of sundrie sorts in hearbes. 449.b
Tasting equall to all creatures. 306.l
Tasting common to all creatures. *ibid.*
Tast of meats in all creatures but man, is at the lip of the tongue. 339.b
Taurus, a mightie mountaine. 105.e. *the diuerse names thereof.* *ibid.*
Taurus a bird lowing like a Bull. 293.a
Tantalus citie swallowed vp. 40.m
Tayles of serpents being cut off will grow againe. *ibid.*
Tayle in all creatures except men and Apes. 352.i. *serueth to necessarie vse.* *ibid.*
Tayles of Oxen and Kine greatest and biggest. 16.m
Taygetus, an hill. 37.d

T E

Teeth their nature, sundry kindes and vses. 164.i.k
their presages. 164.l
Teeth of Vipers hidden within their gumbes, 337.d
Teeth of sundrie kindes, and how they be set, and to what vse, &c. 337.c.338.g
Teda or the Torch-tree. 462.m
Tepidare riuer in Italie. 545. *it is warme in Winter.* *ibid.*
Temple of Iupiter Hammon in Meroe in Ægypt. 146.i
Tempests diuerse kindes thereof. 25.e
Temetrum. 418.k
Tempsis, the pitch of the mountaine. 181.e
Temerinda the name of Meotis, and why. 118.i
Tenerum, what it is. 2.h
Tenthorania, in times past neere vnto the seas. 39.e
Tenera terra. 582.g
Tentyrites enemies to Crocodiles. 209.d
Tenuise play whose inuention. 190.g
Tepidare, what it signifieth. 545.a
Terra Tenera, earth as good as can be imagined. 504.k
Terra pulla, a tender and mellow soile. *ibid.*
Teramnon. 575.d.62.m
Terminatra, a feast instituted by king Numa. 549.e
Teredines what wormes. 492.h
Terebinth wood fine. 490.h
Territorie of Mutina. 48.g
Territorie of Sabines and Sidicines. *ibid.*f
Terpentine the cleerest rosin. 423.f
Terebinth or Tepidian tree. 389.a. *the kindes thereof and the fruit.* *ibid.*b
Terpentine how it is drawne from the tree. 465.b
Terentine, pine nuts. 435.e.f. *wit-teeth.* 338.g
Teeth serue not onely for grinding our meat. 164.k
Tetartemorion, what quadrant. 182.g
Tettigoniæ, a little kinde of Grashopper. 325.e

T H

Thalis Milesius among the Greekes first found out the reason of Eclipses. 8.l
Theophrastus, one of them that wrot of the Romanes. 58.i
Thracia the description thereof. 77.f
Thunder and lightening the reason thereof. 20.m
Thorne roiall. 400.l
Thirstie thorne. 402.g
Thrasymenus lake. 48.b
Thripes. 492.h
Thybians, their strange nature and eye-sight. 155.b
Thucidides called from banishment. 172.g
Thracians how they proue their fortune. 176.i
Thracians how they measure their happinesse. *ibid.*
Thrashing practised sundry waies. 602.k

T I

Tibur citie founded by Tiburts, more ancient than Rome. 415.b.
Tiberius Cæsar his saying of Sarnell in wines. 414.h. *hee could see by night.* 334.i
Tib. Cæsar wrote a Poem of the comet called Acontias. 15.e
Tibuli, what trees. 462.i
Tickes want meanes to auoid excrements. 330.g
Tigris, the riuer where it begins, and the diuerse names it hath. 137.a. *runneth through the lake Arethusa.* *ibid.*d
Tingitania prouince, the description thereof. 92.k
Tinea, what wormes. 492.h
Timarchus the Paphian. 338.g. *had double course of teeth in each iaw.* *ibid.*
Timber trees in what way seuerally they are employed. 491.f
Tilthes fine. 380.g
Tissue cloath whose innention. 228.i

T M

Tmolus the hill well planted with Vineyards. 107.e

T O

Tokens of good honey. 317.b
Tokens of good Bees. *ibid.*d

Tokens of death. 183.e
Tokens of life vncertaine. ibid.
Tooles for smiths who first deuised. 188.h
Tokens by the eares of beasts. 333.d
Torpedo, the Crampefish. 261.d
Nouellius Torquatus Tricongius, a worthie wine-bibber. 427.d.
Tortoiser hath a kidnie alone of them that lay egs. 343.e
Tortoises of the sea. 241.b
Tortoise shels as much as will couer houses. 134.i
Tortoise his lungs without bloud. 341.a
Tortivum wine, what it is. 425.b
Towne, by whome first built. 188.h
Towne wals and towers who first reared. 188.h.i
of Tongues. 338.m.339.a
Tongues of serpents and liberds three forked. 338.k
Tongues of Lizards two forked. ibid.
Serpents Tongues as small as haires. ibid.
Tongues of Crocodiles cleaue to their pallat. ibid.
Tongues of Lions and Libards vnenen. ibid.l
Tongues of Cats bring madnesse. ibid.
Tongues of Bees very long. 339.a
Tonsillæ, spungeous kernils in men. ibid.b

T R

Trabea, K. Romulus his mantill of estate. 260.h
Trafficke first deuised. 187.e.188.m
Tragelaphis his nature. 214.m
Tragum, what it is. 562.g
Trees the temples of the gods. 357.b. how they grow. 508.l
Trees that neuer grow out of their owne kinde. 509.b. by what meanes they grow. 508.l. what trees bring forth young impes at the root. 510.h. what trees grow by pricking into the ground. ibid.k. how to be remoued. 512.m not in windie weather. 513.e. their roots not to be handled violently. 514.g
Trees which be slow in growth. 515.e. which be forward in fruit. ibid. their shoots hinder growth. ibid. would ouerspread the face of the earth, if they were not represſed. ibid.f. how they grow one vpon another. 516.l
Trees ought to be planted in Autumne. 522.m
Trees of diuerse natures how to be conioined. 123.d
Trees planted for the vse of Vines. 534.l
Trees of much shadow not good for Vines. 535.a
Trees admirable about the sepulchre of Protesilaus. 495.c
no Trees exempt from the worme, blasting, and ioint-ach. 539.a.
Trees hunger starued, headlesse. ibid.
Trees more or lesse subiect to diseases. 539.b
what Trees soonest be worme-eaten. ibid.c
Trees troubled with certaine flies. 541.c
Trees when they are said to die or to be sicke. 440.g
Trees blasted with certaine winds. 541.c shedding of leaues a signe of their recouerie. ibid.d. frozen to death in Pontus and Phrygia. ibid. soone die hauing once lost their heads. 542.h
Trees that beare rosin, abide any bruise or wound. ibid.i
Trees growing thicke, kill one another. ibid.k
Trees prospering without leaues. 543.a
Trees changing their colour from blacke to white. ibid.b
Trees changing from better to worse, are vnlucky. signes ib.c
Trees sunke and swallowed vp of the earth. 443.d
Trees yeelding many prodigious foretokens. ibid. remedies of Trees diseases. 544.b
Trees when they desire to be watered. ibid.l
Trees turning their leaues in the Summer Sunstead. 20.b
Trees and timber peeces of monstrous length. 489.d
Trees troubled with Ants, how to be remedied. 547.d
Trees of India exceeding high. 155.d
Trees forced to grow by art. 498.h
Trees standing vpon the North, doe like best. 500.g. why sometime they lose their fruit. 500.h. nourished by raine. 500.i
Trees standing Southward, soonest shed their leaues. 502.i
no Trees in some countries. 454.m
Trees are not loaden with fruit after one and the same maner. 475.b
Trees more fruitfull in age than in youth, and contrariwise. ibid.
what Trees liue longer than other. 475.e
Trees age soone by bearing. ibid.
Trees bearing fruits diuersly. ibid.
Trees differ in the manner of their growth, either with single stockes or manifold bodies. 476.h.i
Trees differing in root. 477.b
Trees of longest continuance. 494.l.m
Trees replanted that haue been blowne downe. 477.e
Trees fallen of themselues rise of their owne accord. 478.g
Trees fallen, topped and squared, and yet reuiue. 478.h
Trees grow naturally by three manner of meanes. ibid.i
Trees and shrubs will not all grow in euerie place. 478.k the reason there of. ib. their Homogenean or substantiall parts 486.b. their bonie substance or heart. ibid. their fat or flesh. ibid.i. their marrow, sinewes, bloud, and veines. 487.c.d
Trees of what age best for timber. 488.g
Trees deliuered of a birth of harneis. 489.b
Trees growing in the sea. 402.g.h
Trees ouerthrowne by tides. ibid.
Trees male distinguished from the female by the ax. 463.c
Trees distinguished, according to the places where they loue to grow. 468.g.h
Trees some sauage, others ciuile. ibid.m
Trees that lose not their leaues. 469.a
Trees greene alwaies in the head, shead leaues in the water boughes. ibid.
no Tree about Memphis in Ægypt sheadeth leaues. 469.e
Trees that bud, though they blossome not. 472.g
what Trees haue three springs or buddings in the yeare. ib.i
Trees how they bud, blossome, and beare. 472.l.473.a.b
Trees bearing no fruit at all. ibid.c
Trees vnfortunate and accursed. ibid.f
Trees soonest forgoing their blossome, and shedding their fruit. 374.g
Trees fruitlesse by occasion of the soile. ibid.i
Trees male whether they beare not. ibid.
Trees of shortest life. 495.c
a Tree fish. 236.g
Trebius honoured for bringing down the corn market. 551.c
Trenches and ditches for Vines how to be made. 529.a
Tribes Rusticke in Rome. 550.m
Tribes Vrbana. 551.a
Trichna a fish. 244.i
Trimenon wheat, what it is. 561.b
Triticum. 563.a

20030
copy 1

Trixis. See Ricinus.
Tritanus, a man of extraordinaris ſtrength. 166.k. *his ſonne.* ibid.
Triticum. 561 b
Tritons, fiſhes, diſcouered at Lisbon. 236.h. *what they are.* ibid. *how they breed.* 241.d
Troas. 109.c
Trochos, a fiſh. 266.s
Troglodytes, people aboue Æthiopia ſwifter than horſes. 157.b. *eight cubits high.* ibid.
Troupes of horſemen hidden vnder the boughs of a figtree. 155.d.

T V

Tuberes of two ſorts. 438.g
Tuberes, what fruit. 437.f. *when they and Iuinbes were brought into Italie.* 438.g
Turneps, how, where, and when to be ſown. 571.a.b
Tullus Hoſtilius firſt ware the robe Pretexta. 260.h
Tullus Hoſtilius killed with lightening, and why. 26.k
Tunies, their hiſtorie. 242.m
Tunie-fiſhes readie to ouerturne a ſhip. 235.c
Turbo the name of a blaſt. 25.a
Turbot, a kinde of fiſh. 247.d
Tuſcanes, their opinion of lightning. 26.g
Turners craft, whoſe inuention. 188.l

T W

Twins dangerous to the mother if they bee of both ſexes. 158.i.

T Y

Tympania, a kinde of pearles. 255.b
Typhe. 563.a
Tyriamethyſt, a double purple colour. 261.a
Tyrus, the deſcription thereof. 102.g
Typhon, the name of a whirlepuffe. 24.d. *how mariners may preuent the danger thereof.* ibid.
Tyrannicall rule, who firſt practiſed. 189.a

V A

VAlour, ſundrie examples thereof. 170.b
Valerius Antias a writer. 48.g
Valeria, vnfortunate to the place whither ſhee was carried. 164.i.
Varietie of mens ſpeech and ſhape is wonderfull. 153.d
Vappa, what it is. 424.k
Vari, who they be called properly. 350.k
Varices i. ſwelling, veines more ordinarie in men than in women. 350.k

V B

Vbians fat their ground with any kinde of earth. 506.k

V E

Vedius Pollio his paſtime to ſee lampries deuour men. 248.i
of Veins and Arteries. 345.c
Veine in timber called Fertile. 493.c
Veine in trees what it is. 486.k
Veiouis in the Capitoll. 491.d
Venetians, from whence. 115.d
Venus Cluacina. 451.a. *Venus Murtea or Myrtea.* ibid.c
Venus planet, her nature, metiõ, excellencie, & names. 6.h.i *her motion making two ſtations.* 10.i. *why ſhee neuer departeth from thẽ Sun more than 46 degrees.* 12.h *her colour.* 13.c
Venerium, Cicer, kinde of peaſe. 570 g
Vergilie, ſtarres in the taile of Taurus. 20.k. *called the garment hanging out at the brokers ſhop.* 58.k
Vermin, as lice, &c. in ſea as well as in land. 264.g
Vermin hurtfull to trees. 510 m
Vernectum, what it is. 578 m
Verulenus Ægialus, a ſingular good husbandman. 411.c
Veſpaſian Auguſtus his praiſe. 4.g. *In his Conſulſhip neither Sun nor Moone ſeene in twelue daies.* 9.e
Veſper the ſtarre, why Venus ſo called. 6.i
Veſpertinus, riſing or ſetting of fixed ſtarres. 587.d
Vetches when to be ſowne. 572.i. *not chargeable.* ibid.h

V I

Viatores, what officers at Rome. 552.h
Vinalia, a feſtiuall holiday. 600.g
Vine the nature thereof. 530.h
Vine planting and pruning, who firſt practiſed. 188.m
Vine-ſets doe temper the hot ground Carbunculus. 503.b
Vine hath the ſenſe of ſmelling. 542.l
Vine turneth away from the Radiſh and Lawrell. ibid.
Vines of fiue ſorts. 528.i
Vines take moſt harme in blouming time by raine. 540.m *erected vpon trees beare lateſt.* 536.h. *wedded to trees, when to be cut.* 535.b. *how many may be reared to one tree.* ibid. *when ſuch are to be cut.* 535.b. *when vines are to be pruned.* 533 h
Vine leaues to be cleanſed once in the ſpring. ibid.
Vine frames and traules how they ought to be made. 532.k
Vine bearing before the ſeuenth yeare dieth. 531.e
Vines to be repreſſed and not cockered. 531.d
Vine frames of what beſt. 530.h
Vines to be ſet in a drie day. 529.b
Vine hateth all pot-herbes or woorts. ibid.
Vines in what order to be planted. 529.c
Vine trees how they be killed. ibid.
Vines how many in an acre. 530.c. *ought to be pruned once a yeare,* 546.g
Vines full of cicatrices not to be truſted. 530 h
Vines yeelding a double vintage yearely. 581.e *they die with much bearing.* 475.d
Vines the elder beare the better wine, but the younger more plentie. 475.c
Vines bearing thrice a yeare. ibid.a
Vines their diſeaſes. 540.i
a Vine in the Forum at Rome. 444.g
Vine Heluenaca. 408.k. *of two kindes* ib. *very plentifull.* ib.
Vine Arcas. ibid *it loueth not Italie.* ib. *is neuer blaſted.* ib.
Vine Spionia, or Spinea. 408.l
Vine Baſilica. ibid.h
Vine Venicula. ibid.m
Vine Apiana, why ſo called. 407.b
Vines, Stacula, Sirculus, Numiſiana. 408.m
Vine Murgentina. 409.a
Vine Pompeiana. ibid.
Vine Marica. ibid.
Vine Tudernis. 409.b
Vine Florentia. ibid.
Vine Talpana. ibid. *why ſo called.* 409.c
Vine Eteſiaca. 409.b. *why ſo called.* ibid.c
Vine Conſeminia. 409.b
Vine Irtiola. 409.c. *Vine Pumula.* ibid.d

Vine Bananica. 409.d
Vine Gaurania. ibid.
Vine Falerna. ibid.
Vine Tarentine. ibid.
Vine Duracina. 409.f
Vine Ambrosiaca. ibid.
Vine Orthampelos. ibid.
Vines Dactylides. 410.g. *why so called.* ibid.
Vines Columbine. ibid.
Vine Tripedanea. ibid.
Vine Rhetian ibid.
Vine Alexandrina. 410.k
Vine Narbonica. ibid.
Vine Scantiana. 411.b
Vines Fundane. 414.i
Vines Taurominitane. 414.k
Vine Theriace. 423.a
Vines, Libanios, Aspendros. ibid.
Vine compluviata, what it is. 528.l
Vine sets how they may grow without their marrow or pith 528.h. *how they beare grapes without kernels,* ibid. *their distance one from another.* 527.c. *full of ioynts, fruitlesse.* 527.b
Vintage time. 605.e
rules seruing for Vintage time. ibid.e.f
wild Vine Labrusca, the roots and grapes good for courriours. 420.k
Vine props and railes which be best. 525.b
Vine tendrils and burgens how to be ordered for the table. 423.c.
Vines afford most plants of all other trees. 527.a
Vine tree how to be graffed. 520.b
Vines draw into them the tast of herbes and plants growing neere vnto them. 422.g
Vineyard how to be bounded. 529.b. *how to be ordred with smallest expense.* ibid.f. *ought to be exposed to the Sun.* 527.c.
Vineyards Statana. 414.b
Vinegre how it is made, and the vses thereof. 424.k
Vinegre of Cypresse figs. 412.a
Vinegre of Alexandrine figs. ibid.
L. Vitellius stored his ferme with fig trees. 445.a
Vis maior, what it is. 599.a

V L

Vlysses ship turned into a rocke. 79.d

V N

Vnedo, the fruit of the Arbute tree. 447.e

V O

Voluox, a worme hurtfull to Vines. 547.c
Volta the name of a monster. 26.k
Vopisci, who be so called. 160.h
Vortex, the name of a stormie blast. 25.b

V R

Vrchins of the sea. 253.a
Vrinum, what kinde of addle egge. 300.k

V T

Vterus or loci in a woman, what part. 344.h

V V

Vulcans temple built by Romulus. 495.a
Vulturnius, what wind. 22.l
Of Voices, a discourse. 353.a.b.c

W A

WAgons and chariots who first made. 188.l
Walwort, a weed naught for ground. 508.g
Walnuts emploied at weddings. 445.e. *and why.* ibid.
Walnut trees brought out of Persia by commandement of kings. 445.f.
Walnut, why called Persicon and Basilicon. ibid.
Walnut named in Greeke Caryon, and why. ibid.
Walnut huskes and the young nuts how to be vsed. 446.g
Walnuts differ onely in the shell. ibid.
Walnut shels diuided in twaine. ibid.
Walnuts called Inglandes, and why. ibid.i
Walnuts brought first into Italy by L. Vitellius. ibid.k
Walnut tree wood cracketh before it breaketh. 492.m
Water an element. 2.l. *the roundnesse thereof.* 31.e. *the benefit it hath by the earth, and the earth by it.* 32.h
Water of what tast. 449.a
Waters fresh run aloft the sea, and why. 44.m
Watering cherisheth corne and killeth grasse about Sulmo in Italy. 544.m
Water bringeth forth greater liuing creatures and more plentie than the earth. 134.m
Water verie materiall for corne fields. 581.f
ouerflowing corne fields as good as a weeding in some place. 545.a
Wardenpeares. 439.d
Wax made of all hearbs saue Dockes and Goosefoot. 313.d

W E

Weauing whose deuise. 188.i
Weeding of corne. 580.l
Weeds choking corne and pulse. 545.a
Weights and measures whose deuise. 188.l
Weapons and armour whose innention. 189.a.b
Wesps how to be kept from preserued fruits. 441.f
Wesps feed greedily vpon serpents. 355.e
Westerne wind Fauonius a husband to all plants, and to certaine mares. 471.d
Wezando, what it is. 339.c

W H

Whales and Whirlepoles. 235.b.c. *as long as foure acres of land* 235.c
Wheat sold at Rome for one As by the Modius. 551.b.c
Wheat how it is spiked, eared, and ioynted. 558.k
Wheat of Italie best. 559.e. *other countries compared with.* ibid.
Wheat of Boxotia commended. 559.e
Wheat of Italie praised by Sophocles the Poet. 560.h
Wheat esteemed by weight, and so compared. 560.h.i
Wheat different in the straw or stalke. 560.i
Wheat of Thrace, a three moneths corne. ibid.m
Wheat of Thrace, a two moneths corne. 561.a
Wheat subiect to the mieldew. 562.k
Wheat of sundry kindes different in name. 562.m
Wheat what proportion it should yeeld in meale and flowre. 563.e.f.
common Wheat Triticum exceeding fruitfull. 564.m. *the wonderfull and incredible encrease of wheat in Africke.* 565.a.
Wheeles, a kinde of fishes. 236.g

20030
copy 1

W I

Wilding apples. 438.m
a wedded Wife turned to be a man and a huſband, and contrariwiſe. 158.h
Willowes of many ſorts. 484.l. *their manifold vſes in pearches, trailes, props, and bindings.* ibid.
red-Willowes good both to wind and bind. 484.m
Willowes fit for wicker workes. ibid.
as gainefull to the maſter, as corne fields, medowes, and oliue rows. 485.b. *See more in Withies.*
Wings of Bats diuided into ioints. 347.a
Winds raigne in the region of the aire. 19 c. *how they ariſe and whence.* 21.c. *their natures and obſeruations.* 22. 23. *&c.*
Windpipe, what it is. 339.c
the obſeruation of winds good in huſbandrie. 608.i
Winds who firſt diſtinguiſhed. 189.d
Winds how they may be knowne diſtinctly one from another. 608.g
Wine a moſt pleaſant liquor to be vſed inwardly. 428.i
of Wines 195 *ſorts.* 428.i
Wine who firſt delaied with water. 189.m
Wine congealed into yce. 425.d
Wine lees maintaineth fire. ibid.e
Wine how it is knowne to decay. ibid.b
Wines how to be ſeaſoned and medicined. 425.a.b. *how to be ordered, prepared, and ſeaſoned.* 425.d
Wines allowable for ſacrifice and the ſeruice of the gods. 423.c.
Greeke wines reiected in ſacrifice. ibid.
Wines when they grew in requeſt at Rome. 418.h
Wines turne ſower and recouer of themſelues. 423.b
Wines reduced into 80 *kindes.* 418.g
of Wines foure principall colours. 416.l
Wine how to be tunned and kept. 425.c.d
Wine-cellers how to be ordered. ibid.e
Wine veſſels how to be placed in the cellar. ibid.
Wine veſſels how to be made and choſen. 427.d
drinking Wine faſting. ibid.
Wine of ſtrange and wonderfull effects. 422.l
Wine cauſing women to be fruitfull. ibid. *procuring madneſſe.* ibid. *driuing women to ſlip their birth.* 422.m *diſabling for the act of generation.* ibid.
Wines ſpiced and compound forbidden by Themiſon. 422.k
Wines of trees and ſhrubs. ibid.h
Wines of ſundry hearbes and roots. ibid.g
Wine Phorinean. 416.k
Wine Cicibelites. ibid.l
Wine Halyntium. ibid.
Wines ſweet of diuerſe ſorts. 417.a.b.c.d
Wine Aiglences. 417.b
Wine Dulce. ibid.
Wine Diachyton. ibid.
Wine Melitites. 417.d. *how it is made.* ibid.
Wines alter according to the climat and ſoile where the Vines grow. 415.b
Wine ſpared among the Romanes. 418.k.l. *Forbidden in ſacrifice.* ibid.h
Women in Rome not allowed to drinke wine. 418.k
Women puniſhed for drinking wine. 418.k.l
Wines aromatized. 419.a
Wines Greeke. 419.f
Greeke wine giuen in a congiarie by L. Lucullus at Rome. 420.g.
Wine of Chios preſcribed for the Cardiaca paſſio. 420.g
left by Hortenſius to the quantitie of 10000 *barrels when he died.* ibid.
Wines giuen in a congiarie by Iul. Caeſar, Dictatour. 420.h
Wines artificiall. 420.i
Wine Omphacium. ibid.
Wine Oenanthinum. ibid.
Wine Adynamon. 420.l. *how it is made.* ibid. *the vſe thereof.* ibid.
Wine of Millet. 420.l
Date wine. 420.m. *how it is made.* ibid.
Fig wine, Scytes. 421.a. *wine of Lotus.* ibid.
Wine of Carobs. ibid.
Wine Rhoites, of Pomegranats. ibid.
of Corneil or wild cherries. ibid. *of Medlers.* ibid. *of Cerueiſes.* ibid. *of Mulberies.* ibid. *of Pen-nuts.* ibid.
Wine of Myrtles how it is made. 421.b
Wine Myrtidanum. ibid.
Wine of Beterra. 414.l. *of Tarentum.* 414.m. *of Seruitium.* ibid. *of Conſentia.* ibid. *of Tempſa.* ibid. *of Bauia.* ibid. *of Lucania.* ibid.
Wine of Thurium. 415.a
Wine of Lagaria. ib. *brought into credit by Meſſala.* ibid.
Wine of Trebellia. ibid. *of Caulinum.* ibid.
Wine Trebulane. ibid. *Triſoline.* ibid.
Wine of Pompeij. ibid.
Wines of Spaine. 415.a
Wine of Laletatane. ibid.
of Tarracon, of Arragon, of Laurone. ibid.
Wines of the Balear Iſlands. ibid.
Wine of Thaſos. 415.c. *of Chios.* ibid.
Wine Arruſium. ibid.
Wine of Leſbos ibid. *of Clazomene.* ibid. *of mount Tmolus.* ibid.
of Sicyone, Cypreſſe, Telmeſſus, Tripolis, Berytus, Tyrus, Sebennys. 415.f
Wine Hippodamantian. ibid. *Cantharites.* ibid. *Gnidian.* ibid.
Wines of Catacecaumene. 416.g. *of Petra.* ibid. *of Mycone.* ibid.
Wine Meſogites. 416.g
of Epheſus, ibid. *of Apamea.* ibid.
Wine Protagium. ibid.
Wines of Pontus, Naſpercenites, Oraeoticke, Oenates, of Leucas, of Ambracia, of Peparethus. 416.g.h
Wine Leucochrum. 416.i
Wine Tethalaſſomenum. ibid.
Wine Thalaſſites. 416.k. *why ſo called.* ibid.
Wine Greekiſh. 416.k
Wine Scyzinum, Itaomelis, Lectiſtagites. 422.g
Wines of garden hearbes. 421.b
of Radiſh. 421.c. *of Sparage.* ibid.
of Savorie. ibid. *of Maioram.* ibid.
of Origan. ibid. *of Smallach ſeed.* ibid.
of Southernwood, ibid. *of wild Mints.* ibid.
of Rue. ibid. *of Nep or Calaminth.* ibid.
of running Thyme. ibid. *of Horehound.* ibid.
Wine of Navews. 421.c
Wine Squilliticke. ibid.
Wines of flowres. 421.c

Wine

Wine rosat, how it is made. 421.d
Wine of Celticke spikenard. ibid.
Wine Ipocras or aromatized. ibid. *after what sort.* ibid.
Wines condite, or Pepper wines. 421.e
Wine Nectarites, why so called. ibid.
how it is made of Elecampane. ibid.
worme-wood Wine. ibid.
hyssope Wine. 421.f
ellebore Wine. ibid.
Scammonite Wine. ibid.
Winkles or Sea-snailes, what fishes. 253.c. *of sundry sorts.* ibid.e.
what Winter we shall haue, knowne by Bruma, according to Democritus. 589.f
Witchcraft by praising and eye-biting. 155.a
Wit, sundrie examples thereof. 171.b
Wild tree, called Spitfruit. 474.h. *it groweth quickly if it be pricked onely into the ground.* ibid.
Withies or willowes where they loue to grow. 484.l
exceeding commodious. ibid. *compared with poplers and alders.* ibid.

WO

Women bearing but once in their life time. 156.m
Women seldome left handed. 165.e
Women with a double apple in their eie witches. 155.b
bearing children at seauen yeares of age. 157.a. *at fiue yeares.* ibid. *how many they may beare at one burthen naturally.* 157.d
Women in Ægypt more fruitfull than others, and the reason. ibid.
Womens monethly sickenesse. 163.c. *the strange effects thereof.* ibid.d.e. *they stay commonly at fourtie yeares of age.* 163.a
a Woman deliuered at once of two boies and two girles. 157.d. *it presaged famine.* ibid.
Women many times lie for dead and whereupon. 184.k
a Woman deliuered of twenty children at four births. 157.e
Wood most massie and which swimmeth not. 490.g
Wood seruing to strike fire. ibid.k
Woods of sundrie natures and for diuerse vses. 490.k.l.& 493.d.e.f.
Wood-wormes, foure sorts 492.h
Wood breeding no worme. 492.i
Wood how it is preserued from cleauing. 492.l
Wood of diuerse natures. ibid.
World, what it is. 1.c. *euerlasting and infinit.* 1.c. *vnmeasurable,* 1.d
Worlds, not innumerable. 1.d. *of a round forme.* 1.f
World visible, a hemisphere. 2.g
it turneth round in foure and twentie houres. 2.g
whether in turning it make an audable sound or harmonie. 2.h. *whether the bodie thereof be all smooth.* 2.h
World certaine and yet vncertain. 1.c. *containing all things within it selfe.* ibid.
World and heauen all one. 1.b
World, why called in Greeke Κοσμος, *and Mundus in Latine,* 2.k. *the geometricall dimension.* 14.l
Wormes hurtfull to standing corne. 544.k

X

Xenophilus lined an hundred and fiftie yeares without sickenesse. 183.b
Xiphiæ, a kinde of Comets. 15.e
Xylocinnamon. 373.a
Xylobalsamum. 377.b. *the price of it.* 378.b

Y

Yeels, the manner of their engendring. 265.d
Yeels, their nature. 247.f. *their life,* ibid.
how they be taken in Benacus. 248.g
of great length. 235.c
Yeeles-skins vsed to ierke boys. 249.k
Yeeles dead, onely, flote not aboue the waters. 247.f
Yeeres diuersly reckoned. 181.a
Yeere diuided into twelue moneths. 7.b
Yoking oxen who first began. 189.a
Yron and steele who found first. 188.k
Yron-smith forge who first vsed. 188.l

Z

Zoroastres laughed the first day that he was borne: he lined in a wildernesse 20 yeares with cheese. 349.b
Zodiacke, a circle in heauen. 2.k. *the deuisers of all the parts thereof.* 5.e

20030
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THE HISTORIE OF THE WORLD.

Commonly called,

THE NATVRAL HISTORIE OF C. PLINIVS SECVNDVS.

Translated into English by PHILEMON HOLLAND, *Doctor of Physicke.*

The second Tombe.

LONDON,
Printed by Adam Islip.
1634.

THE HISTORIE OF THE WORLD

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TO THE READER.

FOr as much as this ſecond Tome treateth moſt of Phyſicke, and the tearms belonging thereto (as wel concerning diſeaſes as medicines) be for the moſt part either borowed from the Greek, or, ſuch as the vnlearned be not acquainted with (which partly vpon neceſsity I was forced, and partly for varietie induced to vſe) I could not content my ſelfe to let them paſſe without ſome explanation: for ſince my purpoſe eſpecially is to profit and pleaſure the moſt ignorant (for whoſe ſake *Plinie* alſo himſelfe, as hee profeſſeth, compiled this worke) I would not be ſo iniurious vnto them as to interrupt their reading with obſcuritie of phraſe, when the matter otherwiſe is moſt familiar. In regard whereof, I thought good to prefix a briefe Catalogue of ſuch words of Art, as euer and anon ſhall offer themſelues in theſe diſcourſes that inſue, with the explanation thereto annexed, and the ſame deliuered as plainly as I could poſsibly deuiſe for the capacity of the meaneſt. In the handling whereof, ſo I may ſatisfie my countrymen that know no other Language but Engliſh, I ſhall thinke my paines and labour well beſtowed, and leſſe feare the cenſure of thoſe that haply expect ſome deeper learning; for euer ſtill

the verſe of that Comicall Poet reſoundeth from the ſtage in mine eares,

ἀμαθέστερον φρονῶν καὶ σοφώτερον. (id eſt)

Speake with leſſe ſhew of learning, ſo it be with more perſpecuitie. Vale.

20030
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A briefe Catalogue of the words of Art, with the Explanation thereof.

A

Abort, or *Abortiue fruit*, is an vntimely birth.

Abſterſiue, *i*. ſcouring, cleanſing, or wiping away, ſuch as the Greekes call Smectica, and they enter into ſope & waſhing balls.

Acceſſe, *i*. a fit, whether it be of an Ague, falling ſickneſſe, or any ſuch diſeaſes as returne at times.

Acetabulum, or *Acetable*, a meaſure among the Romans, of liquour eſpecially, but yet of dry things alſo, the ſame that oxybaphon in Greeke: and for that, as both words do import, they vſed to dip their meats in vinegre out of ſuch, it may wel go for a ſaucer with vs; for it contains, as ſome think, fifteen drams, which grow neere to two ounces, of which capacitie our ſmall ſaucers are: but as others ſuppoſe, it receiues two ounces and an halfe, the meaſure of ordinary ſaucers.

Acrimonie, *i*., Sharpeneſſe.

Actually, *i*. ſenſibly and preſently, as fire is actually hot.

Aditiales, or *Adÿciales epulæ*, were great and ſumptuous feaſts or ſuppers, held by the Pontifices or high Prieſts in teſtimony of publique ioy.

Almonds, ſee *Amygdals*.

Amphora, a meaſure in Rome of liquors only: it ſeemes to haue taken that name of the two ears which it had of either ſide one: it contained 8 Congios, which are much about 8 Wine gallons, or rather betweene ſeuen and eight: ſo as in round reckoning it may go for a ferkin, halfe kilderkin, or half feſtern with vs.

Amygdals be kernils at the root of the tongue ſubiect to inflammations & ſwellings, occaſioned by deflux or falling down of humors from the head: they be called Antiades, Pariſthmia, & Tonſillæ: the foreſaid infirmities alſo incident vnto them, doe likewiſe cary the ſame denominations.

A

Antidotes, *i*. countrepoyſons, properly, defenſatiues or preſeruatiues againſt poyſon, peſtilence, or any maladie whatſoeuer.

Antipathie, *i*. contrarietie, enmity, and repugnancie in nature, as between fire and water, the vine, and the Colewort, &c.

S. Anthonies fire is a riſing in the skin occaſioned by hot bloud mixt with abundance of choler, and ſuch be the ſhingles and other wild fires called in Greek Eryſipelas.

Aquoſities be wateriſh humors apt to engender the dropſies called Aſcites and Leucophlegmatia.

Aromatiſed, *i*. Spiced.

Arthriticall griefes, ſuch as poſſeſſe the ioints, as all the ſorts of gout.

Aſtrictiue or *Aſtringent*, be ſuch things as bind the body, or any part thereof.

Attractiue, *i*. drawing, as the loadſtone draweth iron, amber ſtraws or bents, Dictamnus arrow heads or ſpils out of the bodie, and cupping glaſſes (or ventoſes) humours and wind.

Auſtere, harſh or hard, as in fruits vnripe, and hard wines of hedge grapes.

Axinomantie, a kind of magicke diuination by an ax head red hot.

B

Baſis in a compound medicine is that drug or ſimple which is predominant, and carrieth the greateſt force in it, as the ground thereof, whereupon the whole taketh the name; as Poppy in Diacodion, Quinces in Diacydonium, &c.

Bole is the form of a medicine when it may be giuen in groſſe manner at a kniues point to the quantitie of a nutmeg at a time, vntill the whole receit be taken.

Browning, a term vſuall in the mouths of mariners and winnowers of corne, when they are calmed and do call for wind.

Bulbes, although *Pliny* ſeemed to giue that name vnto ſome one ſpeciall hearbe, yet it

ſignifieth generally all thoſe as haue round roots, as Onions, Squilla, Wake-robin, and ſuch like; whereupon theſe and other of that kind are ſaid to haue bulbous roots.

Cacochymie is that indiſpoſition of the body in which there is aboundance of humors.

Calcining, *i.* the burning of a minerall, or any thing, for to correct the malignitie of it, or reduce it into pouder, &c.

Calloſitie, thickneſſe and hardneſſe of skinne in maner ſenſleſſe, as in fiſtulaes, and vnder our heeles.

to *Carminat*, is to make more fine and thin the groſſe humours, by ſuch medicines as by their heat are apt to cut and diſſolue them; wherupon they likewiſe be called *Carminatiue*, a terme receiued by Apothecaries, and borrowed from thoſe that card wooll.

Cancer is a ſwelling or ſore comming of melancholy bloud, about which the veins appeare of a blacke or ſwert colour, ſpread in manner of a Creifiſh clees; whereupon it tooke that name in Latine, like as in Greek *Carcinoma*. And ſuch vlcers as in that ſort be maintained and fed with that humor, are called cancerous, and be vntoward to heal, worſe commonly for the handling.

Carnoſitie, *i.* fleſhly ſubſtance.

Cataplaſm, a pulteſſe or groſſe maner of plaſtre

Cartilage in man and beaſt is a griſtle, in roots and fruits, that ſubſtance which we obſerue in the radiſh root, and the outward part of a cucumber, as *Pliny* ſeems to take it; which thereupon be called Cartilagineous.

Cataract is a dimneſſe of ſight cauſed by an humor gathered and hardned betweene the tunicle of the eye, called Cornea, and the Cryſtalline humour; it is next couſine to blindneſſe.

Cauſtick, *i.* burning, bliſtering, or ſcalding.

to *Cauteriſe*, is to ſeare or burne by a Cauterie.

Cauterie actuall is fire it ſelf or ſcalding liquor: and ſo a ſearing iron, gold, or other mettall made red hot, is called an Actuall cauterie, which without the help of our natural heat doth work preſently.

Cauterie potentiall is that which will raiſe bliſters and burn in time, after it is once ſet on work by the heat of our body, as Canthorides, Spererwort, &c.

Ceres the firſt inuentreſſe of the ſowing & vſe of corne.

Cerote is of a middle nature betweene an ointment and a plaiſter, not ſo hard as the one, nor ſo ſoft as the other.

Cicatrices in eyes be whitiſh ſpots, otherwiſe called pearls: they be the skars alſo remaining after a ſore is healed vp: and ſo a place is ſaid to be cicatriſed, when it is newly skinned vp and healed.

Circulation is the deuiſe of ſubliming or extracting water or oile by a ſtillatorie, a lembick, or ſuch, becauſe the vapor before it be reſolued into water or oile, ſeemes to go round circlewiſe.

Clyſterized, *i.* conueyed vp by a clyſter into the guts.

Cæliaci be thoſe that through weakeneſſe of ſtomacke are troubled with a continuall flux of the belly.

Colature, a thin liquour that hath paſſed thorow a ſtrainer or colander.

Colliquation is a falling away and conſumpti- of the radicall humour or ſolid ſubſtance of the body.

Collyries, are properly medicines applied to the eies in liquid forme; whereas the dry kind be rather called Sief & Alcohol, eſpecially in pouder: howbeit *Pliny* attributeth this terme to all eye-ſalues whatſoeuer. Alſo it ſeemeth that hee meaneth thereby, tents to be put in a fiſtulous vlcer, as in *pag.* 509 *b.* 510 *k.*

Collution, a liquour properly to waſh the mouth, teeth, and gums withall.

Concocted, *i.* altred to that ſubſtance by natural heate, as either in health may ſerue to nouriſh, or in ſicknes is apt to be expelled

Conſolidat, to knit, vnite, & make ſound again that which was broken or burſt.

Concrete, *i.* hardned and grown thicke.

Condite, *i.* preſerued in ſome conuenient liquor.

to *Concorporate*, *i.* to mix and vnite together into one maſſe.

Conſiſtence, *i.* ſubſtance or thickneſſe.

Conſtipate, *i.* to harden and make more faſt and compact.

Contraction of ſinews, a ſhrinking or drawing of them in too ſhort.

Contuſions, *i.* Bruiſes.

Convulſions, painfull cramps.

Criticall daies be ſuch, as in ſhort diſeaſes & thoſe of quicke motion, do giue light vnto the phyſitian of life or death. *Pliny* obſerues the od daies to be moſt ſignificant, and thoſe vſually determinof health; and the euen days contrariwiſe: ſo that the ſeuenth is *Rex*, *i.* a gratious prince, the ſixth *Tyrannus*, *i.* a cruell tyrant.

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Cruditie. See *Indigeſtion.*

Cyath, a ſmall meaſure both of liquid and drie things; the twelfth part of a ſetarius, which was twenty ounces: whereby it appeareth, that a cyath was one ounce, one half ounce, one dram, and one ſcruple: it may goe with vs for foure ordinarie ſpoonfulls.

Cubit, a meaſure from the elbow to the middle finger ſtretched out at length, which went ordinarily for 24 fingers bredth, or 18 inches, which is one foot and a halfe: yet *Pliny* in one place maketh mention of a ſhorter cubit, namely from the elbow to the end of the fiſt or knuckles, when the fingers be drawn in cloſe to the hand.

Cutanean eruptions be ſuch wheales, puſhes, or ſcabs as do breake out of the skin and diſfigure it.

D

Debilitie, i. weakneſſe or feebleneſſe.

Decoction, a liquor wherin things haue bin ſodden.

Decretorie daies, be ſuch as in a ſickneſſe ſhew ſome chaunge or alteration in the patient, either for good or bad.

Defenſatiue, in medicines taken inwardly, are ſuch as reſiſt venom or peſtilent humor: in outward applications, ſuch as defend the ſore or place affected from the flux or fall of humors thither.

Denarius, a coin of ſiluer in Rome, and in other countries of gold, the ſame that Drachma Attica, *i.* a dram in weight, which is *vij. d. ob.* of our mony; and the piece in gold anſwereth neere to a full French Crowne; in poiſe it goeth for a dram.

Dentifrices, are meanes in Phyſicke to preſerue the teeth, and make them white and faire.

Depilatorie are thoſe medicines which either fetch off the haire, or hinder it from comming vp againe at all, or at leaſtwiſe from growing thicke. They were called in Greek and Latine both, *Pſilothra.*

Deſiccatiue, i. drying.

Digeſtiues be thoſe medicines which taken inwardly, helpe concoction of meate or humors; or applied without vnto a ſore, doe comfort the place, and make way for ſpeedie healing.

Diſlocations, when the bones be either out of ioynt, or elſe diſplaced.

to *Diſopilate, i.* to open.

to *Diſsipate, i.* to ſcatter and diſpatch.

Diſtortion, crookedneſſe or turning awry vnnaturally.

Diuretickall, ſuch things as prouoke vrine.

Doſe, i. that weight or quantitie of any medicine that may be giuen either conuenientlie or without danger to the patient.

Dram, the eight part of an ounce, which is the weight of a Roman denier, or Denarius.

Dyſenterie, is properly the exulceration or ſore in the guts, whereupon enſueth beſides the painefull wrings of the belly, a flux alſo of bloud at the ſiege, and therefore it is vſually taken for the bloudy flix.

E

Eclogues. See *Eidyls.*

Electuaries, be medicinable compoſitions or confections to be taken inwardly, made of choiſe drugs, either to purge humors, to ſtrengthen the principall parts, or to withſtand any infirmitie for which they are made. The ſubſtance is betweene a ſyrrup and a Conſerue, but more inclining to the conſiſtence of conſerues.

Eidylls, or *Eidyllia*, be ſmall poemes or pamphlets written by Poets, ſuch as *Theocritus* in Greeke compiled, and much like vnto the Paſtorals or Eclogues of *Virgill* in Latine.

Embrochation is a deuiſe that phyſitians haue for to foment the head or any other part, with a liquor falling from aloft vpon it, in maner of rain, whereupon it took the name in Greeke Embroche, and hath found none yet in Latine, vnleſſe we ſhould vſe Superfuſio.

Emollitiues, medicines that do ſoften any hard ſwelling.

Empiricks were thoſe phyſitians, who without any regard either of the cauſe in a diſeaſe, or the conſtitution and nature of the Patient, went to worke with thoſe medicines whereof they had experience in others, fall it out as it would.

Empirick books of *Diodorus* contained receits approoued and found effectuall by experience.

Emunctories be thoſe kernelly places in the body, by which the principall and noble parts doe void their ſuperfluities, or ſuch things as offend; to wit, vnder the ears for the brain, the arm-pits for the heart, and the ſhare for the liuer, &c.

Empla-

Emplaſtration in the Hortyard, is grafting by inocelation with a ſcutcheon in Phyſicke, the applying of a ſalue or plaſtre.

Epilepſie, i. the falling ſickneſſe.

Errhines be deuiſes made like tents, ſharper at one end than the other, to bee put vp into the noſe, either to cure ſome vlcer there, or to draw downe and void humors out of the head, or to prouoke ſneeſing, &c.

Eſchare, is that cruſt which ariſeth vpon a cauterie, either actuall or potentiall, as alſo the roufe or ſcab that groweth vpon a ſore.

Euacuation, i. Voidance and riddance of any thing out of the bodie by vomite, purging, bleeding, ſweating, &c.

Excalfactorie, i. Heating or chauſing.

Excoriation, i. fretting the skin off, when a part is made raw: a way to exulceration.

Excreſence, i. ouergrowing vnnaturally of any thing in mans bodie.

Exoticall, i. forraine, and brought from other countries.

Exorciſmes, i. coniurations by certain charmes and ſpels.

Exorciſts, they that practiſed ſuch Exorciſms.

To *Expectorat, i.* to rid and diſcharge out of the breaſt by coughing or reaching.

Expiatorie, were ſacrifices or oblations for to make ſatisfaction and atonement.

Exiccatiue. See *Deſiccatiue.*

Extenuat, i. to make thin.

Exulceration, i. a ſoreneſſe of any part inward or outward, when not onely the skin is off, but the humor doth fret deeper ſtill.

Exulceratiue, be ſuch things as are apt to eat into the fleſh and make an vlcer.

F

Fermentation, i. an equall mixture of things working as it were together: a tearme borrowed from the leuaine, which diſperſeth it ſelfe into the whole maſſe or lumpe of dough.

Filaments bee the ſmall ſtrings that hang to a root like threads or haires, which ſome call the beard of the root: and in reſemblance thereof, other things growing likewiſe, bee ſo called.

Fiſſures, clifts or chaps, whether it bee in the hands, feet, lips, or fundament.

Flatuoſities, i. windineſſe gathered within the bodie.

Flora, the goddeſſe of floures among the Painims.

Fomentations properly be deuiſes for to be applied vnto any affected part, either to comfort and cheriſh it, or allay the paine, or els to open the poores to make way for ointments and plaſtres. If they be liquid things they are laid too by the means of bladders, ſpunges, or ſuch like: if drie, within bags or quilts.

Fractures, i. bones broken.

Friction or *Frications*, rubbbings of the bodie vpward or downeward gently or otherwiſe, as the cauſe requireth.

Frontall, the forme of an outward medicine applied vnto the forehead, to allay paine, to procure ſleepe, &c.

Fukes, i. paintings, to beautify the face in outward appearance. They are called at this day complexions, whereas they bee cleane contrarie: for the complexion is naturall, and theſe altogether artificiall.

Fumoſities bee vapours ſteaming vp into the head, troubling the braine.

Fungous, i. of an hollow and light ſubſtance like to Fuſſes or Muſhromes.

G

Garga riſmes bee collutions of the mouth, and parts toward the throat, either to draw downe and purge humours out of the head, or to repreſſe and reſtraine their flux, or to mundifie and heale any ſore there growing.

Gargariſing or *Gargling* is the action of vſing a liquor to the ſaid purpoſe.

Geſtation, an exerciſe of the bodie, by beeing carried in coach, litter, vpon horſebacke, or in a veſſell on the water.

Glandulous ſwellings. See *Kings* euill.

Gleir, i. the white of an egge.

Gymnicke exerciſes, were thoſe that were performed by men naked, and the place for ſuch exerciſes, was thereupon called Gymnaſium.

H

Habit of the bodie, is taken for the outward parts thereof, oppoſit vnto the bowels and principall within; which being comforted and fortified, do thruſt forth offenſiue matters to the habit and exterior skin.

Hemine, a meaſure in Rome, as well of liquors as drie things: ſo called, becauſe it was half Sextarius: it contained ten ounces, and is

ſomewhat

20030
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ſomwhat vnder out wine pint, it is the ſame that Cotyla in Greeke.

Humiditie, i. moiſture.

Hydromantia, a kinde of magicall diuination or foreknowledge of things to come, by obſeruation of the water.

Hydrophobie, is a ſymptome or accident befalling to them that are bitten by a mad dog, whereby they are afraid of water.

Hypochondriall parts, be the flanks or ſoft parts vnder the ſhort ribs.

I

Iliacke paſſion, the wrings and torments of the vpper ſmall guts, occaſioned by wind or ſharp humors. Some improperly cal it the collicke of the ſtomacke.

Imbibition, a drinking or receiuing of any liquor into a thing: as when drougs lie ſteeped therein vntill they be throughly ſoaked therewith.

Impoſthumes properly be collections or gatherings of winde and humours eſpecially betweene parts of the body, whereupon there appeareth a riſing or ſwelling, and in time they become corrupt and do rankle, vnleſſe by ſome meanes they be either drawn away or diſperſed. Some terme them wens, howbeit, the word is taken for inflammations and biles.

To *Incorporate*, is to mixe and vnite well together.

To *Incraſſate*, is to make thicke.

Indigeſtion, i. want of concoction and digeſtion, by which means many crudities & raw humors are ingendered, & by conſequence abundance of rheumes.

Inflation, i. ſwelling or puffing vp with winde.

Infrangible, i. that cannot be broken.

Infuſion ſignifieth the conueiance of ſome medicinable liquour into the body by clyſtre or other inſtrument. It importeth alſo the ſteeping of drougs in a conuenient liquor: and the liquor it ſelfe, when it is ſtrained from the reſt.

Ingredients, be thoſe ſimples that goe vnto the making of any medicine compound.

Iniection, is the conueiance of any liquid medicine by ſyringe or ſuch like inſtrument into any part of the body or hollow and fiſtulous vlcer.

Inſects, little vermine or ſmal creatures, which haue (as it were) a cut or diuiſion betweene their heads and bodies, as Piſmires, Flies, Graſhoppers, vnder which are comprehended Earth-wormes, Caterpillers, &c.

Inſeſſions be bathing tubs or veſſels halfe full, wherein the patient may ſit vp to the middle or aboue in ſome conuenient decoction

Intermittent feauer, are thoſe which come by fits, and yeeld ſome reſt betweene whiles.

Iniunction, i. annointing.

Iulebs or *Iuleps*, be drinkes giuen commonly as preparatiues for to open the paſſages of the inward parts, and to prepare the humours for a purgation, made either of ſome ſtilled waters and ſyrrups mixed together, or of a decoction ſweetened with hony or ſugar, or els mingled with ſyrrups.

K

Kings euil, is the hard ſwelling of the Glandules or Kernels commonly about the necke: they be called alſo Scrophules.

L

Lachrymal, is the corner of the eie wherein the teares appeare firſt, and thereof it taketh the name.

Laßitude, is wearineſſe or vnluſtineſſe.

Lauature, *Lotion*, or *Loture*, is a liquor to bathe or waſh withal: likewiſe to clenſe and mundifie any part.

Ligula, *Lingua*, or *Lingula*, a ſmall meaſure among the Romanes, both of liquour and drie things, containing the fourth part of Cyathus, to wit, three drams & one ſcriptule or ſcruple, ſomewhat vnder halfe an ounce, and may goe well for our Spoonefull.

A *Liniment* is thicker than oyle, and thinner than an ointment, it may be taken for a thinner kind of ointment.

Lobes and fibres are the lappets and extreame parts of the liuer, with the maſter veines growing thereto.

Locall medicines, be thoſe that are appropriat for the forehead, *Errhine* or *Naſal* for the noſthrils, &c. or to be applied outwardly, ointments, which are not to be vſed before general or vniuerſal means by euacuation.

Loch or *Lohoch*, is a medicin more liquid than an electuary, appropriat for the lungs and windpipe, and is to be licked and let goe downe leiſurely.

Longaon, is the nethermoſt gut reaching vnto the very ſeat or the fundament.

Luted,

Luted, i. close stopped with clay, dough, or such like.

M

Maturatiues be medicins that help to ripen any swelling impostume, bile, or botch
Maturity, is the ripenesse thereof.
Membranes, be fine skins which inwrap other parts, as the brains, eies, and muscles of the flesh.
Metrenchyte, an instrument seruing to infuse or iniect a liquid medicine into the matrice of a woman, in manner of clystre.
Mitigatiues, be such remedies as do asswage paine.
Mna, or *Mina*, was a Roman weight, which poised twentie ounces, that is to say, the ordinary pound, called Libra or Pondo, & two third parts: for the common Libra called Medica, weighed twelue ounces, so that Mina seemed to answer vnto the measure Sextarius.
Mollitiue. See *Emollitiues*.
Mordicatiue, is biting and stinging, as Senuy seed.
Mucilage, is a slimy liquor drawne from some roots or seeds, as from the marsh Mallow or Althea root, the seed of Psillium or Flewort and others.
Muscles be the fleshie parts of the bodie, contained within their seuerall membranes or skinnes.

N

Narcoticke medicines, be those that benum and stupifie with their coldnesse, as Opium, Hemlocke, and such like.
Nasals be Nose-tents. See *Errhina*.
Nerues, i. Sinewes.
Nodosities, hard knubs & knots growing vpon the ioynts in old gouts, and in other parts.

O

Obolus, halfe a scriptule, or the sixt part of a dram.
Obstructions, i. Stoppings.
Opiats, were properly at the first such electuaries or confections, which had a good quantitie of Opium, *i.* the iuice of Poppie in them, such as Philonium and Requies, that were deuised to mitigate intollerable paine, and to bring the patient to sleepe: howbeit, in these daies all electuaries, euen cordials, in a liquid form be called Opiats, although there be not one grain of Opium in them.
Opilation. See *Obstruction*.
Orthopnoicke, are those that haue the disease Orthopnœa, which is a difficulty of drawing their wind, vnlesse they sit vpright.
Osses, be words cast forth at vnawares, presaging somewhat.
Otenchyte, an instrument, deuised for to infuse or poure some medicinable liquor into the eares,
Oxycrate, a mixture of water and vineger together.

P

To *Palliat, i.* to couer: & such cures be called Palliatiue, which search not to the root and cause, but giue a shew only of cure; as when a sore is healed vp aloft, and yet festereth vnderneath: and so sweet Pomanders do palliat a stinking breath, occasioned by a corrupt stomacke or diseased lungs, and such like.
Paradoxes, strange opinions.
Pectorals, i. such medicines as bee fit for the breast and lungs.
Pellicles. See *Membranes*.
Penetratiue, i. Percing.
Periodicall, such agues be called, as return at their iust course from day to day, euery third fourth, or fifth day, &c.
Peripneumony, is the inflammation of the lungs.
Pessary, is a deuise made like a finger or suppository, to be put vp into the natural parts of a woman.
Phlebotomie, i. bloud-letting, or opening of a veine by incision or pricke.
Phthysicke, to speak properly, is the consumption of the body occasioned by the fault of exulcerat and putrified lungs. But *Pliny* otherwhiles seemeth to take it for any other consumption.
Pomona, a deuised goddesse amongst the Painims, of apples and such fruits.
Prodigies bee strange sights and wonderfull tokens, presaging some fearefull thing to come.
Propinquitie, nearnesse or affinitie.
Proscription, was a kind of outlawing and depriuing a man of the protection of the state, with

20030
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with confiscation of his lands and goods.

Propagat, to grow and increase, after the manner of Vine branches, which being drawne along in the ground from the mother stock do take root.

Propitius, *i*. gracious and mercifull.

Proximitie, neere neighbour-hood or resemblance.

Ptisane, the decoction of husked Barley: a grewell made therewith, or the creame thereof.

Pulpous, *i*. full of pulpe, or resembling pulpe, which is the soft substance in Apples or such fruits, answerable to the flesh in liuing bodies.

Purulent, yeelding filth and Attyr.

Putrefactiue, such venomous medicines or humors, as do corrupt and putrifie the part of the body, which they possesse.

Q

Qvindecemvirs, were certain officers, fifteen in number, ioined in one commission.

R

Receptorie, a vessell standing vnderneath, ready to receiue that which droppeth and distilleth from something aboue it.

Reciproeall, going and comming, as the tides of the sea ebbing and flowing.

To *Rectifie*, *i*. to set streight, to reforme, or amend.

Repercussiue, *i*. driuing or smiting backe.

Residence, *i*. the setling toward the bottome, as in vrine.

Retentiue facultie, *i*. the naturall power that each part or member of the body hath to hold that which is committed vnto it, the due time, as the stomacke, meat, the bladder, vrine, &c.

Reuerberation, *i*. rebounding or striking backe.

Rhagadies, bee properly the chaps in the fundament or seat.

Rubified, *i*. made red, as when by application of mustard plastres, called Sinapismes; or beating a part that is benummed with nettles, it recouereth a fresh colour againe, whereupon such plastres be called Rubificatiue, and the operation is named by the Greekes Phœnigmos.

Rupture, the disease of bursting, as when the guts or other parts fall downe into the bag of the cods.

S

Salivation, is a drawing of humours to the mouth, and a deliuerie of them from thence in manner of spittle.

Sarcling is the baring of roots, by ridding away the earth and weeds from about them, that did clog them.

Scarification, is a kind of pouncing or opening of the skin by way of incision slightly, with the fleame or launcet, either to giue some issue for the bloud and humours to passe forth, or prepare a place for the cupping-glasse to extract more.

Schirre, is a hard swelling almost senceless.

Scriptule, or *Scruple* is foure and twenty grains weight, or the third part of a dram.

Scrophules. See *Kings euill*.

Seat, is the circumference or compasse about the tuill or fundament.

Secundine, *i*. the afterbirth that infolded the infant within the mothers wombe.

Sege, a stoole of easement, whereupon wee sit to discharge the order and excrements of the guts.

Serosities, or *Serous humors*, be the thinner parts of the masse of bloud, answering to the whey in milke, such as we see to float vpon bloud that hath run out of a veine

Sextarius, a measure among the Romanes, whereof six goe to their Congius, whereupon it tooke that name: it containes two hemines, and is somewhat lesse than a wine quart with vs, it beareth twentie ounces.

Sinapisme, a practise by a plaster of mustard seed, and such like, to reuiue a place in manner mortified, and to draw fresh humors & colour to it.

Solstice, *i*. the Sunnestead, as well in winter as Summer, when hee is come to his vtermost points North and South, but vsually it is put for Mid-summer onely.

Sophisticated, *i*. falsified & made corrupt, howbeit, going for the right. Thus drougs and gems are many times thrust vpon vs.

Spasmes, be paine full crampes or pluckings of the sinewes and cords of the Muscles.

Spasmaticke, are such as be thus plucked.

Species, be either the simple ingredients into a composition, or else the bare pouders mingled together, ready to be reduced into an electuarie liquid, or Tables.

Speculatiue knowledge, or *Speculation*, is the insight into a thing by reading only & contemplation

templation, without practise & experience.
Sperme, is naturall seed.
Spondyles, be the turning ioints of the chine or backbone.
Stomachicall fluxe, is the same that Cœliaca passio. See *Cœliaci*.
Stomaticall medicines, be such as are appropriat for the diseases incident to the mouth, and the parts adioining.
Stypticke, be such things as by a certain harsh tast, doe shew that they bee astringent, as medlars and alumne, which thereupon is named *Stypteria*, and such like.
Succedan, that drug which may be vsed for default of another. The Apothecaries call such, *Quid pro quo*.
Suffusion. See *Cataract*.
Suffumigation, is the smoke that is receiued in to the body from vnder a stool, for the diseases of the guts, fundament or matrice.
Suppuration, is when a bile or impostume gathereth to an head and must be broken.
Sympathie, *i*. a fellow-feeling, vsed in *Pliny*, for the agreement or amitie naturall in diuers senceleſſe things, as betweene yron and the loadstone.
Symptome, an accident accompanying sicknes, as head-ach the ague, stitch, shortnesse of wind, spitting bloud, cough, and ague, the pleurisie.
Syringe, an instrument in manner of a pipe to iniect a medicinable liquor into the blader.

T

TEllus, the earth.
Tenacitie, clammineſſe, such as is in glew, birdlime, and Bitumen.
Theoricke, or *Theoretique*, contemplatiue knowledge without action and practise.
Tineſme, an inordinat desire to the stool without doing any thing to the purpose.
Tonsils. See *Amygdals*.
Transparent, *i*. cleare and bright throughout; as crystall, amber, aire and water.
Transvasation, *i*. the pouring of liquor out of one vessell into another.
Triuial, *i*. vulgar, common, and of base reckoning.
Triumvirat, the Tripartite dominion of *Antonie*, *Octavius*, and *Lepidus*, when they held all the world in their hands, each one their third part.
Trochisques, or *Troſques*, be litle cakes or roundles, into which diuers things medicinable are reduced for to be kept the better, & to be ready at hand when they shall be vsed.
Tuil, the same that the Fundament or nethermost gut.

V

VEgetatiue, that power in nature which God hath giuen to creatures, whereby they liue, are nourished, and grow.
Ventositie, windineſſe.
Vicinitie, neerneſſe, or neighborhood.
Victoriat, a siluer coine in Rome, Halfe a denarius, so called becauſe it had the image of victory stamped on the one side: it is somwhat vnder our groat.
Vnction, annointing.
Vnguent, an ointment.
Vreters, be the passages or conduits whereby the water or vrine passeth from the kidnies into the bladder.
Vulnerarie, *i*. belonging to a wound; as Sanicle is a vulnerary herbe, and *Machaon* was a vulnerarie Physitian.

20030
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THE NINETEENTH BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

The Proeme.

C TReated we haue in the former booke, of the ſtars and ſignes aboue, which giue vs intelligence as well of the ſeaſons, as the diſpoſition of the weather to come: and that in plaine and eaſie maner, by ſo evident and vndoubted demonſtrations alſo, as may content the meane capacitie of the vnskilfull and ignorant. And verily, if we will rightly weigh and conſider the thing, we ſhal find and vnderſtand, that our countrey farmes and villages ſtand vs in good ſtead to know the inclination of the heauens and ſtars, as the skill of Aſtronomy ſerueth our turnes for good husbandry. Theſe points now being well and throughly learned, many haue bin of opinion, That the knowledge of gardens and the care thereto belonging, ſhould by good right follow next. Howbeit, I for my part am of this mind, that there be other matters concerning Agriculture, deſerue to be handled, before we leape thus ſoon to gardening. And here I cannot chuſe but maruell much at ſome men, who making ſuch profeſſion of learning, and namely, in the skill and ſcience of Agriculture, as they haue done; yea, and ſeeking thereby to win all their credit and name of erudition and literature; haue notwithſtanding omitted many things requiſit thereunto, without any mentiD on made, or one word ſpoken of ſo many herbes and ſimples which either come vp of themſelues, or grow by meanes of mans hand: conſidering that the moſt part of them are in greater price and reputation, yea, and in more vſe and requeſt far, for the maintenance of this our life, than either corne or Pulſe, or any fruits of the earth whatſoeuer.

And to begin firſt at thoſe that are known commodities, and ſo notorious, as that the vſe thereof not only reacheth all ouer the maine and continent, but extendeth alſo to the very ſeas, and ouerſpreadeth them: What ſay we to Line or Flax, ſo commonly ſowed as it is? yet may it not be ranged either among the fruits of the field, or herbs of the garden. But what region (I pray you) or part of the earth is without it; and what is there ſo neceſſary for this life of ours in all reſpects? Againe, is there any thing in the whole world more wonderfull and miraculous, than that there ſhould be an herb found of this vertue and property, as to bring E Egypt and Italy together? inſomuch, as Galerius, Lord Deputy in Egypt vnder the Romans, was knowne to ſet ſaile from the firth of Meſſina in the ſtraits of Sicily, and in ſeuen daies to arriue at Alexandria: Babilius alſo Gouernor there likewiſe, in ſix; and that by the means of the ſaid herb? Moreouer, what ſay you to this, which was ſeen no longer ſince than the ſummer paſt; when Valerius Marianus, a Senator of Rome, & late Lord Pretour, embarked and tooke ſhip at Puteoli, and in nine daies ſailed to the ſaid Alexandria, and yet he had but a very mild and ſtill wind to helpe him in that voiage? Is not this a ſtrange and ſoueraigne herb think you, that in a ſeuen-nights ſpace can fetch Gades from as far as the ſtraits of Gilbretar or Hercules pillars, into the harbor of Oſtia in Italy? can ſhew (I ſay) the kingdome of Catalogne in Spaine before the ſaid port-towne in foure daies; Prouince in three, and Barbary in two? for C. Flaccus, lieutenant vnder Vibius Criſpus the Pro-conſull, did as much I ſpeake of, and that with no great forewind, but a moſt gentle F and milde gale. Oh the audacious boldneſſe of this world, ſo raſh, ſo full of ſin and wickedneſſe, that a man ſhould ſow and cheriſh any ſuch thing, as might receiue and ſwallow the Windes, ſtormes, and tempeſts; as if the float and tide alone were not ſufficient to carrie ſo proud a creature! But now are wee growne moreouer to this paſſe, that ſailes bigger than the Shippes themſelues, will not ſerue our turnes. For albeit one maſt be ſufficient to carrie the biggeſt croſſe-yard that can be deuiſed, yet are not wee content with a ſingle

maine ſaile thereupon, vnleſſe we ſet vp Saile vpon Saile, top and top-gallant: vnleſſe (I ſay) we haue for e- G
ſailes and ſprit-ſailes in the Prow, miſnes alſo hoiſed vp and diſplaied in the Poupe; beſides other trinkets and more cloath ſtill; and all to ſet vs more forward vpon our death, and to haſten our end. Finally, is there ought againe ſo admirable, as that of ſo ſmall a graine as is the Line-ſeed, there ſhould grow that which is able to carry to and fro in a moment, this round globe of the earth, the ſame being ſo ſlender a ſtalke as it is, and not growing high from the ground? conſidering withall, that twiſted it is not entire and whole in the ſtem; but before it can be occupied, it muſt be watered, dried, braked, tew-tawed, and with much labor driuen and reduced in the end to be as ſoft and tender as wooll: and all to do violence to Nature and Mankinde moſt audaciouſly euen in the higheſt degree, in ſuch ſort, as a man is not able to proceed ſo far in execration, as is due vnto this inuention. The firſt deuiſer whereof I haue inucighed againſt in conuenient place elſe-
where, and not without deſert; as who could not be content, that a man ſhould die vpon the land, but hee H
muſt periſh vpon the ſea, to feed Haddocks there, without the honour of ſepulture. In the booke but next before this, I gaue warning and aduertiſed men, That for to enioy corne and other victuals neceſſarie for this life, in ſuffiſance and plenty, we ſhould beware of winde and raine: and now behold, man is ſo wicked and vngratious, his wit ſo inuentiue, that he will be ſowing, tending, and plucking that with his own hand, that calls for nothing elſe at ſea but winde; and neuer reſts till Browning be come. See moreouer, how well this vnhappy hand of his ſpeeds: for there is not a plant againe commeth vp ſooner, or thriueth faſter than this Flax. And to conclude, that we may know how Nature her ſelf is nothing wel pleaſing therwith, and that it groweth maugre her will, it burnes the field wherein it is ſowed, it eateth out the heart of the ground, and maketh it worſe where-euer it comes: this is all the good it doth vpon a land.

I

Chap. I.

¶ *The maner of ſowing Line or Flax: the ſundry kindes thereof: the order how to dreſſe it. Alſo of Napkins and other Naperie. Of Flax and Linnen that will not burne in the fire. And when the Theatres or Shew-places at Rome were firſt encourtained.*

LIne-ſeed loueth grauelly or ſandie grounds paſſing wel, and commonly is ſowed with one tilth and no more: yet is there nothing maketh more haſte to be aboue ground, K
or ſooner commeth to maturitie. Being ſowne in Spring, it is pluckt in Summer. See how * injurious it is ſtil to the earth euen this way alſo! Wel, ſay that the Ægyptians in ſome ſort may be excuſed, for ſowing it as they doe, and making ſaile-cloath thereof; in regard of the neceſſarie traffique they haue into Arabia and India, for to fetch in the commodities of thoſe countries; what need or reaſon, I pray you, hath France ſo to do? Can the Gauls be ſorted in the ſame range with the Egyptians? Whether would they go? Is it not ſufficient that they ſee the mightie mountaines ſtanding iuſt between them and the Miditerranean ſea? Will not this ſerue to keepe them from Nauigation, that on the huge Ocean ſide they can diſcouer nothing but the vaſt Elements of Water and Aire together? Howbeit, for all this reſtraint, the Cadurci, Caletes, Rutene, and Bituriges; the Morini alſo, who are ſuppoſed to be L
the fartheſt people inhabiting our Continent; yea and thoroughout all parts of Fraunce they weaue Line and make Sailes thereof. And now adayes alſo the Flemmings and Hollanders dwelling beyond the Rhene (I meane thoſe antient Enemies to the State of our Empire) doe the like*: inſomuch as the women there cannot deuiſe to go more rich and coſtly in their apparell, than to weare fine Linnen. The obſeruation whereof putteth me in mind of a thing that *M. Varro* doth report of the whole Race and Familie of the Serrani: in which Houſe this Order was preciſely kept, That there was not a woman amongſt them knowne to weare any Linnen about her, no not ſo much as in a ſmocke next her bare skinne. Now in Germanie, the ſpinners and weauers of Linnen doe all their worke in ſhrouds, caues, and vaults, buried, as it were, vnder the ground: ſo do they alſo in Italy and that part of Lombardie that lieth between M
the Po and Ticinus, to wit, in the * Countrey Aliana; where (after the Setabines in Caſtile, which is the beſt) there is very fine workemanſhip of Linnen cloath, and may deſerue the third place for goodneſſe thoroughout all Europe. For the Retovines, bordering hard vpon the foreſaid Allianes, and the Faventines, who inhabit the broad port-way Æmilia, are to be ranged

* For that ſo quickely it robbeth her of moiſture.

* It ſeems that fine Holland cloth & Cambricke was in requeſt by *Plinies* time.

* *Regione Aliana.* Turneb.

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A ged in a ſecond degree and next to the Setabines for the fine Linnen which they make. And *in* very truth, this Fauentine cloth is alwaies far whiter than the Allian, which is ordinarily brown when it is new wouen, and before it be bleached. Like as the Retovine is exceeding fine & thick wouen withall, and beſides, not inferior in whiteneſſe to the Fauentine; howbeit, no nap or down it carieth, a thing which as there be ſome who do greatly praiſe and like, ſo there be others again diſcommend and diſlike as much. As touching the thred it ſelfe that they make of their Flax, it is more euen (if euener may be) than that which the Spider ſpinneth; ſo neruous alſo and ſtrong withall, that if a man liſt to make triall thereof with his teeth, it will giue a twang and ring a-
B gain like a Lute-ſtring: and therefore it carrieth a double price to other. As touching the Spaniſh Flax, and namely, that which Aragon and Cartalogna doth yeeld, it is paſſing faire and white, by reaſon of a certain brook or running water paſſing vnder Tarracon, wherein it is watered: the nature whereof is to giue it a ſingular brightneſſe aboue the reſt. Wonderous fine it is, and runneth into a dainty ſmall thred: for there firſt was deuiſed the fine Cypres or Lawne, and the curtains thereof. It is not long ago, ſince out of the ſame parts of high Spaine, there was brought into Italy the flax of Zoela, moſt commodious & meet for hunters to make great nets and toile. A maritime city this Zoela is, in Gallitia, ſcituat neere the ocean. There is excellent good Line alſo to be found at Cumes in Campaine within Italy, which ſerueth very well for ſnares and ſmall nets to take fiſhes, and to catch birds with. The ſame alſo yeeldeth matter and ſtuffe for the great cord-nets aboueſaid: for wote wel this, that Flax fitteth our turns, as well to
C ſnare and intrap all other beaſts, as it doth to indanger our own ſelues, [vpon the ſea.] But of all others, the toile made of Cumes flaxen cords, are ſo ſtrong, that the wild bore falling into it, wil be caught: and no maruell, for theſe kind of nets will checke the very edge of a ſword or ſuch like weapon. I my ſelfe haue ſeene ſo fine and ſmall a thred, that a whole net knit thereof, together with the cords and ſtrings called Courants, running along the edges to draw it in and let it out, would paſſe all through the ring of a mans finger. I haue known one man alſo carry ſo many of them (eaſily) as would go about & compaſſe a whole foreſt. But this is not the greateſt wonder of them; for more than ſo, euery one of theſe threds that went to the making of the maſhes, was twiſted 150 double: and euen of late daies, *Iulius Lupus*, who died Lord Deputy or Gouernor of Egypt, had ſuch. This may well ſeem a maruell incredible to thoſe who neither knew nor ſaw the net-worke Habergeon, or Curet of *Amaſis*, a king ſomtime of Egypt, which was ſhewed
D of late daies within the temple of *Mincrua*, in the Iſle of the Rhodians; euery thred whereof carried a twiſt * 365 double. Certes, *Mutianus* a man of good credit (as who had bin thrice conſull of Rome) hath related ſo much at Rome vpon his owne knowledge: for wheras there remained yet certaine ſmall reliques and little pieces therof, it was his hap of late to meet with ſome of them and by his owne triall to find that true, which hac bin reported by others. And verily, great pittie it is, that ſuch an excellent, rich, and rare peece of work (as it was) ſhould thus come to nothing, by mens iniurious handling of it, raueling out the threds as they haue don, for to ſee the proofe of the thing.

* According to the daies of the yeare.

But to returne againe to our flax of Italy. That which groweth in the Pelignians countrey is at this day in great account and requeſt: howbeit, none vſe it but the Fullers. There is not a
E whiter flax to be found, & indeed reſembling wool nearer than this flax. Like as, for quilts, ticks and mattraſſes, the flax of the Cadurci in France had no fellow: for ſurely the inuention therof, as alſo of flox to ſtuffe them with, came out of France. As for vs here in Italy, euen as our maner was in old time te lie and ſleep vpon ſtraw-beds & chaffy couches, ſo at this day wee vſe to call our pailers ſtill by the name of Stramenta. The Line or flax of Egypt is nothing ſtrong, howbeit the people there do raiſe exceeding great gaine and profit thereof. And foure diſtinct kinds thereof are knowne, according to the names of the ſundry countries where they grow, to wit, Taniticum, Peluſiacum, Buticum, and Tentyriticum.

Moreouer, in the higher parts of Egypt which bend toward Arabia, there groweth a certaine ſhrub or buſh carrying cotton, which ſome call Goſſypium, others * Xylon, and the linnen ther-
F of made they therefore cal * Xylina. This plant is but ſmall, and bringeth forth a fruit reſembling the bearded nut or filberd; out of the inner ſhell or huske wherof [called * Bombyx] there breaks forth a cotton like vnto downe, ſo eaſie to be ſpun: and there is no flax in the world comparable to it for whiteneſſe & ſoftneſſe. Of this cotton, the Egyptian prieſts were wont to wear their fine ſurpleſſes, and they tooke a ſingular delight therein. A fourth kind of linnen there is, called

* Coton or Bombace.
* Linſy-wolſey, or our Fuſtians rather.
* Hereupon cotton is called Bombac

called Orchomenium; it commeth from a certaine fennie reed growing in mariſhes, I meane the G
tender muchets or chats thereof.

In Aſia they haue a certaine kind of broome, the ſtalke and branches whereof they water and leaue in ſteepe ten daies together, and thereof make thread, paſſing good for to be twiſted and knit into fiſher nets, for they will abide the water very well, and indure without rotting. The Ethiopians and Indians both, find a ſtuffe in manner of Line or cotton in ſome apples or ſuch like fruit: and the Arabians meet with the like in gourds, growing as I haue beforeſaid vpon trees.

To come againe to our countrey Line or Flax within Italy, we go by two ſignes, and know thereby when it is ripe and ready to be gathered; to wit, either by the ſwelling of the ſeed, or the colour of the plant it ſelfe, leafe and ſtalk inclining to yellow. Then is it plucked vp and bound H
into certaine bunches as much as handfuls: which done, they are hung vp to drie in the ſun one day, with their heels or roots vpward: the morrow after, they be turned quite contrary, and ſo for fiue daies after, they hang with the foreſaid roots downward, that the ſeed may fall downe from their heads into the mids of euery bunch or bundle aforeſaid; for the ſeed therof is medicinable, and of effectuall operation in Phyſicke: yea and the rurall Peaſants in Lombardie and Piemont beyond the Po, vſe to make therof a good country meat of a moſt ſweet and pleaſant taſt; but now for this good while, that kind of meat or bread is made onely for to be imployed in their ſacrifices to the gods. Then after wheat harueſt, the ſtems or ſtalks thereof are laied in ſome water that is warme with the Suns heat, charged with ſtones or other weights thereupon, that they may be borne downe and ſinke to the bottom: for there is not a thing beſides lighter I
than Line, or loueth better to ſwim. When they be ſufficiently watered (which you ſhall know by the skin or rind therof if it be looſe and ready to depart from the towy ſubſtance of the ſtem) then muſt the foreſaid jauils or ſtalkes bee hung out a ſecond time to be dried in the ſun, with their heads and heels one while vp and another while downe, as before. After they be wel dried, they are to be beaten and punned in a great ſtone mortar, or vpon a ſtone floore, with an hurden mallet or tow-beetle made for the purpoſe. Now that part therof which is vtmoſt & next to the pill or rind, is called Tow or Hurds, and it is the worſt of the Line or Flax, good for little or nothing but to make lampe-match or candle-wick; and yet the ſame muſt be better kembed with hetchell teeth of yron, vntill it be clenſed from all the groſſe barke and rind among. As for the
good Flax indeed, which is the teere or marrow as it were within of the Line, there be diuers and K
ſundry ſorts and degrees of it, diſtinct according either to the whiteneſſe or ſoftneſſe thereof. And the ſpinning of this fine Flax (I may tell you) is ſo cleane a worke, that it will become a man ywis to lay his fingers to it. But what ſhall be done with all the hard refuſe, the long buns, the ſtalks, the ſhort ſhuds or ſhiues that are either driuen from the reſt in the knocking, or parted in the hetchelling? mary they will ſerue very well to heat ouens and furnaces, or to mainetaine fire vnder kills and leads. And here there is a prettie cunning and skill in the hetchelling and diſpenſing of Flax to the proofe: for if the Line bee good and well ordered, euerie fiftie pounds of it in bunches or bundles aforeſaid, muſt yeeld fifteene ordinarily of tried and carded Flax. Moreouer, when it is ſpunne into thread, it muſt be poliſhed againe and whitened in water, with much punning and knocking vpon a ſtone together with the water. And yet there is L
no end, for after it is wouen to cloath, it ought to bee followed and beaten a third time with good clubbe-headed cudgels: in ſuch ſort, as the more iniurie that is done vnto it, the better it is.

Furthermore, there is a kind of Line found out which will not conſume in the fire: this in Italy they call Quick-line, and I my ſelf haue ſeen table-clothes, towels, & napkins therof, which being taken foule from the bourd at a great feaſt, haue been caſt into the fire, and there they burned before our face vpon the hearth; by which meanes they became better ſcoured, and looked fairer and brighter a hundred times, than if they had bin rinſed and waſhed in water; and yet no part of their ſubſtance, but the filth only, was burnt away. At the roiall obſequies and funeralls of KK. the manner was to wind and lap the corps within a ſheet of this cloth, of purpoſe to ſepa- M
rate the cinders comming of the body, from other aſhes [of the ſweet wood that was burnt therewith.] This manner of Line groweth in the deſerts of India, where no rain falls, where the countrey is all parched and burnt with the Sunne, amongſt the fell dragons and hideous Serpents: thus it is inured there to liue burning; which is the reaſon, that euer after it wil abide the fire.

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A fire. Geaſon it is to be found, and as hard to be wouen, ſo ſhort and ſmall it is. How ſoeuer otherwiſe it be naturally of colour reddiſh, yet by the fire it getteth a ſhining gloſſe and bright hew. They that can come by it and meet withall, eſteeme it as precious as the beſt orient pearles. In Greeke they call this Line, Asbeſtinum, according to the nature and propertie that it hath, not to conſume with burning. Ouer and beſides, *Anaxilaus* ſaith, That if a man would cut downe or fall a tree by ſtealth and in ſecret, let him compaſſe the body thereof with a ſheet of this linnen, he may hew as long as he will at it, and all the ſtrokes that he giueth wil be ſo drowned, that they ſhall not be heard againe. To conclude, in all theſe reſpects aboue ſaid, this Line may well be counted for the principall and beſt that is in the whole world.

The next to it in goodneſſe, is the Line called Byſſus: the fine Lawn or Tiffany whereof our
B wiues and dames at home ſet ſo much ſtore by for to trim and deck themſelues: it groweth in Achaia within the territorie about Elis: and I find, that in old time it was ſold as deare as gold, for a * ſcruple thereof was commonly exchanged for * foure deniers Roman.

The lint or nappie downe which linnen cloth beareth in manner of a ſoft cotton, eſpecially ſuch as commeth of ſhip ſailes that haue lien at ſea, is of great vſe in Phyſicke.* The aſhes alſo made thereof, be counted a good Succedane of Spodium, and for their efficacie may go for it. Moreouer, there is a kind of Poppies much ſought after for blanching and bleaching of linnen clothes; for being skoured therewith, it is wonderfull how white and pure they will look: & yet for all the beautie that conſiſteth in that colour, people are grown to this diſorder & vain enor-
C mity, that they haue aſſaied to ſtain and die their linnen and naperie into other colours, as well as their woollen cloth. Which practiſe was firſt ſeen in the Armada or fleet of K. *Alexander* the Great, vpon the great riuer Indus, at what time as his captaines and Admiralls in a certaine skirmiſh that they made with the Indians, changed the armes and enſignes of their ſhips: wherat the inhabitants (being vpon the ſhore and ſtrond) were aſtonied to ſee their ſailes and ſtreamers painted with diuers colours wauing in the wind. Semblably, the ſailes of that ſhip were died purple, wherein *M. Antonius* together with *Cleopatra* came to Actium, and in which they fled both from thence and eſcaped. And indeed heretofore a red purple banner erected on the top of the maſt, was the badge or enſigne of the royall Admirall ſhip: but afterwards they be-
D gan at Rome to incourtaine their Theatre with ſuch vailes dyed in colours, onely for ſhade: an inuention deuiſed by *Q. Catulus* at what time as he dedicated the temple of the Capitoll. In proceſſe of time, *Lentulus Spinter* (by report) was the firſt man that in the ſolemnity of the games and plaies Appollinate, drew fine curtaines ouer the great Amphitheatre at Rome: howbeit not long after, *Cæſar* Dictator cauſed the grand Forum or Common place at Rome to be couered all ouer with ſuch rich Courtains; yea and the high faire ſtreet called Sacra, to bee hanged on both ſides from his owne dwelling houſe to the very Capitoll cliffe: which magnificent and ſumptuous ſight, was more wondered at and ſeene with greater admiration, than the braue ſhew and Tourney that he ſet out at the ſame time of Sword-plaiers at ſharpe and to the vtterance. Then followed *Marcellus* alſo the ſon of *Octauia*, ſiſter to the Emperour *Auguſtus*, who in his own Ædileſhip and in the tenth Conſulſhip of his vncle *Auguſtus* beforeſaid, vpon the Calends or
F firſt day of Auguſt that yeare, cauſed the Romane Forum to be drawne all ouer and ſhadowed with the like courtains, although he repreſented at that time no ſolemnitie at all of games and plaies: and this he did only, that they who came to plead at the barre, might ſtand vnder ſhade more wholeſomely. Lord, what a change was here at Rome ſince the daies of *Cato* the Cenſor, who thought it meet and requiſit, yea and gaue aduiſe that the ſaid Forum or great Hal of common Pleas ſhould be paued and laid all ouer with caltraps vnder foot, To keep our Lawyers and buſie pleaders from thence. Of late daies there were ſeene in the Amphitheatres of Emperour *Nero*, trauerſes drawne vpon cords and ropes, with fine courtains of b lew azure colour like the skie, and thoſe beſet with ſtars; where the very floore of the ground vnder mens feet, was coloured red. And wherefore ſerue theſe in cloiſter courts and walks now, but to keepe the moſſe forſooth vpon the ground, or rather the fine fret-worke in pauements, from ſun-burning? But for
F all theſe paintings and rich dyes, yet when all is done, the white linnen held the own ſtill & was highly eſteemed aboue al colors. And no doubt in great price ſuch cloth was in the time of the Trojan war: and in good faith I ſee no reaſon why it ſhould not be as well in bloudy battails as at broken ſhipwracks: howbeit *Homer* teſtifies, that few there were who went to the wars with linnen habergeons or curets: but it ſhould ſeem that the Poet (as the better learned expoſitors doe interpret)

* 24 graines, * i about three hal e-pence the grain, and better.

* Hereof were m de ξυσὸς μίτινος, whereof *Galen* writes, 3. περὶ τ. with which lint her cured *Heraclides* and ſtanched his bleeding.

terpret) meant, That ſhip-tackling, ſailes, cords, and ropes, were made of this Line, ſpeaking as G
he doth of * Sparta, whereby he vnderſtandeth indeed Sata, *i.* cordage of ſowne Line or garden Flaxe.

*Called by *Pacuvius*, *Serilia*, as *Feſtus* noteth.

Chap. II.

¶ *The nature of Spart or Spaniſh broome: the manner of handling and dreſſing it: when it was firſt vſed in cordage: what Plants there be that line and grow without root.*

SPart verily was not in vſe and requeſt for many hundred yeares after, neither was it knowne before the firſt voiage and expedition that the Carthaginians made in warlike manner in- H
to Spaine. An herb this is alſo, growing of it ſelfe without ſetting or ſowing (which indeed it cannot abide.) Full well and properly it might be called, the ruſh of a dry and leane ground, and a very defect or imperfection appropriate to that countrey alone of Spaine: for, to ſay a truth, it is the fault and badneſſe of the ſoile in the higheſt degree, that breedeth it; and where it commeth vp, nothing elſe can be ſowed and ſet, or will grow at all. That in Affricke or Barbary is very ſmall, and good for nothing. In the territory of new Carthage or Cartagena (which is in the higher part of Spaine) it groweth much: howbeit all that tract is not giuen to breed it, but look where it commeth vp, you ſhall ſee whole mountaines all ouer-ſpread and couered with it. Hereof the ruſticall peaſants make their mattraces and beds; this is their fewel wherewith they keep fires; of it they make their torches and links to giue them light; with it they are common- I
monly ſhod; and the poore ſheepheards cloath themſelues therewith. Howbeit, hurtfull is this plant to cattell, vnleſſe it be the tender tops and crops of the branches; which they may brouſe and eat without harme. For other vſes, when the Spaniards would plucke it vp they haue much adoe withall, and a great toile about it; for their legs muſt be wel booted as it were with griues; their hands couered with thick hedging-gloues, as gantlets: and being thus armed at all points, yet they lie tugging at it, pulling, writhing, and wreſting the ſame with hooks and crooks either of bone or wood, vntill they haue their will of it. Come they about this work in winter time, it is in manner vnpoſſible to get it vp: but from the Ides [*i.* the mids] of May vnto mid-Iune, it is very tractable: for this is the time and ſeaſon when it is ripe, and then commonly they gather it for their ordinary vſes before named. Being once pulled and ſorted, the good from the bad, it is K
made vp into bundles and faggots with the life ſtill in it, and ſo piled on a heap for the firſt two daies; the third day they vnbind it, lay it looſe and ſcattering in the Sun for to be dried: which done, they make it vp againe into fagots, and ſo bring it in and lay it vp within houſe. After all this, they ſteep it in ſea water (for that is beſt) or els in freſh, for want of the other. After this watering, it muſt be dried in the Sun, and then ſteeped in water a ſecond time: but if a man haue vrgent occaſion to vſe it preſently out of hand, he muſt put it in a great tub or bathing veſſel, & let it ſoke there in hot water a time. Now if when it is dried againe, it be ſtiffe and will ſtand alone, they take it for a ſure ſigne that it is ſufficiently watered, and hath that which it ſhould haue. This is a very neere and ready way, & ſaueth them much labour. Thus being prepared one of theſe two waies, it ought to be brayed and beaten before it will ſerue the turne; and then no L
cordage in the world is better than that which is made of it, nor laſteth ſo well within the water and the ſea eſpecially, for it will neuer be done. For drie worke, I confeſſe, and out of the water, the gables & ropes wrought of hemp are better; but Spart made into cordage will liue & receiue nouriſhment within the water, drinking now the full as it were to make amends for that thirſt which it had in the natiue place where it firſt grew. Of this nature is Spart beſides, that if the ropes made thereof be worne, and (with much occupying) out of repaire, a little thing will mend and refreſh them, yea and make them as good as euer they were; for how old ſoeuer it be, yet will it be wrought very well again with ſome new among. A wonderfull thing it is to conſider and look into the nature of this herb, and namely, how much it is vſed in all countries, what in cables and other ſhip-tacking, what in ropes for Maſons and Carpenters, and in a thouſand M
neceſſities of this our life. And yet lee! the place which furniſheth all this ſtore, lying along the coaſt of new Carthage, we ſhal find to be within the compaſſe of thirty miles in bredth, & leſſe ſomewhat in length. And verily, if it were fetched farther off within the main, the cariage would not quit for the coſt and expences.

The

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A The Greekes in old time emploied their riſhes in drawing of ropes : as may appeare by the very word σπαρτος, which ſignifieth with them a riſh, and a rope. But afterwards they vſe their cordage of Date tree leaues, & the thin barks of the Linden or Tillet tree: from whence verily, like and probable it is, That the Carthaginians borowed both their vſe of Spartum, and maner alſo of dreſſing it.

* Sic Spartum nunc reſtem nunc plantam equa reſtes fiunt, ſignificant.

Theophraſtus writeth, That there is a bulbous plant, with a root like an Onion-head growing about the banks of riuers; between the vtmoſt rind whereof, and that part within, which is good to be eaten, there is a certain cotton or woolly ſubſtance, whereof folke vſe to make * woollen ſockes and ſome ſuch ſlight peeces of apparell. But he neither named the countrey where they be made, nor ſets downe any other particularities more than this, That the ſaid plant they cal-

* Impilia. vidua vdones.

B led Eriophoron [*i.* Bearing wooll :] ſo far as euer I could find in any copies comming to my hand. And albeit *Theophraſtus* was otherwiſe a diligent and curious writer of plants, and ſearched deep into the nature of ſimples, foure hundred and ninety yeres before my time, yet hath he made no mention at all of Spart, a thing that I haue obſerued and noted in him once already before now. Whereby euident it is, that the manner of dreſſing and vſing Spart, came vp after his daies.

And ſince we are entred into a diſcourſe of the wonders of Nature, I will follow on ſtill and continue the ſame, wherein this may be one of the greateſt, That a thing ſhould liue and grow as a plant without root. Looke but to thoſe Muſhroomes or Toad-ſtooles, which are called in Latin Tubera: out of the ground they grow, compaſſed about on euery ſide with the earth, with-

C out root, without any filaments, or ſo much as ſmall ſtrings & beards reſembling a root whereupon they ſhould reſt: the place where they breed doth not ſwel or bear vp one jot, nay, it ſhews no chink or creuaſſe at all out of which they ſhould iſſue: and to conclude, they ſeem not once to ſtick and cleaue to the ground whereupon they ſtand. A certaine barke or pill they ſeem to haue, which encloſeth them, ſuch as (to ſpeake plainely) we cannot ſay is earth indeed, nor any thing elſe but a very brawnie skin or calloſitie of the earth. Theſe breed commonly in drie and ſandie grounds, in rough places full of ſhrubs and buſhes, and lightly in none elſe. Oftentimes they exceed the quantity of good big Quinces, euen ſuch as weigh a pound. Two ſorts there be of them. Some be full of ſand and grit, and ſuch plague folkes teeth in the eating : others bee clean, and their meat is pure, without any ſuch thing among. They differ alſo in color, for there

D be of them that are red: ye ſhall haue thoſe alſo that ſeem blacke, and yet are white within. But the beſt ſimply are thoſe that come out of Africk or Barbarie. To determin reſolutely whether they grow ſtill from day to day, as other plants ; or whether this imperfection of the earth (for better I know not how to call it) commeth at one inſtant to that full growth that euer it will haue ; alſo, whether they liue or no, I ſuppoſe it is a difficult and hard matter: ſurely this is certaine, that their putrifaction is much after the manner of wood, and they rot both alike. Many yeres paſt there are not, ſince *Lartius Licinius*, ſometimes lord Pretor and gouernour vnder the Romans in the prouince of Spain, chanced (of my knowledge) while he was there at Carthage, in biting one of theſe Muſhroms, to meet with a ſiluer Roman denier within it, that turned the edge againe of ſome of his fore teeth, and ſet them awry. Whereby a man may perceiue mani-

E feſtly, that they be a certaine excreſence of the very earth, gathering into a round forme, as all other things that grow naturally of themſelues, and come neither by ſetting nor ſowing.

Chap. III.

¶ *Of the excreſcence named * Miſy : and of other ſuch like Puffes and Muſhroms. Of thoſe flat Fuſſes and broad Toad-ſtooles, called * Pezici. Of the plant or hearbe * Laſerpitium. Of Magydaris. Of Madder. Of Sope-weed, or the Fullers hearbe Radicula.*

* or, Miſon.

* or, Pezitæ.

* Laſer-wort.

W Ithin the prouince of Cyrenaica in Affricke, there is found the like excreſcence called Miſy, paſſing ſweet & pleaſant, as well in regard of the ſmell as the taſt, more pul-

* or Miſon, rather, according to *Turneb.*

F pous alſo & fuller of carnoſitie than the reſt: likewiſe, another of that nature in Thracia, called Ceraunium. As touching al the ſorts of Muſhroms, Toad-ſtooles, Puffes, Fusbals or Fuſſes, theſe particulars following are obſerued, Firſt it is known for certain, that if the autumn be much diſpoſed to rain, and withal, the aire be troubled and diſquieted with many thunders, during that ſeaſon, there wil be good ſtore of ſuch Muſhromes, &c. eſpeciall, (I ſay) if it thunder

der much. Secondly, they wil not laſt aboue one yere. *Item*, The tendereſt & daintieſt be thoſe G
that breed in the Spring, and that indeed is the beſt time for them. *Item*, In ſome countries the
ouerflow of riuers engender Muſhromes, and namely, at Mitylene, where (by report) they will
not otherwiſe grow but vpon floten grounds, and namely, in ſuch places whither the water hath
brought from Tiara, a certain vegetatiue ſeed to breed them. And verily, That Tiara is wonder-
fully ſtored & repleniſhed with ſuch. As touching the Truffles or Muſhroms of Aſia, the moſt
excellent of all others be neer vnto Lampſacum and Alopeconneſus: but the beſt that Greece
yeeldeth are in the territorie about the citie Elis. In this Toad-ſtoole or Muſhrome kind are
* or Pezici thoſe flat Fuſſes and Puffes to be reckoned, which the Greekes name * Pezitæ: as they haue no
root at all, ſo they be altogether without either ſtele or taile.

In the next place to theſe I muſt needs ſpeake of the moſt noble and famous plant Laſerpi- H
tium, which the Greeks name Silphium, diſcouered and found firſt in the abouеſaid prouince
* Some take it for *Benioin*, or *Aſa dulcis*. of Barbarie Cyrenaica. The juice or liquor drawne out of this hearb they cal * Laſer; a drug ſo
magnified, of ſuch ſingularitie and vſe in Phyſicke eſpecially, that it was ſold by weight, and a
* Which is equiuolent in weight to a dram, *i.* 7. *d.ob* Engliſh. dram thereof coſt commonly * Romane denier. For theſe many yeares of late, there is none of
this plant to be found in that country of Cyrenaica beforeſaid: for that the Publicans and Far-
mers of the paſtures and grounds there, (vnder the people of Rome) doe put in their cattell a-
mong theſe plants, and eat al downe by that means: finding thereby a greater gaine or commo-
dity, than by letting them ſtand for the juice or liquor aforeſaid. One only ſtalk or ſtem thereof
hath bin found in our days, which was ſent vnto Emperor *Nero* as a preſent, for a great nouelty.
If it chance at any time, that either ſheepe or goat (which commonly bite neer to the ground) I
do light vpon a yong plant thereof, newly peeping forth and not euident to be ſeene, you ſhall
know it by theſe ſignes, The ſheepe preſently ſo ſoone as ſhe hath taſted it will drop aſleep, and
the goat fal a neeſing. For theſe many yeres the merchants haue brought vs into Italy no other
* Thought to be *Aſa fœtida*. * Laſer, than that which grows abundantly in Perſis or Media, and in Armenia: but it is far in-
ferior to this of Cyrenaica, and commeth ſhort of it for goodnes. And this that we haue is no
better than it ſhould be, for they ſophiſticate and corrupt it with gum, with Sagapeum, or elſe
with bruiſed Beans. In regard of which ſcarſity, I canot chuſe but remember that which befell
at Rome in that yere wherin *C. Valerius* and *M. Herennius* were conſuls, when by great good for-
tune there was brought from Cyrenæ thirtie pound weight of the beſt Laſer, and ſet abroad to
be ſeene in open place, of all commers. As alſo I may not let paſſe another occurrent, namely, K
how *Cæſar* Dictatour at the beginning of the ciuile war, tooke forth openly out of the chamber
of the citie, with other treaſure both of gold and ſiluer, an hundred and eleuen pounds of the
beſt Laſer. Moreouer, this one thing more I canot forget: the beſt and moſt renowned Greeke
Authors haue left in writing, That 7 years before the foundation of the citie Cyrenæ, which
was built 143 yeres after our citie of Rome, this plant Laſerpitium that beareth the ſaid Laſer
was engendered at one inſtant, by occaſion of a certain thicke, groſſe, and black ſhewer of raine,
in manner of pitch, which ſodainely fell and drenched the ground, about the hortyards or gar-
dens of the Heſperides, & the greater Syrtis: The which rain was effectual, and left the ſtrength
* 500 miles. thereof, for the compaſſe of * foure thouſand ſtadia within Affricke or Barbarie. They affirme
moreouer, That the herb Laſerpitium, there growing, is of ſo ſauage and churliſh a nature, that L
it canot abide any culture or good ordering by mans hand: but if one ſhould goe about to tend
and cheriſh it, it would rather chuſe to be gon into the deſart and vnpeopled parts of the coun-
trey, or elſe winder away and die. Moreouer, they ſet downe this deſcription of it, That it hath
many roots, and thoſe bigge and thicke, a ſtemme or ſtalke, reſembling the hearb Sagapeum or
Fennell-geant, howbeit, not altogether ſo great: the leaues of this plant, which they termed by
the name of Maſpetum, come very near in all reſpects to thoſe of Smallach or Perſely. As tou-
ching the ſeed that it beareth, flat and thin it is in maner of leaues: but the leafe it ſelfe therof,
ſheddeth in the Spring time. The cattell that vſe to feed thereupon (and whereof they be very
greedy) firſt fall a ſcouring: but afterwards, when they be clenſed and rid of ill humors, begin to
wax fat: and their fleſh by this means becommeth wonderfull ſweet and pleaſant. They report M
moreouer, that after the leaues be fallen, men alſo were wont in old time to eat the ſtem or ſtalk
thereof, either roſted and baked vnder the cindres, or elſe boiled and ſodden in water: and their
bodies likewiſe for the firſt 40 daies enſuing, did nothing but purge til they were cleared of al
diſeaſes, breeding by occaſion of any Cacochymie or collection of ill humours within them.

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A Now concerning the juice or ſoueraigne liquor beforeſaid, the manner was to draw it after two ſorts; to wit, by ſcarification, either out of the root, or forth of the ſtem and maiſter ſtalke. And hereof it came to haue two names, Rhizias and Caulias. But the later of theſe two, to wit, that which came of the ſtem, was counted the worſt, ſubiect to putrifaction, and ſold cheaper than the other. To come now to the root of Laſerpitium, it hath a blacke rind or barke vpon it, wherewith the merchants vſe to ſophiſticat many of their drugs. As for the manner of dreſſing and ordering the juice thereof, it was no ſooner drawne, but they put it into certaine veſſells, together with brans among; then euer and anone they plied it with ſtirring and ſhogging, vntil it had loſt the cruditie and verdure thereof, and by that working, came to the maturity and perfection: for if it were not thus well followed, ſoon would it catch a vinew, begin to putrifie, and ſo
B continue but a while. In this worke of theirs they had an eye vnto the color how it changed: for when they perceiued it to be high, & that they ſaw it once drie and haue don ſweating & breathing out the raw humidity and vapor within, then they knew therby that it was wrought ſufficiently, and come to the full ripeneſſe. Others there be who ſay, that the root of Laſerpitium beareth more than a cubit in bigneſſe, and that out of it there ſwelleth an excreſence, aboue the ground, out of which there was wont by way of inciſion to iſſue forth a certaine white juice in manner of milke: vpon which grew the ſtalke or ſtem which they called Magydaris. And they affirme beſides, that it beareth leafy flat graines for the ſeed, in color like gold, which ſhed preſently vpon the riſing of the Dog-ſtar, eſpecially if the wind be ſouth. Of which grains or ſeeds fallen to the ground, young plants of Laſerpitium vſe to grow vp vnderneath, that within the
C compaſſe of one yere wil thriue both in root and ſtem to the juſt and full perfection: they haue writen moreouer, that the vſe was to dig about their roots, and to lay them bare at certain times of the yeare. Alſo, that they ſerued not to purge cattell as is aforeſaid, but to cure them if they were diſeaſed: for vpon the eating thereof either they mended preſently, or elſe ended and died out of hand; but few they were that miſcaried in this ſort. As touching the former opinion of purging and ſcouring, true it is, that it agreeth well to the other Silphium or Laſerpitium of Perſia, aforeſaid. Another kind there is of it named Magydaris, more tender and leſſe forcible and ſtrong in operation than the former; and affourdeth no ſuch juice or liquor at all, it grows about Syria, and commeth not vp in all the region about Cyrenæ.

Moreouer, vpon the mount Pernaſſus there is great plentie found of a certaine hearbe, which
D the inhabitants would needs haue to be Laſerpitium, and ſo they cal it: wherewith indeed they are wont to abuſe and ſophiſticat that ſingular and diuine plant, the true Laſerpitium, ſo highly commended, and of ſo great account and regard. The principall and beſt triall of the true and ſincere Laſer, is taken from the colour, ſomewhat enclining to redneſſe without: breake it, you ſhall haue it appeare white within: and anone tranſparent. If you drop water vpon it, or otherwiſe thin ſpittle, it will reſolue and melt. Much vſe there is of it in many medicines, for to cure mens maladies.

Two plants more there be well knowne to the common ſort and baſe multitude, and to ſay a truth, few e's are acquainted with them, notwithſtanding they be commodities of much gaine, and many a peny is gotten thereby. The firſt is Madder, in great requeſt among diers and curri-
E ers: and for to ſet a color vpon their wooll and leather, right neceſſarie. The beſt of all and moſt commended is our Madder of Italie, principally that which groweth about villages neere vnto our citie of Rome. And yet, there is no country or prouince lightly but is full of it. It commeth vp of the owne accord, and is ſowed beſides of ſeed, and ſet of ſlips in manner of Eruile. Howbeit, a prickie ſtalke it hath of the owne: the ſame is alſo full of joints and knots, and commonly about euery one of them it hath fiue leaues growing round in a circle. The ſeed is red. What medicinable vertues it hath, and to what purpoſe it ſerueth in Phyſicke, I will declare in place conuenient.

The ſecond is that which is called in Latin Radicula, [i. Sope-wort] an hearb, the juice wher-
of Fullers vſe ſo much to ſcoure their wooll withall: and wonderfull it is to ſee how white, how
F pure, how neat and ſoft it will make it. Being ſet, it will come vp and grow in any place: but of it ſelfe without mans hand, it groweth moſt in Aſia and Syria, among rough, craggie, and ſtony grounds. The beſt is that which is found beyond the riuer Euphrates, and that bears a ſtem like tall Fennell, howbeit ſmall and ſlender, and whereof the inhabitants of the countrey there doe make a delicate diſh; for beſides, that it hath a commendable taſt and much deſired, it giueth a

pleaſant

pleaſant colour to what meat ſoeuer is ſodden in the pot with it. It beareth a leaſe like the Oliue: the Greeks cal it Strution: it floureth in Summer: louely it is to the eie, but no ſmel at all it hath to content the noſe: prickie moreouer it is like a thorne, and the ſtalke notwithſtanding couered with a ſoft down: ſeed hath it none; but a big root, which they vſe to cut, ſhred, & mince ſmall for the purpoſes aforeſaid. G

Chap. IV.

¶ *The manner of trimming and ordering Gardens: the ſorting of all thoſe things that grow out of the Earth, into their due places, beſides corne and plants bearing fruit.* H

IT remaineth now to treat of Gardens, and the carefull diligence thereto belonging: a commendable thing in it ſelfe, and recommended vnto vs beſides by our fore-fathers and auncient writers, who had nothing (to ſpeake of) in more account and admiration in old time, than the gardens of the Heſperides, of *Adonis*, and *Alcionoüs*: as alſo thoſe pendant gardens vpon tarraces and leads of houſes, whether they were thoſe that *Semyramus* Queene of Babylon, or *Cyrus* K. of Aſſyria, deuiſed and cauſed to be made. Of which, and of their workmanſhip, my intent is to make a diſcourſe in ſome other booke. Now for this preſent (to goe no farther than Rome) the Romane KK. verily themſelues made great ſtore of gardens, and ſet their minds vpon them: for ſo we read, that *Tarquin* ſurnamed the Proud (the laſt king of Rome, was in his garden when he gaue diſpatch vnto that meſſenger that was ſent from his ſonne about a cruell and bloudie errand, for to know his fathers aduiſe and pleaſure as touching the citizens of Gabij. In all the twelue tables throughout which contain our ancient lawes of Rome, there is no mention made ſo much as once of a Grange or Ferm-houſe, but euermore a garden is taken in that ſignification, and vnder the name of Hortus [*i.* a Garden] is compriſed Hæredium, that is to ſay, an Heritage or Domain: and herupon grew by conſequence, a certain religious or rediculous ſuperſtition, rather of ſome whom we ceremoniouſly to ſacre and bleſſe their garden and hortyard dores only, for to preſerue them againſt the witchcraft; and ſorcerie of ſpightful and enuious perſons. And therefore they vſe to ſet vp in gardens, ridiculous and fooliſh images of Satyres, Antiques and * ſuch like, as good keepers and remedies againſt enuy and witchcraft, howſoeuer *Plautus* aſſigneth the cuſtodie of gardens to the protection of the goddeſſe *Venus*. And euen in theſe our daies, vnder the name of Gardens and Hortyards, there goe many daintie places of pleaſure within the very citie, vnder the color alſo and title of them, men are poſſeſſed of faire cloſes and pleaſant fields, yea and of proper houſes with a good circuit of ground lying to them, like pretie farmes and graunges in the countrey: all which, they tearme by the name of Gardens. The inuention to haue gardens within a citie, came vp firſt by *Epicurus* the doctor and maſter of all voluptuous idleneſſe, who deuiſed ſuch gardens of pleaſance in Athens: for before his time, the manner was not in any citie, to dwell (as it were) in the countrey, and ſo to make citie and countrey al one, but all their gardens were in the villages without. Certes at Rome, a good garden and no more, was thought a poore mans cheiuance; it went (I ſay) for land and liuing. The Garden was the poor commoners ſhambles, it was all the market place he had for to prouide himſelf of victualls. O what a bleſſed, what a ſecure, and harmleſſe life was that, ſo long as men could be content to take vp with ſuch a pittance, and ſtay themſelues ſo! but better it is I trow, for to ſatisfie the appetit of our wanton gluttons and belli gods, to ſearch into the bottom of the deepe ſea: for to get (I ſay) oiſters of al ſorts, to feare no tempeſt nor ſhipwrack: for to meet with daintie foule, to ſend out one way as far as beyond the riuer Phaſis for thoſe birds, which a man would thinke were ſure ynough and ſecured from the fouler, by reaſon of the fearefull tales that goe of them, and of the daunger of thoſe that approach neere vnto them (and yet why ſay I ſo, conſidering they are the better eſteemed and more precious the farther they bee fet and dearer bought:) to haue purueyours another way in Numidia and Æthiopia, for the rare birds there about the ſepulchres; among thoſe ſepulchres (I ſay) where in ſtead of meeting with game, they ſtumble otherwhiles vpon their owne graues and neuer come home again: and laſtly, to haue others to chaſe the wild and ſauage beaſts of the forreſts, yea and to maintain fight with them, in daunger to be deuoured as a prey, by thoſe which ſoon after muſt ſerue as veniſon for other men to eat. But to come againe to theſe commodities of the Garden, and the cates which I K L M

* as *Priapus*, *Phalli*, and *Ithyphalli*.

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A which they affourd: how cheape be they? how ready at hand? how fitted are they not only to fil the belly and ſatisfie hunger, but alſo to pleaſe the tooth and content the appetite, were it not that wealth and fulneſſe ſtand in the way: the ſame that loath all things els beſide, and diſdain (no maruell) theſe ordinarie viands. Wel might it be borne with and ſuffered, that Apples and other fruits of the trees, ſuch as are more exquiſite and ſingular than the reſt, in regard of their beauty, bigneſſe, pleaſant ſauour, or ſtrange and monſtrous maner of growing, euen againſt the courſe of Nature; that theſe dainties (I ſay) ſhould be reſerued for our rich and mighty men of the world; that poore men ſhould be debarred and forbidden once to taſte thereof. In ſome ſort tolerable alſo it is, that great States and wealthy perſonages ſhould be ſerued at their table with old wines, fined and refined, with Wines delaied, neatified, and guelded, as it were, by
B paſſing thorow an Ipocras bag; that ſuch ſhould drink no other but that which was wine before they were born, how aged ſoeuer they be and far ſtept in yeares. We may abide moreouer, that our grand-panches and riotous perſons haue deuiſed for themſelues a delicat kind of meat out of corn and grain (which ſhould ſerue for bread only) and the ſame made of the fineſt and pureſt floure, bolted and ſearſed from the reſt, and none but that: to ſay nothing of the curious work in paſtrie, the fine cakes, wafers, and marchpanes, artificially carued, ingraued, and painted in imagerie, as if theſe wantons could not liue, forſooth, but of ſuch deuiſes. That there ſhould be a difference alſo in bread, anſwerable to the diſtinction of States in the city, one ſort for noble Senators, another for the worſhipful knights and gentlemen, and a third for the mean commoners and multitude. Finally, that in other victuals there ſhould be a deſcent by ſo many de-
C grees, from the higheſt to the loweſt, many cary ſome apparance of reaſon, & be allowed. How then? muſt there be a diſtinction therefore inuented in worts and garden pot-herbs? Muſt the difference of perſons according to their purſe appeare alſo in a diſh of * three farthings price, and no better? Surely I ſee no ſenſe nor congruitie at all in this. And yet forſooth ſuch herbes there be, that the tribes of Rome (the greater part I mean of the Roman citiſens) may not preſume to eat; as if the earth had brought them forth for rich men onely, being no meat ywis for poore people. Why (ſay they in ſcorne and contempt of pouertie) here is the ſtem of a Wort ſo well growne, here is a cabbage ſo thriuen and fed, that a poore mans boord will not hold it. Certes dame Nature ordained at the firſt, That Sperage ſhould grow wilde and commonly in all places of the field, as if ſhe meant therby, that euery man that would might gather them for
D to eat: and now behold they are cheriſhed carefully in gardens; and from Rauenna you ſhall haue of theſe garden Sperages ſo fair and big, as three of their crops or heads wil weigh a good pound, and are ſold after three a Roman As. O the monſtrous bellies that be now adaies! O the exceſſiue gluttonie and gourmandiſe which now reigneth in the world! Is it any maruell, that poore Aſſes and ſuch dum beaſts may not feed vpon * Thiſtles, when the Commons of Rome are reſtrained and forbidden to eat * Thiſtles, and dare not once touch them? And yet here is not all: our waters alſo be diſtinguiſhed and ſet apart for ſome perſons; euen the very elements whereof this world conſiſteth, are diſtinct, ſeuered, and raunged into ſundry degrees, and all at the pleaſure of monied men: for ſome you ſhall haue to drinke ſnow, others ice: and will you ſee in one word their folly and vanity? the very miſerie that high mountains are puniſhed and
F plagued with, they make their pleaſure of, and therewith content and delight the throat. Theſe men lay for to be prouided of chilling cold againſt the heat of ſummer, and ſeeke by all means that they can poſſible, to haue ſnow remain white ſtill and frozen (as it firſt was) out of Winter ſeaſon, euen in the hotteſt months in the yere, which are moſt oppoſite vnto the nature of ſnow. Some there be who firſt ſeeth their water, & anon let it congeale again to ice, after it was once ſcalding hot. Whereby we may ſee, how man neuer contenteth himſelfe in natures workes, but croſſe he will be alwaies and peeuiſh; and look what pleaſeth her, ſhall diſpleaſe him: for who euer would haue thought, that any one herb ſhould haue grown for the rich, and not as well for the poore? Well, let no man for all this caſt about and look toward mount Sacer, or Auentine hill, that the Commoners againe ſhould by way of inſurrection riſe, and in the heate of their
F bloud depart aſide thither, as ſomtimes they did in a mutinous fit of theirs, in high diſcontentment with the Nobilitie. For what needs that, ſince they may be ſure that death very ſhortly will bring them together, and make equall, betweene whom now for a while Riches hath put a bar, and made diſtinction of place and degree.

But now it is time to returne againe vnto our gardening, from which we were digreſſed. Certaine

* *Etiam vno eſſe venali.*

* *carduus:* * Artichokes, which are no better than *Cardui altiles*, i. Garden-Thiſtles.

tain it is, that in old time there was no market place at Rome yeelded greater impoſt vn to the State than the Herberie, in ſuch requeſt and ſo much called for were worts and pot-herbs. In regard of which exactions and paiments, euermore going out of their purſes, the Commons in the end complained, laid open their griefes, and made their mone to the Senate, of this burden and heauy load; and neuer gaue they ouer crying ſtill vnto them with open mouth, for redreſſe, til they obtained a full releaſe of rent and cuſtome, raiſed before from the tallage and portage of this kind of ware and commoditie. Whereby it was well knowne and found by long experience, that there was no one thing of greater reuenue and more aſſured gain; none that ſtood ſo ſafe and certaine; none leſſe ſubiect to the will and pleaſure of Fortune & Caſualtie, than gardenage: as being taken for no leſſe than a yerely fee, that poore men might make account of as ſure as if it were in their purſe. Again, for the rent thereof paid to the land-lord, there was euer good ſecuritie: the ground or ſoile was a ſufficient ſurety; the profits thereof were alwaies ſeen and expoſed openly to the eye; and lightly no weather whatſoeuer hindred the crop & gathering thereof. *Cato* highly commends the garden Couls or cabbages; whereby we may know, that in his daies gardens were in ſome reſpect. Alſo in times paſt, as husbandmen in the country were known eſpecially, & their wealth valued by their gardens, ſo when there was a garden plot ſeen lying out of order, and not wel kept, men iudged ſtraitway, that the miſtreſſe or dame there dwelling (for commonly this charge lay vpon women) was but an ill huſwife, and thriftleſſe in her houſe: for in default of gardinage what remedy was there then, but to draw the purſe ſtrings, and go for euery thing either to the Butchery or the herbe-market, and ſo to liue vpon the penny. Neither were in thoſe daies Coules or cabbages ſo well eſteemed as now they be: for why, they could not away with double meats one vpon another, but condemned all diſhes that required ſome addition, as help of ſauce, broth, or ſuch like to draw them downe. This was to ſpare coſt, and by this means they ſaued oile. For as touching the pickle ſauce * Garum, all thoſe were reproched for gourmandiſe and gluttony, who could not eat fiſh or fleſh without it. And therefore men tooke greateſt contentment in their gardens & garden herbs: thoſe were at hand and ready at all times, no great cookerie was required to dreſſe ſuch diſhes, no need of fire, no expence of wood and fewel. And hereupon it came, that ſalads of herbs were called * Acedaria, ſo little care and trouble went to the prouiſion and making of them. Beſide, light they are of digeſtion, they breed no heauineſſe in the head, they offend not the braine nor any of the ſenſes; and leaſt of any thing make quarrell to the loafe and ſpend little bread. That quarter of the garden which ſerueth an houſe with poignant herbs in ſtead of ſauce, to giue a commendable taſt and ſeaſoning to our meat, ſheweth plainly, that the maſter and miſtreſſe therof were not wont to run in the merchants books for ſpicerie, but changed the Groſſer or Apothecaries ſhop for the garden; for the ſame contentment they had out of it, as from thence: alſo that they ſought not either for pepper out of India, or for any kitchen ſpices tranſported from beyond the ſeas out of far countries. And as for the other quarters, ſet out with beds of floures, & ſweet ſmelling hearbes, what reckoning was made of them in old time may appeare by this, That a man could not heretofore come by a Commoners houſe within the city, but he ſhould ſee the windowes beautified with green quiſhins, wrought and tapiſſed with floures of all colours, reſembling daily to their view the gardens indeed which were in out villages: inſomuch, as being in the very heart of the city, they might think themſelues in the country; till ſuch time as theſe ſly theeues and night-hookers, the wicked rabble (I ſay) and off-ſcouring of the baſe multitude (not to be reckoned) committed ſuch felonious outrages, as forced men to naile vp couers and caſes before theſe faire lights and beautifull proſpects. Let vs giue therefore to gardens their due honour: let vs not (I ſay) depriue things of their credit and authoritie, becauſe they are common and nothing coſtly: for I may tell you, ſome of our nobilitie, yea the beſt of the city, haue not diſdained to take their ſir-names from thence, nay they ſuppoſed themſelues highly credited and honored thereby. Thus we ſee, that in the Noble houſe and linage of the *Valerij*, ſome were not abaſhed nor aſhamed to be called *Lactucini*, in regard of the beſt kind of Lectuce that they either had in their gardens, or affected moſt. And here I cannot chuſe but mention by the way, the grace that hath growne to our name, by occaſion of ſome diligence imploied and paines taken this way; whereby certaine Cherries beare our Name, and are called *Pliniana*, in teſtimonie of our affection and loue to that fruit. Which I remember the rather, for that *Virgil* confeſſeth how hard a thing it is, that ſo ſmall matters as theſe be ſhould

grow

* Much like to our Anchoues.

* ἀβὶ ὃ κνδῆς.

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A grow into the name and reputation of honor any way. And now to the purpoſe. No man doubteth, but that a garden ſhould lie to a graunge or ferme-houſe, and joine cloſe vnto it: as alſo, that aboue all things there ſhould be water at commaund, from ſome riuer or brooke running vnder, yea, and through it, if it were poſſible: if not ſo, yet that they are to be watered with pit water fed with Spring, either drawne vp by plaine poles, hookes, and buckets; or forced by pumpes and ſuch like, going with the ſtrength of wind within encloſed, or elſe weighed with Swipes and Cranes. Moreouer, that a garden-plot ſhould be broken vp and haue the firſt digging preſently vpon the comming of the weſt wind Fauonius in the beginning of the Spring: and for any thing that muſt be ſet or ſown there, againſt Autumne, it ought to be prepared and dreſſed readie for to receiue ſeeds and ſets, 14 daies after: but for Winter ſtuffe, it ſhould haue
B a ſtirring or ſecond tilth and deluing before the Winter Sunſtead or ſhorteſt day of the yeare. Alſo, this is to be noted, that there would not be a greater plot of ground taken in, empaled and fenced about for a garden, than of 8 acres or Iugera at the moſt. Now for the manuring and ordering thereof: firſt, for three foot deep the dung would be tempered and mingled with the mould. *Item*, It ought to be diuided in principal quarters: the ſame alſo muſt be ſet out into ſeuerall beds, raiſed ſomwhae high and lying vpward. *Item*, Requiſit it is, that euery quarter haue as welcertaine open gutters or furrowes drawne about them, as conuenient allies betweene to giue both paſſage for men to come and goe gainely; and alſo a currant to the courſe of water that ſhall be let in, when the ſprings be ſet open or ſluces drawne.

Garden plants and hearbs be not all commendable in one and the ſame reſpect. For of ſome
C the goodneſſe lieth only in their bulbous and round root: of others contrariwiſe in their head aloft. There be of them that haue no part good but their ſtem or maiſter ſtalk: and there are for them againe, the leaues wherof be only eaten. Now a man ſhall haue amongſt them thoſe that are wholeſome meat, both leafe and ſtalke. In ſome the ſeed or graine, in other the outward pil or rind alone of the root is in requeſt. And as there be that taſt well in the skin or cartilage and griſtly ſubſtance without-forth, ſo there are that haue either their pulpous carnoſity within, or elſe their fleſhy coat aboue, as daintie. All the goodnes of many of them lieth hidden within the earth: and of as many again aboue the ground: and yet ſome there be that are al one, as good within as without. Some traine along and run by the ground, growing on end ſtil as they creep, as Gourds and Cucumbers. And yet the ſame, as well as they loue to be neere the earth, yet are
D led lpon trailes, and hang thereon, yea, and be knowne for to rampe vpon trees: Howbeit, much weightier and better nouriſhed be they that keepe beneath. As for the Cucumber, it is the cartilage ſubſtance of the fruit thereof, that delighteth and pleaſeth our taſt: for of all fruits this propertie it alone hath, that the vtmoſt rind which it beareth, groweth to a very wood when it is once ripe. Within the earth lie hidden and are kept all Winter, Raddiſhes, Nauews, Turneps or Rapes, Elecampane alſo after another ſort; ſo doe Skirworts, and Parſeneps or Wypes.

Moreouer, this I would aduertiſe the Reader, that when I tearme ſome hearbes Ferulacea, I meane ſuch as reſemble in ſtalke Dil or the great Mallowes. For ſome writers doe report, That in Arabia there be a kind of Mallowes, which after they haue grown ſix or ſeuen months, come to be in the nature of pretie trees: inſomuch, as their ſtalks ſtreightwaies ſerue in ſtead of wal-
F king ſtaues. But what ſhould I ſtand vpon this? In Mauritania, by report of trauellers, neer the frith or arme of the ſea adjoining to Lixos, the head citie of Fez, where ſomtimes (as folke ſay) were the hort-yards and gardens of the Heſperides, not aboue halfe a quarter of a mile from the maine ocean, hard vnto the chappell of *Hercules* (farre more ancient than that temple of his, which is in the Iſland Calis) there groweth a Mallow, that is a very tree indeed: in height it is twentie foot, and in bodie bigger and thicker than any man can fadome. In this kind I meane for to raunge the Hempe likewiſe. And as I purpoſe to tearme ſuch Ferulacea; ſo there bee ſome others, that I will call Carnoſa, ſuch as reſemble the riuer or freſh-water Spunges, which commonly are ſeene vpon ouer-floten medowes, where the water ſtandeth. For as touching the fungous ſubſtance or calliſitie of ſome plants, I haue alreadie ſpoken thereof in the Treatiſe
F of Wood and Trees, and of their nature: Likewiſe in our late diſcourſe of another ſort of Muſhroomes and Toad-ſtooles.

G

Chap. V.

¶ *Garden plants, their natures, kinds, and ſeuerall hiſtories.*

OF the cartilage and pulpous kind (ſuch I meane onely, wherof there is nothing good but that which is aboue the ground) I reckon the Cucumber: a fruit that *Tiberius* the Emperor much loued and affected: for he tooke ſuch a wondrous delight and pleaſure therein, that there was not a day went ouer his head, but he had them ſerued vp to his table. The beds and gardens wherein they grew were ſuch as went vpon frames to be remooued euery way with wheeles: and in winter, during the cold and frоſty daies, they could draw them backe into certaine high couert buildings expoſed to the Sun, and there houſe them vnder roufe. Moreouer, H
I find in ſome ancient Greek writers, that their ſeed ought to lie 2 daies in ſteepe, or infuſed in honied milke, before they be prickt or ſet into the ground: for by that meanes the Cucumbers will be the ſweeter and more pleaſant. The nature of them is to grow in what forme and faſhion ſoeuer that a man would haue them. Throughout all Italy, green they be of colour, and leaſt of any others: in the out-prouinces they be as fair and great, and thoſe either of a yellow color, like wax and citrons, or els blacke. In Affrick or Barbary men take delight to haue the greateſt plenty of them; wheras in Mœſia they lay for to haue them paſſing big and huge. Now when they exceed in greatnes they be called Pepones, is Melons or Pompons. Let a man eat them alone, they will lie raw and greene in the ſtomacke a whole day, and neuer be digeſted: howbeit, with meats they are not vnwholſom, and yet for the moſt part ſwim they will aloft, and ride vp- I
on a mans ſtomacke. A wonderfull thing in their nature: they cannot abide oile in any wiſe, but water they loue well; inſomuch, as if they be cut off, or fallen from the place where they grew, they wind and creep therinto, if it be but a little way off: contrariwiſe, flie they will as faſt from oile, if a man ſet it by them; and in caſe any thing be in their way to let them, or that they hang ſtill vpon their plant, a man ſhall perceiue how they wil turn vp and crook, to ſhun & auoid it. This amitie to the one, and enmity to the other, may be ſeene euen in one nights ſpace: for if a man ſet vnder them, 4 fingers off where they grow, a veſſel with water ouer-night, he ſhal ſee by the morning that they wil come downe to it: contrariwiſe, let oile ſtand the like diſtance from them, ſhrink they wil from it, and hook vpward. Marke another experiment in the cucumber. If when it hath don flouring, you enter the knot of the fruit into a long cane or trunk, it will grow K
vo a wonderfull length. But behold a very ſtraunge and new faſhion of them in Campaine, for there you ſhall haue abundance of them come vp in forme of a Quince. And as I heare ſay, one of them chanced ſo to grow firſt at a very venture: but after from the ſeed of it came a whol race and progeny of the like, which therupon they cal Melopepones, as a man would ſay, the quince pompions or Cucumbers. Theſe neuer hang on high, but go low by the ground, and gather round in form of a globe. A ſtrange caſe it is of this kind: for, ouer and beſides their ſhape, their color, and ſauor different from the reſt; they are no ſooner ripe, but preſently they fall from the ſtele or taile wherto they grew, notwithſtanding they hang not hollow from the ground, where their owne poiſe might weigh them downe. *Columella* tells of a pretie deuiſe that he hath of his own, how to keep of them freſh all the yere long: chuſe (quoth he) the biggeſt bramble you can L
meet with among a thouſand, tranſlate it into a warm ſun-ſhine bank, and there replant it: then cut it off, leauing not aboue 2 fingers breadth from the root aboue the ground [but this muſt be don about the Spring Æquinox in mid-March:] then take a Cucumber ſeed, & ſet it within the ſoft pith of the ſaid bramble, bank it will round about with fine freſh mould & dung blended together: This is the way, he aſſureth vs, to make that the roots therof bearing ſuch cucumbers or Melons, will abide the greateſt cold in Winter, and neuer ſhrink at it: of cucumbers, the Greeks haue ſet down 3 kinds, to wit, the Laconick, the Scytalick & the Bœotick. Of which as they ſay, the firſt ſort only they be that loue waters ſo wel: ſome there be who preſcribe to take the ſeed of Cucumber or Melon & to temper it in the juice of a certain hearb ſtamped, which
* Some take it for *Coniza*, i. Fleabane Mullet. they cal *Culix, & then to ſow it, perſuading vs that we ſhal haue fruit therof without any ſeed. M

Of the like nature (I meane for their manner of growing) be the Gourds. Winter and al cold weather they canot endure: they loue alſo places wel watered & dunged. As wel Gourds, as the cucumbers or Melons aboueſaid, are commonly ſowed between the Æquinox in March, & the Sunſtead in Iune; prouided alwaies, that their ſeed ly in a trench within the ground, a foot & a

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A halfe deepe. But in very deed, the beſt and meeteſt time to ſow them is about the feaſt Patilia, howſoeuer there be ſome would haue the ſeed of gourds to be put into the ground preſently after the Calends or firſt day of March: but of cucumbers about the Nones, *i.* the 7 day thereof, or at fartheſt, by the feaſt or holy-daies of *Minerua*, named Quinquatrus. They loue both alike to creep and crawle with their winding top branches or tendrels, and gladly they would be clambering vpon walls, and climbing vp to the houſe roofe, if they can meet with any rough places to take hold by; for naturally they are giuen to mount on high. Howbeit, their ſtrength is not anſwerable to their will and deſire: for ſtand they canot alone without the help of ſome props, forks, or railes, to ſtay them vpright. Exceeding forward and ſwift they be in growth. They run on end when they are ſet on it: and if they may be born vp & ſuſtained in maner aforeſaid, they
B will gently ouerſhade galleries, walking places, arbors, frames, & allies vnder them in a garden, and that right quickly. In regard of which nature and behauior of theirs, two principall kindes there be of them; the one Camerarium, as one would ſay, the frame or trail-Gourd, and cucumber, which climbeth aloft; the other Plebeium, *i.* the vulgar and common, which creepeth along the ground beneath. In the former kind it is worth the noting, to ſee how the fruit (heauy as it is) hangeth ſtiffe poiſed as it were in the wind, and will not ſtir, notwithſtanding the ſtele wherto it groweth be wondrous fine and ſmal. Moreouer, Gourds alſo may be faſhioned in the head euery way as a man will, like as the Cucumbers or Melons before named: and ſpecially within wicker caſes made of pliable oiſiers, into which they are put for to grow & to take their form, ſo ſoon as they haue caſt their bloſſom. The nature of them (I ſay) is to receiue what figure a
C man will force and put them to: but commonly ſhaped they are in their growth like to a Serpent, winding and turning euery way. There haue bin known of them (ſuch I meane as were of the traile kind) being led vpon a frame from the ground, and permitted to run at libertie, which grew to an incredible length, for one of them hath bin ſeen 9 foot long. As for cucumbers, they bloom not all at once, but by piece-meale, floure after floure, now one and then another: yea, and floure vpon floure, one vpon the head of another. Howſoeuer the Cucumber loueth wateriſh grounds, yet can he abide drier places alſo. Couered al ouer this plant and fruit is with a white down, euen at the firſt: but eſpecially all the while he is in his growth.

Gourds are imploied ſundry waies, and to many more vſes than Cucumbers. For firſt, their yong and tender ſtalks be very good meat, and being dreſſed, are ſerued vp as a diſh to the ta-
D ble: but the rind is of a cleane contrary nature. Gourds of late time came to be vſed in ſtouves and baines for pots and pitchers: but long before that, they ſtood in ſtead of rundlets or ſmall barrels to keep wine in. The green of this kind hath a tender rind, which muſt be ſcraped notwithſtanding before a diſh of meat can be made thereof. And certes, albeit Gourds be of digeſtion hard, and ſuch as will not throughly be concocted in a mans ſtomacke, yet they are taken to be a light, mild, and wholſom meat, as they be handled and dreſſed diuers waies, for that they make not a mans belly to ſwel, as ſome meats doe. Of thoſe ſeeds which be found within the gourd next to the neck therof, if they be ſet, come the long gourds commonly: & ſuch lightly you ſhall haue ingendred of thoſe alſo that are in the bottom, howbeit nothing comparable to the other. Thoſe that lie in the midſt bring forth round ones: but from the ſeeds that are taken
E out of the ſides, ordinarily there grow the ſhorter ſort of Gourds, ſuch as be thicke and broad. Theſe grains or ſeeds would be handled in this manner. Firſt they are dried in the ſhadow, and afterwards when a man liſt to ſow them, they ought to be ſteeped in water. The longer & ſlenderer that a Gourd is, the better meat it yeelds, and more pleaſant to be eaten: and therefore it is, that they be thought more wholeſome which grew hanging vpon trailes; ſuch indeed haue leaſt ſtore of ſeed within them. Howbeit, wax they once hard, away with them out of the kitchen, for then they haue loſt all their grace and goodnes which commended them to the cooks dreſſer. Such as are to be kept for ſeed, the manner is not to cut vp before winter: and then are they to hang or ſtand a drying in the ſmoake, as proper ſtuffe and implements to be ſeen in a country houſe, to keep, as good chaffer, ſeeds for the gardner againſt the time. Moreouer, there
F is a means deuiſed, how to preſerue them and cucumbers too, for meat, ſound and good, almoſt til new come; & that is, by laying both the one and the other in a kind of brine or pickle. Some ſay alſo, that they may be kept freſh and greene, interred in a caue or ditch vnder the ground in ſome darke and ſhady place, with a good courſe or bed of ſand laid vnder them, and well couered afterward with dry hay, and earth vpon the ſame in the end. Ouer & beſides, as in all plants

and herbs in maner of the garden, there be both wild and tame: ſo is there of Gourds and Cucumbers both a certain * ſauage kinde. Such are not for the kitchen, but for the Apothecaries ſhop, and good only in Phyſick: and therefore I will put off for this preſent the diſcourſe of them & their nature, reſeruing them for their ſeueral treatiſes in other books concerning ſuch medicinable ſimples. G

* *Cucumis ſyluestris.* * *Colocynthis*, or, *Coloquintida.*

As touching the reſt of garden plants, which are of the like cartilage and pulpous ſubſtance, they be all the ſort of them roots growing hidden within the ground: amongſt which, I might ſeem to haue written already fully and ſufficiently of Rapes and Turneps, but that the Phyſitians haue obſerued in them both ſexes, to wit, maſculine & fœminin; for the rounder kind they wil haue to be the male, but the broader and flatter ſort, which alſo are ſomewhat hollow, they account the female: and theſe laſt they hold to be the better far, and more pleaſant, as being eaſier to be kept and condite; which alſo, if they be often remoued and replanted, will turn to be males. Phyſitians likewiſe haue ſet down fiue kinds of Nauewes, namely, the Corinthian, the Cleonæan, the Liothaſian, the Bœotian, and that which ſimply by it ſelf they called the green Nauew. Of all theſe, the Corinthian Nauews grow to a great bignes, and in maner all the root is ſeen naked aboue ground: for this is the only kind that coueteth to be aloft, and groweth not downward into the earth as the reſt do. As for the Liothaſian (ſome call it alſo the Thracian) of all others it will abide and endure froſt and cold weather beſt. Next to it is the Bœotian nauew, ſweet in taſt, differing from the reſt in the notable ſhortneſſe and roundneſſe withall that the root carieth; nothing at all like to the Cleonæan, which is paſſing long. Generally this is obſerued as a rule, that all Nauews, the ſlenderer, ſmaller, and ſmoother leaues that they beare, the more pleaſant is their root to the taſt: and contrariwiſe, the rougher that they be, the more cornered alſo and pricky, the bitterer they are. There is a wild kind of them beſides, the leaues wherof reſemble Rocket. The beſt Nauews that are ſold at Rome, be thoſe that come from Amiternum in Bruzze. The next to them in goodnes are thoſe of Nurſium. In the third place are they to be ranged which our country * about Verona yeelds. As concerning all things els, and namely the maner of ſowing them, I haue ſaid enough in the treatiſe of Rapes or Turneps. H I

* or rather Italie.

As for Radiſhes, their roots do conſiſt of a rind without, & a cartilage or pulpous ſubſtance within: and verily many of them are known to haue a thicker skin or rinde than the barke is of ſome trees: bitter ſuch are, more or leſſe, according to the thicknes of the ſaid rind: otherwhile alſo the reſt is all pith, and as hard as wood. All Radiſhes breed wind wonderfull much, & prouoke a man that eateth of them, to belch. A baſe and homely meat therefore it is, and not for a gentlemans table, eſpecially if it be eaten with other worts, as Beets: mary if a man take them with vnripe oliues condite, he ſhall neither belch or rift wind ſo much, ne yet ſo foure and ſtinking will his breath be afterwards. The Egyptians make maruellous great account of radiſhes, for the plenty of oile that they draw out of the ſeed: and therefore a great deſire they haue to ſow them if they may: for as they find it more gainful than corn, ſo they pay leſſe tribute & cuſtom in regard of that commoditie, and yet there is nothing yeeldeth more abundance of oile. K

* *Theophraſtus* writeth all this of *Braſſica.* I. Colewoort. See how *Pliny* is ouerſeene: but that is no newes with him.

* The Greeks haue made three ſorts of Radiſhes, differing all in leafe: the firſt criſped and curled like a ruffe, the ſecond ſmooth and plain, the third wild and ſauage; and theſe wild ones verily haue ſmooth leaues, but ſhort and round: plentiful alſo they be, and otherwiſe ful of branches: a rough and harſh taſt they haue, howbeit medicinable they be, and as good as a purgation to looſen the belly and make it laxatiue. As for the other two former kindes, a difference there is in the ſeed; for in ſome it is very fair & good, in others as ſmall and bad: howbeit theſe imperfections light vpon none but ſuch as haue the criſped and frizled leaues. * Our countrymen here in Italy haue made other kinds therof; to wit, Algiclenſe, ſo called of the place: long they be, tranſparent and cleare, that a man may ſee through them. A ſecond ſort there be faſhioned in maner of a Rape root, and thoſe they call Syriaca, the ſweeteſt for the moſt part of all others, and tendereſt, ſuch alſo as will hold out beſt againſt froſt and winter weather. Yet the principal and very beſt indeed are thoſe, which as it ſhould ſeem were but lately brought out of Syria (at leaſtwiſe the ſeed of them) for that in no writers there is found any mention made of them: and they wil continue all winter long. Ouer and beſides all theſe, there is one ſauage kind of them more, which the Greeks name Agrion: the inhabitants of Pontus, Armon; others, Leuce; and our countrymen giue it the name of Armoracia: more ſhew it maketh in leafe than in the root or all the body beſides. Moreouer, the beſt token to know good Radiſhes by, is their L

* Here he ſeemeth to come againe to the radiſh indeed. M

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A ſtem or ſtalk: for ſuch as bite at the tongues end, haue rounder and longer ſtems than the other that be mild: they haue long and hollow gutters alſo: the leaues beſides are more bitter and vnſauorie, cornered, more rough, and vntoward to be handled. Radiſh ſeed would willingly be ſowne in a looſe or light ground, and natheleſſe moiſt enough: it cannot abide rank mucke, but contenteth it ſelfe with rotten chaffe or pugs, and ſuch like plain mullock. It likes and thriues ſo well in cold countries, that in Germanie a man ſhall haue their roots as big as prety babes. To haue Radiſh roots in the ſpring, the ſeed would be ſowed preſently after the Ides or 13 day of Februarie: and a ſecond time again about the feaſt of * *Vulcan*, which is indeed the better ſeaſon for Seednes. Mary there be that put the ſeeds into the ground in March, Aprill, and September. When they are come vp and begin to grow to ſome bigneſſe, it is very good to enterre
B and couer with mould round about the leaues, now one, and then another; but in any caſe to banke the roots well with earth: for looke how much appeareth bare aboue ground, prooues either to be hard, or els fungous and hollow like a Kex, and nothing good to be eaten. *Ariſtomachus* would haue them to be ſtript from their leaues in winter, & in any hand to be banked well about, that the water ſtand not there in any hollow furrow or hole lower than the other ground; promiſing vs by this meanes, that they will proue faire and big againſt Summer. Some haue reported, that if a man make a hole in the ground with as big a ſtake as he wil, and ſtrew or lay it in the bottom with a bed of chaffe ſix fingers deepe, and on it beſtow his ſeed, with muck and mould heaped thereupon, the roots will grow ſo big as to fill vp the ſaid hole full. Howbeit, in briefe, Radiſhes are beſt nouriſhed and maintained in ſalt grounds: and therfore with ſuch kind
C of brakiſh waters they vſe to be watered, which is the reaſon, that in Ægypt there are the ſweeteſt and daintieſt Radiſhes in the world, for that they are bedewed and ſprinckled with Nitre. And verily it is thought, that they will loſe all their bitternes whatſoeuer if they be corned or ſeaſoned with ſalt, yea and become as if they were ſodden and condite: for be they boiled once, they proue ſweet and ſerue to be eaten in ſtead of Nauewes. And yet Phiſicians giue counſell and preſcribe, That they ſhould be eaten raw in a morning with ſalt, when a man is faſting, for to gather into the ſtomack the ſharp humors and excrements that charge the belly & entrails: and thus taken, they are of opinion, that it is a good preparatiue to vomit, and to open the paſſages well for to auoid thoſe ſuperfluities. They giue out alſo, That the juice of Radiſh roots is ſingular good and neceſſarie for the midriffe, and the præcordiall parts about the heart; and
D namely, that nothing elſe but it, was able to cure a Phtiſicke or vlcer of the lungs, wich had ſetled deep and taken to the heart: The experiment and proofe whereof was found and ſeen in Ægypt, by occaſion that KK. there, cauſed dead bodies to be cut vp, and anotomies to be made, for to ſearch out the maladies whereof men died. It is reported, that the Greeks (as they be otherwiſe vaine in al their actions) ſo highly preferred the Radiſhes before other meats, in regard of the igo od nouriſhment, that wheras in an oblation out of the garden-fruits to be offered vnto *Apollo* in his temple at Delphos, they dedicated the Beet in ſiluer, and the Rape or Turnep in lead, they preſented a Radiſh in beaten gold. A man may know hereby, that *Manius Curius* the great General of the Romane armie, was not that countreyman borne; whom the Samnite Embaſſadors (when they brought to him a great preſent of gold [vpon condition to ſurceaſe arms]
E which he meant to refuſe and not accept at their hands) found roſting of a Rape or Turnep root at the chimney fire; according as we find in the Annals and Chronicles of the Roman hiſtory. To come again vnto our Radiſhes, *Moſchian* the Greek writer ſo highly eſteemed this root, that he compiled one whole booke of the Radiſh, and nothing els. Indeed Radiſhes are thought excellent good with meats in Winter time: howbeit they alwaies wear and marre their teeth who eat of them: and yet I aſſure you they wil poliſh Iuorie, which is nothing els but the Elephants tooth. * Between a Vine and a Radiſh, there is by nature a ſecret enmitie and exceeding great hatred, inſomuch as if Radiſhes be ſowed neere vnto her, ſhe will writh and turne away ſenſibly from them.

Touching other ſorts of cartilage or pulpous plants in the garden, wherof I haue before ſpo-
F ken, they be all giuen to run much to pith, and to be of a more woodie ſubſtance. A man would maruell therefore that they ſhould all taſt ſo ſtrong and ſharpe as they doe. Of which there is one kind of wild Parſnep growing of it ſelfe, which in Greek is * called Staphylinas. A ſecond ſort is ſet of a plant with the root and ſowed of ſeed, either in the prime of ſpring, or els in Autumne: howſoeuer *Hyginus* would haue them to be put into the ground in Februarie, Auguſt, September,

* 11 Cal. Iun. or as ſome think, 13 Cal. Iun, i. the 20 or 22 day of May. This feaſt was named alſo *Lustria*.

*Here *Plinie* forgetteth himſelfe againe: for this is verified of the Colewort, and not of the Radiſh.

* Some call theſe Madnips.

September,and October; and that the plot where they are to grow, ſhould be digged and delued very deep. This root beginneth to be good at the firſt yeres end,but better it is if it be two yeres old: howbeit both the one and the other, is counted wholſommer in Autumn than at any other ſeaſon of the yeare, eſpecially boiled and ſerued vp betweene two platters, and yet dreſſe them ſo well as you can, they will not be rid of that ſtrong, ranke,and churliſh ſmacke which it hath. As for * Hibiſcum, it differeth from the Parſnip aforeſaid onely in this, That it is more ſlender and ſmaller,rejected altogether from the table,and condemned for no good meat; howbeit medicinable,and vſed much by the Phyſitian. A fourth kind there is beſide,reſembling alſo the Parſnip, which our countreymen the Latines name the French Parſnip, but the Greekes Daucus,[*i.* the yellow Douke or Carot] which they haue ſubdiuided into foure ſpeciall ſorts. The * Skirwirt root or white Parſnip, (which indeed would be written among other Phyſicke plants) was likewiſe in great name and credit by the meane of the foreſaid Emperour *Tyberius* who was very earneſt ro haue them yearely brought out of Germanie,and euer he would cal for them at his own table. And indeed about Gelduba (a caſtle ſituat vpon the riuer Rhene in Germanie) there was an excellent kind of them that grew to be paſſing faire, from whence he was ſerued: whereby it appeareth,that this plant loueth cold regions well. Theſe roots haue a ſtring in manner of a pith or ſinew,running all the length thereof,which the cooke vſeth to take forth after they be ſodden; yet for all that there remaineth ſtill in them a great deale of bitterneſſe: howbeit being wel tempered & delaied with a ſauce of mead or honyed wine,and ſo eaten with it,euen the ſame bitterneſſe turneth to a good and pleaſant taſt. The greater Parſnip Paſtinaca, hath the like nerue or ſtring aforeſaid (ſuch only I mean as are a yere old.) The right ſeaſon to ſow the Skirwirt or Parſnip Siſer, is in theſe moneths,to wit, Februarie, March, Aprill, Aeguſt, September,and October.

The * Elecampane hath a root ſhorter than the Skirwirts or Parſnips aforeſaid, but more muſculous and fuller as it were of brawn; bitterer alſo: in which regards,if it be taken ſimply alone,it is aduerſe and contrarie to the ſtomack; but joined & confected with ſome ſweet things among,it is very holſom. And many deuiſes haue bin practiſed with it to take away that harſh and vntoward bitterneſſe which it hath, wherby it is become toothſome and pleaſant enough: for ſome there be who ſtamp it drie and ſo reduce it into a pouder: then they mix it with ſome ſweet liquid ſyrrup, and being thus tempered,ſerue it vp. Others ſeeth it in water and vinegre mingled together,and ſo keepe it condite. Infuſed alſo it is many waies,and afterwards either preſerued in cuit,or incorporat with hony in manner of a conſerue, or els with dried Raiſons of the Sun,or laſt of all with faire and fat Dates. Moreouer,diuers there be,who after anorher ſort make a confection therof,namely with Quinces,with Soruiſes,or Plums,mixing therwith one while Pepper,another while Thym. And I aſſure you this root thus confected (as is aforeſaid) is ſingular good for faintings; and eſpecially quickneth the dulnes and defect of the ſtomack. The Empreſſe *Iulia Auguſta* paſſed not a day without eating the Elecampane root thus confected and condite: and therupon came it to be in ſo great name and bruit as it is. The ſeed therof is needleſſe and good for nothing: therefore to maintaine and increaſe this plant,gardeners vſe commonly to ſet the joints cut from the root,after the order as they doe Reeds and Canes. The manner is to plant them as well as Parſnips, Skirwirts,and Carrots,at both times of ſeednes,to wit,the Spring and the Fall: but there would be a good diſtance betweene euery ſeed or plant,at leaſt three foot, becauſe they ſpread and braunch very much, and therewith take vp a deale of ground. As for the Skirwirt or Parſnip Siſer, it will do the better if it be remoued and replanted.

It remaineth now to ſpeak in the next place of plants, with bulbous or onion roots and their nature, which *Cato* recommendeth to Gardeners, and he would haue them to be ſet and ſowed aboue all others: among which,he moſt eſteemeth them of Megara. Howbeit, of all this bulbous kind,the Sea-onyon Squilla is reputed chiefe and principall,notwithſtanding there is no vſe of it but in Phyſick,and for to quicken vinegre. As there is none that groweth with a bigger head at the root, ſo there is not any more ægre and biting than it. Of theſe Sea-onyons, there be two kinds medicinable; the male,with the white leafe; the female,with the blacke. There is a third ſort alſo of Squillæ, which is good for to be eaten: the leaues whereof be narrower,and not ſo rough and ſharp as the other,and this they cal Epimenidium. All the ſort of theſe ſquilles are plentifull in ſeed: howbeit they come vp ſooner if they be ſet of cloues or bulbes which grow

* Some take it for *Althæa* or the mariſh Mallow.

* *Siſer.*

* *Inula.*

* *Cariotis*, ſome reade *Caricis*, i. Figs.

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A grow about their ſides. And if a man would haue the head of the root wax big, the leaues which vſually be broad and large, ought to be bended downe into the earth round about, and ſo couered with mould; for by this means all the ſap and nouriſhment is diuerted from the leafe and runneth backe into the root. Theſe Squils or ſea-onions grow in exceeding great abundance within the Baleare Iſlands and Ebuſus, as alſo throughout all Spaine. *Pythagoras* the Philoſopher wrote one entire volumne of theſe onions, wherein he collected their medicinable vertues and properties, which I meane to deliuer in the next booke.

As touching other bulbous plants, there be ſundry kinds of them, differing all in colour, quantity, and ſweetneſſe of taſt: for ſome there bee of them good to be eaten raw, as thoſe of Cherrhoneſus Taurica. Next vnto them, are they of Barbary, and moſt commended for good-
B neſſe; and then thoſe that grow in Apulia. The Greeks haue ſet downe their diſtinct kindes in theſe terms, Bulbine, Setanios, Pythios, Acrocorios, *Ægylops, and Siſyrinchios. But ſtrange it is of this Siſyrinchios laſt named, how the foot and bottom of the root wil grow down ſtil in winter; but in the Spring when the Violets appeare, the ſame diminiſheth and gathereth ſhort vpward; by which meanes the head indeed of the root feedeth and thriueth the better. In this rank of bulbous plants, is to be ſet that, which in Egypt they call Aron, [*i.* Wake-Robin:] for bigneſſe of the head it commeth next to Squilla beforeſaid: the leaues reſemble the herb Patience or garden Dock: it riſeth vp with a ſtreight ſtem or ſtalke two cubits high, as thicke as a good round cudgell. As touching the root, it is of a ſoft and tender ſubſtance, and may be eaten raw. If you would haue good of theſe bulbous roots, you had need to dig them out of the ground
C before the ſpring; for if you paſſe that time, they will preſently be the worſe. You ſhall know when they be ripe and in their perfection by the leaues; for they will begin to wither at the bottom. If they be elder, or if their roots grow ſmall and long, they are reiected as nothing worth. Contrariwiſe, the ruddy root, the rounder and the biggeſt withall, are moſt commended: know this moreouer, That the bitterneſſe of the root in moſt of them, lyeth in the crowne (as it were) or top of the head; for the middle parts be ſweet. The antient writers held opinion, That none of theſe bulbous plants would grow, but of ſeed only: howbeit, both in the paſtures and fields about Preneſte, they come vp of themſelues: and alſo among the corn lands and arable grounds of the Rhenians, they grow beyond all meaſure.

*rather, Hemerocalles.

D

Chap. VI.

¶ *Of the roots, leaues, flours, and colours of Garden-herbes.*

ALl Garden plants ordinarily, put out but one ſingle root apiece; as for example, the Radiſh, Beet, Parſley, and Mallow: howbeit the greateſt and largeſt of all others is the root of the herb Patience or garden Docke, which is knowne to run downe into the ground three cubits deep. In the wild of this kind (which is the common docke) the roots be ſmaller, yet plumpe and ſwelled; whereby, after they be digged vp and laied aboue ground, they wil liue a long time. Some there be of them that haue hairy ſtrings or beards hanging to the roots, as namely Parſley or Ach, and Mallows. Others there be againe, which haue branching roots, as
E the Baſill. As the roots of ſome be carnous and fleſhie altogether, and namely of the Beet, but eſpecially of Saffron; ſo in others they conſiſt of rind and carnoſitie both, as we may ſee in Radiſhes and Rapes or Turneps. And ye ſhall haue of them that be knotty and full of ioints, as for example, the root of the Quoich graſſe or Dent-de-chien. Such hearbs as haue no ſtreight and direct root, run immediatly into hairie threds, as we may ſee plainly in the Orach and Bleet: as for the ſea Onion Squilla, and ſuch bulbous plants, the garden Onions alſo and Garlicke, they put forth their roots ſtreight, and neuer otherwiſe. Many hearbes there be, which ſpring of their own accord without ſetting or ſowing, and of ſuch many there be that branch more & cloue in root than in leafe, as we may ſee in Aſpalax, * Parietarie of the wall, and Saffron. Moreouer, a man ſhall ſee theſe hearbes floure at once together with the Aſh, namely, the running or creeping Thyme, Southernewood, Naphewes, Radiſhes, Mints, and Rue; and by that time as others
F begin to blow, they are ready to ſhed their floures: whereas Baſill putteth forth floures by parcels one after another, beginning firſt beneath and ſo going vpward by leiſure: which is the cauſe that of all others it is longeſt in the floure. The ſame is to be ſeene in the herb Heliotropium (*i.* Ruds or Turnſol.) In ſome the floures be white, in others yellow, and in others purple.

*Perdicium.

As

As touching the leaues of herbes, ſome are apt to fall from their heads or tops, as in Origan and Elecampane, yea, and otherwhiles in Rue, if ſome iniurie be done vnto it. Of all other herbes, the blades of Onions and * Chibbols be moſt hollow. Where by the way I cannot ouerpaſſe the fooliſh ſuperſtition of the Ægyptians, who vſe to ſweare by Garlicke and Onions, calling them to witneſſe in taking their othes, as if they were no leſſe than ſome gods. Of Onions the Greeks haue deuiſed ſundry kinds, to wit, the Sardian, Samothracian, Alſiden, Setanian, Schiſta [*i.* the clouen Onion] and Aſcalonia [*i.* little onions or Scalions] taking that name of Aſcalon a city in Iury. They haue all of them this propertie beſides, to make ones eyes water, and to fetch out teares, being ſmelled to, eſpecially they of Cypros: but the Gnidian onions leaſt of all others cauſe one to weep. In all kinds of them the body of the root conſiſteth of a certaine fatty pulp or cartilage. For quantity the Setanian be leaſt, except the Tuſculane: howbeit ſuch are ſweet. The clouen onions & the ſcalions aforeſaid are proper for to make ſauce of. As touching that kind of them called Schiſta, gardners leaue them al winter in the ground with their leaues or head ſtanding: in the ſpring they pluck off the ſaid leaues, and then ſhal you ſee ſpring forth others vnderneath, according to the ſame clifts and diuiſions, whereupon they tooke the name Schiſta. After which example, the like practiſe in all other kindes is preſcribed, namely, to pull the leaues off, that they ſhould grow rather big in root, than run vp to ſeed. The Aſcalonian onions haue a proper nature & qualitie by themſelues; for they be barren as it were, from the root, and therefore the Greeks would haue them to be ſowed of ſeed, and not otherwiſe to be ſet of heads. Beſides, that they ſhould be tranſlated & replanted again late, about the ſpring, at what time as they put forth blade: for by this vſage (ſay they) you ſhall haue them burniſh and grow thicke, yea, and then make haſt for amends of the former time foreſlipt. Theſe muſt be gathered betimes, for after they be once ripe, quickly will they rot in the earth, if you make not the better haſt to pluck them vp. If you ſet or plant their heads, a ſtalke they wil put forth and ſeed vpon it, but the onion it ſelfe will conſume and come to nothing. Moreouer, there is a difference obſerued in the colour of onions; for they that grow in Samos and Sardis, be moſt white: thoſe alſo of Candy be much eſteemed; and ſome there be who doubt whether they be the ſame that the Aſcalonian, or no: for that if they be ſowed of ſeed, their heads or roots will grow big: ſet them, they will be all ſtem and ſeed, and no head at all. As for the relliſh or taſte that onions haue there is no great diuerſitie, but that ſome are ſweeter than other. Our onions here in Italy be all of two ſorts principally: the one which ſerue for ſauce to ſeaſon our meats, which the Greeks call Gethyon Chibbols; but our countrymen the Latines, Pallacana: theſe are ſowne commonly in March, April, and May: the other is the great headed onion; and theſe be put into the ground either after the Æquinox in Autumne, or els after mid-February, when the Weſt wind Fauonius is aloft. Moreouer, onions are diuided into ſundry ſorts, according to the degrees of their pleaſant or vnpleaſant and harſh taſt; to wit, the African, French, Tuſculan, and Amiternium. But euermore the beſt are the roundeſt. *Item*, the red onion is more keen and angry than the white: the dry, and that which hath lien, is more eagre and ſharp than the green newly drawn: the raw alſo more than the ſodden: and finally, the dry by it ſelfe more than that which is condite and preſerued in ſome liquor for ſauce. The Amiternium onion is planted in cold & moiſt grounds: and this alone would be ſet of a head in maner of garlick cloues, whereas the reſt will come of ſeed. Onions, the next ſummer following after they be ſowne, put forth no ſeed, but head only, which groweth, and the leafe or ſtem drieth and dieth. But the next yere after, by way of interchange, it bringeth forth ſeed, and then the head rotteth. And therefore euery yeare they vſe to ſow onion ſeed apart in one bed by it ſelfe, for to haue onions: & ſet onions for ſeed in other, by themſelues. The beſt way to keep onions, is in corn, chaf, and ſuch like pugs. As for the Chibbol, it hath in maner no diſtinct head at all, but only a long neck, & therfore it runs in maner all to a green blade; the order is to cut and ſheare it often in manner of porret or leeks; which is the cauſe that they ſow it alſo of ſeed, and do not ſet it. Ouer and beſides, before we ſow onion ſeed, the plot, by mens ſaying, ought to haue three diggings, for to kil and rid out of the ground the roots of hurtful weeds: and ten pound of ſeed ordinarily wil ſow an acre. Here and there amongſt would be Saverie ſowne, for the better will the Onions like and proſper with the companie of that hearbe. Alſo, after the ground is ſowne, it requireth weeding, farcling, or raking, foure times at the leaſt, if not oftner. Our neighbours in Italie ſow the Aſcalonian Onion in the moneth of Februarie: whoſe manner is alſo to gather Onion

ſeed

* Gethyum.

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A ſeed when it beginneth once to wax black, before it fall to wither.

Seeing now that I am entred thus far into a diſcourſe of Onions, I ſhal not do amiſſe to treat of Leeks alſo, in regard of the neare affinitie betweene them: and the rather, for that it is not long ſince, that the Porret kind which is often kept downe with clipping and cutting, came into great name and credit, by occaſion of the Emperor *Nero*; who vſed for certaine daies in euery moneth for to ſcoure his throat, and cleare his voice, and to take it with oile; on which daies he did eat nothing els, not ſo much as bread. Wee vſe to ſow them of ſeed, after the Æquinox in September: and if we meane to make cut Leeks thereof, the ſeed would be ſowed the thicker. Theſe Leeks are kept downe with clipping and ſhearing ſtill vntill the root faile, without remouing them out of the ſame bed where they were ſown: and alwaies they muſt be plied with
B dung. But before they be cut, nouriſhed they ought to be, vntill they haue gotten a good head. When they are wel grown, they are to be tranſlated into another bed or quarter, & there replanted: hauing their vppermoſt leaues lightly ſhriged off, without comming to the heart or marow which is their body next to their roots: and their heads ſet deeper downward; yea, and their vtmoſt pellicles and skins ſliued from them. In old time they vſed to put vnder their root a broad flint-ſtone, or els a tile, which did dilate their heads within the ground, and make them ſpread the better. This they practiſed alſo in other bulbous plants, as Onions, &c. thereby to haue the fairer heads. But now in theſe daies the maner is, lightly to barbe & pluck off with a ſarcling hook, the beards or ſtrings of the root; that being thus nipped and lipped (as it were) they might nouriſh the body of the plant, & not diſtract and ſuck away the humor, which is the nutriment
C of the whole. This is notable and wonderfull in the Porret, that ioying & liking as it doth in muck and fat ground, yet it cannot abide watery places. Howbeit, in theſe we muſt be ruled by the property of the ground, which is al in all: the principal leeks be in Egypt: the next are thoſe of Ortia & Aricia. Of the cut Porret or vnſet Leeks be two kinds: the one runneth mightily into a green blade, and the leafe thereof hath very conſpicuous & euident cuts; & this is that the Apothecaries vſe ſo much: the other hath a more pleaſant and yellowiſh leafe, and the ſame rounder, the gaſhes or cuts wherof are ſmaller, & not ſo apparent to the eie. The voice goeth, & generally it is reported, That *Mela* a knight or gentleman of Rome by his place, & Procuratour vnder *Tiberius* the Emperor, being for ſome miſgouernment in that office, brought into queſtion and accuſed, & thereupon ſent for peremptorily to make his perſonal apparance, diſpairing
D vtterly of life, tooke the weight of three Roman ſiluer deniers in the iuice of Leeks, and dranke it off: whereupon he died incontinently without any paine or torment at all. It is commonly ſaid, That if a man take a greater doſe or receit thereof, it will do no harm, nor any danger will inſue thereupon.

As touching Garlick, it is held for certain, That it is a ſoueraigne medicine for many griefs and maladies; eſpecially ſuch as are incident to the country peaſants and ruſticall people, who hold it to be as good as a Treacle. The Garlike head is couered and clad all ouer with certaine very fine and thin pellicles or membranes, which may be parted and diuided one from another; vnder which you ſhall ſee it compact and ioined (as it were) together of many cloues in maner of kernels, and thoſe alſo incloſed each one apart within their ſeuerall skins. Of a ſharp and bi-
E ting taſt it is. The more keen and eager alſo you ſhall find it, as it hath more of thoſe cloues aforeſaid in one head. The aire that comes from it, is as offenſiue as that of the onion, & maketh their breath as ſtrong who eat it: howbeit, ſodden if it be, it is euery way harmles: the difference and diuerſity of Garlick ariſeth firſt, from the circumſtance of the time, whereby you ſhall ſee a kind of haſty Garlick, that in 60 daies will be ripe and come to perfection: then, in quantity; for ſome grow bigger in the head than other. And of this ſort is that which wee call in Latine Vlpicum: and the Greeks, ſome the Cyprian Garlick; others, * Aphroſcorodon: ſo much commended in Africke, that it is held for the moſt principall diſh of meat that a Husbandman of the countrey can eat: and bigger it is than our common Garlick. Being bruſed and braied in a morter together with oile and vineger, it is wonderfull to ſee what a ſome and froth will ariſe
F therof, and to what an height it wil ſwell thereby. Some gardeners there are, who forbid to ſet either this Vlpicum, or the common Garlick in any euen, flat, and leuell bed; but to put them in little hillocks [in maner of hop hils] raiſed in forme of caſtles or turrets, three foot diſtant one fro another. Now, whereſoeuer theſe cloues be ſet in hill or plain, they ought to lie foure fingersbreadth aſunder. And this would not be forgotten, That ſo ſoon as they ſhew three leaues

* or, *Antiſcorodon.*

once,

once, they would be ſarcled, and the mould raiſed from about them: for the oftner they be thus ſerued and laid bare, the fairer heads they will bring. When they begin to grow big and come to their full maturity, the ſtalks that they run vp vnto, muſt be troden downe and moulded ouer: and this is to preuent, that they ſhould not be ouer-rank in blade. In cold countries it is thought better and more profitable to ſet them during the ſpring, than at the fall of the leafe. Moreouer, if you would haue Garlicke, Onions, and ſuch like, not to ſmel ſtrong and ſtink ſo as they do, the common opinion & rule is, that they ſhould not be ſet or ſown, but when the moon is vnder the earth, nor yet be gathered and taken vp but in her coniunction with the Sun, which is the change. But *Menander*, a Greeke writer ſaith, That there needs none of all theſe ceremonies for the matter: for if a man would not haue his breath ſtink with eating of Garlick, let him, do no more (quoth he) but take a Beet root roſted in the embers, and eat it after, it ſhall extinguiſh that hot and ſtrong ſauor, and cauſe the breath to continue ſweet. There be who thinke that the fitteſt time of ſetting both the common Garlick, & alſo the greater kind named Vlpicum, is between the two ſet and ordinary feaſts * Compitalia & * Saturnalia. As for the vulgar Garlick, it commeth vp alſo of ſeed, but ſlowly, and late it will be firſt ere it attaine to the full proofe: for the firſt yere it getteth a head no thicker than Leeks; the next yeare after, it begins to diuide into cloues; and in the third it is conſummate and grown to perfection: and ſuch vnſet Garlick, ſome are of opinion to be fairer and better than the reſt. Howbeit, Garlicke indeed ſhould not be ſuffered to bol and run vp to ſeed, and therfore the blade therof ought to be wreathed, that it may gather more and ſtronger in the head, and that the cloues afterwards might be ſet in ſtead of ſeed for increaſe. Now if a man haue a deſire that both Garlick and Onions may be kept long for his prouiſion, their heads muſt be dipped and wel plunged in ſalt water, warm; by this means indeed laſt they will longer without ſpurting, and be better for any vſe wee ſhall put them to, ſaue only to be ſet and replanted in the ground; for barren will they be, and neuer proſper. And yet diuers there are, who thinke it ſufficient at the firſt to hang them in the ſmoke ouer quick and burning coles; as being perſuaded, that this will ſerue wel enough to keep them from growing; for certaine it is, that both Garlicke and Onions will put foorth blade aboue ground, and when they haue ſo done, come to nought themſelues, as hauing ſpent all their ſubſtance and vertue. Some are of this mind, that the beſt preſeruing of Garlick as well as of Onions, is within chaffe.

* 11. *Calend. Ianuar.*
* 14. *Calend. Ianuar.* Betweene the 18. & 21 of December.

There is a kind of Garlicke growing wild in the fields of the own accord, which they call in Latine Alum [*i.* Crow Garlicke] which being boiled that it ſhould not grow, they commonly throw forth in corn fields for the ſhrewd and vnhappy foules which lie vpon the lands, and eat vp the ſeed new ſown: for preſently as any of thoſe birds taſt thereof, they wil be ſo drunke and aſtonied therewith, that a man may eaſily take them with his hand: yea, and if one ſtay a little, he ſhall ſee them fall aſleep therewith. Finally, there is another kind of ſauage or wild Garlick called Vrſinum (*i.* Beare Garlicke) the head whereof is very ſmall, the blade or leaues great and large, and the ſauor or ſent mild and gentle, in compariſon of the reſt.

Or rather *Anguinum.*

Chap. VII.

¶ *In how many daies euery herbe that is ſowed will come vp and appeare aboue ground. The nature of ſeedes. The manner of ſowing any of them. Which they be, whereof there is but one ſingle kind: and which haue many ſorts.*

AMong all the herbes ſowne in a garden, theſe come vp ſooneſt; to wit, Baſill, Beets, Navews or Turneps, and Rocket: for by the third day the ſeed will breake and ſpurt. Dill ſeed will chit within foure daies, Lectuce in fiue, Radiſh in ſixe, Cucumbers and gourds in a ſeuennight, but the Cucumber firſt. Creſſes and Muſtard ſeed in fiue daies, Beets in ſix by Summer time, and by winter in ten. Orach in eight daies, Onions in 19 or 20 at the fartheſt, Chibols in ten or twelue at the moſt. Coriander ſeed is more ſtubborne, and will not ſhew ſo ſoone. Sauerie and Origan ſeed lieth thirty daies ere it come: but of all others Parſley ſeed is lateſt ere it ſpring; for when it commeth vp ſooneſt, it is forty daies firſt: but for the moſt part it lieth fifty daies before it appeare. Something there is alſo in the age of the ſeed: for the newer that the ſeed is either of Leeks, or Chibols, Cucumbers & gourds, the more haſt it maketh to be aboue ground: contrariwiſe, Parſely, Beets, garden Creſſes, Sauery, Origan, and Coriander, grow ſooner

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A ner of old ſeed. But the Beet ſeed hath a ſtrange and wonderful quality aboue the reſt: for it wil not come vp all in one and the ſame yeare. But ſome in the firſt, others in the ſecond, and the reſt in the third. And therfore ſow as much ſeed as you will, yet ſhall you haue it grow but indifferently. There be herbs which wil grow and beare but one yere and no more: and there be other aga in which will continue many yeares together, as for example, Parſely, Porret, & Chibbols. For, ſow theſe but once in a garden, they will beare from yere to yere from the ſame roor, or els ſow themſelues. The moſt part of herbs do beare round ſeed, in ſome the ſeeds are long; in few, broad and flat in manner of a leafe, as in Orach. You ſhall haue ſeed alſo narrow & chamfered, like a gutter tile, as that of Cumin. Moreouer, there is a difference in colour, for ſome ſeeds be white, others black: in hardneſſe alſo and ſoftneſſe; for ſome be harder or ſofter than others.

B Some ſeeds at euery branch of the plant, are contained within cods or bladders, as we may ſee in Raddiſh, Senuie, and Turneps or Rapes. The ſeeds of Parſely, Coriander, Dill, Fenell, & Cumen, grow naked & bare. But that of the Bleet, the Beet, Orach and Baſil, is incloſed in a huske or hull. Lectuce ſeed lieth within a downe. As touching Baſill aforeſaid, nothing fructifieth more than it: & to the end that it may come vp in more plenty & abundance, they ſay it ſhould be ſowed with maledictions and ill words; for the more that it is curſed, the better it wil ſpeed and proſper: yea, and when it is ſowed, the mould of the bed muſt be parted and rammed down in manner of a pauement. And more particularly, they that ſow Cumin, pray to God that it may neuer come vp. Such ſeeds as lie within an husk, hardly come to be dry and ripe therin: but Baſil ſeed eſpecially, and Gith or Nigella Romana. But they muſt be all throughly dried be-

C fore they be ſeedow and fruitfull. This is generall in all herbs throughout, that they wil thriue and grow the better, if their ſeede bee ſowed by heapes one vpon another, than ſcattering. And certainly both Leeks ſeed is ſown & Garlick cloues ſet in that wiſe, namely, bound vp & tied together in ſome clouts or ragges wherein they be lapped. As for Parſely ſeed, againſt it ſhould be ſown, there would be an hole made with a little wooden dibil or pin, & therin it muſt be put with ſome dung after it. Furthermore, all garden herbs come vp either of ſeed and cloues ſet; or els of ſlips pulled from the mother-plant. Some grow of ſeeds and ſprigs both, as Rue, Origan, & Baſil; for euen this herb alſo laſt named will abide cutting when it is come to be one handbreadth, or a ſpan high; and thoſe cuttings will grow if they be planted. There be that are maintained by root and ſeed both, as Onions, garlick, and thoſe which haue bulbous roots: like-

D wiſe, all ſuch as when they haue born yerely, leaue a root behind them ſtil in ſtrength & vertue. Of ſuch as grow of roots replanted, their roots continue long & branch much, as we may ſee in the bulbs, in Chibbols, & ſea onions. Others put out branches ſufficient, but not from the head or root, as Parſely and Beets. All herbs for the moſt part, do ſpring & ſhute again, if their ſtalke be cut off; vnleſſe it be thoſe that haue a ſmooth ſtem. And this is moſt ſeen in Baſil, Raddiſh, & Lectuce, the ſtems wherof are cut for many purpoſes. And as for Lectuce, men hold, that the later ſpring thereof, when the firſt is gon, is the ſweeter. Certainly, Raddiſhes eat the more pleaſantly, if their leaues be ctopt off before the maſter ſtem or ſpire be growne big. And this alſo we obſerue in Rapes or Turneps; for if you ſtrip them alſo from their leaues & couer them ouer head with earth, yet will they grow all winter and continue till Summer following. Touching

E Baſill, Sorrel, red Porret or Bleets, garden Creſſes, Rocket, Orach, Coriander, they are all of one ſort, & ſingular in their kind: for ſow them where you wil, they be the ſame ſtil, neither are they better in one place than in another. It is a common receiued opinion, that Rue wil grow the better if it be filched out of another mans garden: and it is as ordinary a ſaying, that ſtollen Bees wil thriue worſt. Some hearbes there be which come without ſowing or ſetting, as wild Mint, Nep, Endiue, and Peniroial. But how ſoeuer there be but one ſingle kind of thoſe before rehearſed, yet on the contrary ſide, there be many ſorts of others, which wee haue already ſpoken of, and will write more hereafter, and principally of Ach or Parſely.

Chap. VIII.

F ¶ *Of Garden herbes which ſerue for to ſeaſon our meats: their diuers natures, their ſundry kinds and ſeuerall hiſtories related, to the number of 36.*

FOr, that kind of Ach which groweth of it ſelfe in moiſt grounds with * one leafe, and is not rough, but ſmooth and plaine, is called in Greeke Heleoſelinon, *i.* Smallach. Again, there is ano-

* μονόφυλλον? for ſo it ſhould ſeem that *Plinie* read it in *Theophraſtus*: wheras indeed it is μανόφυλλον, *i.* with leaues growing thin

another ſort, with more leaues, reſembling Smallach aforeſaid, but that it commeth vp in drie G
places, and this the Greeks named Hippoſelinon, *i.* Aliſanders. A third there is beſides found in mountains, named by them thereupon Oreoſelinum, *i.* Mountain Ach, or Parſely of the hils: it beareth leaues like Hemlocke, and a little ſlender root: the ſeed reſembleth Dill ſeed verie much, but only that it is ſmaller. And as for the garden Ach, commonly called Parſely, there be many kinds thereof, differing one from another: firſt in leafe, whereby you ſhall haue ſome leafed thick and ful, and the ſame jagged and curled: others thinner, and thoſe alſo more plain, ſmooth, and broad. *Item*, in ſtalk, which in ſome is more groſſe or thin than in other: in one kind white, in another purple, and in a third of ſundry colours.

Of Lectuce, the Greeks haue ſet downe three kinds: whereof the firſt riſeth vp with ſo large and broad a ſtalke, that by their report, little garden wickets were commonly made thereof, in H
partitions between quarter and quarter. And yet the leafe of this Lectuce is not much bigger than others that be common and ſerue for pot-herbes: the ſame alſo paſſing narrow, by reaſon that all the nutriment is otherwiſe ſpent in the maine ſtem. The ſecond hath a round ſtalk: the third is the broad flat Lectuce which ſettles neer the ground, called Laconicon, or the Lectuce of Lacedæmon. But other writers haue deſcribed the diſtinct kinds therof, by their colour and the ſundry ſeaſons wherein they be ſet: for (ſay they) there be black Lectuces, the ſeed whereof ought to be ſowed in Ianuary: there be white alſo, and ſuch would be ſowed in March: & there are a third ſort which be red, and the fit time of their ſeedneſſe is the moneth of April: and according to thoſe authors, all the ſort of them are to be remoued in yong plants, when they haue growne two moneths. Howbeit, thoſe Herbariſts who haue looked farther into the knowledge I
of Simples, adde more kinds yet vnto the other; to wit, the purple, the criſp, or curled, the Cappadocian, & the Greekiſh Lectuce. As for theſe of Greece, they are taller in ſtem than the reſt, and broader withall; beſides, their leaues be long and narrow, like to thoſe of Endiue or Cichorie. The worſt kind of all is that which the Greeks by way of reproofe and reproch for their bitterneſſe, terme Picris. Yet is there another diſtinct kind of the black Lectuce, which for the plenty that it yeeldeth of a milky white iuice procuring drowſineſſe, is termed Meconis; although all of them are thought to cauſe ſleep. In old time, our anceſtors knew no other Lectuce in Italy but this alone, and thereupon it tooke the name in Latine of Lactuca. The purple Lectuce which hath the biggeſt root, they name Cæciliana: but the round kinde with ſmalleſt
* See *Celius Rhodiginus* 27 booke and laſt chap. *antiq. Lectionum*: & let him tell you, why women call this Lectuce, *Aſtylis* root and broad leaues, is called * Aſtylis [*i.* the chaſte Lectuce, or the ciuil Lectuce:] howbeit, K
ſome giue it the name of Eunuchij, becauſe of all others it cooleth luſt moſt, and is an enemy to the ſports of *Venus*. And to ſay a truth, all Lectuces are by nature refrigeratiue, and do coole the body; and therfore be they eaten ordinarily in Summer; for they pleaſe the ſtomacke when it is inclined to loath meat, and procureth good appetite. Certes, reported it is of *Auguſtus Cæſar* late Emperour of famous memorie, that he eſcaped a dangerous diſeaſe, and was recouered by the meanes of Lectuce, whereunto he was directed by the diſcreet counſell of *Muſa* his Phyſician. And whereas in times paſt, folke preciſely forbare to eat Lectuce, now there is no doubt or ſcruple at all made thereof; nay they are ſo far from abſtinence that way, that it is a meat generally receiued and commended; inſomuch as they haue deuiſed to keepe it in the ſyrrup of Oxymel, all winter long, for to haue it ready and euer at hand: yea and more than ſo, men are L
verily perſuaded, that Lectuce will increaſe good bloud. Ouer and beſides all the ſorts of Lettuce before ſpecified, there is yet another kind named in Latine Caprina, as one would ſay, the Goats Lectuce, whereof I purpoſe to ſpeake more at large among other medicinable herbs. As touching the wild Lectuce called Cilician, ſee how it is crept apace into the garden after it came once to be knowne, and is commended as exceeding good among other herbs there ſown and planted: the leafe reſembleth the Cappadocian Lectuce, but that it is jagged & broader than it. As for Endiues and Cichories, I cannot tell what to make of them; for neither can they be truly ſaid a kind of Lectuce, nor yet ranged well amongſt other herbs. More vnpatient they are and fearfull of winter, than Lectuces, and withall carry vnpleaſant ſtrong taſt: howbeit their ſtalks are no leſſe acceptable than they. Their yong plants vſe to be ſet in the beginning of the M
ſpring, but tranſlated afterwards and replanted in the later end thereof. There is a certain wild and wandring Endiue, which the Ægyptians call Cichorie, whereof I meane to diſcourſe more amply in another place. There hath bin a deuiſe lately come vp to condite and preſerue as well the ſtems as the leaues of all Lectuces for the winter time, in pitchers & pots, within ſome ap-

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A propriate liquor; as alſo to dreſſe and ſeeth them yong, freſh, and greene, in a kinde of broth or broweſſe, and ſo ſerue them vp between two platters. And yet where the ground is rich & good, well watered and holpen with doung, Lectuce may be ſowed at all times of the yere: for within two months they will grow to be good big plants, and in as little ſpace come to their ful maturity and perfection. Howbeit, the true time and ordinary ſeaſon, is to ſow their ſeeds about the mids of December, when the daies begin to lengthen, and then to remooue their plants at the comming of the Weſtern wind Fauonius in February; or els to ſow in that wind, and to replant in March about the Spring Æquinox. White Lectuce of all other, can beſt away with the winter. All Garden-herbs loue moiſture, and muck they loue as well, Lectuce eſpecially; & yet I muſt needs ſay, that Endiue more than it. Some gardiners there be, that thinke it a great point
B of cunning to beſmere the roots of Lectuce plants and other ſuch herbs with dung, when they are ſet, or after they be bared at the root within the ground, to caſt in the mould againe and fill vp the place ſo ſoon as they be greaſed (as it were) with muck at the root. Others there be, who practiſe another feat with them, to make them cabbage the better and grow faire & big, by cutting them vp cloſe to the ground when they are come once to be halfe a foot high, and then bedaubing them with green ſwines dung. It is thought, that white Lectuce come onely of white ſeed; and yet that is not ſufficient, vnleſſe there be ſome ſea ſand taken freſh from the ſhore and laid about the heart of the plant where the leaues put forth firſt, and ſo reared and heaped vp to the mids; and then to take order that the leaues growing ouer them afterwards, be tied faſt vnto them.

C Of all Garden-hearbs, Beets are the lighteſt. The Greeke writers make two kinds thereof, in regard of the colour; to wit, the black Beets, and the whiter, which they prefer before the other, although it be very ſcant and ſparie of ſeed; theſe alſo they cal the Sicilian Beets, and for their beautifull white hew and nothing elſe they eſteeme them aboue Lectuce. But our countreymen here in Italy put no other difference between Beets, but in reſpect of the two ſeaſons when they be ſowed, namely in the Spring and Autumne; whereof we haue theſe two ſorts, the ſpring Beets, and the Autumnall; and yet they be vſually ſowne in Iune alſo. This herbe likewiſe is ordinarily remooued in the plant, and ſo replanted or ſet againe; it loueth beſides to haue the roots medicined with muck, as well as the other aboueſaid, yea and it is very wel content with a moiſt and wateriſh ground. The roots as well as the leaues or herbage thereof, vſe to be eaten
D with Lentils & Beans; but the beſt way to eat them, is with Senuie or Muſtard, for to giue a taſt and edge as it were to that dull and wallowiſh flatneſſe that it hath. Phyſitians haue ſet downe their iudgement of this herb, That the roots be more hurtfull than the leaſe: and therefore being ſet vpon the bourd before all perſons indifferently, as well the ſound as the ſick and craſie, yet many a one maketh it nice and ſcrupulous once to taſt therof; and if they do, it is but ſlightly for faſhion only, leauing the hearty feeding thereupon to thoſe rather that be in health and of ſtrong conſtitutions. The Beet is of two diuers natures and qualities: for * the herbage or leaſe hath one, and the bulbs comming from the head of the ſtem, another: but their principall grace and beautie lieth in their ſpreading and breadth that they beare as they cabbage. And this they come vnto (as the manner is of Lectuces alſo) by laying ſome light weight vpon the
E leaues, when they begin once to gather into a ſtalke and ſhew their colour. And there is not an hearbe throughout the Garden, that taketh vp greater compaſſe, with fuellage than doth the Beet: for otherwhiles you ſhal ſee it to ſpread it ſelfe two foot euery way; whereunto the goodneſſe and nature of the ſoile is a great help. The largeſt that be knowne of theſe Beets are thoſe which grow in the territory about Circij. Some hold opinion, that the only time to ſow Beets, is when the Pomegranat doth bloſſome: and to tranſplant them ſo ſoon as they haue 5 leaues. A wonderfull thing to ſee the diuerſitie in Nature of theſe Beets, if it be true; namely, that the white ſhould gently looſen the belly and make one ſoluble, whereas contrariwiſe the black doe ſtay a flux and knit the body. It is as ſtrange alſo to obſerue another effect thereof; for when the Colewort hath marred the taſte of wine within the tun or ſuch like veſſell, the only ſauour and
F ſmell of Beet leaues ſteeped therein, will reſtore and fetch it againe.

As touching the Beets, as alſo Colewoorts, which now beare all the ſway and none but they in Gardens, I do not find that the Greeks made any great account of them; & yet *Cato* highly extolleth Coules, and reporteth great wonders of their vertues and properties, which I meane to relate in my treatiſe of Phyſick. For this preſent you ſhall vnderſtand, that he putteth downe

* *Olus*, which word *Plin.* vſeth much for Beets.

three kinds of them: the firſt, that ſtretcheth out broad leaues at ful, and carieth a big ſtem: the G
ſecond, with a criſped and frizled leafe, the which he calleth* Apiana: the third is ſmooth, plain,
and tender in leafe, and hath but a little ſtalke; and theſe are of no reckoning at all with *Cato*.
Moreouer, like as Coleworts may be cut at all times of the yeare for our vſe, ſo may they be
ſown & ſet al the yere long: & yet the moſt appropriat ſeaſon is after the Æquinox in Autumn.
Tranſplanted they be when they haue once gotten fiue leaues. The tender crops called Cymæ
after the firſt cutting, they yeeld the Spring next following: now are theſe Cymæ nothing elſe
but the yong delicat tops or daintier tendrils of the maine ſtem. And as pleaſant and ſweet as
theſe crops were thought to other men, yet *Apicius* (that notable glutton) tooke a loathing of
them; and by his example *Druſus Cæſar* alſo careth not for them, but thought them a baſe and
homely meat; for which nice and dainty tooth of his, he was well checked and ſhent by his fa- H
ther *Tiberius* the Emperor: after this firſt crop or head is gone, there grow out of the ſame cole-
wort other fine colliflories (if I may ſo ſay) or tendrils, in Summer, in the fall of the leafe; and
after them, in winter: and then a ſecond ſpring of the foreſaid Cymæ or tops againſt the ſpring
following, as the yeare before; ſo as there is no herb, in that regard, ſo fruitfull, vntill in the end
her owne fertility is her death; for in this manner of bearing ſhe ſpends her heart, her ſelfe and
all. There is a third top-ſpring alſo at mid-ſummer about the Sunſtead, (which if the place bee
any thing moiſt) affoordeth yong plants to be ſet in ſummer time; but in caſe it be ouer-drie,
againſt Autumne. If there be want of moiſture and skant of muck, the better taſte Colewoorts
haue: if there be plenty and to ſpare of both, the more fruitfull and ranke they are. The onely
muck & that which agreeth beſt with Coleworts or Cabbages, is Aſſes dung. I am content to I
ſtand the longer vpon this Garden-wort, becauſe it is in ſo great requeſt in the kitchin, and a-
mong our riotous gluttons. Would you haue ſpeciall and principal Coleworts, both for ſweet
taſt and alſo for great and faire cabbage? firſt and foremoſt, let the ſeed be ſowne in a ground
throughly digged more than once or twice, and wel manured; ſecondly, ſee you cut off the ten-
der ſprings and yong ſtalkes that ſeem to put out far from the ground; or ſuch as you perceiue
mounting too ranke and ouer-high from the earth: thirdly, be ſure to raiſe other mould in ma-
ner of a bank vp to them, ſo as there peep no more without the ground, than the very top: theſe
kind of Coleworts be fitly called Tritiana, for the threefold hand and trauell about them; but
ſurely the gaine will pay double for all the coſt and toile both. Many more kindes there be of
them, to wit, that of Cumes, which beareth leaues ſpreading flat along the ground, and opening K
in the head. Thoſe of Aricia, be for heigth no taller than they, but rather more in number than
for ſubſtance thinner and ſmaller: this kind is taken for the beſt and moſt gainfull, becauſe vn-
der euery main leafe in maner, it puts forth other yong tendrils or buds by themſelues, which
are good to be eaten. The Colewort Pompeianum (ſo called of the towne Pompeij) is taller
than the reſt, riſing vp with a ſmal ſtem from the root; howbeit among the leaues it groweth to
more thickneſſe. Theſe leaues branch out but here and there, and are in compariſon of others
narrower; howbeit much ſet by for their ſpeciall tenderneſſe, wherby they are ſoon ſodden and
dreſſed; and yet cold weather they cannot indure; whereas on the other ſide, the Coleworts of
Bruzze or Calabria, like the beſt in winter, and be nouriſhed with the hard ſeaſon: leaues they
haue exceeding great and large, but their ſtalks are but ſmall; and as for taſt, they be ſharp and L
ſower. The Sabellian Coles, what curled and ruffed leaues they carry, it is a wonder to ſee: ſo
thick they are beſides, that they rob the very ſtem of their nutriment, which therby is the ſma-
ler: howbeit of al others they be reputed the ſweeteſt. Long it is not ſince there came from out
of the vale of Aricia (where ſomtimes there was a lake, and a tower ſtanding vpon it, remaining
yet at this day to be ſeene) a kind of Cabbage-cole, with a mightie great head and an infinite
number of leaues, which gather and cloſe round together, and theſe Coles we in Latin call La-
cuturres, of the place from whence they come. Some Coleworts there be, which ſtretch out in-
to a roundle; others againe extend in breadth, and be very full of fleſhy brawns. None, cabbage,
more than theſe, fettting aſide the Tritian Coleworts beforenamed; that are known otherwiles M
to bear a head a foot thick, and yet none put forth their Cymes or tender buds more than they.
Moreouer, this would be noted, That howſoeuer all kinds of Coleworts eat much ſweeter for
being bitten with the froſt, yet if there be not good heed taken in cutting off their head or ten-
der crops and buds, ſo that the wound come not neere the heart and pith, (and namely, by cut-
ting them aſlope and byas in manner of a Goats foot) they will take much harme thereby.

Such

* For ſome reſemblance of Parſley.

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A Such as be reſerued to beare ſeed, ought not to be cut at all. They alſo are not without their grace and commendation, which neuer paſſe the bigneſſe of a green and ordinary plant, & ſuch ſmall coles are called Halmyridia, for that they grow not elſewhere but vpon the ſea coaſts: and becauſe they wil keep greene, prouiſion is made of ſuch for to ſerue in long voiages at ſea: for ſo ſoon as they be cut vp, before they touch the ground, they be put vp into barrels where lately oile hath been, and thoſe newly dried againſt the time, and ſtopped vp cloſe that no aire at all may enter in, and therein be they preſerued. Some there be, who in remouing the young plants, lay vnder their roots, Riek and Sea-weeds, or els bruiſed and powdred nitre, as much as a man may take vp with three fingers, imagining thereby that they will the ſooner come to maturity. Others againe take the ſeed of Trifolie and Nitre ſtamped together, which they ſtrew
B vpon the leaues for the ſame purpoſe. [And as for Nitre, it is of this nature, to make them look green ſtill although they were ſodden;] or els they vſe to boile them after *Apicius* his faſhion, namely, to ſteep them wel in oile and ſalt mingled together, before they be ſet vpon the fire for to be ſodden.

Moreouer, there is a way to graffe herbs alſo as well as trees, namely, by cutting off the yong ſions that ſpring out of the ſtalk, and therein to inoculate as it were the ſeed of another plant, within the pith or marow thereof. This alſo may be practiſed vpon wild Cucumbers. Ouer and beſides, there is a kind of wild Woorts growing in the fields, called Lapſana, much named and renowned by occaſion of the ſonets & carols chanted in the ſolemnitie of *Iulius Cæſar* the Emperors triumph, and eſpecially of the merry rimes and licentious broad jeaſts toſſed by his ſol-
C diers, who at euery ſecond verſe caſt in his teeth, that in Dyrrhachium they liued of nothing els but of thoſe Woorts: noting indeed by way of cauill and reproch, his niggardiſe in rewarding them ſo ſleightly for their good ſeruice: now was this Lapſana a kind of wild Colewort, which they did eat of inſtead of the fine and dainty tendrils and buds of the garden Coles.

As touching Sperages, there is not an herb in the garden, whereof there is ſo great regard and care taken, as of them. Concerning their firſt original & beginning, I haue ſpoken at large in the treatiſe, Of the maner how to order the *wild of that kind, and to entertain them in our gardens: as alſo how *Cato* willed vs to ſow and plant them in plots of Reeds and Canes. Now there is a middle ſort of theſe Sperages, not ſo ciuill and gentle as the Aſparagi of the garden, and yet more kind and mild than the Corrudæ of the field: theſe grow euery where abroad e-
D uen vpon the mountains; and the champion countrey of high Almain is ouerſpred and full of them: wherof there goes a pleaſant ſpeech and merry conceit of *Tyberius Cæſar* the Emperour, namely, that there grew an herb in Almain very like to the garden Sperage: for as touching that which commeth vp of it ſelfe in Neſis, an Iſland of Campaine, it is thought the beſt ſimply of all others, without compariſon. The garden Sperages be planted from the knots bunching together within the ground, named Spongiæ, which eaſily may be replanted; for ſurely an herb it is that carrieth a mighty head or cluſter as it were of roots, and the ſame putteth forth ſpurns euery way from it of a great depth into the ground. They ſend out at firſt certaine greene ſpurts or buds peeping forth of the ground, which growing to a ſtem in proceſſe of time riſe ſharpe in the top, and then are they chamfered & diuided into certaine muſculous branches that ſpread
F abroad. This herbe may be ſowne alſo of ſeed. *Cato* tooke not more paines about any other herbe, nor imploied greater diligence in the deſcription thereof, than he did in it. It is the very laſt thing that he treateth of in his booke, whereby it may appeare, that the man came all vpon a ſudden and newly to the knowledge of that herbe, and the ordering of it. He giueth order, *Imprimis*, That the plot wherein they are to ſowne, be moiſt, fat, and well digged. *Item*, That they be ſet half a foot euery way aſunder one from another, & in no wiſe the place troden down with ones foot; moreouer, that two or three ſeeds be put together in a hole, made before with a dibble directly by a line: for in thoſe daies they ſet them onely of ſeed. *Item*, That this would be done about mid-March, which is the proper ſeaſon therefore. *Item*, That they haue their fill of dung; That they be kept cleane with often weeding: but in any caſe, That great heed be ta-
F ken in plucking vp the weeds, that the tender buds or croppes new knit and appearing aboue ground, be not knapt off. For the firſt yeare, hee would haue them in winter time to be couered with ſtraw and litter, and ſo defended againſt the froſt and cold weather: alſo during the ſpring inſuing, to be opened at the root, farcled and well weeded. In the third yeare, by his rule, they ought to be burned in the ſpring time; and the ſooner that the ground is thus burned, the better

*Corrudæ.

wil they come vp again and in greater plenty: which is the cauſe, that they like and proſper beſt G
in plots ſet with Canes and Reeds: for ſuch deſire to be burnt betimes in the yere. Moreouer, he
giueth another precept, that they muſt not be ſarcled, nor haue the earth opened & laid hollow
about them, before their buds or tops be aboue ground to be ſeen, for feare leaſt in the ſarcling,
the roots take harm thereby, either by raſing or ſhaking them vntill they be looſe. From which
time forward, if a man would gather any of the ſaid buds or yong ſprings, for ſalad or other vſe,
they ought to be plucked and ſlipped from the root; for otherwiſe, if they be broken and knapt
off in the mids, the root wil preſently put forth many vnprofitable ſprouts, which wil ſuck away
all the heart and kill it in the end. Sliue and pluck it you may in manner aforeſaid, vntil it ſpin-
dle and run to ſeed, which commonly beginneth to be ripe in the Spring, & then it muſt be ſet
on fire, as is beforeſaid: and then once again, ſo ſoon as new buds and tendrons appeare aboue H
ground from the root, they muſt be ſarcled, bared, and dunged afreſh. Now after it hath grown
in this manner nine yeres, ſo as by this time it is waxen old, the roots muſt be taken vp, and then
replanted again in a piece of ground well digged and as throughly dunged. Then (I ſay) ought
the ſmal roots called Spongiæ in Latine, to be ſet again, a foot diſtant one from another. Fur-
thermore, *Cato* ordaineth expreſſely by name, That ſheeps dung ſhould be vſed for that purpoſe,
becauſe any other would breed ſtore of weeds. And verily there was neuer knowne any other
thing practiſed or aſſaied afterwards, to more gain and benefit about this Garden-herb, vnleſſe
it were this, That about the Ides or mids of February, ſome haue let the ſeeds of Sperage lie
well ſoked in dung, and then ſowed the ſame by heaps in little trenches or holes made for the
purpoſe: after which, when the roots are wouen and knit one within another into a knot, the
ſpurns ſhooting from them they plant after the Æquinox in Autumne following, a foot aſun- I
der: by which means they wil continue bearing plenteouſly for ten yeres together. For to breed
and maintaine theſe garden Sperages, there is no better ſoile than the gardens of Rauenna, from
whence we haue the faireſt of all other. As for the herb named in Latine Corruda, I haue writ-
ten heretofore of it: and I vnderſtand thereby, the wild Sperage, which the Greekes call Ormi-
num and Myacanthon: howbeit there be, who giue it other names. Finally, I reade of certaine
Sperages which will engender and grow of Rams hornes beaten or ſtamped, and then put into
the ground.

A man would thinke that I had diſcourſed already of all ſuch Garden herbes as were of any
price and regard: but that there remaineth one thing yet behind, whereof the greateſt gaine of
all other is raiſed, and yet me thinks I cannot write thereof, but be abaſhed to range it amongſt K
the good herbs of the garden; and that forſooth is our Thiſtle: howbeit this is certaine (to the
ſhame be it ſpoken of our wanton and waſting gluttons) that the Thiſtles about Carthage the
great, & Corduba eſpecially, coſt vs ordinarily ſix thouſand thouſand Seſterces, to ſpeak with-
in compaſſe. See how vaine and prodigal we be, to bring into our kitchin and ſerue vp at our ta-
ble, the monſtruoſities of other nations, and cannot forbeare ſo much as theſe Thiſtles, which
the very aſſes and other fourfooted beaſts, haue wit enough to auoid & refuſe for pricking their
lips and muzzles. Well, ſince they be grown into ſo great requeſt, I muſt not ouer-paſſe the gar-
dinage to them belonging, and namely, how they be ordered two maner of waies, to wit, replan-
ted of yong ſets or roots in Autumn, and ſowed of ſeed before the nones of March. As for the
plants beforeſaid, they ought to be ſlipped from it, and ſet before the Ides or mids of Nouem- L
ber in any hand: or els if the ground be cold, we muſt ſtay vntil February, and then be doing with
them about the riſing of the Weſtern wind Fauonius. Manured ywis it ought to be & dunged,
This is meant of Artichokes. (I would not els) ſo faire and goodly an herbe it is; and ſo forſooth (and it pleaſe you) they pro-
ſper the better and come on trimly. They are condite alſo and preſerued in vineger (or elſe all
were mard) in delicate life honey, ſeaſoned alſo and beſpiced (I may ſay to you) with the coſtly
root of the plant Laſer-woort, yea and with Cumin; becauſe wee would not be a day without
Thiſtles, but haue them as an ordinary diſh all the yeare long.

As for the reſt of Garden-herbs behind, they need no long diſcourſe, but a light running ouer
them may ſerue well enough. Firſt and foremoſt men ſay, That the beſt ſowing of Baſil, is at the M
*11. Cal. May, *feaſt * Palilia: but ſome are of mind, that Autumne is as good: and they that would haue it
ſ. 21 of Aprill. done in winter, giue order to infuſe and ſoke the ſeed firſt in vineger. Rocket alſo and garden
Creſſes, are not dainty to grow, but be it winter or Summer, they will ſoon come vp & proſper
at al times. But Rocket of the twain, ſtands more at defiance with winter, and ſcorns al his frow-

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A ning looks and cold weather; as being of a contrary nature to Lectuce, for it ſtirreth vp fleſhly luſt: and therfore commonly it is ioined with Lectuce in ſallads, & both are eaten together; that the exceeding heat of the one mixt with the extreme coldnes of the other, might make a good mariage and temperature. Creſſes tooke the name in Latine * Naſturtium, *a narium tormento*, as a man would ſay, Noſe-wring, becauſe it will make one writh and ſhrink vp his noſthrils: which is the reaſon, that the word is grown into a prouerb, when we would ſignifie a thing which will put life into one that is dull and vnluſty. In Arabia, the Creſſes (by report) proue to a wonderful bigneſſe. Rue alſo is ſowed vſually in February when the Weſtern wind Fauonius bloweth, and ſoon after the Æquinox in Autumne. It cannot away with winter, for it brooketh not cold or rain, nor moiſt ground, neither will it abide muck: it liketh well to grow in dry places, and
B ſuch as lie faire vpon the Sun-ſhine; but a clay ground which is good for bricke and tile, that is alone for it and beſt of all other: it delighteth in aſhes, and therewith is it fed and nouriſhed; inſomuch as they vſe to blend aſhes & the ſeed together, for to keep away the canker worm and ſuch like. Certes we find, that in old time Rue was in ſome great account, and eſpeciall reckoning aboue other herbs: for I reade in antient Hiſtories, That *Cornelius Cethegus*, at what time as he was choſen Conſul with *Quintius Flaminius*, preſently vpon the ſaid election, gaue a largeſſe to the people of new wine aromatized with Rue. The fig-tree and Rue are in a great league & amitie; inſomuch as this herbe, ſow and ſet it when and where you will, in no place proſpereth better than vnder that tree: for planted it may be of a ſlip or ſprig. Now if the ſame be put into a bean which hath a hole pierced or bored through, it will do far better; by reaſon that the bean
C claſping the ſet cloſe, and vniting thereunto her own ſap and moiſture, cheriſheth it therewith and makes it come apace: moreouer, it will propagat and ſet it owne ſelfe, for let the top of any of her branches be bent downeward, ſo as it may but touch the ground, it will preſently take root. Of the ſame nature it is, that Baſill, but that Rue is ſomwhat later ere it come vp, & groweth not ſo faſt. When Rue is come to be of any ſtrength, there is vntoward ſarcling and weeding of it; for if it be handled, it will raiſe bliſters vpon a mans fingers, vnleſſe the hands be well gloued, or defenſed with oile. The leaues alſo of Rue are kept and preſerued, beeing made vp into little knitches or bunches.

Now as touching Ach or Parſley, the manner is to ſow it immediatly after the ſpring Equinox in March, but the ſeed would be firſt bruſed & beaten a little in a mortar: for ſome are per-
D ſuaded, that by this means it groweth thicker and more criſpe or curled: which it will doe likewiſe, in caſe after a bed be ſowed therewith, it be troden vpon with mens feet, or beaten downe with a roller or cylinder. This peculiar property hath Parſley, that it will change the colour. It was an antient cuſtome in Achaia, to do honour vnto this hearbe, by crowning thoſe that went away with victory and wan the prize in the ſolemne tourneys and ſacred games Nemei, with a chaplet of Parſly. As for Mint, men vſe to ſet it at the ſame time, of a young plant, ſo ſoone as they ſee it is ſpurt and come vp: but if it haue not ſprung, yet they let not to plant the ſpurns of the root, knotted into an head within the ground in manner of the Spongiæ in Sperage before ſaid. This herb taketh no great ioy in moiſt grounds. All Summer it looketh greene and freſh, but in winter it hath a hempen hew. A wild kind there is of Mint, named in Latin Mentaſtrum,
F which will increaſe by propagation or couching in the ground, as well as vine branches, and ſo willing it is to take, that it makes no matter which end of a ſlip be ſet downeward; for at the wrong end it wil come as well as at the other. Mint in the Greeke tongue hath changed the old name, by occaſion of the ſweet * ſmel that it carieth, whereas before time it was called Mintha, whereof we in Latine deriued our name Mentha. A pleaſant herb this is, and delectable to ſmel vnto, inſomuch as you ſhal not ſee a husbandmans bourd in the country, but all the meats from one end to the other be ſeaſoned with mints. If it be once ſet or ſown, & haue taken to a ground, it will continue there a long time. It reſembleth much the herb Peny-roiall, the nature wherof (as I haue often ſhewed) is to blow her floures again (vpon the ſhorteſt day of the yere) euen as it hangeth prickt vpon fleſh in the butchery. Much after one ſort are kept and preſerued for
F ſauce (as if they were of the ſame kind) Mint, Peni-roiall, and Nep: but aboue all, to a weake and peeuiſh ſtomack, Cumin agreeth moſt and is the beſt to get an appetite. It hath a qualitie to grow with root very eb, and ſcarſely taketh any hold of the earth, coueting to be aloft. In hot grounds and ſuch eſpecially as be rotten & mellow, it would be ſown in the mids of the ſpring. There is a ſecond ſort therof growing wild, which ſome call Cumin Ruſtick, others Thebaick,

* In Greek alſo καρδαμον: *quaſi* καρήβαμον, *quia caput tentat*, becauſe it troubleth the head with exceſſiue heat: *vel potius*, ἀπὸ τῆς καρδίας, *qui cordatos & prudentes facit*: therefore there went a by-word or prouerbe in Greek, applied to a dull, fooliſh, and blockheaded fellow, καρδαμον ἔδε: *Go, eat ſome Creſſes, learn more wit*

* ἐύοσμον, *i.* odoriferous or ſweet ſenting.

which being bruiſed or beaten into pouder, and drunk in water, is ſingular good for the pain of G
the ſtomack. The beſt Cumin in our part of the world, which is Europe, commeth from Carpetania; for otherwiſe the greateſt name goeth of that in Æthyopia and Africk. And yet ſome here be who prefer the Cumin of Egypt before all.

* A corrupt word from *Olus atrum*: as if one would ſay, *Oluſatres*. Some take this for Louach.

But * Aliſanders, which ſome Greekes call Hippoſelium, others Smyrneum, is of a ſtrange and wonderfull nature aboue all other herbes: for it wil grow of the very liquor or juice iſſuing forth of the ſtalk. It may be ſet alſo of a root: and indeed, they that gather the foreſaid juice, vſe to ſay, that it hath the very taſt and relliſh of Myrrhe: & by *Theophraſtus* his ſaying, it came firſt of Myrrh ſet into the ground. The old writers ordained, that Aliſanders ſhould be ſet or ſowed in ſtony grounds, without tending or looking to, neer to ſome * mud wall. But now in our daies it is planted in places digged & delued ouer, once or twice: yea, and at any time from the blow- H
ing of the weſtern wind Fauonius in Februarie, vntill the later Æquinox in September be paſt.

* *Iuxta macerias*, wherupon ſome Apothecaries name it *Maceranium*.

Capers likewiſe are ſet & ſowed in dry places ſpecially: but the bed muſt be digged in ſome low ground and laid hollow, inuironed round about with banks, and thoſe raiſed with a groundſell of ſtone worke, otherwiſe it would be ranging abroad and ouerſpread whole fields, & make the ground barren and vnfruitfull. It flouriſheth in Summer, and continueth green vntil the occultation or ſetting of the Brood-hen ſtar Virgiliæ; and ſandy ground is moſt familiar and agreeable to it. Touching the defects and imperfections of that kinde which groweth beyond ſea, I haue ſaid enough among the ſhrubs and plants that be ſtrangers.

The Caraway alſo is a ſtranger, as may appeare by the name of Caria, the natiue countrey therof; it beareth one of the principal ſeeds that commeth into the kitchen. It careth not much I
where it is ſown or planted, for it will grow in any ground, as well as the Aliſanders beforenamed: howbeit, the beſt commeth out of Caria, the next to it in goodnes, we haue from Phrygia.

As for Loueach or Liuiſh, it is by nature wild and ſauage, and loueth alone to grow of it ſelf among the mountains of Liguria, whereof it commeth to haue the name Liguſticum, as being the naturall place beſt agreeing to the nature of it. Set or ſowed it may be in any place whereſoeuer: howbeit, this that is thus ordred by mans hand hath not the like vertue as the other, although it be in taſt more pleaſant, & ſome call it Panax or Panace: howbeit, *Cretenas* a Greeke writer, calleth the wild Origan or Cunila Bubula, by that name. But all others in manner, attribute the name of Conyza or Conyzoides to Cunilago, *i.* Fleabane Mulket: and of Thymbra, *i.* winter Sauory, to Cunila, *i.* garden Sauory; which among vs hath another name in Latin, to wit, K
Satureia, much vſed in ſauces and ſeaſoning of our meats.

This Sauory is commonly ſown in the month of February, and hath no ſmal reſemblance of Origan, inſomuch, as they are neuer both vſed at once in ſauce or ſallads, their vertues & operations be ſo like. Andy et the Egyptian Origanum is preferred before the ſaid Sauory.

To come now to Lepidium, *i.* Dittander or Pepperwort, it was ſomtime a ſtranger alſo with vs here in Italy. It is vſually ſown after mid-February when the Weſtern wind Fauonius hath plaied his part: afterwards when it hath put forth branches, it is cut downe cloſe to the ground, and then it is laid bare and ſarcled, & the ſuperfluous roots cut away, & ſo in the end cheriſhed with muck. Thus muſt it be ſerued the two firſt yeres. For afterwards they vſe the ſame in branches at all times, if the cruell and bitter winter kill them not; for ſurely this herb is moſt impa- L
tient of cold. It groweth a good cubit in heigth, bearing leaues like to Lawrel; & the ſame ſoft and tender. But neuer is it vſed in meat without milke.

Now for Gith or Nigella Romana, as it is an herb that groweth for the paſtrie, to fit the Bakers hand; ſo Anniſe and Dil are as appropriat to the kitchen for Cooks, as the Apothecaries ſhop for the Phyſician.

Sacopenium likewiſe is an herb growing verily in gardens, but is vſed in Phyſicke onely.

Certain herbs there be that accompany others for good fellowſhip, and grow with them, as namely Poppy; for commonly ſowne it is with Coleworts, Purcellane, Rocket, and Lectuce.

* This Iunket or conceit was called *Cocetum* by *Tertullian* and *Feſtus*.

Of garden Poppies there be three kinds, firſt the white: whereof the * ſeeds in old time being made into Biskets or Comfits with hony, were ſerued vp as a banketting diſh. The ruſtical pei- M
ſants of the countrey were wont to guild or glaze (as it were) the vppermoſt cruſt of their loaues of bread with yolks of egs, and then to beſtrew it with Poppy ſeed, which would cleaue faſt to it, hauing firſt vnderlaied the bottome cruſt with * Ammi, or Anniſe ſeed and Gith: & then they put them into the ouen beeing thus ſeaſoned; which gaue a commendable taſte to their bread

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A when it was baked. There is a ſecond kinde of Poppie called Blacke: out of the heads or bolls wherof, a white juice or liquor iſſueth by way of inciſion, like milk, and many receiue & reſerue it carefully. The third kind, which the Greekes name * Rhœas, our countreymen in Latin call the wandring or wild Poppie. It commeth vp verily of the owne accord, but in corne fields among Barly eſpecially, like vnto Rocket, a cubite high, with a red floure that ſoon wil ſhed and fall off, whereupon it tooke that name of Rhœas in Greeke. Touching other kinds of Poppie growing of themſelues, I purpoſe to ſpeake in the treatiſe of phyſicke and medicinable hearbs. Mean while this cannot be forgotten, that Poppies haue alwaies, time out of mind, been highly regarded and honoured among the Romanes; witneſſe *Tarquine* the Proud, the laſt king of Rome, who when his ſonnes Embaſſadors were come to him for to vnderſtand his aduiſe, how B to compaſſe the ſeignorie ouer the Gabians, drew them into his garden, and there by circumſtance of topping the heads of the higheſt Poppies there growing, without any anſwere parole, diſpatched them away, ſufficiently furniſhed by this demonſtration, with a double deſign, euen to fetch off the greateſt mens heads of the citie, the readieſt meanes to effect his purpoſe. * Corne Roſe.

Againe, there is another ſort of hearbs, that loue for companie to be ſet or ſowne together about the Æquinox in Autumne, namely, Coriander, Dill, Orach, Mallowes, Garden dockes or Patience, Cheruill (which the Greeks call Pæderos) and Senuie, which is of a moſt biting and ſtinging taſt, of a fierie effect, but natheleſſe very good and wholſom for mans bodie: this hearb will come of it ſelfe without the hand of man, howbeit proue it will the better if the plant be remoued and ſet elſwhere. And yet, ſow a ground once withall, you ſhall hardly rid the place of C it cleane: for the ſeed no ſooner ſheddeth vpon the ground, but a man ſhall ſee it greene aboue ground. It ſerues alſo to make a prety diſh of meat to be eaten, being boiled or ſtewed between two little diſhes in ſome conuenient liquor, in ſuch ſort, as a man ſhal not feele it to bite at the tongues end, nor complaine of any eagerneſſe that it hath. The leaues beſides vſe to be ſodden like as other pot-hearbes. Now there be of this Senuie, three kinds: the firſt beareth ſmall and ſlender leaues, the ſecond is leaued like Rapes or Turneps, the third reſembleth Rocket. The beſt Muſtard ſeed commeth out of Ægypt. The Athenians were wont to call it Napy, ſome Thlaſpi, and others Saurion.

To conclude, as touching the running wild Thyme, and Siſymbrium, *i.* Horſe-mint or Water-mint, moſt hils are repleniſhed and tapiſſed as it were therewith: and eſpecially in Thracia, D where a man ſhall ſee a mighty quantity of wild Thyme branches, which the mountain waters or land flouds carrie away and bring it downe with their ſtreame to riuers ſides, and then folke plant them. Semblably, at Sicyon there grows great ſtore, conueighed thither from the mountaines neere adjoining: and laſtly, at Athens, brought thither out of the hill Hymettus. In like manner alſo the foreſaid water-mint commeth from the hils with a ſudden daſh of rain, and is replanted accordingly. It groweth rankeſt and proſpereth beſt in the brinks and ſides of pits or wells, alſo about fiſh-ponds and ſtanding pooles.

Chap. IX.

¶ *Of Finkle or Fennell, and Hempe.*

E IT remaineth now among garden hearbes to ſpeake of thoſe that be of the Ferule kind, and namely of Fenell in particular, a hearb wherin Snakes and ſuch ſerpents take exceeding great delight, as heretofore I haue declared: and which being dried, is ſingular good to commend many meats out of the kitchin into the hall.

There is a plant reſembleth it much, named Thapſia, wherof becauſe I haue alreadie written among other forraine herbes, I will proceed forward to Hemp, which is ſo profitable and good for to make cordage. This plant muſt be ſowed of ſeed after the weſtern wind Fauonius bloweth in Februarie. The thicker that it groweth, the ſlenderer and finer it is. When the ſeed ther- of is ripe, namely, after the Æquinox in Autumn, folk vſe to rub it out and then drie it either in F the Sunne, the wind, or ſmoke. But the ſtalke or ſtem of the Hemp it ſelfe, they pluck out of the ground after Vintage: and it is the husbandmans night work by candle light to pill and cleanſe it. The beſt Hempe commeth from Alabanda, eſpecially for to make nets and toile; where bee three kinds thereof. That part of the Hempe which is next to the rind or pilling, as alſo to the inner part within is worſt: the principal of it lieth in the middeſt, and called it is Meſa. Next to the

the Alabandian Hempe for goodneſſe,is that of Mylaſium.But if you goe to the talneſſe,there G
is about Roſea in the Sabines countrey, Hempe as high as trees.

As touching the 2 kinds of Ferula, I haue ſpoken of them in my diſcourſe of forrain plants. the ſeed of Ferula or Fennell-geant, is counted good meat in Italie : for it is put vp in pots of earth well ſtopped,and will continue a whole yeare. And of 2 ſorts is this preſerued Compoſt, to wit,the ſtalks, and the Bunches whiles they be knit round and not broken & ſpread abroad. And as they cal theſe knobs which they doe condite and keep, Corymbi; ſo that Ferula,which is ſuffered to riſe vp in ſtem for to beare ſuch heads, they tearme Corymbias.

Chap. X.

¶ *The maladies incident to Garden hearbes, The remedies againſt Piſmires, Canker-wormes, and Gnats.* H

THe hearbes of the garden be ſubject to diuerſe accidents,and namely, diſeaſes; as well as corne and other fruits of the earth. For not onely Baſill by age degenerats from the owne nature into wild creeping Thyme,but Siſymbrium alſo into Calaminth. The ſeed of an old Cole-wort will bring forth Turneps:and contrariwiſe, ſow the ſeed of an old Rape & Turnep you ſhall haue Coleworts come vp of it. Cumin, if it be not kept neat and trim with much cleanſing,wil begin to decay at one ſide of the ſtalk beneath,and dy. Now hath Cumin but one onely ſtalke,and a root bulbous in manner of an Onion, it groweth not but in a light and leane ſoile. Otherwiſe,the peculiar diſeaſe appropriat to Cumin,is a kind of skurf or ſcab. Alſo Ba- I
ſil,toward the riſing of the Dog-ſtar,waxeth wan and pale. And generally, there is not an hearb but will turne yellow,if a woman come neere vnto it whiles ſhe hath her monthly ſickneſſe vpon her.

Moreouer, there be diuerſe ſorts of little beaſts or vermine engendred in the garden among the good hearbs. And namely, vpon the Nauewes,you ſhall haue gnats or flies:in radiſh Roots cankerwormes,and other little grubs:likewiſe, in Lectuce and * beet leaues. And as for theſe Beetworts laſt named,you ſhal ſee them haunted with ſnails,as well naked as in ſhels. In Leeks moreouer or Porret there ſettle other ſpeciall vermine that be noiſome to them ſeuerally, but ſuch are very ſoone caught by throwing vpon thoſe hearbes a little dung,for it will they gather to ſhroud and hide themſelues. Furthermore, *Sabynus Tyro* in his booke intituled * Cepuricon K
which he dedicated to *Mecænas*,writeth, That it is not good to touch with knife or hooke,Rue, Winter Sauerie,Mint,and Baſill. The ſame Author alſo hath taught vs a remedy againſt Emmets(that do not the leaſt miſchiefe to gardens,when they lie not to haue water at command) and that is this,to take ſea mud or ooſe and aſhes together, to temper a morter of them both, and therewith to ſtop their holes. But the moſt forcible and effectuall thing to kill them,is the hearb called Ruds or Turn-ſol. Some are of opinion,that the onely meanes to chaſe theſe ants away,is,with water wherin the pouder of a ſemi-brick or halfe-baked tile is mingled. And particularly,for to preſerue Nauewes, it is a ſingular medicine for them to haue Feni-greek ſowed among,as alſo for Beets to do the like with Cich peaſe: for this deuiſe wil driue away the Cankerworm. Bvt ſay,that this practiſe was forgotten, & that the foreſaid hearbs be alreadie come L
vp,what remedie then ? Mary,euen to ſeeth Wormwood and Houſleek(which the Latines call Sedum,the Greekes Aiezoon)and ſprinckle the decoction or broth therof among them. Now what manner of hearbe this Houſleeke is,I haue ſhewed you alreadie. It is a common ſpeech, that if a man take the ſeed of Beets and other pot-hearbes, and wet them in the juice of Houſleeke,otherwiſe called Sea-green,thoſe hearbes ſhall be ſecured againſt al theſe hurtfull creatures whatſoeuer. And generally, no Cankerwormes ſhall do harme to any herbage in the garden, if a man pitch vpon the pales about a garden the bones of a Mares head ; but he muſt bee ſure it was of a Mare,for a horſe head will not ſerue. It is a common ſaying alſo, that if a riuer Crab or Craifiſh be hung vp in the mids of a garden,it is ſingular for that purpoſe. Some there be who make no more but touch thoſe plants which they would preſerue from the ſaid vermin, M
only with twigs of the Dogge berie tree,and they hold them wariſhed and ſafe ynough. Gnats keep a foule ſtir in gardens where water runneth through eſpecially,and wherin there be ſome ſmall trees growing:but theſe are ſoone chaſed away by burning a little Galbanum.

* *Olieri.*

* Of Gardening.

Chap.

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Chap. XI.

¶ What garden ſeeds be ſtronger, which be weaker than others. Alſo what plants proſper better with ſalt water.

NOw as touching the change and alteration in ſeeds, occaſioned by age and long keeping: ſome there be that are firme and faſt, which hold their owne wel, as namely, the ſeeds of Coriander, Beets, Leeks, garden Creſſes, Senvie or Muſtard ſeed, Rocket, Saverie, and in one word, all ſuch as be hot and bite at the tongues end. Contrariwiſe, of a weaker nature are the ſeeds of Orach, Baſil, Gourds, and Cucumbers. Generally, all ſummer ſeeds laſt longer than
B winter: and the Chibbol ſeed leaſt of any other will abide age. But take the ſtrongeſt and hardieſt that may be, you ſhall haue none good after foure yeares, I mean only for to ſow. And yet I muſt needs ſay, That Saverie ſeed wil remain in force aboue that time. Radiſhes, Beets, Rue, and Saverie find much good by being watered with ſalt water; for to theſe eſpecially it is holſome phyſick againſt many infirmities: and beſides, it is thought to giue them a pleaſant and commendable taſt, yea, and it cauſeth them to be more fruitfull. As for all other hearbes, they find benefit rather by freſh water. And ſince we are light vpon the mention of waters, thoſe are thought beſt for this purpoſe which are coldeſt and ſweeteſt to be drunk. Standing waters out of ſome pond, ſuch alſo as are conueyed into gardens by trenches and gutters, are not good for a garden, becauſe they bring in with them the ſeeds of many a weed. But aboue all other, raine
C waters comming in white ſhoures from heauen, be they that nouriſh a garden beſt, for theſe ſhoures kill the vermin alſo which are breeding therein.

Chap. XII.

¶ The maner of watering Gardens. What Herbs will proue the better by remouing and replanting. Of the iuices and ſauors that garden Herbes affourd.

THe beſt time of the day to water gardens is morning & euening, to the end that the water ſhould not be ouerheat with the Sunne. Baſill only would be watered alſo at noon. And
D moreouer ſome think, that when it is new ſown, it will make haſt to come vp very ſpeedily, if it be ſprinkled at the firſt with hot water. Generally, all herbs proue better, and grow to be greater, when they be tranſplanted, but principally Leeks and Nauews: nay this remouing and replanting of them is the proper cure of many ſorances, for from that time forward, ſubiect they will not be to thoſe iniuries that vſe to infeſt them; and namely Chibbols, Porret, or Leeks, Radiſh, Parſly, Lectuce, Rapes or Turneps, and Cucumbers. All herbs which by nature grow wild, lightly haue ſmaller leaues and ſlenderer ſtalks, in taſt alſo they be more biting and eagre, than ſuch of that kinde as grow in gardens: as wee may ſee in Saverie, Origan, and Rue. Howbeit, of all others the wild Dock is better than the garden Sorrell, which the Latines call Rumex. This garden Sorrell or foure docke is the ſtouteſt and hardieſt of all that grow: for if
E the ſeed haue once taken in a place, it wil by folks ſaying continue euer there: neither can it be killed, do what you will to the earth, eſpecially if it grow neere the water ſide. If it be vſed with meats, vnleſſe it be taken with Ptiſane, or husked Barly alone, it giueth a more pleaſant & commendable taſt thereto, and beſides maketh it lighter of digeſtion. The wild Dock or Sorrell is good in many medicines. But that you may know how diligent and curious men haue been to ſearch into the ſecrets of euerie thing, I will tell you what I haue found contriued in certaine verſes of a Poet: namely, That if a man take the round treddles of a goat, and make in euery one of them a little hole, putting therein the ſeed either of Leeks, Rocket, Lectuce, Parſly, Endiue, or garden Creſſes, and cloſe them vp, and ſo put them into the ground, it is wonderfull how they will proſper, and what faire plants will come thereof. Ouer and beſides, this would be no-
F ted, that all herbs wild, be drier and more keen than the tame of the ſame kind. For this place requireth, that I ſhould ſet downe the difference alſo of their iuice and taſts which they yeeld, and rather indeed than of Apples and ſuch like fruits of trees. The taſt or ſmack of Savery, Origan, Creſſes, and Senvie, is hot and biting; of Wormwood and Centaurie, bitter: of Cucumber, Gourds, and Lectuce, wateriſh. Of Majoram it is ſharp only: but of Parſly, Dill, and Fennell,

nell, ſharpe, and yet odorant withall. Of all ſmacks, the ſalt taſt only is not naturall. And yet otherwhiles a kinde of ſalt ſetleth like duſt, or in manner of roundles or circles of water vpon herbs: howbeit ſoon it paſſeth away, and continueth no longer than many ſuch vanities * and fooliſh opinions in this world. As for Panax, it taſteth much like pepper: but Siliquaſtrum or Indiſh Pepper more than it, and therfore no maruel if it were called Piperitis. Libanotis ſmelleth like Frankincenſe: Myrrhis of Myrrh. As touching Panace, ſufficient hath been ſpoken already. Libanotis commeth naturally of ſeed in rotten grounds, lean & ſubiect to dews: it hath a root like to Aliſanders, differing little or nothing in ſmell from Frankincenſe. The vſe of it after it be one yeare old is moſt wholſome for the ſtomacke. Some terme it by another name, Roſemary. Alſo Aliſanders, named in Greeke Smyrneum, loueth to grow in the ſame places that Roſemary doth, and the root reſembleth Myrrh in taſt. Indiſh Pepper likewiſe delighteth to be ſowed in the ſame maner. The reſt differ from others both in ſmell and taſt, as Dil. Finally, ſo great is the diuerſitie and force in things, that not only one changeth the naturall taſte of another, but alſo drowneth it altogether. With Parſly the Cooks know how to take away the ſoureneſſe and bitterneſſe in many meats: with the ſame alſo our Vintners haue a caſt for to rid wine of the ſtrong ſmell that is offenſiue; but they let it hang in certain bags within the veſſels. G

* For ſome Philoſophers held opinion, That the taſt of hearbs conſiſted of a Terrene ſubſtance and a Waterie mixed together: others (as *Democritus*) aſcribed it to their formes and figures: which *Plinie* thinketh ridiculous.

Thus much may ſerue concerning garden herbs, ſuch I mean onely as be vſed in the kitchen about meats. It remaineth now to ſpeake of the chiefe work of Nature contained in them: for all this while we haue diſcourſed of their increaſe, and the gain that may come thereof: and indeed treated we haue ſummarily of ſome plants and in generall termes. But foraſmuch as the true vertues and properties of each herb cannot throughly and perfectly be known, but by their operations in phyſick, I muſt needs conclude, that therein lieth a mighty piece of work, to find out that ſecret and diuine power, lying hidden and incloſed within: and ſuch a piece of worke, as I wot not whether there can be found any greater. For mine own part, good reaſon I had, not to ſet down and anex theſe medicinable vertues to euery herb; which were to mingle Agriculture with Phyſick, and Phyſicke with Cookerie, and ſo to make a miſh-maſh and confuſion of all things. For this I wiſt ful well, that ſome men were deſirous only to know what effects they had in curing maladies, as a ſtudy pertinent to their profeſſion; who no doubt ſhould haue loſt a great deale of time before they had come to that which they looked for in running thorough the diſcourſes of both the other, in caſe wee had handled altogether. But now, ſeeing euery thing is digeſted & ranged in their ſeueral ranks, as well pertaining to the fields, as the kitchen, and the Apothecaries ſhop; an eaſie matter it will be for them that are willing and ſo diſpoſed, to ſort out each thing, and fit himſelfe to his owne purpoſe, yea, and ioine them all at his pleaſure. H I K

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THE TWENTIETH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proeme.

*SInce we are come thus far, as to treat of the greateſt and principall work of Nature, we will begin from hence-forward at the very meats which men put into their mouthes, and conuey into their ſtomacks, and vrge them to confeſſe a truth, That hitherto they haue not well knowne thoſe ordinarie means whereby they liue. And let no man in the mean time thinke this to be a ſimple or ſmall piece of knowledge and learning, going by the baſe title & bare name that it caries: for ſo he may be ſoon deceiued. For in the purſute and diſcourſe of this argument we ſhall take occaſion to enter into a large field as touching the peace and war in Nature; we ſhall handle (I ſay) a deep ſecret, euen the naturall hatred and enmitie of dumbe, deafe, and ſenſeleſſe creatures. And verily, the main point of this theame, and which may rauiſh vs to a greater wonder & admiration of the thing, lieth herin, That this mutual affection, which the Greeks call ſympathie, whereupon the frame of this world dependeth, and whereby the courſe of all things doth ſtand, tendeth to the vſe and benefit of man alone. For to what end elſe is it, that the element of Water quencheth fire? For what purpoſe doth the Sun ſuck and drink vp the water, as it were to coole his heat and allay his thirſt? and the Moon contrariwiſe breed humors, and engender moiſt vapors? and both Planets eclipſe and abridge the light one of the other? But to leaue the heauen and thoſe cœleſtiall Bodies in their maieſtie. What is the cauſe, that as the Magnet or loadſtone draweth iron vnto it, ſo there is another * ſtone abhorreth the ſame, and driueth iron from it? What ſhould the reaſon be of the Diamond, that peerleſſe ſtone, the chiefe iewell wherein our rich worldlings repoſe their greateſt ioy and delight, a ſtone otherwiſe * inuincible, and which no force and violence beſides can conquer, but that it remaineth ſtill infrangible; and yet that the ſimple bloud of a poore Goat is able to burſt it in pieces? Beſides many other ſecrets in nature, as ſtrange, yea and more miraculous. All which we purpoſe to reſerue vnto their ſeuerall places, and will ſpeake of them in order. Mean while may it pleaſe the Reader to pardon vs, and to take in good part the manner of our entrance into this matter: for albeit we ſhall deale in the beginning with the ſmalleſt and baſeſt things of all others, yet ſuch they be as are wholſome, and concerne much the health of man and the maintenance of his life. And firſt will we ſet in hand with the garden, and the herbes that wee finde there.*

* Theamedes, cap. 16. lib. 36.

* Where upon it is called *Adamas.*

CHAP. I.

¶ *Of the wilde Cucumber, and the juice thereof, Elaterium.*

THis wild Cucumber, as we haue ſaid heretofore, is far leſſe than that of the Garden. Out of the * fruit hereof there is a medicinable juice drawne, which the Phyſitians call Elaterium. For to get this juice, men muſt not ſtay vntill the * Cucumber be full ripe: for vnles it be taken betimes and cut down the ſooner, it wil leap & flurt in the handling from the ſtele whereto it hangeth, againſt their faces, with no ſmal danger of their eye-ſight. Now when it is once gathered, they keepe it ſo one whole night. The next morrow they make an inciſion and ſlit it with the edge of a cane. They vſe to ſtrew aſhes alſo thereupon, to reſtrain and keep down the liquor which

* *Semen pro fructu abuſiue.*

* Whereupon it is called *Touch me not*

which iſſueth forth in ſuch abundance: which done, they preſſe the ſaid juice forth, and receiue G
it in raine water, wherin it ſetleth: and afterwards, when it is dried in the Sunne, they make it vp
into Trochiſques. And certaine theſe Trochiſques are ſoueraigne for many purpoſes, to the
great good and benefit of mankind: For firſt and foremoſt, it cureth the dimneſſe and other de-
fects or imperfections of the eyes: it healeth alſo the vlcers of the eye lids. It is ſaid moreouer,
that if a man rub neuer ſo little of this juice vpon vine roots, there will no birds come neere to
pecke or once touch the grapes that ſhall hang thereon.

The root of this wild Cucumber, if it be boiled in vinegre and made into a liniment, and ſo
applied, is ſingular good for all kinds of gout; but the juice of the ſaid root helpeth the tooth-
ach. The root being dried and incorporat with roſin, cureth the ringworme, tettar, & wild ſcab
or skurf, which ſome cal Pſora and Lichenes: it diſcuſſeth and healeth the ſwelling kernels be- H
hind the eare; the angrie puſhes alſo and biles in other Emunctories called Pani: and reduceth
the ſtooles or skars left after any ſore, and other skarres, to their freſh and natiue colour againe.
The juice of the leaues dopped with vinegre into the ears, is a remedie for deafeneſſe. As for
the liquor concrete of this cucumber, named elaterium, the right ſeaſon of making it, is in au-
tumne: neither is there a drug that the Apothecaries hath, which laſteth longer than it doth:
howbeit, before it be three yeres old, it begins not to be in force for any purpoſe that a man ſhal
vſe it: and yet if one would occupie it freſh and new before that time, he muſt correct the fore-
ſaid Troſch es with vinegre, diſſoluing them therin ouer a ſoft fire, in a new earthen pot neuer
occupied before: but the elder they be, the better and more effectuall they are; inſomuch as (by
the report of *Theophraſtus*) Elaterium hath bin kept and continued good 200 yeares. And for I
fiftie yeares, it is ſo ſtrong & full of vertue, that it wil put out the light of a candle or lamp: for
this is the triall and proofe of good Elaterium, it being ſet neer therto, before that it puts out
the light, it cauſe the candle to ſparkle vpward and downward. That which is pale of color and
ſmooth, is better than that which is of a greeniſh graſſe color, & rough in hand; the ſame alſo is
ſomwhat bitter withall. Moreouer, it is ſaid, that if a woman deſire to haue children, & do cary
about her the fruit of this wild Cucumber faſt tied to her bodie, ſhe ſhall the ſooner conceiue
and proue with child; prouided alwaies that in the gathering, the ſaid Cucumber touched not
the ground in any caſe. Alſo if it be lapped within the wooll of a Ram, & be bound to the loins
of a woman in trauell of childbirth, ſo that ſhe be not her ſelfware therof, ſhe ſhal haue the bet-
ter ſpeed and eaſier deliuerance: but then, ſo ſoon as the infant & the mother be parted, the ſaid K
Cucumber muſt be had out of the houſe in all haſt, where the woman lyeth. Thoſe writers who
magnifie theſe wild Cucumbers, and ſet great ſtore by them, affirm; That the beſt kind of them
groweth in Arabia; and the next about Cyrenæ: but others ſay, That the principall be in Arca-
dia; That the plant reſembleth Turnſol; That betweene the leaues and branches thereof there
groweth the fruit, as big as a Wallnut, with a white taile turning vp backeward in manner of a
Scorpions taile: whereupon ſome there bee, who giue it the name of the Scorpion Cucumber.
True it is indeed, that as wel the fruit it ſelfe as the juice therof called Elaterium be moſt effe-
ctuall againſt the pricke or ſting of the Scorpion, as alſo that it is a medicine purgatiue of the
bellie, but eſpecially cleanſeth the wombe or matrice of women. The ordinarie doſe is from
Obolus. half an Obulus to a Solid [*i.* an obole or half a ſcruple] according to the ſtrength of the patient. L
i, halfe a Scripule or Scruple. A greater receit than one Obulus, killeth him or her that taketh it: but being taken within that
quantitie aboue named, in ſome broth or conuenient liquor, it is paſſing good for the dropſie,
yea, and to euacuat thoſe filthie humors thar engender the lowſie diſeaſ. Being tempered with
honey and old oile, and ſo reduced into a thin ointment or liniment, it cureth the Squinancie,
and ſuch diſeaſes incident to the windpipes.

Chap. II.

¶ *Of the Serpentine Cucumber, called otherwiſe the Wandering Cucumber: alſo of the Garden Cucumbers, Melons or Pompions.*

M

MAny there be of opinion, that the Serpentine Cucumber among vs, which others call
the wandring Cucumber, is the ſame that the former Cucumber which yeeldeth Ela-
terium. The decoction whereof is of that vertue, that what ſoeuer is beſprinckled there-
with, no myce wil come neer to touch it. The ſame being ſodden in vinegre and brought to the
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A conſiſtence of an ointment, is a preſent remedie to allay the pains of gout, as wel in feet, hands, knees and armes, as in any other joint whatſoeuer. Alſo, if the ſeed thereof, or the fruit alone, dried in the Sun and beaten to pouder, be drunke to the weight of 30 deniers (Romane) in one hemine or wine pint of water, it aſſwageth the pain of the reines and the loins. Tempered with womans milke, it reſolueth all ſodain tumors & ſwellings, being applied to the grieued place. But to come againe to Elaterium, it mundifieth the matrice and naturall parts of women; but if they be with child, they muſt take heed how they meddle with it, for it bringeth them to a ſhift, yea and haſteneth abortiue or vntimely birth. Good it is for al them that be ſhort winded. As for the yellow iaundiſe, it cureth it, if it be but ſnuffed vp into the noſe. Annoint or bath the face with it in the Sun, it taketh away pimples & other ſpots there. Many attribute al the ſame
B properties and effects to the Garden cucumbers: And in very deed, this fruit would not be deſpiſed, in regard of the uſe thereof in Phyſicke: for firſt and foremoſt, Take Cucumber ſeeds as many as three fingers will receiue, ſtampe them with Cumin, and giue the powder in wine to them that haue the cough, for to drinke, you ſhall ſee preſent helpe. The ſame ſeeds taken in pouder with breaſt-milke, cureth thoſe that be lunaticke and * phranticke. Alſo, the weight of one * Acetabulum, [i. much about two ounces] cureth them that haue the Dyſentery or bloudy flix. Moreouer, being taken with a like poiſe or quantity of Cumin ſeed in mead or honyed water, it is ſingular good for them that reach vp filthy matter from their lungs; as alſo for thoſe who haue * weake and diſeaſed liuers. If one drink the ſame with ſome ſweet wine, it prouokes vrine: and being injected by a Clyſtre together with Cumin, it eaſeth the paine in the kidnies
C and reines.

As for the fruit called Pompions or Melons, being eaten as meat, they cool the body mightily and make it ſoluble. The fleſhy ſubſtance of them applied to the eies, aſſuageth their pain and reſtraineth their wateriſh and rheumatick flux. Their root healeth the * wens or vlcers gathered in manner of hony-combs: which ſwellings ſome call Cerio. Being dried, it ſtaieth vomits, ſo it be brought into pouder and giuen to the weight of * foure Oboli in honyed water: but the Patient when he hath drunk it, muſt walke preſently vp on it half a mile. The ſame pouder is deterſiue and ſcouring, and therefore put into ſope and waſhing-balls. As for the rind or barke thereof, it procureth vomit indeed, but it cleanſeth the skin as wel as the other. The ſame doe the leaues of any domeſticall or garden Cucumbers or Melons, if they be made into a linl-
D ment. The ſaid leaues alſo ſtamped with honey and brought to the forme of a cataplaſme, cure the bloudy-fals or night-blains, but tempered with wine, they heale the bitings of dogs, as alſo, of the Millepeed, which the Creeks call Seps, a long worm with hairy feet, doing much harme to cattaile eſpecially; for look where it biteth, the place preſently ſwelleth and putrifieth. The very Cucumber it ſelfe is of a comfortable odor, and recouereth the faintings of the heart, and thoſe that ſwoune. Finally, if you would make a delicate ſallad of Cucumbers, boile them firſt then pill from them their rind, ſerue them vp with oile, vinegre, and honey: certain it is, they are by this meanes far ſweeter and pleaſanter than otherwiſe.

* *Phrenitick*, ſome read *Nephriticis*, and then it ſignifieth thoſe that haue the ſtone or pains of the kidnies.
* 15. drams.
* *Iocineroſi.*
* *Melicerides.*
* two ſcruples.

Chap. III.

F ¶ *Of the wild Gourd, and the Rape or Turnep,*

THere is a kind of wild * Gourd which the Greeks cal Somphos, as one would ſay, hollow and emptie (for thereupon it tooke that name) a finger thicke, growing no where elſe but among rocks and ſtony grounds. If a man chew this Gourd and ſuck out the juice thereof he ſhall find it very comfortable to the ſtomack. There is another wild gourd called Colocynthis, but that is full within, and leſſe than that of the Garden. The pale of this kind is the better, for ſuch be vſed in Phyſicke: and yet that of graſſe greene colour when it is dried, if it be taken alone, doth purge & euacuat the belly. Alſo being infuſed into the bodie by way of clyſtre, it cureth all diſeaſes of the guts, flankes, reines, and loines: it helpeth the palſie likewiſe, or the reſolution of the ſinews. After the ſeeds be taken forth, ſome fill the place with honyed water, &
F ſo ſeeth all together, vntil halfe be conſumed, and giue of this decoction the quantitie of foure Oboli, with good ſucceſſe to thoſe that be troubled with a cough: the pouder therof dryd & incorporat with ſodden hony & ſo reduced into pills and ſwallowed, is good for the ſtomack: the ſeeds be ſingular to cure the Iauniſe; but the party muſt drink honyed water preſently after it.

* This is not *Colocynthida.*

The fleſhie pulpe within mixed with wormwood and honey, takes away the tooth-ach & a collution made with the juice thereof and vinegre hot, confirmeth and faſteneth the teeth that be looſe in the head. Moreouer, if with it and oile together, one rub the backe bone, the loines and the haunches or huckle, it will immediatly rid them of their pain and ach. But I will tell you a ſtrange and wonderfull effect indeed: If a man take their ſeeds of * euen number & hang them either about the necke or armes of them that haue the ague, they will driue the acceſſe or fit away; be it any of thoſe intermittent feuers which the Greekes call Periodicall. Thus much for the wild Gourd, Colocynthis.

* It may be, he meaneth a nũber reſpectiue to the type of the ague, that is to ſay, 3 in a tertian, 4 in a quartan, 5 in a quintan, &c.

As for the domeſticall Gourd of the Garden, after it is ſcraped and pilled, take the juice thereof, and diſtill it warme into the eares, it will eaſe the paine. The inner fleſh or pulp cleanſed from the ſeed, is paſſing good for to be applied to the agnels or corns of the feet: alſo to be laid vnto thoſe impoſtumes or ſwellings, that grow to an head or ſuppuration [which the Greeks call Apoſtemata.] The liquor or decoction of the Gourd, ſodden al whole as it is, with rind, ſeed, and pulpe, doth ſtrengthen the looſe teeth, and ſtinteth their ach. Wine wherein it is boiled, is a ſingular decoction to bath the eies, for to repreſſe and ſtay the fluxe or theume that falleth vpon them. The leaues of it, together with the freſh leaues of the Cypreſſe tree newly gathered, being ſtamped and applied to wounds, be excellent to heal them. The Gourd it ſelfe encloſed within clay, and ſo baked or roſted vnder the embers, and then ſtamped and incorporate with gooſe greaſe, hath the like effect. Moreouer, the ſcrapings or ſhauings of the rind, mightily cooleth the heat of the gout, if it be not inueterat and old: the heats alſo of the head and eſpecially the * burning therein, which troubleth little infants. The ſaid parings being incorporat with the filth rubbed or curried from mens bodies in bains & ſtouves after they haue ſwet, and ſo laid vpon any part that hath S *Anthonies* fire, allaieth the heat and bringeth the place into temper: ſo doe the ſeeds alſo, vſed in like manner. The juice or liquor drawne out of the ſaid parings, being mingled with oile of roſes and vinegre, and then made into a liniment, doth mitigate the extreme heat of burning feauers. The aſhes of Gourd parings burnt & ſtrewed drie vpon any part of the bodie that is burnt or skalded, healeth them wonderfully. *Chryſippus* the Phyſician condemned Gourds, and forbad men to eat of them. Howbeit, all Phyſicians doe reſolutely agree in this, That they be paſſing good for the ſtomacke: as alſo for the exulcerations of the guts and bladder.

* *Sciriaſis.*

As for Rapes or Turneps, they likewiſe are medicinable, and haue their vſe in Phyſick, for to begin withall, if one lay them very hot to kibed or humbled heeles, they wil cure them. Alſo, if the feet be frozen and benummed with cold, lay them thereto ſodden in water, and this fomentation will reſtore them to their former heat. The hot decoction or broth of Rapes, is paſſing good for to bath the goutie members, yea if it were a cold gout. The Rape or Turnep root, raw as it grew, brayed in a mortar with ſalt, is a remedie for all diſeaſes of the feet, bee they cornes, kibes, bloudy falls, ſwellings of cold, or any other infirmities what ſoeuer. Rape ſeed bruiſed to a liniment drunken alſo with wine, is reported to be a ſoueraign medicine againſt the ſtinging of ſerpents, and any other poiſon: Howbeit many think, that it is a preſeruatiue & countrepoiſon, when it is taken in wine and oile. *Democritus* baniſhed turneps altogether from the bourd, by reaſon of the ventoſities or windineſſe that it engender. But *Diocles* on the other ſide extolled and praiſed them as much; and affirmeth, That they will pricke forward to *Venus*. The like doth *Dionyſius* report of them, and the rather (ſaith he) if they be condite with Rocket. He writeth moreouer, That if they be roſted or baked vnder the aſhes, and ſo incorporate with greaſe, will make a notable good cataplaſm for the gout and joynt-ach. The wild rape or turnep groweth commonly euery where among corne fields: it brancheth much, carieth a white ſeed, twiſe as big as that of the Poppie. This being incorporat with vrine of equall quantity, is much vſed to take away riuils, and ſo ſmooth the skin both of the face and alſo of the whole body beſides. To conclude, the roots of Eruile, Barley, Wheat, and Lupines, be good for nothing at all.

Chap. IIII.

¶ *The diuers ſorts of Nauewes: of the wild Radiſh of the Garden Radiſh, and the Parſnep.*

* *Angulosis caulibus, folio apij, flore aneti.* Ex Dioſcoride:

THe Greek writers obſerue two kinds of Nauews, which ſerue for Phyſick. The firſt ariſeth vp with * a cornered and edged ſtalk, beareth leaues r[illegible]ng Parſely, and putteth out floures

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A floures like Dil: this they call Bunion: the decoction whereof being drunken with honied water, or with a dram weight of the owne iuyce, is counted ſoueraigne for the purgations that follow women for the defects of the bladder and vrine. The ſeed parched and beaten to pouder, and ſo taken in a draught of hot water, to the quantitie of foure * cyathes, cureth the bloudy flix: but it ſtoppeth vrine, vnleſſe the patient drink Lineſeed withall. The ſecond kind is named Bunias, and reſembleth both Rape and Radiſh: the ſeed of it is excellent good againſt poyſon; and therefore in antidotes and preſeruatiues it is much vſed. That there be Radiſhes wilde, we haue ſhewed heretofore. The moſt commended aboue all others is that which groweth in Arcadia: although there are of them in other countries, and thoſe counted better, only for to pro-

B uoke vrine. Otherwiſe they purge choler, and namely their rindes infuſed in wine do the ſame. Now ouer and beſides their vertues and properties related hertofore, they diſcharge and clenſe the ſtomack, cut and extenuate flegme, and withall be diureticall and procure vrine.

* a Cyath is ten drams.

There is a kind of garden Radiſh in Italy which they name Armoracia, vſed alſo in phyſick: the decoction whereof if a man take a draught of it in the morning, to the quantitie of a cyath, doth fret, break, and expell the ſtone by way of grauell. Boile the ſame in water and Vinegre, therewith bathe or anoint the place ſtung with any ſerpent, and it will heale it vp. Radiſh taken with hony in a morning next ones heart faſting, is good for the cough. The ſeed parched, and ſo chewed alone without any thing els, aſſwageth the pain of the ſmal guts, * in the flankes and hypocondriall parts. The decoction of Radiſh leaues ſodden in water and ſo drunk, or the very

C iuice of the root it ſelfe as much as two cyathes, is thought to be a ſingular medicine againſt the breeding of body-lice. Radiſhes ſtamped in a mortar, and brought into the forme of a liniment, are thought to be excellent good for hot inflammations: the rind alſo ſtamped together with hony, and laid to any bruiſed place that looketh black and blew after a freſh ſtripe, diſſolueth that cluttered bloud, and reduceth the former color. The chewing of the quickeſt & moſt biting Radiſhes keeps them awake that are giuen to ouermuch drowſineſſe, & inclined to the lethargie. The ſeed parched and afterwards ſtamped and incorporate with hony, cureth them that take their wind ſhort. The ſame is alſo held for a countrepoyſon. A defenſatiue alſo the Radiſh is againſt ſcorpions, and reſiſteth their poiſoned ſting: for let a man rub his hands well either with the iuyce of the root, or the ſeeds, he may handle ſcorpions ſafely. Do but lay a Ra-

D diſh vpon a ſcorpon he will preſently die. Moreouer, *Nicander* affirmes, that Radiſhes be paſſing good for them that haue eaten either venomous Muſhromes or Henbane. The two *Apollodores* preſcribe Radiſh to be giuen to them who ſuſpect themſelues to be poyſoned with the viſcous gum of the white Chamæleon root called Ixias; but taken diuerſly; for the one of them ſurnamed *Citieus*, giueth the ſeed ſtamped, and ſo to drink it in water: the other *Apollodorus*, of Tarentum, ordains the iuice of Radiſh for this effect and purpoſe. Moreouer, radiſhes are thought good to diminſh and extenuat the ſwelling ſpleen: they are wholſome for the liuer, & mitigate the pain of the loins. Being taken with Vineger and Senvy, they helpe them that are in a dropſie, or falne into a lethargie. *Praxagoras* is of iudgement, That Radiſhes ſhould be giuen for to eat, to them that are troubled with the Iliack paſſion, to wit, the paine and ringing of the ſmall guts. And *Pliſtonicus* appointeth them to be eaten of thoſe that be troubled with a continuall

E flux, by reaſon of a feeble ſtomack, called thereupon Cœliaci. They heale the Dyſenterie or exulceration of the guts: they euacuate alſo and rid away the filthy matter and corruption of impoſtumes gathered about the midriffe and principal parts, if they be eaten with honey. But ſome for this purpoſe would haue them luted or bedawbed with clay, and ſo roſt or bake them afterwards vnder the aſhes; and being thus prepared, they are effectuall to bring down womens termes. Being taken with vinegre and hony in maner of an oxymel, they chaſe worms out of the guts and belly. If they be ſodden to the thirds, and their decoction giuen to drink with wine, they do much good to them who haue a rupture, and their guts fallen downe into the burſe of their cods: and in this wiſe they rid and ſcoure away the cluttered & offenſiue bloud gathered in the guts and ſent thither from any other part. *Medius* the phyſitian preſcribeth them to be

F boiled and giuen to the ſame purpoſe; as alſo to thoſe that ſpit and reach vp bloud: yea and to women in childbed newly laid, for to increaſe their milk. *Hippocrates* counſelleth women whoſe haire is giuen to ſhed much, for to rub their heads with radiſh roots: alſo to apply them bruiſed in manner of a cataplaſme vnto the nauill, when they be tormented with the paines of the matrice. They will bring to the natiue & liuely colour the parts that are cicatrized or newly skar-

* Laganopotion.

* Ileoſis, Hermol. ſome read Iliaſis, & then it ſignifieth Purſiffe.

red. The ſeed bruiſed and tempered with water, and ſo laid as a cataplaſm, ſtayeth the running of cancerous or eating vlcers, which the Greekes call Phagedænæ. *Democritus* is of opinion, That much feeding vpon Radiſhes, ſtirreth vp luſt and maketh folk amorous; which peraduenture is the reaſon, that ſome haue thought they be hurtfull to the voice. The leaues of thoſe radiſhes onely that haue the longer roots, are ſaid to quicken the eye-ſight: but if a man perceiue that he hath either inwardly taken for a medicine, or applied outwardly, a radiſh root which is ouer ſtrong, he muſt preſently haue Hyſſope giuen him: for this Antipathy and natural contrarietie there is betweene theſe two hearbs, That the one correcteth the other. For them that be hard of hearing, Phyſicians vſe to inſtill the iuice of the Radiſh by drop-meale into the eares. And for them that would perbreake or vomit, the beſt way to take it, is at the end of a meale with the laſt meat. G H

* *Summo cibo*, although *Dioſcorides* ſaith *primo cibo*: and himſelfe in the former booke *Ieiunio*,

As touching Hibiſcum, like it is to the Parſnep: ſome call it Moloche Agria, others Piſtolochia: it cureth the ſores and vlcers that be in griſtles, and knitteth broken bones. The leaues thereof drunke with water, looſen the belly, and chaſe away Serpents. Applied in a liniment or otherwiſe rubbed vpon a place ſtung with Bee, Waſpe, or Hornet, they are a preſent remedie. The roots therof digged out of the ground before Sun-riſing, & enfolded or wrapped in wooll as it grew vpon the ſheepes backe, without any other artificiall colour, and namely of an ewe, which hath yeaned likewiſe an ewe lambe, is thought to be a ſingular thing for to be bound vnto the ſwelling kernels called the Kings euill, yea although they were exulcerat and ran. But ſome are of this mind, That for to doe this deed, it ſhould be gotten vp with an inſtrument of gold; and great heed ſhould be taken, that after it is once vp, it touch not the earth againe. Finally, *Celſus* giueth counſell, to lay the root thereof ſodden in wine to the gouty joynts that are without tumor and ſhew no ſwelling. I

Chap. V.

¶ *Of Staphilinus, or the Parſnep. Of Cheruill, the Skirwort: of Seſeli., Elecampane, and Onions.*

THere is a ſecond kind of Parſnep, named Staphylinus, which commonly men call the Wandring Parſnep. The ſeed bruiſed and drunke in wine, is ſingular good for them that haue ſwolne bellies, the riſing or ſuffocation of the mother in women, with the torments and pains thereto incident, it cureth, inſomuch as it reduceth the matrice into the right place: being applied alſo as a liniment with wine cuit, it helps the wrings and throwes of their belly. It is not amiſſe alſo for men to take it, for the ſeed being ſtamped together with bread crums, of each a like portion, and ſo drunk with wine, cures the belly-ach with them alſo. It prouoketh vrine: and being applied freſh and new with honey, it repreſſeth the ſpreading of fretting and running vlcers. The pouder thereof alſo being drie and ſtrewed thereupon, hath the like effect. *Dioches* aduiſeth to giue the root therof in honyed water, againſt the infirmities of liuer, ſplene, flankes, ſmall guts, loines, and reines. *Cleophantus* ſaith, that it wil helpe (in that manner taken) an old bloudie flix, which hath continued a long time. *Philiſtio* boileth the root in milke, and giueth 4 ounces thereof to them who are troubled with the ſtrangury, or piſſe by drop-meale: but with water, he giueth it for the dropſie, to thoſe alſo that with a cricke or cramp haue their necks drawne backward; for the pleuriſie, and epilepſie or falling ſicknes. Moreouer, it is commonly ſaid, that whoſoeuer hath this root about them, are ſafe enough for being ſtung with any Serpent: nay if they doe but taſt thereof before-hand, they ſhal take no harme if they be either bitten or ſtung by them: and ſay they be alreadie ſtung, let them apply it to the wounded place with hogs greaſe; and it will heale it vp. The leaues chewed help the indigeſtion & cruditie of the ſtomacke. *Orpheus* ſaid moreouer, That this root had an amatorious propertie to win loue, haply becauſe much feeding therof (as it is well knowne) doth ſollicit vnto the game of loue, and maketh folke amorous: which is the reaſon alſo that ſome haue put down in writing, That it will helpe women to conceiue. As for the Garden Parſneps they are in many other reſpects of great force and very powerfull; but the wild is more effectuall, and principally that which groweth in ſtonie grounds. The ſeed of the Garden Parſnep alſo, being drunke in wine, or vinegre and wine together, ſaueth thoſe that are ſtung with Scorpions. If a man pick his teeth and rub them all about with a Parſnep root, he ſhall be eaſed of his tooth-ach. K L M

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A The Syrians are great Gardeners, they take exceeding paines and be moſt curious in gardening, whereupon aroſe the Prouerbe in Greeke, to this effect, *Many Worts and Pot-hearbes in Syria.* They vſe to plant in their gardens a certaine hearb very like to a Parſnep, which ſome call Ginidium, *i.* Tooth-picke Cheruill: more ſlender and ſmaller it is only, and therewith bitterer in taſt, but it worketh the like effects. They vſe to eat it both ſodden and raw, and find it agree well with the ſtomacke: for it drieth vp all the ſuperfluous humours and excrements which be bedded and deepely rooted within it.

As for the wild Skirwort that grows wandring euery where, it is like both in ſhape and operation to thoſe of the garden. It ſtirreth vp the appetite and skoureth the ſtomack of thoſe crudities which cauſed dulneſſe therin, and loathing to meat. *Opion* is verily perſuaded, that if one
B eat it with vinegre aromatized with Laſerpitium, or take it with pepper & honyed wine or elſe with the pickle of fiſh named Garum, it prouokes vrine, and putteth him or her in mind of loue delights. Of the ſame opinion alſo is *Diocles*. Furthermore, that it is a cordiall, and doth mightily corroborat and ſtrengthen the heart, vpon the recouerie of a long and dangerous ſickneſſe; and is beſides ſingular good to ſtay the ſtomacke after much caſting and vomiting. *Heraclides* was wont to giue Skirworts to them who had drunk Quick-ſiluer: ſo ſuch alſo as were but cold & could not ſufficiently perform the duties of mariage: finally, to them that being newly crept out of their beds after ſome grieuous diſeaſe, had need of reſtoratiues. *Hiceſius* was of this mind and ſaid, they were good for the ſtomacke, becauſe no man could poſſibly eat 3 Skirwort roots together: and yet he thinks that they would agree very well with thoſe weak perſons who were
C lately ſick and newly walking abroad, againſt they ſhould fall to their old drinking of wine again. But to come more particularly to the garden Skirwort, If the juice therof be drunke with Goats milke, it ſtayeth the flux of the belly called the Laske. And thus much for the Skirwort, named in Latin Siſer. But foraſmuch as the proximitie and likenes in many Greek names many a time confounds the memorie and deceiues them, cauſing them to miſtake one thing for another, I wil for vicinitie and neighborhood ſake annex vnto Siſer, the hearb Siſer or Seſeli; for me thinks they will doe very well to ſtand together: but this is an hearb very common and well known. The beſt is that which comes from Marſeils, & is therupon named Seſeli Maſſilienſe: it hath a broad flat ſeed and a yellow. A ſecond kind thereof is named Æthiopicum, with a blacker ſeed: but the third which is brought from Candie, and therefore termed Creticum, is of
D all other moſt odoriferous & ſmels ſweeteſt. The root of Seſeli or Siſer, caſts a pleaſant ſauor: and as men ſay, the Vultures alſo or Geirs feed on the ſeed. If a man or woman drinke it with white wine, it cures an old cough; it knits thoſe who are bruſen bellied, or haue ruptures; and laſtly, helps them that be much troubled with cramps or conuulſions. Alſo if it be taken to the weight or quantitie of two or three * Ligules, it cures thoſe who haue their necks drawn backward to their ſhoulders with the Spaſme; it corects the defects and faults of the liuer, it allaies the wrings and torments of the guts; and bringeth them to piſſe with eaſe and freely who are afflicted with the Strangurie. The very leaues of ſiler are alſo medicinable, for they procure eaſy childbirth: yea and in that reſpect the very dumb four-footed beaſt findeth the benefit therof: and that know the Hinds well ynough by a ſecret inſtinct of nature, who being neer their time
F and readie to calue, feed vpon this hearbe moſt of all others. Good it is againſt S. *Anthonies* fire, applied to the place in manner of a liniment. Certes, if a man eat either the leafe or the ſeed of Siler, preſently after meat, or at the latter end of repaſt, it helpeth digeſtion. It ſtaies the gurrie or running out of the belly in 4 footed beaſts, whether it be giuen ſtamped by way of a drench and ſo injected, or chewed drie among their ſalt meat. If kine or oxen be ſicke, ſtampe it and pour it down their throats, or els clyſterize them with it. As for Elecampane, if it be chewed vpon an emptie ſtomacke faſting, it confirms the looſe teeth, ſo that it be taken as it was digged forth of the earth before it touch the ground againe. Beeing confected or condite, it cures the cough. The juice of the root ſodden, expells the broad wormes bred in the guts. The pouder of it dried in the ſhadow helpeth the cough, the ſtitch and cramp, diſſolueth windines & is good
F for * the accidents incident to the throat and windpipes. It is a ſoueraign medicine againſt the pricks or ſtings of venimous beaſts. The leaues applied as a liniment, with wine, appeaſe the extream pain of the loins. As for Onions, I canot find that there be any of them grow wild. Thoſe which are ſown in gardens, I am ſure, wil with their ſmel only cauſe the eyes to ſhed tears, & by that means clarify the ſight: but if they be anointed with the juice, they will mundifie the bet-

* *Ligula* may be taken for *Cochlearei*, a ſpoonfull: it containeth three drams and a ſcruple, ſomewhat vnder halfe an ounce, as a good ſpoone will doe with vs.

* *Arterys*.

ter. It is ſaid that they will procure ſleepe, and heale the cankers or vlcers of the mouth, beeing chewed with bread. Alſo greene Onions applied with vinegre to the plaae bitten with a [mad] dog, or els drie, and laid to with Honey and Wine, ſo the plaſter or cataplaſm be not remoued, in three daies cureth the hurt without danger. In this maner alſo they wil heal * galled places. Being roſted vnder the aſhes, many vſe to apply them with Barly floure or meale, as a pulteſſe or cataplaſme to the eies that be waterie or rheumatick, as alſo to the vlcers of the priuy parts. The imunction of the eies, with the juice therof, is thought to clenſe their cicatriſes or * cloudines of the eies called the pin and web: as alſo to cure the pearle there breeding: moreouer, the bloud ſhotting or red ſtreaks, in the white, and the white ſpots appearing in the blacke circle about the apple. Moreouer, it cureth bitings & ſtings of ſerpents, yea, and heales al vlcers, being emplaſtred with honey. Alſo the exulcerations or impoſtumes within the ears, are by it & womens milke cured. And for to amend the ringing and vnkind ſound and noiſe therin, & to recouer thoſe that be hard of hearing, many haue vſed to droppe the juice of Onions together with Gooſe greaſe or els hony. Furthermore, they giue it to be drunke with water, to thoſe that ſuddenly become ſpeechleſſe and dumb. A collution alſo made with Onions, helps the tooth-ach. And being laid vpon wounds, made either with prick or bite of any venomous beaſt, and eſpecially of Scorpions, it is thought to be a ſoueraign ſalue. Many are wont (to very good effect) for to bruſe Onions, and therewith to rub thoſe parts that be troubled with a skurfe and running mange, as alſo to recouer haire where it is ſhed and gon. Being boiled, they are giuen for to be eaten, vnto thoſe who are diſeaſed with the blodie Flix or pain of the rains & loins. Their outward pilings burnt into aſhes & mingled with vinegre, cure the bitings and ſtings of ſerpents, if the place be bathed or anointed therwith, yea, and the very Onion it ſelfe being applied with vinegre, cures the ſting of that ſhrewd worme Milliped. As for all other vertues and properties of Onions, the Phyſicians are wonderful contrary one to another in their writings: for our moderne and late writers do hold and ſo haue deliuered in their books, That onions are hurtful to the parts about the heart, & other vitall members: as alſo, that they hinder digeſtion, breeding wind and ventoſities, and cauſing drought or thirſtineſſe. *Aſclepiades* and his ſect or followers, contrariwiſe affirme, That onions are ſo wholſome, that they will make them well colored who vſe to feed vpon them: and more than ſo, they ſay that if one in health euery day eat of them faſting, he ſhall be ſure to continue healthful, ſtrong, & luſty: that they be good for the ſtomack, in this regard, that they cauſe rifting and breaking of wind vpward, which is a good exerciſe of the ſtomacke: and withall, that they keepe the bodie looſe and laxatiue, yea, and open the Hæmorrhoid veines if they be put vp in maner of ſuppoſitories. Alſo, that the juice of onions and Fennell together, be maruellous good to be taken in the beginning of a * dropſie. *Item*, That their juice being incorporat with Rue and Hony, is ſoueraigne for the Squinance. As alſo that they will keep waking thoſe who are fallen into a Lethargie. To conclude. *Varro* ſaith, That if Onions be braied with ſalt and vinegre, and then dried, no woorms or vermine will come neere that compoſition.

* *Sic & attrita ſamant.*

* Ὑπόχυσις

* *Hydrôpes*, ſome read *Hypochyſes*, i. *Suffuſiones*; out of *Dioſcorides*, to wit, the Cataract.

Chap. VI.

¶ *Of cut Leekes or Porret: of bolled Leeks: and of Garlicke.*

Porret, otherwiſe called Cut-Leekes or vnſet Leeks, ſtancheth bleeding at the noſe, in caſe it be ſtamped and put vp cloſe into the noſethrils, or otherwiſe mingled with the pouder of the Gall-nut, or Mints. Moreouer, Porret ſtaieth the immoderat ſhift or fluxe of bloud, that follows women vpon a ſlip or abortiue birth, if the juice thereof be drunk in breaſt-milke. In the ſame manner it helps an old cough and al other diſeaſes of breaſt and lungs. Burnes and ſcaldings are healed with a liniment made of Porret or Leek blades: likewiſe the Epinyctides, for ſo in this place I tearme that vlcer, which in the lachrymal or corner of the eie runneth and watereth continually: ſome call it Syce, that is to ſay, a fig. And yet others there be who vnderſtand by that word [Epinyctides] the blackiſh or blew bliſtring wheals, the bloudy fals I mean and angrie chilblanes, that in the night diſquiet and trouble folk that haue them. But to come againe to our Porret: the blades thereof ſtamped and laid too, with Honie, healeth all ſores and vlcers whatſoeuer. The biting of any venomous beaſt, the ſting alſo of Serpents, are cured therwith. As for the impediments of the hearing and the ears, they be remedied with the juice of

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A of Leeks and Goats gall, or els a like quantitie of honied wine inſtilled thereinto. And as for the whiſtlings or craſhing noiſes that a man ſhall heare within head otherwhiles, they are diſcuſſed with the iuice of Leeks and womans milk dropped into the eares. If the ſame be ſnuffled vp into the noſthrils, or otherwiſe conueighed that way vp into the head, it eaſeth head-ach: for which purpoſe alſo it is good to poure into the eare, when one goeth to bed and lieth to ſleepe, two ſpoonfuls of the ſaid iuice, and one of Honie. The iuice of Porret if it be giuen to drinke with good wine of the grape, againſt the ſting of ſerpents, and namely, Scorpions: likewiſe ſo taken with an * Hemine of wine, it cureth the pains of the loines or ſmall of the back. Such as ſpit or reach vp bloud, ſuch as be diſeaſed with the Phthiſick or conſumption of the lungs, ſuch alſo as haue bin long troubled with the Poſe, the Murre, Catarrhe, and other rheums, find great B help by drinking the iuice of Porret, or eating Leeks with their meat. Moreouer, Leeks are taken to be very good either for the iaundiſe or dropſie. Drinke the ſame with the decoction of husked Barley called Ptiſane, to the quantity of one Acetable, you ſhal find eaſe for the pains of the rains or kidnies. The ſame meaſure and quantity being taken with honey, mundifieth the Matrice and naturall parts of women. Men vſe to eat of Porrets or Leekes, when they doubt themſelues to haue taken venomous Muſhroms. And a cataplaſm therof cureth green wounds. Porret is a ſolicitour to wantonneſſe and carnal pleaſures: it allaieth thirſtineſſe, & diſpatcheth thoſe fumes that cauſe drunkenneſſe. But it is thought to breed dimneſſe in the eie-ſight: to ingender wind and ventoſity; howbeit, not offenſiue to the ſtomack, for that withall it maketh the belly laxatiue. Finally, it ſcoureth the pipes & cleareth the voice: thus much of Porret in blade C or cut Leeks vnſet.

* *Hemina*, is much about ten ounces.

Theſe headed Leeks that are bolled and replanted, are of the ſame operation, but more effectual than the vnſet Leeks. The iuice therof giuen with the pouder either of Gal-nuts, or * frankincenſe or els Acacia, cureth thoſe that reject or reach vp bloud. *Hippocrates* would haue the ſimple iuice therof giuen, without any thing els for that purpoſe: and hee is of opinion, that it will diſopilate the neck of the Matrice and the naturall parts of women; yea, and that they will proue fruitful and beare children the better, if they vſe to eat Leeks. Being ſtamped and laid to filthie ſores or vnclean vlcers with hony, it clenſeth them. Being taken in a broth made of Ptiſane or husked barly, it cureth the cough, ſtaieth the rheume or catarrh, that diſtilleth into the chiſt or breaſt-parts; it ſcoureth the lungs and wind-pipe, and healeth their exulcerations. The D like it doth if it be taken raw without bread, 3 bols or heads of them together each other day: and in this maner it will cure the patient, although he raught vp and ſpit out putrified and corrupt matter. After the ſame maner it cleareth the voice, & it inableth folk to the ſeruice of lady *Venus*, and auaileth much to procure ſleep. If Leeke bols or heads be ſodden in two waters, (*i.*) changing the water twice, and ſo eaten, they wil ſtop the Lask, and ſtay all inueterat fluxes whatſoeuer. The pillings or skins of Leek heads if they be ſodden, the decoction therof wil change the haire from gray to blacke, if they be waſhed or bathed therewith.

* Called *Manna Thuris*.

As touching Garlicke, it is ſingular good and of great force for thoſe that change aire, and come to ſtrange waters. The very ſent thereof chaſeth Serpents and Scorpions away. And as ſome haue reported in their writings, it healeth all bitings & ſtings of venomous beaſts, either E eaten as meat, taken in drinke, or annointed as a liniment: but principally it hath a ſpecial property againſt the Serpents called Hæmorrhoids, namely, if it be firſt eaten, and then caſt vp again by vomit, and wine. Alſo, it is ſoueraigne againſt the poiſonous biting of the mouſe called a Shrew: and no maruell, for why, it is of power to dull and kill the force of the venomous herb Aconitum, *i.* Libard bane, which by another name men cal Pardalianches, becauſe it ſtrangleth or choketh Leopards, yea, it conquereth the ſoporiferous & deadly quality of Henbane: the bitings alſo of a mad dog it healeth, if it be applied vpon the hurt or wounded place with him. As for the ſting of ſerpents verily, Garlick is exceeding effectuall, if it be taken in drink: but withal, you muſt not forget to make a liniment of it, the hairy ſtrings or beard growing to the head, the skins alſo or tails and all, wherby it is bunched, tempered all together with oile, & laid vpon F the grieued place: and thus alſo will it help any part of the body fretted or galled, yea, though it were riſen vp to bliſters. *Hippocrates* moreouer was of this opinion, that a ſuffumigation made therewith, fetcheth downe the after-birth of women newly deliuered and brought to bed: who vſed alſo with the aſhes of them burnt and reduced together with oile into the forme of a liniment, to annoint the running skalls of the head, and thereby cured and healed them vp. Some

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giue it boiled, others raw, to them that be ſhort-winded. *Diocles* preſcribeth it with Centaurie to G
In ſico duplici. them who are in a dropſie, he giueth it alſo to purge the belly betweene, or in two figs. But green Garlick taken in good wine, together with Coriander, doth the deed more effectually. Some are wont to miniſter it to thoſe that draw their wind ſhort, being ſtamped and put into milke. *Praxagoras* the Phyſitian ordained to drinke it with wine, againſt the Iaundiſe: alſo againſt the
* i. The wringings and torment of the vpper ſmall guts. Iliack paſſion, in oile and thick *gruel. And in that ſort he vſed to annoint the ſwelling kernels called the kings euill. In old time the maner was to giue raw garlick to ſuch as were beſtraught or out of their wits. But *Diocles* appointed, that it ſhould be boiled for phrentick perſons. Certes, if it be bruiſed and ſo laid to the throat, or otherwiſe gargled with ſome conuenient liquor, it will do much good to them that haue the ſquinancie. Take three heads or cloues of Garlick, beat them well, and together with vinegre apply them to the teeth, they will mightily aſſwage H
the paine. Or do but make a collution with the broth wherein they were boiled, and hold it in your mouth, and afterwards put ſome of the Garlicke it ſelfe within the hollow teeth, you ſhall ſee much eaſe inſue thereupon. The iuice of Garlick together with goos-greaſe, is paſſing good to be dropped into the eares, to aſſwage their pain, and bring the hearing again. Being taken in
Porrigenes, not *prurigenes*, out of *Dioſc.* drink, it cleanſeth the head from dandruffe, and killeth lice: ſo doth it alſo, if it be ſtamped and applied to the place with vineger and nitre. Seeth it in milke, or do but ſtamp it and mingle it with ſoft freſh cheeſe, and ſo eat it, you ſhall ſee how it will repreſſe and ſtay Catarrhes and Rheumes: after which manner it will make them ſpeake cleare that be hoarſe, and haue a ruſty voice. But let a man who hath the Phthiſicke, and is far gone into a Conſumption of the lungs, drink it in bean broth ordinarily, he ſhall recouer or find great eaſe. Generally, Garlicke is bet- I
ter, boiled or roſted, than raw: and yet of the twain, it is not ſo good roſted as ſodden: for in that order muſt it be taken for to help the voice and make a cleare breaſt. Alſo, being boiled in honied vineger or Oxymell, and ſo drunke, it driueth out the broad wormes and all other ſuch like
* A great deſire to goe to the ſtoole, with doing little or nothing. vermin forth of the guts. Being taken in a thicke broth or gruell, it cureth the diſeaſe * Tineſmus. Being ſodden to the conſiſtence of an Vnguent, and ſo applied as a frontal to the temples of the head, it allaieth their paine. Boiled with hony, then ſtamped and reduced to a liniment, it repreſſeth red pimples. Seeth it with good old ſeam or greaſe, or in milk, it is ſingular for the Cough. See you one to reach vp bloud, or to ſpit filthy matter? Roſt Garlick vnder the hot embers, and giue it the party to eat, with equall quantity of honie. Being taken with ſalt and oile, it is a ſoueraign remedy for them that be burſten or Spaſmaticke, that is to ſay, vexed with the K
Crampe. Applied with the fat or greaſe of an hog, it cureth all tumors and ſuſpitious impoſthumes. Being emplaſtred with brimſtone and roſin, vpon Fiſtulaes or ſuch hollow and blind vlcers, it draweth out all the filth and corruption that lieth rankling and feſtering within. But lay it to a ſore with pitch, you ſhall ſee it fetch out ſpils and ends of broken arrowes ſticking ſtill
* Called *Mentagra.* within the fleſh. The Leproſie, the running and dangerous *tettar, the red pimples alſo riſing in the skin, Garlick doth firſt fret and exulcerat; but afterwards, with Origanum, it cureth and healeth the ſame. Yea, the very aſhes of Garlick burnt, and ſo tempered with oile and the pickle,
Sacros ignes, called otherwiſe S. *Anthonies* fire. *Eriſypelas.* [Garum] that it may take the form of a liniment, doth the like. The wild fire alſo, or ſhingles, that hath gotten to a place, if it be annointed therewith, will be extinguiſhed. Be any place of the body grown black and blew by ſtripes or blows, a liniment made of Garlick burnt to aſhes L
and tempered with hony, will bring the natiue and freſh colour again quickly. There is a deepe and ſetled opinion among men, that if a man or woman do ordinarily take garlick with meat & drink, they ſhal find remedy thereby for the falling ſickneſſe. Alſo, that one head of Garlick taken in ſome ſtyptick & harſh raw wine, with Laſerpitium, to the weight of one Obulus, driues away the Quartan ague for euer. But after another ſort, if it be vſed; to wit, boiled with bruſed Beanes, and ſo eaten ordinarily with meat; there is no cough ſo tough, no vlcer within the breſt ſo foule and filthy, but it will ſtay the one, and cleanſe, yea, and heale the other, ſo as the patient ſhall recouer perfect health. Garlicke maketh folk to ſleep well, and giueth a good, freſh, and ruddy colour to the whole body. Garlicke ſtamped with green Coriander, and drunken with
* Contrary to *Galen.* ſtrong wine, increaſeth the heat of luſt, and prouoketh to Lecherie. But as many good proper- M
ties as Garlicke hath, it is not without ſome bad qualities for them againe. It maketh the eies dim, it breedeth windineſſe and ventoſitie; it hurteth the ſtomack, ouer liberally taken, & *cauſeth thirſt: but let me not forget among other vertues which it hath: namely, that if it be giuen to Hens, Cockes, and other Pulleine, among their corne, it will keepe them from the pip.

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A As for Horſes, Mares, Aſſes, and ſuch like beaſts that cannot ſtale, or be groud and wrong in the bellie: ſtampe Garlick, and therwith rub the ſhap and naturall parts; it will prouoke the one, and eaſe the other.

Chap. VII.

¶ *Of wild Lectuce, as well that called Caprina as Eſopus. Of Iſatis and Garden Lectuce.*

THe firſt kind of Lectuce that groweth wild of it ſelfe without mans hand, is that which is commonly called Caprina, *i.* Goats Lectuce. This hearbe hath a propertie, that if it bee thrown into the ſea, it will preſently kil all the fiſhes that approch neere vnto it. The mil-
B kie juice of this Lectuce being turned thick, and ſoon after mixed with vineger, to the weight of two Oboli, and one Cyath of water put therto, is giuen with good ſucceſſe to thoſe that haue the Dropſie. The ſtalks and leaues ſtamped, with ſome ſalt ſtrewed among, and ſo applied as a cataplaſme, do heale vp the ſinews that be cut or wounded. The ſame herb being bruſed together with vineger, preſerueth a man from the tooth-ach, if he vſe two mornings euery moneth to waſh his mouth with a collution made thereof.

It ſhould ſeeme he meaneth here the *Tithymates*, which be *Lactariæ*.

A ſecond kind there is of wild Lectuce, which the Greeks name Eſopus. The leaues thereof being beaten in a mortar and with barly floure, applied as a pulteſſe, heale all vlcers: this groweth ordinarily in corn fields.

C A third ſort comming vp in the woods, is named otherwiſe * Iſatis. The leaues wherof being likewiſe beaten together with Barley-meale or floure aforeſaid, cureth green wounds.

* *Pliny* ſhould ſeeme here to be deceiued: for *Iſatis* is the ſame tha *Glaſtum*. i. Woad, and the wilde thereof indeed is leaued like lectuce which was the occaſion of his error.

A fourth kind there is beſides of wild Lectuce, named Glaſtum, *i.* Woad, wherewith diuers vſe to colour their wooll. It might be likened to the wild Dock for the leaues, but that they be more in number, and of a blacker green withall. This hearb ſtancheth bloud. It repreſſeth and cureth the fierie and eating tettars, the cankerous and filthy vlcers alſo which run and ſpread ouer the whole and ſound parts: alſo it diſſolueth ſwellings before they gather to an head, & tend to ſuppuration. The root or leaues thereof be good againſt S. *Anthonies* fire, applied in a cataplaſme or liniment. It is a ſingular remedy alſo for the ſwelled & puffed ſplene: and thus much for their properties in particular, reſpectiue to each ſeueral kind: but to ſpeak generally of them
D all that grow wild, they agree all in this, that they be white; that their ſtem growes otherwhiles to the height of a cubit; that both it and the leaues be rough in handling. Of theſe wilde Lectuces, That which hath round and ſhort leaues, ſome there be who call Hieracia; becauſe that Faulcons and ſuch like Haukes are wont to ſcrape and ſcratch this herb to get forth the iuice, wherewith they annoint and rub their eies, and thereby recouer their ſight, when they perceiue it to be darkened or dim. All the ſort of them are full of a white iuice: & the ſame of the like vertue as is the iuice of Poppies. Ordinarily is this juice gathered in harueſt by inciſion of the ſtalk: put vp it is in new earthen pots neuer occupied, and ſo reſerued for many excellent effects that it hath. For firſt and formoſt, being applied with womans milk, it healeth all maladies that the eies be ſubiect vnto, as namely, it riddeth away the cloudy webs therein, the cicatrices and
E ſcars: all filthy ſores with a burnt roof ouer them, and principally diſparcleth the miſt and dimneſſe that troubleth the eie-ſight. It is vſually alſo laid with a locke of wooll to the eies, for to repreſſe and ſtay the wateriſh humor that hath found a way thither: the ſame iuice, if one drink it, to the weight of 2 Obolij, in vineger and water, is a good purgation. Beeing taken in wine, it cureth the venomous ſtinging of ſerpents. To which purpoſe, the leaues being parched & dried againſt the fire, their tender ſtems alſo being bruſed, are drunk with vineger. A liniment made of them, is paſſing good againſt the pricking of ſcorpions; but peculiarly for the ſting of the venomous ſpiders Phalangia, there muſt be wine and vineger mixt therwith. Soueraigne defenſatiues alſo theſe wild Lectuces be, againſt other poiſons; ſaue thoſe that kill by ſtrangling and ſuffocation, or ſuch as haue a ſpecial ſpight to the blader; neither are they of any power againſt
F Ceruſſe or white lead. A cataplaſme made therof with hony and vineger, & ſo laid to the belly, purgeth the rotten humors, & expelleth the worms therof bred: their iuice is ſingular good for them that piſſe with pain and difficulty. *Cratevas* preſcribeth to giue the weight of 2 Oboli of the ſaid juice, in one Cyath of wine, to thoſe that be in a Dropſie. Some there be who draw the juice out of the garden lectuce alſo for the ſame purpoſe, but not with like effect. The peculiar

proper-

properties of which Lectuces, I haue partly written of heretofore, & namely, how they procure sleep, abate fleshly lust, coole intemperat heats, clense and strengthen the stomacke, and finally, increase bloud. Ouer and besides, they haue other properties not a few, for they resolue and discusse ventosities, they breake winde vpward, and make one rift and belch sweet, and finally help digestion, and of themselues cause no crudity in the stomack. Certes, I cannot say of any thing else but it, that being eaten, both giueth an edge to appetite, and also dulleth the same: and all according as it is taken, more or lesse. By the same reason also, if a man eat liberally of them, they will make the belly soluble: if in a meane, they will stay a Laske, and bring the bodie to costiuenesse. They cut and dissolue the grosse viscositie of slimie fleame: and as some Physitians haue written, do clarifie the senses. Moreouer, if a mans stomacke be quite gone, so that hee neither desireth to receiue any thing into it, nor can hold and keepe that which it receiueth, he shall find notable comfort by eating of garden Lectuce. But for this purpose they must be taken vnwashed, with some sharpe sauce made with vineger, to the quantitie of a certaine Oboli, yet so, as that the tart and harsh taste thereof be tempered with some wine cuit or other sweet liquour for to dip into. Moreouer, this regard ought to be had, that if the fleame lying in the stomacke, be very tough and grosse, the Lectuce would be eaten with vineger of Squilla or the sea-Onion, or else with Worme-wood Wine: and if the Cough bee also busie, then Hyssope Wine would be mingled withall. In case there bee a fluxe occasioned by feeblenesse of the stomacke, then would Garden Lectuce bee eaten together with wilde Endiue or Cichorie: and so are they good also for the hardnesse and swelling in the mid-riffe and about the heart.

White Lectuce eaten in good quantitie, helpeth the infirmities of the Bladder, and agree very well with those who be troubled in their brains, and ouercharged with melancholy. *Praxagoras* aduised also, That they should be eaten for to helpe the bloudy flix. Moreouer, if they be laid presently (in manner of a liniment, with salt) vpon a burne or scald, while it is new, and before the place blister, they will fetch out the fire and do very much good. They keepe downe and represse cancerous vlcers, that would be running and eating into the flesh, if they bee applied at the beginning with salt-petre, and afterwards with wine. Being bruised into a liniment they heale S. *Anthonies* fire, if the place be annointed therewith. If their stalkes or stemmes bee stamped with drie grout or Barley meale, and laid too as a cataplasme with cold water, they mitigat the pains that follow dislocations or lims out of ioint, they asswage also dolorous cramps and convulsions. Being applied in manner of a pulteese with wine and dry Barley groats, they do allay the griefe of red and angry wheales. Moreouer, they were wont in times past to boile them betweene two platters, and so giue them for the disease Cholera, wherin choler is so outragious, that it purgeth vncessantly both vpward and downeward. But for this purpose, there would be choise made of the faireſt and greateſt stemmes, such also as are bitter, for they bee best. Some to the same effect, make a decoction of them in milke, and so minister it vnto the patient in a clyster. These stalkes being well and throughly boiled, are said to be very wholesome for the stomacke also: like as, for to procure sleepe, the garden Lectuce is thought most effectuall, namely, that which is bitter and yeeldeth store of milk, which hertofore we haue termed Meconis. This milke Physitians prescribe with very good successe for to clarifie the eie-sight, namely, if it be mingled with womans milk, and the forehead annointed therwith in good season and betimes. After the same manner it helpeth the infirmities and diseases of the eyes, proceeding from cold causes. Other vertues and commendable properties besides I finde in Lectuce, of strange and wonderfull operations. And namely, that it cureth the diseases of the breſt, as well as Sothern-wood doth, if it be taken with the best hony of Athens. *Item*, That if any women do eat therof, they shall haue their monthly sickneſse come orderly. Also, that the seed of garden Lectuce is giuen to very great purpose against the pricke or sting of any venomous Scorpion. Moreouer, That if the seed be stamped and taken in wine, it secureth one from the imaginarie fansies of *Venus* delights, in sleepe, and the pollutions also that thereof do insue. Finally, that certain waters which vse to intoxicat and trouble the braine, shall neuer hurt them that eat any Lectuce. Howbeit, some are of opinion, that the ouermuch vse of Lectuce at meat enfeebleth the eies, and impaireth their cleare sight.

CHAP.

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Plinius

CHAP. VIII.

¶ *Of Beets and their ſundrie kinds. Of Endiue. Diuers ſorts of Cichorie. Of garden Endiue, and two kinds thereof.*

A THe Beets of both ſorts are not without their medicinable vertues: for be it the white or the blacke, if one take the root thereof freſh and new out of the ground, wet it throughly, and ſoke it well in water, and then carry it about him hanging by a ſtring or lace, it is a ſoueraigne preſeruatiue againſt the biting of ſerpents. The white Beet boiled and eaten with raw Garlick, expelleth the broad wormes in the belly. The roots of the black, ſodden after the ſame manner in water, rid away the dandruffe or vnſeemly skales within the haire of head or beard:
B And indeed generally for any vſe, the black Beet is more effectuall than the white. The iuice thereof is ſingular good for an old and ſetled head-ach. For the dizzineſſe or ſwimming in the head. Alſo, it riddeth away the ſinging and ringing in the eares, if it be dropped into them. It procureth vrine: being injected by a clyſter, it cureth the bloudy flix: it helpeth alſo the Iauniſe. Moreouer, the ſaid iuice appeaſeth the intollerable pain of tooth-ach, if the teeth be rubbed or annointed therewith. Singular it is, againſt the ſtinging of ſerpents: but then it muſt be drawne from the root only. And make a decoction of the ſaid root, it helpeth kibed heeles. As for the juice of the white Beets, it ſtaieth the rheume or wateriſh humor that falleth into the eies, if the forehead be therewith annointed. And put but a little Allum thereto, it is an excel-
C lent remedy againſt S. *Anthonies* fire. White Beets only ſtamped, although there come no oile vnto them, healeth any burne or ſcalding, if the place be therwith annointed. Moreouer, againſt the breaking out into red and angry pimples, the ſame is very good. But ſeeth Beets, and make thereof a liniment, it repreſſeth the vlcers that run and ſpread abroad. The ſame being raw, rubbed vpon the bare places, where the haire is ſhed, recouereth haire, yea, and ſtaieth the running skales of the head. The iuice of theſe Beets tempered with honey, and ſnuffed vp into the head by the noſthrils, clenſeth the braine. There is a certain meat made with * Beets & Lentils boi- * συνθέσει.
led together, which commonly is eaten with vineger for to make the body laxatiue. The ſame being ouerſodden to a thicke conſiſtence, ſtaieth both the turning of the ſtomacke, and flux of the belly.

There is a kind of wild Beet, which ſome name Limonion, others Neuroides: it hath leaues
D much leſſe and tenderer than the other, howbeit, growing thicker; & riſeth vp many times with eleuen ſtalks. The leaues of this Beet are very good for burnes and ſcalds: they reſtraine and ſtay all Fluxes by drop meale, which breed the Gout. The ſeed being taken to the quantity of one Acetabulum, cureth the bloudy flix, & healeth the vlcer of the guts that cauſeth the ſame. Some ſay, that if this Beet be ſodden in water, the decoction will ſcoure and take out any ſtain in cloths, euen the very iron-mole: likewiſe it will waſh away any ſpots in parchment.

Now as touching Endiue or garden Cichorie, furniſhed alſo it is with many properties effectuall in Phyſicke. The iuice thereof mingled with oile Roſat and vineger, allaieth the paine in the head. The ſame if it be drunk with wine, is good for the liuer and bladder. Alſo, if it be laid to the eies, it ſtoppeth the humor that hath taken a courſe thither. The wild Cichorie, that
E groweth wandering here and there abroad, ſome of our Latin writers name * Ambugia. In Æ- * or rather *Ambubia.*
gypt they cal the wild Endiue, Cichoreum; & the tame garden Endiue, Seris: the which indeed is leſſe than the other, fuller alſo of ribs and veines, As for the wild, which is Cichorie, it hath a cooling nature, being eaten as meat; but applied in forme of a liniment, it is good againſt the collection of humors that ingender impoſthumes. The juice of it ſodden, doth looſen the belly Wholeſome it is for the Liuer, the Kidnies, and the Stomack. Likewiſe, if it be boiled in vineger, it reſolueth the painfull torments occaſioned by the ſtopping or difficulty of vrine, and openeth paſſage to make water at eaſe. Moreouer, if the juice or decoction thereof be drunk with honied wine, it cureth the Iaundiſe, ſo it be without a feuer. It is comfortable alſo & helpefull to the bladder. Boiled in water, it is ſo powerfull to bring downe womens termes, that it is of
F force to ſend out the child, if it be dead in the mothers belly. The Magitians ſay moreouer, that whoſoeuer annoint their bodies all ouer with the juice of this herb and oile together, they ſhal be right amiable, and win the grace and fauor of all men, ſo as they ſhal the more eaſily obtain what ſoeuer their heart ſtands vnto. And verily, for that it is ſo ſingular and wholeſome to mans body, ſome giue it the name of χρυσίτις, others of πανάκεια:

As

As for another wild kind, ſome call it * Hedypnois, & that hath a broader leaſe than the reſt. Being ſodden, it is aſtrictiue and will ſtrengthen a weak ſtomack: and eaten raw, it bindeth the belly and ſtaieth the lask. Holeſome it is for ſuch as haue the bloudy flix, the rather if it be taken with Lentils. In ſum, as wel raw as ſodden, both kinds, the one & the other, help thoſe that haue cramps and ruptures. Comfortable it is likewiſe to ſuch as vpon occaſion of debility or ſickneſſe, haue their nature or ſeed run from them againſt their wills. G

* For that being eaten with meat, it maketh the breth ſweet.

Touching Cichory of the garden, which is very like vnto the Lectuce, there be two kindes thereof; but the green that ſeemeth to be of a wilde and ſauage nature, is the better: of a more brown and duskiſh colour it is, and a Summer herb only. The other indeed is whiter and continueth all winter, howbeit worſe of the twaine: and yet both the one and the other, are right comfortable to the ſtomack, eſpecially when it is ouercharged with wateriſh humors. Beeing eaten in a ſalad with vinegre at meat, they refreſh and coole mightily: ſo do they alſo in forme of a liniment, and by that means reſolue other humors beſides thoſe in the ſtomack. Generally the roots of all wild Cichories being ſodden with barly grouts to a gruel, and ſo ſupped off do comfort a weake ſtomack. Being reduced into a liniment, & applied to the region of the heart aboue the left pap, with vineger, they cure the trembling thereof, and the faint cold ſweats that break out vpon weakneſſe. All the ſort of theſe Cichories as well tame as wild, being taken in broth each other day, be good for gouty perſons, for ſuch alſo as reach and caſt vp bloud, ſhed their ſperm or haue the running of the reins. Howbeit *Petronius Diodotus* in his booke intituled * Contradictions, vtterly condemned the garden Endiue Seris, and alledged many reaſons and arguments to confirme that poſition of his; howbeit the whole colledge of all Phyſicians beſides ſtand againſt him. H I

* *Antilegometia*, ſome read ἀντιλογιῶν, i. floure gatherings.

Chap. IX.

¶ *Of Garden Coleworts, Lapſana, Sea Coleworts, or Soldanella; of Squilla; of other bulbous roots, as the Potatoes: and of Bulbium.*

THe commendable proprieties of the Colewoort are ſo many, that it were a long labor to diſcipher them all, conſidering that both *Chryſippus* and *Dieuches*, two Phyſitians, haue compiled each of them a booke particularly of this hearbe, wherein they haue collected their vertues, as they be appropriat and reſpectiue to euery part of mans body; yea and before al others, *Pythagoras*, and after him *Cato*, haue as amply ſet out the praiſes therof. As for *Catoes* opinion and judgement of the ſaid herb, I am the more willing in this place to ſet downe and follow diligently, becauſe it might be knowne what ſimples and what drugs they were which the old Romans vſed for their Phyſicke * 600 yeres after the foundation of the city. The Greeke writers of greateſt antiquity, haue made three kinds of Coleworts; to wit, the criſped or ruffed cole, which they called Selinas or Selinoides, for the reſemblance that the leaues haue to Parſley: theſe Coleworts be good for the ſtomack, and gently looſen the belly. The ſecond ſort is named in Greeke * Lea, with broad leaues ſpringing forth from a great ſtem: whereupon ſome haue giuen it the name of * Caulodes: theſe woorts are to no vſe at all for Phyſicke. The third is properly called by the name of Crambe; very well ſtored with leaues this is, but thoſe are ſmaller than the reſt, ſimple alſo & plain: bitterer beſides this Cole is in compariſon of others; but moſt effectuall in Phyſick. Howbeit, *Cato* preferreth before all, that which is criſp and frizled: next vnto it, the ſmooth Cole, with the large leaf & big ſtalk. He commendeth the Colewort (ſtamped raw together with vineger, honey, Coriander, Rue, Mints, and the root of Laſer) to be ſingular good for the head-ach, the miſt and dimneſſe of the eies, the appearance of ſparkling motes before them, the ſtomack and precordiall parts; if a man take faſting 2 Acetables of this compoſition. And he ſaith moreouer, that this confection is ſo ſoueraign, that they who do but bray and beat the ingredients, ſhall ſenſibly find themſelues mightily comforted and fortified thereby. And he concludeth withall, that Coleworts may be either ſtamped together with the foreſaid *ſpecies*, and ſo taken in a ſupping; or els be eaten, firſt dipped and ſoked in the forenamed liquor: as alſo that a liniment made of them, together with Rue, a little Coriander, ſome few corns of ſalt, and barley meale, is ſoueraigne to aſſwage the paines of any gout, be it in feet, hands, or any other ioint whatſoeuer. Moreouer, that a decoction made therof, doth wonderfully comfort and fortifie the ſinewes, yea and mitigate the arthriticall griefes or ioint-ach, if

* For about that time *Cato* liued.

* *i.* Smooth and plaine.

* *i.* The ſtemmic Cole.

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Plinius

A if the parts be tormented therewith. Ouer and beſides, a fomentation made therewith, is ſingular for al freſh wounds, old vlcers, yea and cankers, which could not poſſibly be repreſſed or healed by any other medicines: but he appointeth firſt that they be bathed in hot water, and then a cataplaſme of the ſaid worts to be laid vpon the afflicted place, and the ſame to be refreſhed twice a day. By which manner of cure, he ſaith, that fiſtulous ſores may be healed, diſlocations ſet ſtreight, ſwellings and impoſthumes drawn outward to an head; or otherwiſe where need is, diſcuſſed & reſolued, before they tend to ſuppuration. He addeth moreouer & ſaith, that whoſoeuer eat good ſtore of ſodden Coleworts, together with oile and ſalt faſting in a morning, ſhall fall to ſleep again in the night if they were before ouercharged with watching, & in their ſleep ſhall not be troubled with dreams or other vnquiet fanſies and imaginations. Furthermore hee
B affirmeth, that worts twice boiled, are excellent good for the torments and wrings of the belly, ſo there be ioyned to the ſecond decoction, oyle, ſalt, cumin, and barly groats; and thus beeing eaten without bread, they are the better: among other effects that theſe Coleworts do work, this is not to be forgotten, that they purge cholerick humours, being taken with ſweet groſſe wine. More than that, he auoucheth, That if his vrine, who vſe to feed of Colewoorts, be reſerued, it is ſingular good for the ſinews, if the grieued part be bathed therin after it is made hot again. But becauſe you ſhould fully vnderſtand his meaning, I care not much to ſet downe his very words for to expreſſe the ſame the better. If (quoth he) you waſh little children with the ſaid vrin prepared in manner aforeſaid, they will neuer be weak and feeble in their lims. He aduiſeth moreouer, to drop the juice of Colewoorts warme into the eares with wine, and aſſureth vs that it is
C good for them that be hard of hearing. Finally, that ringworms, tettars, itch, and dry ſcabs (ſuch as be not exulcerat) are healed thereby.

Now concerning the opinion of the Greeks alſo, as touching Coleworts, I thinke it meet to ſet them down for *Catoes* ſake, I mean touching thoſe points only that he ouerpaſſed and omitted. Firſt and formoſt therefore, the Greeks hold, that the Colewort being not throughly ſodden, purgeth choler & keeps the body ſoluble; howbeit twiſe ſodden, it bindeth the belly. *Item*, That it is contrary to wine, and a very enemy to vines. And more particularly, if it be taken faſting, or in the beginning of a meale before other meat, it preſerueth a man from drunkenneſſe; and eaten after meat when a man is drunken indeed, it riddeth away the fumoſities in the brain and bringeth him to be ſober. Alſo, that it is a meat appropriate to the eies, and cleareth the
D ſight very much; inſomuch as the iuice of it raw is paſſing ſoueraigne for that purpoſe, in caſe it be mingled with the pure Atticke hony into an eie-ſalue, and therewith the corners of the eyes be but touched only. Moreouer, that it is paſſing light of digeſtion, and clarifieth all the ſenſes, if it be ordinarily eaten. *Eraſiſtratus* and all his ſchoole, doth ring and reſound again with one voice and open mouth, That there is nothing in the world better for the ſtomacke, nothing more wholſome for the ſinews; and therfore with one accord they preſcribe the vſe thereof, for thoſe that haue the palſie or reſolution of the nerues; for as many as be troubled with the trembling and ſhaking of their lims, to ſuch alſo as reach & caſt vp bloud. *Hippocrates* giueth counſell to them that be afflicted with the bloudy flix or exulceration of the guts; to thoſe likewiſe who be ſubject to the flux proceeding from the weakeneſſe of the ſtomacke, for to eat it twiſe
E ſodden with ſalt. Alſo he preſcribeth it in the cure of Tineſmos (which is a prouocation or extraordinary appetite to ſeege, without doing any thing;) and of the paine in the back or reines. And he is of this judgement, That women in childbed ſhall be good nources and haue plentie of milke, if they eat of Cabbages or Coleworts; yea and women in generall, by feeding thereupon, ſhall ſee their monthly termes duly. As for the Cole it ſelfe, if it be chewed raw, it is (by his ſaying) of force to expell a dead infant in the wombe. *Apollodorus* holdeth reſolutely, That either the ſeed or juice thereof taken in drinke, is a ſingular remedy for them who ſuſpect that they haue eaten venomous muſhrums. *Philiſtion* giueth the juice thereof in Goats milke, together with ſalt and honey, vnto ſuch as haue a cricke or cramp drawing their necks backeward, that they are not able to turne their heads. I find moreouer, that by eating Coleworts at meat
F ordinarily, and by drinking the decoction thereof, many haue been deliuered from the gout. It is an vſual medicine and approued by experience, to giue it with ſalt for the fainting ſweats & trembling of the heart, as alſo for the falling euill. Such as be troubled with the ſpleene, finde much eaſe thereby, if they continue drinking the juice therof in white wine at their meals forty daies together; like as thoſe that be ſped with the yellow jaunife, or in fits of frenſie, be cured

with gargling & drinking juice of Cole-roots raw. But againſt the Hocquet or Yex, there is a G
notable medicine made with it, together with Coriander, Dill, hony, pepper, and vineger. If the
pitch of the ſtomacke be annointed therewith, the Patient ſhall euidently perceiue, that it will
diſſolue the wind and puffing ventoſities therin. Alſo, the very water of the decoction incorpo-
rate together with barley-meale, vnto a liniment, is ſingular good for the ſtinging of Serpents,
and mundifieth filthie old vlcers: to which purpoſe alſo ſerueth the juice thereof, applied with
vineger and Fœnigreek. After the ſame manner, ſome make a cataplaſme, and applie it to gou-
tie joints. The bloudy-falls and bliſtering chilblanes, and generally all humors that ouer-run
the body and fret the skin, are allaied by the application aforeſaid. In like manner, the ſudden
miſts and dimneſſe which commeth ouer the eie-ſight, is diſcuſſed & diſpatched clean, in caſe
*Cum Sulphure illita. one do no more but chaw this herb in vineger. A liniment made with it and * brimſtone toge- H
ther, helpeth the black and blew ſpots of dead bruſed bloud lying vnder the skin, and reduceth
them to their owne colour. But if round alume and vineger be joined therewith, it cureth the
white leproſie, and dry ſcab [called of ſome S. *Magnus* euill.] And in that manner prepared, it
keepeth the haire faſt that is ready to ſhed. *Epicharmus* ſaith, That this herb is ſoueraigne good
to be implaiſtred vpon thoſe tumors and ſwellings that be incident to the priuy members, and
the rather, if the ſaid implaiſter be made with bean-meale. The ſame being applied with Rue,
is good for convulſions or crampes. Moreouer, there is a medicine preſcribed to bee made of
Coleworts and Rue-ſeed, againſt the extreme heat of feuers ardent, as alſo for the defects and
infirmities of the ſtomack, and to ſend out the after-birth in women newly laid. The powder of
Colewort leaues dry, doth expell or euacuate one way or other, the venome left behind by the I
biting of the hardy ſhrew-mouſe. Of all kinds of Coleworts, the ſweeteſt and moſt pleaſant to
*Gyma. the taſt, is the * Col-flory, although it be counted good for nothing in Phyſick, and beſides vn-
wholſome, as being hard of digeſtion and an enemy to the kidnies. Ouer and beſides, I muſt not
forget this one thing of Coleworts, That the broth or decoction thereof (ſo highly prayſed for
many good vſes that it is put vnto) if it be poured on the ground, hath but a ſtinking ſmel with
it. Wort-ſtocks being dryed and burnt into aſhes, is thought to be a cauſtick medicine or po-
tentiall cautery. The ſame aſhes mingled with old greaſe and reduced into a cataplaſme, hel-
peth the pain of the Sciatica: but with Laſer and vineger, it is a depilatory, (*i.*) keepeth the
hayre from growing againe where it was once fetched vp by the roots. The ſayd Coleſtocke
aſhes ſet ouer the fire vntill it ſiuer only, or haue one walme at the moſt, and ſo drunk with oile, K
or otherwiſe ſodden, and the decoction taken alone without oyle, is good for Spaſmes and
crampes, for inward bruiſes, and for ſuch as are falne from ſome high place. Lo, what a num-
ber of prayſe-worthy vertues are recounted of Coleworts! And is there (I pray you) no fault to
be found with them? are they blameleſſe? ywis no: for euen thoſe writers who extolled them ſo
highly, note them for making a ſtinking breath, and for hurting the teeth and gums: inſomuch
as in Egypt, they be in ſo bad a name for their bitterneſſe & vnpleaſant taſt, that no man know-
eth how to eat them. But to come again vnto *Cato*, he commendeth the effects of the wilde or
wandring Colewort infinitly aboue the reſt; inſomuch as he affirmeth, that the powder of it
dried, being gathered and incorporat with ſome conuenient liquor into the forme of a poman-
der, or otherwiſe ſtrewed vpon any poſie or noſegay, ſo as it may be receiued and drawn vp into L
*Some cal the *Polypi.* the head by the noſthrils, cureth the * filthy vlcers growing therin, and the ſtinking ſmell that
commeth from them. This Cole-wort, others call Petræa, and this is that which of all the reſt
is moſt aduerſe and the greateſt enemy to wine; this is it that the vine (by a ſecret Antipathie
in nature) doth eſpecially auoid, if it haue room to decline from it; but in caſe ſhe cannot ſhift
from it, ſhe dieth for very griefe. This plant hath the leaues growing two by two together, and
*Oleris. thoſe ſmall, round, ſmooth, and liker indeed to the young plants of * Beets than to other Cole-
worts; whiter alſo it is, and more rougher clad with a moſſie downe, than is the garden Cole-
wort. *Chryſippus* writeth, That it is a ſoueraigne medicine for flatuoſities, and ſuch as be oppreſ-
ſed with melancholy: that it is a ſingular ſalue for freſh wounds, being applied with hony; but
with this charge, That the plaſter be not taken off in ſeuen daies. Alſo, if it be ſtamped and ap- M
plyed with water, it is an excellent cataplaſme for the Kings euill, and fiſtulous inward vlcers.
Other Chirurgions and Phyſitians do affirm, that it repreſſeth running & coraſiue ſores which
eat into the fleſh, ſuch as the Greeks name Nomus. *Item*, that it doth extenuate and reſolue all
excreſcence of proud, ranke, or dead fleſh; yea, and it doth incarnat, heale vp, and skin very faire
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20030
copy 1
Plinius

A without skar, by their ſaying. Moreouer, if it be chewed, or the iuice therof gargariſed with ho-
ney, ſo that the herb were ſodden before, it cureth the ſores in the mouth called cankers, as alſo
the mumps and inflammation of the kernels in the throat, called amygdales, or almonds. Sem-
blably, if a man take three parts of this herbe, with twaine of alume, and together with Vinegre
make a liniment thereof, it will clenſe the inueterate dry ſcab, and the mortified leproſie. *Epi-*
charmus is of opinion, That for the biting of a mad dog, a man need doe no more but lay to the
ſore a cataplaſme of this herb alone: but ſurer it were (ſaith he) and more effectual, if Laſer and
ſtrong ſharp vinegre were ioyned thereto. He addeth moreouer and ſaith, That if it be giuen to
dogs with ſome piece of fleſh it will kill them. And yet the ſeed being parched is a remedie a-
gainſt the ſting of ſerpents, and a countre-poiſon to venomous Muſhroms and Buls bloud. The
B leaues boiled and giuen with meat, or otherwiſe raw and made into a liniment together with
brimſtone and nitre, help thoſe that be diſeaſed in the ſplene. The ſame liniment mollifies the
hard ſwellings of womens breaſts. The aſhes of the root being burnt, cure the uvula, or ſwelling
of the wezil in the throat, if it be but touched therewith. Alſo a liniment thereof with honey
applied to the inflamed kernels behind the eares, repreſſeth them, yea and healeth the ſtinging
of ſerpents. I haue not yet done with the Colewort and the vertues thereof; but one inſtance
more I will giue you, to proue the wonderfull force and effect that it worketh. If any braſſe pot
caldron, or ſuch like veſſel wherin we vſe to ſeeth water ouer the fire, haue gathered in continu-
ance of time a fur or cruſt baked within, ſuch as by no waſhing or ſcouring can be rid away, bee
the ſame neuer ſo hard, deep ſetled, and inueterate; boile but a cabbage or Colewort in it, and
C the ſame will pill and go from the pot ſides.

Among wild worts we may place Lapſana, a plant growing to the height of a cubit, bearing
a furred or hairy leafe, like for all the world to the Navew, but that the floure is whiter. This
herb is commonly ſodden and eaten in pottage; and ſo taken it moderatly looſeneth the belly.

The ſea Colewort [otherwiſe named Soldanella] of all others purgeth moſt forcibly: in re-
gard of which acrimonie that it hath to ſtir the belly, Cookes vſe to ſeeth it with fat meat, and
yet is it moſt contrary to the ſtomack.

Touching Squils of Sea-Onions, Phyſitians hold that the white is the male, and the blacke
the female: but the whiteſt of them be euer beſt and of moſt vſe. The maner of preparing and
dreſſing them is after this ſort: Firſt, the dry tunicles or skins being pilled off, the reſt, which is
D quick and freſh vnderneath, muſt be cut into ſlices, & ſo infiled vpon a thred along, with a pre-
ty diſtance between euery one, and hanged vp to dry: afterward, when the morcels be ſufficient-
ly dried, they are to be put, hanging ſtil as they did by a ſtring, into a barel or veſſel of the ſtron-
geſt and quickeſt vineger that can be gotten, and therein they muſt hang ſo as they touch no
part of the ſaid veſſel: but this would be ſet in hand with 48 daies before the ſummer ſolſtice.
Which done, the barrel of Vineger beforeſaid being well luted and ſtopped cloſe with plaſtre,
muſt be ſet vnder a roofe of tiles, to receiue the heate of the Sun all the day long from morning
to night. Now when it hath bin thus ſunned ſo many days as are before named, the veſſel is re-
moued from vnder the caſe of tiles, the Squilla taken forth, and the vinegre poured out into a-
nother veſſel. This vinegre clarifieth their eie-ſight who vſe it: comfortable it is to the ſtomack
F and ſides, and aſſwageth their paine, if it be taken in ſmall quantitie once in two daies: for if a
man ſhould dring ouer-liberally of it, ſo forcible it is that it would take away his breath, and
cauſe him to ſeem dead for the time. Squilla chewed alone by it ſelfe is wholſom for the gums
and teeth. Being drunk with vineger and honey, it chaſeth out of the belly the long flat worms
and all other ſuch like vermin. If it be but held vnder the tongue while it is greene and freſh, it
allaieth thirſtineſſe in the dropſie, and cauſeth that the Patient ſhall deſire no drink. The boi-
ling of Squilla or the ſea-onion is after many ſorts: for ſome, after they haue either well luted,
or els greaſed it all ouer with fat, put it into a pot of earth, and then ſet it into an ouen or Fur-
nace to be baked. Others ſlice it into gobbets, and ſo ſeeth it between two platters. Some take
it green and dry it, then they cut it in pieces and boile it in vineger; and being thus vſed and
F prepared, apply it to the places which be ſtung with ſerpents. Others againe roſt it firſt in the
embres, and after they haue cleanſed it from the vtmoſt pilling, take the beſt of it onely in the
mids, and ſeeth the ſame again in water. Being thus baked and ſod both, it ſerueth to be giuen
in a dropſie. And if it be drunk to the quantitie of three Oboles with hony and vinegre, it pro-
uoketh vrine with eaſe. In like maner, this compoſition is good for thoſe that be troubled with

the ſplene,or haue weak and feeble ſtomacks,or be troubled with gnawing and pain there: ſuch G
alſo as canot hold their meat,but it will flote aboue and come vp again:prouided alwaies, that there be no vlcer within the body. Moreouer,it is excellent good for the wringing in the guts, the jauniſe,the old cough,with ſhortneſſe of wind. The leaues emplaſtred reſolue the wens or ſwelling kernels in the neck,commonly called the Kings euil,but they muſt lie foure daies before they be remoued. Being ſodden in oile and reduced to a liniment,and ſo applied, it mundifieth the skurfe or dandruffe of the head,the running skalls likewiſe that are bred there. It is vſed alſo(boiled vp with hony into a certain confection) taken with meat for to helpe digeſtion,and in that ſort it purgeth the intrals. Sodden in oile and tempered with roſin, it heales the chaps and clifts in the feet. The ſeed of Squilla implaſtered with honey vpon the reines of the back or the loins,eaſeth the pains. *Pythagoras* was of opinion,and ſo reported,that if the Squilla H
or Sea-onion were hanged vp in the entry of any dore,it kept out all charms, enchantments, or ſorceries. And thus much of Squilla.

Moreouer,the plants called Bulbs,being applied in form of a liniment, with brimſtone and vineger,do cure the wounds of the viſage:and ſtamped by themſelues alone,and ſo laid to,they help the contraction or ſhrinking of ſinues : and if there be wine added thereto,it clenſeth the dandruffe in head,beard,and eye-browes : but applied with honey it cureth the biting of mad dogs : howbeit *Eratoſthenes* taketh pitch in ſtead of hony for the ſaid purpoſe: who writeth beſides, That a cataplaſme of them and hony together,ſtancheth bloud in a green wound : but others ioyne Coriander and corn-meale to the reſt,properly for bleeding at the noſe. *Theodorus* cureth wild tettars and ring-wormes therewith, being applied with vinegre : and with ſtyptick I
harſh wine,or an egg,he vſeth it for the breaking out in the head. Moreouer,a liniment made of Bulbs he applieth about the rheumatick humors that fall to the eies,and by that means cureth thoſe that be bleere eyed. Semblably,the red of this kinde eſpecially reduced into a liniment, and firſt incorporat with hony and nitre,taketh away all the ſpots and blemiſhes that disfigure the face,if they be anointed with it in the ſun: but with wine and Cucumber ſodden they rid away alſo the red pimples. They be wonderfull good of themſelues alone for green wounds ; or with honied wine(according to the practiſe of *Damion*) ſo they be not remoued in fiue dayes ; and he was wont therewith to cure cracked eares alſo, and the flatuous flegmatick tumours of the cods. Others there be who apply them with meale mingled among, to aſſwage the pain of the gout. Sodden in wine,and ſo applied as a liniment to the belly,they mollifie the hardneſſe in the precordial parts and midriffe : and for the bloudy flixe, a drinke made thereof,together K
with raine water and wine,is a ſingular remedy. Being taken in pils as big as beanes,with Silphium,they are ſoueraigne for the contraction of nerues or inward crampes within the bodie. Stamped into a liniment,they reſtrain immoderat ſweats that be diaphoreticall. Comfortable they be to the nerues,and therefore they are preſcribed and giuen in caſe of the palſie. Thoſe with the red roots being made into a cataplaſm with ſalt and hony, doth ſpeedily cure the diſlocations of the feet that be out of ioynt. The bulbs of Megara eſpecially do prouoke luſt. As for thoſe that be called Hortenſij,taken with Cuit wine or Baſtard,make ſpeedy deliuerance of the child out of the mothers belly. The wild bulbs brought into the form of pils,with Laſerpitium,and ſo ſwallowed downe,do heale inward wounds and other maladies of the intrals. The L
ſeed of the garden Bulbes in wine, is a good potion againſt the ſting of the ſpiders called Phalangiæ : and the roots with vinegre ſerue for a liniment againſt the ſtings of other ſerpents. The antient phyſitians in times paſt were wont to giue the ſeed in drink to them that were out of their wits. The floure of theſe Bulbes being bruiſed into a Cataplaſme taketh away the red dapled ſpots in their legs who haue ſit neere the fire and burnt their ſhins. But *Diocles* is of opinion,that all theſe bulbous plants do dim the eie-ſight : who ſaith moreouer, That they are not ſo good boiled as roſted : and yet be they all (ſaith he) hard of digeſtion more or leſſe, according to the nature of each one that eateth them.

There is an herb which the Greekes call Bulbine,with a red bulbous root,and leaues reſembling Porret : of which there is a ſingular good ſalue made for to heale green wounds,but none M
els. To conclude,as touching the bulb called Vomitorius(of the effect that it hath to prouoke vomit) it hath blackiſh leaues,and thoſe longer than the reſt.

20030
copy 1
Plinius

Chap. X.

¶ *Of Garden Sperages, and the wilde Sperage Corruda: of Lybicum and Hormenium.*

A Of all Garden herbs, the Sperages are (by report) the beſt meat to be eaten, and agree paſſing wel with the ſtomack; and verily being taken with Cumin, they diſſolue the ventoſities in the ſtomack, and diſpatch the wind cholick, and withall they cleare the ſight paſſing well. Kindly do they mollifie the belly and keep it ſoluble. If they be ſodden in water, and
B a little wine put thereto in the boiling, and ſo giuen to drink, they are very good for the pain of the breſt & the backbone; for the diſeaſes alſo within the guts. If one take the weight of three Oboli of the ſeed, and as much of Cumin, and ſo drinke it in ſome conuenient liquor, hee ſhall find a ſingular remedy for the pain of the reins, hanch, and loines. Garden Sperages ſollicit vnto the game of loue, and procure good deliuerance of vrine; for which they had no fellow, but for feare that they will fret and exulcerate the bladder. Moſt Phyſicians doe highly commend their roots bruſed and taken in white-wine, for to expell the ſtone and grauell; as alſo to allay the pains of the reins, flanks, and loins. Some there be, who giue to drinke in ſome ſweet wine the ſaid root, for the grieuous pains of the matrice: and the ſame being well and throughly boi-
C led in vineger, is a ſoueraigne remedy for the leproſie, to as many as will vſe to drink the ſaid decoction. If a man be annointed with Aſparagus or garden-Sperage, ſtamped together with oile and ſo made into a liniment, there will not (by report) a Bee come neere for to ſting him.

The wild Sperage, ſome name it Corruda, others Lybicum, but the Athenians cal it Hormenium: this herb is more effectuall in all thoſe matters aboue rehearſed than the former, & the whiter that it is, the greater force it hath. The jaundiſe it doth diſſipat and driue away. When it is ſodden in water, the decoction thereof to the quantity of a * wine pint or ſomwhat leſſe, is * Hemina.
vſually preſcribed to them that deſire to performe the act of generation luſtily. For the ſame purpoſe alſo, the ſeed thereof and Dill, of each three oboli, is counted very good beeing taken in drinke. The juice therof boiled, is giuen againſt the ſtinging of ſerpents. The root of it and Fennell together, is thought to be moſt ſingular and of greateſt efficacy in that caſe: for piſſing
D bloud, *Chryſippus* preſcribeth to giue in two cyaths of wine for fiue daies together, three oboli of the ſeed of Aſparagus, Parſley, and Cumin; but he ſaith withall, That this medicine is nothing good for the dropſie, notwithſtanding that it is diuretical and prouoketh vrine. Alſo that it is aduerſe and contrary to the delights of *Venus*, yea and to the bladder, vnleſſe the ſame ingredients be ſodden; and yet will that decoction kill dogs if it be giuen to them. To conclude, the juice drawne out of the root therof, being firſt boiled, and ſo held in the mouth, is good for the teeth.

Chap. XI.

¶ *Of Parſley, wild Ach, of Smallach, and Ach of the mountains.*

E Parſley is in great requeſt, and no man lightly there is but loueth it: for nothing is there more ordinary, than to ſee large branches of Parſley good ſtore, ſwimming in their potage: and commonly you haue not a ſallad or ſauce ſerued to the boord, you ſee not a piece of meat farced or ſeaſoned, but Parſley carieth therein a great ſtroke, and contenteth euery body. Ouer and beſides, if it be applied as a liniment, together with honey vnto the eies, ſo that they be fomented alſo euer and anon with the hot juice of Parſley boiled, it is a ſingular remedy for the humours diſtilling thither. Alſo, if it be but ſtamped by it ſelfe alone, or els with bread or barly groats, it wonderfully helpeth the defluction falling vpon any other part, if the ſame bee laid vpon the place afflicted in maner of a cataplaſm. Moreouer, if a man perceiue that the fiſh in any pond or ſtew do miſlike and grow ſickly, it is a common practiſe to giue them green par-
F ſley to ſcoure and refreſh them. Howbeit, for all that Parſley is ſo good, there is not an herbe growing vpon the face of the earth, that learned men varie and diſagree in opinion more about, than they do in it; & yet they hold all, that there is a diſtinct difference therein by the ſex: for of Parſley there is both male & femal; mary which is the one & which the other, they accord not. *Chryſippus* ſaith, That the female hath more criſp & curled leaues than the male, and thoſe boiſtrous & hard; that the ſtalk is thick, & the taſt of the herb biting & hot. *Dionyſius* deſcribes it

to be more blackiſh, hauing a more ſtubbed & ſhort root, & that it is apt to breed little worms. G
Both of them jump in this, that it is not to be admitted to the table, nay, they forbid to eat of it at all. Making a matter of conſcience once to touch it as a meat; and why ſo? becauſe, forſooth, it is one of the viands ordained to be ſerued vp at funerall feaſts. Ouer and beſides, Parſely is thought to be an enemy to the eies, and to trouble the ſight. Alſo that the ſtem of the female ingendreth grubs & ſuch like wormes; and ſo, whoſoeuer eateth thereof, man or woman, ſhall thereby become barren. Moreouer, they affirm, that if women newly deliuered, or ſuch as nurce children, do eat of Parſly, the babes that ſuck and draw their breaſts, ſhall be ſubiect to the falling ſickneſſe. And yet of the two, the male is leſſe hurtfull: which is the very reaſon that it is not condemned among the forbidden herbs and ſuch as be held vnlawfull to be eaten. Parſley
being laid as a cataplaſme to womens breſts, doth mollifie their hardneſſe, & break the kernils. H
It giueth a pleaſant taſt to any water wherin it is ſodden: the juice of this herb, & eſpecially of the root being taken in wine, doth mitigate the pains in the loins and flanks: and being dropped into the ears, cureth the hardneſſe of hearing. The ſeed of Parſly moueth vrine, draweth downe womens floures, and fetcheth away the after-birth. Seeth the ſaid ſeed, and with the decoction bath the black and blew marks remaining after ſtripes or drie blows, it wil bring them to their own colour again. The ſame being laid as a liniment with the gleire or white of an egge vnto the reines of the backe, or being ſodden in water, and the broth drunken, eaſeth their paines and ſtrengthneth them. Being bruſed & vſed in cold water by way of a collution, it cureth the cankers or vlcers in the mouth: the ſeed drunk with wine, breaketh the ſtone of the bladder: ſo doth the root of it alſo if it be giuen in old wine. Alſo the ſaid ſeed in white wine cureth the iauniſe. I

*It ſeemeth that he meaneth by *Apiaſtrum* a kind of *Ranunculus*, i. Crow-foot, called *Flammula*, our Speere-wort, or *Apium riſus*.

As touching our wild Ach, which we call in Latine * Apiaſtrum, *Hyginus* verily nameth it Meliſſophyllon. A venomous herb this is in Sardinia, and by all writers confeſſion vtterly condemned: for ſurely I cannot chuſe but range together in one rank al ſuch as ſeem to depend vpon one name in Greeke.

But Aliſanders, which the Greeks terme Hippoſelinum is a good counterpoiſon againſt the biting of Scorpions. If the ſeed be taken in drink, it cureth the wrings & torments of the guts. The ſame being boiled and drunk with honied wine, helpeth the Strangurie and difficulty of making water. The root ſodden in wine, expelleth ſtone and grauell by vrine: it putteth away alſo the paine of the loins, flankes, and ſides. Taken in drinke, or applied as a liniment, it healeth the biting of a mad dog. The iuice thereof in drinke, heateth them that are ready to chill and K
be frozen with cold.

* Whereby, ſome read *Orthoſelinum*.

A fourth kind of Ach or Parſley ſome haue made that, which the Greeks call Oreoſelinum. A plant this is, growing to the height of a ſpan, and * vpright. The ſeed reſembleth Cumin, and is found effectuall to procure vrine and prouoke womens termes. Finally, as Smallage hath a propertie and vertue by it ſelfe to heale the pricke or ſting of the venomous Spiders: ſo this mountaine Ach or Parſley of the hill, being taken in wine, is as effectuall to bring down the naturall purgation of women.

Chap. XII.

¶ *Of Stone-Parſely, named Petroſelinum: and of Baſill.* L

THere is another kind of Ach or Parſly growing vpon rocks, which ſome cal Petroſelinum. An excellent herb for foule impoſthumes and botches, vſed in this manner: take 2 ſpoonfulls of the juice thereof, put it into a Cyathe of the juice of Horehound, and mingle all together in three Cyaths of water, and ſo drink it hot. Some haue ſet in the range of theſe Aches, that which is called Buſelinon; which differeth from the garden Parſley, in that it hath a ſhorter ſtalk, and a root of red colour: but of the ſame operation and effect it is. For both taken in drinke, and applied as a liniment, it is of great power againſt the ſtinging of ſerpents.

Alſo, *Chryſippus* mightily crieth out vpon Baſill, as being hurtfull to the ſtomack, ſuppreſſing vrine, and an enemy to a cleare ſight. Moreouer, he ſaith, that it troubleth the brains, and putteth folk beſides their wits: that it bringeth the Lithargie vpon as many as vſe it, and breedeth opi- M
lations and diſeaſes in the liuer. In which regard he ſaith, That Goats by a ſecret in Nature doe refuſe and eſchew it; concluding thereupon, that men alſo ſhould take heed thereof and auoyd it. Some there be who haue not done with it ſo: but adde moreouer and ſay, That if Baſill be

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A ſtamped and put vnder a ſtone, it will breed to a ſerpent: if it be chewed in ones mouth and layd abroad in the Sun, it wil ingender wormes and magots. The people of Africk are verily perſuaded, and ſo they giue out, That if one be ſtung with a ſcorpion the ſame day that he hath eaten Baſil, it is vnpoſſible for to ſcape with life. Likewiſe ſome hold opinion and would beare vs in hand, That if a man ſtamp a bunch or handfull of Baſill, together with ten ſea crabs, or as many craifiſhes of the freſh water, all the Scorpions thereabout will meet and gather together about that bait. Finally, *Diodorus* in his Empiricks or book of approued receits and medicines, ſaith, That the eating of Baſil ingendreth lice. Contrariwiſe, the later writers and modern phiſitians defend & maintain the vſe of Baſil as ſtoutly as the other blamed it: for firſt they auouch conſtantly, That Goats vſe to feed therupon. Secondly, That no man was euer known to go beſide
B himſelfe who did eat thereof. Thirdly, That Baſil taken in wine, with a little vineger put therto, cureth as wel the ſting of land ſcorpions, as the venom of thoſe in the ſea. Moreouer, they affirme vpon their knowledge by experience, That a perfume made of Baſil and vinegre is ſingular good to recouer and fetch them again that be gon in a ſwound. Alſo, that in the ſame maner prepared, it rouſeth and wakeneth thoſe that be in a lethargie and ſleep continually; yea, and mightily cooleth and refreſheth them that be inflamed & in a burning heat. A liniment made with Baſill, oile Roſat, or oile of Myrtles in ſtead thereof, with vineger, aſſwageth the paine of the head. Moreouer, being laied to the eies with wine, it ſtaieth the wateriſh rheume that runs thither. Furthermore, comfortable it is to the ſtomack (as they ſay) for being taken with Vinegre, it diſſolueth ventoſities, and breaketh wind by rifting vpward. Being applied outwardly, it
C bindeth and ſtaieth the running out or flux of the belly, and yet it cauſeth free paſſe of vrine in abundance. After the ſame maner it doth good in caſe of Iauniſe and dropſie. It repreſſeth the rage of choler that moueth both vpward and downward, yea, and ſtaieth all defluxions from the ſtomack. And therefore *Philiſtio* knew what he did well enough, when he gaue it to thoſe that were troubled with the ſtomachical flux. As alſo *Pliſtonicus* was well aduiſed, in miniſtring it ſodden, for the bloudy flix, the exulceration of the guts, and the Collicke. Some there be who giue it in wine to them who run euer and anon to the cloſe ſtoole, ſit downe and do nothing: to thoſe that reach and caſt vp bloud; yea, and to mollifie the hardneſſe of the precordiall parts. Being laid as a liniment to the nurſes paps, it reſtraineth the abundance of milk, yea and drieth it vp. There is not a better thing in the world for to be dropped into the eares of little babes
D and ſucking children, and namely with gooſe-greaſe. If the ſeed be bruſed, and ſo ſnuffed or drawn vp into the noſthrils, it prouoketh ſneeſing. The iuice moreouer laid as a liniment to the forehead, openeth the paſſages, that the rheumes or cold which lay in the head may breake away. Being taken at meat and dipped in vinegre, it mundifieth the matrice and natural parts of women. Mixed with Copperoſe or Vitriol, it taketh away warts. Finally it ſetteth folk forward to venerious pleaſure: which is the reaſon that men vſe to lay Baſil vpon the ſhap of mares or ſhe Aſſes at the time of their couering.

Chap. XIII.

¶ *Of *wild Baſil, Rocket, Creſſes, and Rue.*

* *Olymotides.* Dioſcor.

E WIld Baſill is endued with vertues and qualities ſeruing to all the purpoſes aboueſaid: but the ſame is of better operation and more effectual. And theſe properties ouer and beſides it hath by it ſelfe, namely, To cure the weakneſſe of the ſtomack, and thoſe accidents which come by often caſting or immoderat vomits. The root thereof taken in wine, is ſingular good for the apoſtumes of the matrice, and againſt the biting of venomous beaſts.

As touching Rocket, the ſeed cureth as well the venomous ſting of Scorpions, as the biting of the hardy ſhrew. The ſame chaſeth all vermin that be apt to ingender in mans body. A liniment made with it and hony together, taketh away all the ſpots that blemiſh the skinne of the face: and with vinegre repreſſeth the red pimples whatſoeuer. The black or ſwert skars remai-
F ning after wound or ſore, it reduceth to the former fair white, if it be applied with a beaſts gal. It is ſaid moreouer, that a potion therof made with wine, and giuen to thoſe who are to receiue puniſhment by the whip, will harden them in ſuch ſort, that they ſhall feele little or no ſmart at all by any ſcourging. And for ſeaſoning of all kinde of viands, it hath ſuch a pleaſant grace in any ſauce, that the Greekes thereupon haue giuen it the name of Euzomos. It is thought

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moreouer, that a fomentation of Rocket, bruſed and ſtamped ſomewhat before, quickeneth and G
clarifieth the eye-ſight: it eaſeth little children of the chin-cough. The root boiled in water, and ſo applied, draweth forth ſpils of broken bones. As touching the vertue that Rocket hath to procure the heat of luſt, I haue ſpoken already: yet thus much more in particular I haue to ſay, that if one do gather three leaues of wild Rocket with his left hand, ſtamp them afterward, and ſo giue them to drink in honied water, this drink mightily prouoketh that way.

As for Creſſes they haue a contrary operation, for they coole and dull the heat of the fleſh, howſoeuer otherwiſe they giue an edge to the wit and vnderſtanding, as heretofore we haue declared. Of theſe Creſſes there be two kinds. The white is purgatiue, and the * weight of a Roman denier taken in water doth euacuate cholerick humors. A liniment thereof together with bean flower applied vnto the hard kernils called the Kings euill, is a ſoueraigne remedie there- H
fore, ſo that a Colewort leafe be laid thereupon. The other kinde is more blackiſh, and purgeth the head of ill humors. It clenſeth the eies and cleareth the ſight. Taken in vineger it ſtayeth their brains that be troubled in mind: and drunk in wine, or eaten with a fig, it is ſingular good for the ſplene. If a man take it faſting euery morning with hony, it cureth the cough. The ſeed drunke in wine expelleth all the wormes in the guts: which it doth more effectually if wilde Mints be ioyned withall. With Origanum and ſweet wine it helpeth thoſe that be ſhort winded and troubled with the cough. The decoction therof when it is ſodden in goats milk, eaſeth the pains of the cheſt or breaſt. Laid to as a Cerot with pitch, it reſolueth puſhes and biles, yea and draweth forth pricks and thorns out of the body. A liniment applied with vineger, taketh off all ſpots and ſpeckles of the viſage: and if the white of an egg be put thereto, it cureth can- I
kerous ſores. Alſo being applied in forme of a ſoft vnguent to the ſplene, it cureth the infirmities thereof: but if they be little infants that are troubled therewith, there muſt be honey alſo put thereto, and then is it excellent good. *Sextius* addeth moreouer and ſaith, that a perfume thereof burnt driueth away ſerpents, & reſiſteth the poiſon of ſcorpions: as alſo that being bruſed and applied with Senvie, it is a ſingular remedie for the head-ache, and to make haire grow againe where it was fallen off: alſo, being ſtamped into a cataplaſme with a fig, and laid to the eares, it cureth the hardneſſe of hearing. Likewiſe, if the juice therof be infuſed or poured into the eares, it eaſeth the tooth-ach. Moreouer, a liniment made with it and gooſe-greaſe, ſcoures away the skales and dandruf, as alſo the ſcalls of the head. A cataplaſme made of it and leuain, ripeneth fellons, bringeth carbuncles to ſuppuration, and breaketh them. With hony it mun- K
difieth filthy corroſiue and cankerous vlcers that eat deepe into the fleſh. A liniment thereof with barly grots and vineger is good for the Sciatica and the pains of the loins: in like manner it cureth ring-worms and tettars: it mundifieth the roughneſſe about the nailes, for it is of a cauſtick nature. The beſt Creſſes are the Babylonian, and yet the wild are more effectuall than it in caſes aboue named.

* *Xpondere.*

But Rue is an herb as medicinable as the beſt. That of the garden hath a broader leafe, and brancheth more than the wilde, which is more hot, vehement, and rigorous in all operations. There is a iuice vſually preſſed out of it, being firſt ſtamped and ſprinkled a little with water in the ſtamping, and then put vp into a box of copper or braſſe, and there reſerued for to be vſed as occaſion ſerueth: this iuyce taken in a great quantity is a very poiſon and no better, eſpecially L
that which is drawne out of the Rue which groweth in Macedony about the riuer Aliacmon. But wil you heare a ſtrange and wonderful thing? the iuyce of Hemlock killeth this venimous qualitie of it. See how one poiſon is a countre-poiſon to another, inſomuch as if they annoint their hands with the iuice of hemlock, who are to gather Rue, they ſhall not be invenimed therwith. And yet as venomous otherwiſe as Rue is, it goeth into the compoſition of thoſe Antidotes which are giuen againſt poiſon, eſpecially that Rue of Galatia. And to ſpeak in general, there are none of theſe Rues, but the leaues both bruiſed alone and alſo taken in wine, ſerue for preſeruatiues: and principally againſt the herb Aconite or Libard-bane, and the viſcous gum of the herbe Chamæleon, which they call Ixias: likewiſe againſt deadly and venomous Muſhromes taken at the mouth, whether it be by way of meat or drinke. In like maner it is ſingular M
good againſt the ſtinging of Serpents: for the very Weaſels when they prepare themſelues to combat with them, vſe to eat this hearbe before-hand for to be ſecured from their venome. Auaileable it is alſo againſt the pricks of Scorpions and Hardi-ſhrewes, againſt the ſtings of Bees, hornets, and waſps, againſt the poiſon of the Cantharides and Salamanders, yea and the

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Plinius

A biting of a mad dogge; if it be vſed in this wiſe, namely, to take a ſaucer full or acetable of the juice and ſo drink it with wine: alſo to ſtampe or champ in the mouth the leaues thereof, and ſo lay them vpon the grieued place with honey and ſalt; or elſe to ſeeth them with vinegre and pitch. Folke ſay moreouer, that whoſoeuer is wel rubbed with the juice of Rue, or otherwiſe do but cary it about him, ſhal be ſure ynough for being either pricked, ſtung, or bitten with any of thoſe hurtfull and venomous creatures abouenamed: furthermore, that Serpents naturally doe flie from the ſmoke or fume of Rue when it burnes, and will not come neer vnto it: but the moſt ſoueraigne of all other, and ſureſt in operation is the root of the wild Rue, if it be drunke with wine. And the common ſpeech goeth of it, that the greater and ſpeedier effect will be ſeene, in caſe forſooth one drinke it without the houſe, in the open aire abroad. *Pythagoras* was of opini-
B nion, That there is a diſtinction of ſexe in this hearbe, and namely, that the male hath ſmaller leaues, and thoſe of a more darke and graſſe green color than the female, whoſe leaues are both fuller and better fed, and alſo of a more pleaſant and gaier hew. He was perſuaded alſo that Rue is hurtfull to the eies, but therein he was deceiued. For well it is known, that engrauers, caruers and painters, doe ordinarily eat Rue alone for to preſerue their eye-ſight, they take it alſo with bread or Creſſes, without any regard whether it be the wild or the gentle Rue of the garden: by report alſo, many haue vſed an inunction thereof to their eies, with the beſt honey of Athens, and therby cleared them quite of that muddines and miſt which dimmed their ſight, or elſe in ſtead of honey they haue taken breaſt-milke of a woman that lately bare a maiden-child: or no more but with the very pure juice of rue and nothing els they haue gently touched the corners
C of the eies: others haue cured the waterie humor that hath taken a running thither, onely by applying the juice of Rue together with Barley groats. If a man drink Rue with his wine, he ſhall find eaſe of his head-ach: or if he doe but annoint his temples and forehead therewith, beeing incorporat with vinegre and oile of Roſes into the forme of a liniment. But if it be an old and inueterat pain of the head, then would there a frontale be made of the ſaid juice, tempred with Barly floure and vinegre. Rue hath this vertue, to diſcuſſe and reſolue all crudities and ventoſities proceeding thereof, yea, and cureth the ſettled old paines of the ſtomack. It is of power to diſopilate or open the matrice: to ſettle the Mother into the right place when it is looſe & out of frame, in caſe a liniment be made thereof, and laid al ouer the region both of the womb and the breaſt. If Rue be eaten with figs, or ſodden to the conſumption of the one half-deale, & the
D decoction therof taken in wine, it is good for the dropſie. And in that maner they vſe to drink it for the paines of the breaſt, ſides, and loines: for coughs alſo and ſhortneſſe of breath and generally for all griefes and maladies incident to the lights, liuer, and kidneies: and laſt of all, for the ſhaking cold fits in an intermittent ague. Is a man diſpoſed to drink freely, and to ſit ſquare at it? let him before he beginne take a draught of the decoction of Rue leaues, he ſhal bear his drinke well, and withſtand the fumes that might trouble and intoxicat his brains. In one word, vſed ordinarily at meat, either raw, ſodden, or preſerued and condite any way, it is ſingular good for the purpoſes aforeſaid. Boiled with Hyſſope and taken in wine, it is ſingular for to aſſwage the torments of the belly: and being ſo prepared, it reſtraineth the flux of bloud within the bodie: like as it ſtancheth bleeding at the noſe, if it be ſtamped and put vp into the noſethrils: and
E otherwiſe a collution therof to waſh the mouth withall, doth much good to the teeth. Semblably, the juice diſtilled into the ears, allaies their pain; prouided alwaies (as I haue often ſaid alreadie) that a mean and meaſure be kept. As for the juice of the wild Rue, if it be tempered either with oile of roſes or of baies; or els mingled with Cumin & Honie, it helpeth thoſe that are hard of hearing, & diſcuſſeth the ringing ſound in the ears. Moreouer, the juice of rue ſtamped and drawne with vinegre, is excellent good to be inſtilled or let drop from on high by way of Embrochation vpon the region of the brain and temples of the head, for the phrenſie. Some put thereto wild running Thime alſo and baies; therewith annointing the head and neck of the patient. Others haue preſcribed it in caſe of Lethargie to thoſe that can do no other but ſleepe continually, for to ſmel vnto. And thoſe haue giuen counſel alſo to them that be ſubject to the
F falling ſickneſſe, for to drinke the juice thereof ſodden in foure Cyaths of water, before the fit came on them; for to preuent and auoid the intollerable cold which they ſhould endure: as alſo to thoſe that be apt to * chill for cold, to be eaten with meat, raw. Rue ſends out euen the bloudie vrine, which is gathered into the blader. And as *Hippocrates* is of opinion, If it be drunk with ſweet thicke, and groſſe wine, it cauſeth womens floures to come downe, it expelleth the after-
birth,

* *Alſioſis.* Some read *Alphioſis.* [out of *Dioſcorid.*] that is, to them that are ſubject to the white Morphew, which is a kind of Leproſie, or S. *Magnus* euil.

birth, yea, and the dead infant within the womb. And therefore he aduiſeth women in trauel to G
haue thoſe naturall parts annointed with Rue, yea, & to ſit ouer a ſuffumigation made therof.
Diocles maketh a cataplaſm with Rue, Vinegre, Hony, & Barly floure, for faintings, cold ſweats,
and tremblings of the heart. Likewiſe, againſt the torments of the ſmal guts, commonly called
the * Iliak paſſion, he appointeth to take the decoction thereof in Oile, and to receiue the ſame
in lockes of wooll, and ſo to be applied vnto the vpper region of the belly. Many doe ſet downe
two drams thereof drie, and one dram and a halfe of Brimſtone, as an excellent receit to bee ta-
ken by thoſe that reach and ſpit vp filthy and ſtinking matter: but if they caſt or ſend vp bloud,
they ſhould drinke the decoction of three branches thereof in wine. It is an ordinarie practiſe
in caſe of the Dyſenterie or bloudie Flix, to giue it ſtamped firſt with cheeſe, in wine: but they
mingle therewith Bitumen, and ſo crum or break it into their drink, againſt the difficulty of ta- H
king wind. Alſo three drams of the ſeed therof is giuen in drinke to thoſe that are fallen from a
loft, for to diſſolue the bruiſed and cluttered bloud within them. *Item*, Take one ponnd or pint
of oile, of wine one ſextar or wine quart, ſeeth the leaues of Rue herin: that oile ſo prepared, is
ſingular good for to annoint parts which are benummed, and in manner mortified and blacke
with cold. Moreouer, conſidering that it is diuretical, as *Hippocrates* thinketh, and doth prouoke
vrine; I canot but wonder at ſome, who giue it as a thing that ſtaieth vrin, & therefore appoint
it to be drunke by thoſe that cannot hold their water. The inunction thereof with Allum and
Hony, cleanſeth the dry wild ſcab & leproſy. Likewiſe with Morel or Nightſhade, hogs greaſe
and Bulls tallow, it ſcoureth the Morphew, taketh away werts, diſcuſſeth and diſpatcheth the
Kings euil and ſuch like tumors. In like manner it killeth the fretting hot humor called S. *An-* I
thonies fire, being applied to the place with vinegre, Honny, or Ceruſſe, *i.* white Lead: like as it
cureth the Carbuncle laid too, with vinegre alone. Some there be who preſcribe Laſerpitium
alſo to be joined with the reſt in this liniment: but without it they cure the chilblanes & bloud-
dy fals that be ſo angry in the night ſeaſon. Many vſe to boile Rue, & together with wax, reduce
it into a Cerot; which they apply to the ſwollen breaſts or paps of women, as alſo to the brea-
king out of phlegmatick puſtules or wheales (much like to our meaſels or ſmall pockes. Alſo
being reduced into an vnguent with the tender ſprigs or tops of Laurell, it is a ſingular remedy
for the flux or fall of humors into the burſe of the cods. And verily this Rue is counted ſo ex-
cellent an hearbe in operation this waies, and ſo reſpectiue peculiarly to thoſe parts, that it is
commonly holden for a ſoueraign remedie to heale all ruptures, if a man take the wild of that K
kind and make a liniment of it and old Swines greaſe together. Likewiſe, if any bones or lims
be broken, a Cerot made with the ſeed of Rue and wax together, is able to ſouder the fracture.
The root of Rue being reduced into a liniment, cureth bloudſhotten eies, and reſtoreth to the
natiue colour all skarres or ſpots that giue blemiſh to any part of the bodie. Among the other
properties that be reported of Rue, this is one to be wondred at, conſidering how hot it is of na-
ture (as all Phyſicians doe agree) That a bunch thereof beeing boiled in oile Roſate, and with
one ounce of Aloe brought into the forme of an ointment, ſhould repreſſe their ſiuet, who are
annointed therewith. As alſo, that ordinare vſe thereof at meat ſhould diſable folke as wel in
the act of generation, as conception: In which regard it is preſcribed vnto them that ſhed their
ſeed: and vnto ſuch as vſe to dreame in their ſleepe of amatorious matters and the delights of L
Venus. But women with child muſt beware how they eat Rue: they eſpecially muſt forbear this
hearbe: for I find that it killeth the yong child conceiued within their bodies. Thus much for
the effects that it worketh in men and women. Ouer and beſides al which, there is not an hearb
growing in the garden that is ſo much vſed for the curing of 4 footed beaſts, whether they be
broken winded and purſiue, or otherwiſe bitten & ſtung with venomous beaſts; in which caſes,
there muſt be an injection made vp into the noſthrils, of the iuice of Rue in wine. Alſo, if it
chance that a beaſt hath ſwallowed an Horſeleech in drinking, let it be taken with vinegre. Fi-
nally, in euery accident of theirs, let Rue be prepared and miniſtred reſpectiuely vnto each
griefe, according to the manner ſet downe for men in the ſemblable caſe.

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Chap. XIIII.

¶ *Of wild Mint: of garden Mint: of Penyroiall: of Nep, and Cumin.*

WIld Mint is called in Latin Mentaſtrum: it differeth from the other in the form of the
leaues: * for ſhaped it is like Baſil, how ſoeuer in color it reſembles Penniroyal, which
is

* or, *Domine miſerere mei*, *i.* Lord haue mercie vpon me.

* All this agreeth to our Calamint: according to *Dioſcorides*.

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Plinius

A is the cauſe, that ſome name it the ſauage Penyroiall. In the time of *Pompey* the Great, it was knowne by experience, that the leaues of wild Mint chewed and applied outwardly, cured the Leproſie: by occaſion, that a certaine leper minding to diſguiſe himſelfe, that hee might not for very ſhame be knowne, chaunced to annoint and beſmear his face all ouer with the juice of wild Mints. But fortune was better miſtreſſe vnto him than he expected, for beyond his expectation or intent, his good hap was to be rid of his Leproſie by that meanes. The ſame leaues ſerue for a liniment againſt the venome of Scolopendres, and the ſting of Serpents: ſo doe they alſo, if one drinke two drams of the leaues in two Cyaths of wine. Alſo, for to cure the prickes of Scorpions, they be vſed with ſalt, oile, and vinegre. But againſt Scolopendres, commonly they drink the juice or broth of the decoction. Moreouer, the wiſer ſort of people ſaue the drie leaues of wild Mints to be reduced into a pouder, as a very coun trepoiſon againſt all venome
B whatſoeuer. For being ſtrewed in the houſe, or burnt, the very air & perfume therof chaſeth away Scorpions. A drink made therewith purgeth & putrifieth women paſſing wel, ſuch I mean as be newly deliuered of childbirth: but it killeth the fruit within the womb of as many as vſe it while they go with child. There is not a medicine in the world ſo effectuall as it is for thoſe who are ſo ſtreight winded, that they cannot take their breath vnleſſe they ſit vpright: for ſuch alſo as in the cholericke paſſion, neuer giue ouer caſting vpward and purging downward. It appeaſeth alſo the paine of the loines, and eaſeth the gout, if it be applied to the place affected. The juice thereof is good to be dropped into eares that haue worms within them. It is vſually taken in drinke for the Iauniſe. A liniment made thereof, helpeth the kings euill; beſides, it is a ſingular remedie for them that by a ſtrong imagination of *Venus* in their dreames, defile and
C pollute themſelues in their ſleep. If one drinke it with vinegre, it excludeth the flat broad in the bellie. To ſcoure away the founled and ruffe, an Embrochation of it ad vinegre vpo the head in the Sun is counted ſingular.

As touching garden Mint, as the very ſmell of it alone recouereth and refreſheth the ſpirits: ſo the taſt ſtirreth vp the appetite to meat, which is the cauſe, that it is ſo ordinary in our ſharp ſauces wherein we vſe to dip our meats. Being put into milk, it wil not ſuffer it to turn or four, it keeps it from quailing and curding which is the reaſon, that they who vſe ordinarily to drink milk, take Mints therewith, for fear it ſhould coagulate or crudle in their ſtomack, & put them in daunger of ſuffocation. Some, for the ſame effect vſe to giue it in water or honied wine: and ſurely it is thought by that very propertie to hinder generation, in that it diſſolueth the due
D conſiſtence and thickneſſe which is required in naturall ſeed. And yet it is a great ſtancher of bloud indifferently in men and women: but more particularly it ſtaieth the immoderat flux of whites that many times followes women. Being taken with Amydum or ſtarch pouder in water, it reſtrains the inordinate flux occaſioned by the imbecility of the ſtomacke. *Syriation* the Phyſician vſed ordinarily to cure the apoſtumes and ſores of the Matrice, with Mint. Alſo againſt the obſtructions & other accidents of the liuer, he was wont to giue 3 Oboles thereof in honied wine. And for them that raught vp bloud at the mouth, he preſcribeth to take Mints in a broth or ſupping. The skal that little children be troubled withal, it healeth wonderful well. It is ſingular to drie vp the humors that mollifie the griſtly windpipe & the other inſtruments of the breath and voice; and when they are drie, knitteth and ſtrengthneth them. Taken in wa-
E ter and honied wine, it clenſeth the corrupt and putrified phlegmatick humors which be offenſiue to the throat and thoſe parts. The juice of Mint is excellent for to ſcour the pipes & cleer the voice, being drunk a little before that a man is to ſtrain himſelfe either in the quier, or vpon the ſtage, or at the bar; and not otherwiſe. A gargariſm of milk, wherein hath bin Rue & Coriander, beſides mints, is paſſing good to bring down the ſwelling of the vula. Being vſed in that manner with ſome Allum, it reſtraineth the mumps or inflamation of the Amygdales: & with Hony it cureth the roughnes & furring of the tongue. Being vſed alone without any other addition, it is a proper medicin for inward convulſions, as alſo for the diſeaſe of the lungs. *Democritus* ſaith, that to drink it with the juice of a Pomegranat, is a readie means to ſtay the yex &
F vomiting. The juice of greene Mints, drawne vp with the wind into the noſthrils, helpeth the ſtinking vlcers there. The hearbe it ſelfe ſtamped, repreſſeth the rage of choler that purgeth both waies vnceſſantly, but it muſt be drunk with vinegre. And in that maner it reſtrains all internal fluxions of bloud. But applied outwardly with Barly grots to the grieued place, it eaſeth the intollerable paine of the Iliak paſſion: after the ſame ſort if it be ſpread and emplaſtered, it allaieth

allaieth the ſwelling of womens breaſts. In caſe of head-ach, a liniment thereof doth well to be G
applied to the temples. Inwardly it is taken with very good effect againſt the venimous Scolopendres, the ſea Scorpions, and other ſerpents. A liniment thereof ſtaieth the wateriſh humors that haue taken a courſe to the eies, cures the skalls and breakings out of the head, and all accidents offenſiue to the tiwill or fundament. If one doe hold Mints in his hand, he ſhall not need to feare either chafing or galling in any part, vpon trauell. Beeing dropped into the eares with honied wine, it is very comfortable to that part. It is ſaid moreouer, that if a man come into a garden where Mints groweth, and bite the leaues vpon the very plant, without pluking or cropping it off, and continue this courſe 9 daies together, iterating euermore theſe words [*I doe this to cure the ſplene*] he ſhal find remedy indeed for the infirmity of that part: moreouer, let one take
as much poudred mints dried as he can wel contain with his 3 fingers ends, and drink the ſame H
with water, it will cure the head-ach or grieuous paine of the ſtomack. Likewiſe if his drink be ſpiced with the ſaid pouder, it will driue out of the belly the wormes there engendred.

The branches of Mint and penniroiall both, are vſually put into glaſſe viols with vinegre, for to be iuſuſed therein: and a man would not thinke how good this vinegre is for faintings of the heart; ſo great is the ſocietie that theſe two hearbs haue one with the other in this behalfe. For which cauſe, I remember on a time when diuers learned phyſicians were met together to confer in my chamber, they reſolued and concluded definitly, That a chaplet of Penniroyal was without compariſon far better for the giddineſſe and ſwimming of the head, than one of roſes, for a garland of Pennyroiall, if it be worne onely vpon the head, allaieth (by report) the ach thereof. More than it, it is ſaid, That the very ſent of Pennyroiall preſerueth the brain from the offence
that may come by the diſtemperature either of heat or cold, yea and from the inconuenience I
of thirſtineſſe, inſomuch as whoſoeuer haue two branches or ſprigs of Pennyroiall put into his ears, ſhall feele no acceſſiue heat though they continued in the Sun all the day long. Peniroiall being applied in form of a liniment, together with Barly groats and vinegre, aſſuageth all grieuous paines watſoeuer. Howbeit, the female of this kind is thought to be of greater operation euery way, than the male. Now hath this female a purple floure, that you may know it thereby from the other, for that of the male is white. The female Penyroiall taken in a maſh made with ſalt and barley groats in cold water, ſtaieth a keckliſh ſtomack, and keepeth it from the inordinat deſire and many offers to caſt. In the ſame manner alſo it eaſeth the paine of the breaſt and belly. Likewiſe the gnawings of the ſtomack it ceaſeth, being taken in water; as alſo immoderat vomits it repreſſeth, with vinegre and barley groats. Being ſodden in hony with a little nitre K
among, it cureth the maladies of the guts. If one drinke it with wine, it cauſeth abundance of vrine: and if the ſaid wine be made of the Amminean grapes, it expelleth the ſtone and grauell, yea and all things els which may engender inward pains. If it be taken with honey and vinegre, it prouoketh womens termes, and quieteth them when they lie gnawing and fretting inwardly, yea and ſendeth forth the after-burden. The ſame ſetleth the mother and reduceth it into the right place. It expelleth alſo the dead child within the mothers body. The ſeed of Peniroial if it be ſmelled vnto, is ſingular good to recouer their tongue againe who be ſpeechleſſe: for the falling ſickneſſe alſo, it is giuen in a cyath of vinegre. If it fortune that one muſt drink vnholeſome waters, the ſeed thereof reduced into pouder and ſtrewed therupon, correcteth all the ma-
lice thereof. If the ſame be taken in wine, it ſlaketh the itch in the bodie proceeding of hot and L
ſalt humors. The ſeed of Pennyroiall, mingled with ſalt, vinegre, and honey, if it be wel rubbed into the bodie, comforteth the ſinewes in caſe of cramps and conuulſions: and particularly helpeth thoſe who with a crieke are forced to carrie their necke much backeward. The decoction therof is a ſoueraigne drinke againſt the ſting of Serpents; and particularly of Scorpions, if it be bruiſed and taken with wine: eſpecially that which groweth in drie places. Moreouer, Penyroiall is held to be very ſoueraigne for the cankers or vlcers in the mouth, and as effectuall to ſtay the cough. The floures of Penyroial that be freſh and new gathered, if they be burnt make a ſingular perfume to kill fleas. Among many good receits that *Xenocrates* hath left vnto vs, we
find this for one, namely, That a branch of Pennyroiall wrapped within wooll, and giuen to the M
patient for to ſmell vnto before the fit come of a tertian ague, driueth it away: as alſo if it be put vnder the couerlet of the bed, and the Patient laid vpon it, it doth no leſſe. For theſe purpoſes abouenamed, the wild Penyroiall is of moſt efficacie: This hearbe reſembleth Origan, and hath ſmaller leaues than the Penyroiall of the Garden: ſome giue it the name of Dictamnus. If it

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A chance that either ſheepe or goats do taſt thereof, it prouoketh them preſently to blea: wher-
upon certain authors, changing one letter for another in Greeke, call it * βλήχωνα. This herb is ſo
hot and ardent, that if any part of the body be rubbed or annointed therewith, it will riſe into a
bliſter. If one haue taken a through-cold, and thereby gotten a cough, Phyſitians haue preſcri-
bed to vſe frictions therewith before the Patient go into the bain for to ſweat. Alſo their dire-
ction is to do the like before the cold fits of agues: as alſo in caſe of the crampe and torments
of the guts. Wonderfull good it is in all kinds of gout. If it be taken in drinke with honey and
ſalt, it is ſingular for thoſe who be diſeaſed in the liuer, as alſo for the lights: for it opens their
pipes, and diſchargeth them of the flegme that ſtuffed them, ſo as they may reach vp and voyd
the ſame with eaſe. The decoction thereof with ſome ſalt is excellent good for the ſplene and
B the bladder, yea and for all ventoſities and ſhortneſſe of breath. Semblably, the iuice prepared
and dreſſed in maner aforeſaid, bringeth the mother into the naturall place; and ſerueth as a
countre-poiſon againſt the Scolopendre both of the ſea and the land: as alſo for the pricke of
the ſcorpion, & eſpecially againſt the biting of man or woman. The root thereof being applied
freſh and green, is maruellous good to repreſſe rank vlcers, & to conſume the proud fleſh about
them. The ſame being dry and ſo applied, reduceth skars to their freſh colour and beautie of
the faire and whole skin. Thus much of Penyroyall of the garden and the field.

Great conformitie there is in operation between Peny-royal and * Nep; for being both boi-
led in water vnto the compoſition of a third part, they diſcuſſe and ſhake off the cold in Ague
fits which cauſeth the Patient to ſhake; and beſides are of validitie to bring downe womens
C monethly ſickneſſe. In ſummer time they aſſwage the extremitie of heat. Nep alſo is powerfull
againſt ſerpents, for the ſmoke and perfume of this herbe they canot abide, but will fly from it:
which is the cauſe that ſuch as be afraid of ſerpents, ſtrew Nep vnder them in the place where
they mean to repoſe and ſleepe. Being bruiſed and applied to the running fiſtulous vlcers be-
tween the noſe and the greater corner of the eye, it is counted a ſoueraign remedie. Alſo being
freſh gathered, and mixed with a third part of bread, and ſo temperat and incorporat with vine-
gre to the form of a liniment, it cureth the head-ach. The juice thereof being inſtilled into the
noſthrils whiles the Patient lieth vpon his back, ſtancheth bleeding at the noſe. The root alſo,
together with Myrtle ſeed, in warm wine cuit, and ſo gargariſed, helpeth the Squinancie. As
touching wild Cumin, it is an herb exceeding ſmall, putting forth foure or fiue leaues, and not
D aboue, and thoſe indented like a ſaw: but the garden Cumin is of ſingular vſe in phyſicke, but
principally for the pain in the ſtomack. It diſpatcheth the groſſe vapors ariſing from flegme; it
diſſolueth alſo ventoſities, if it be either bruiſed and eaten with bread, or drunk with water and
wine; in which ſort it aſſwageth the wringing torments and other pains of the guts: howbeit it
maketh folke look pale, as many as drink of it. Certes by that deuiſe, namely by ordinary drin-
king of Cumin (as it is reported) the ſchollers and followers of *Porcius Latro* (that famous and
great Rhetorician) procured themſelues pale faces, becauſe they would look like their maſter,
who indeed came to that colour by continuall ſtudy and plying his booke. Thus likewiſe not
long ſince, *Iulius Vindex*, being deſirous to be affranchiſed by *Nero*, pretending by his pale viſage
and poore look, that he had not many daies to liue, made faire ſemblance vnto *Nero* by his will
E and teſtament, that he ſhould ſhortly be his heire (which cheat the ſaid *Nero* gaped after;) and
ſo by that means *Vindex* entred ſo far within him, as hee obtained whatſoeuer he would at his
hands. Cumin reduced into the form of trochiſks or * noſe-tents, put vp into the noſthrils, ſtan-
cheth bloud. The like effect it hath, being freſh gathered and applied with vinegre. Being layd
it ſelfe alone to watering and weeping eies, it reſtraineth that humour: and in caſe the cods be
bolne or ſwelled, it is good to mix honey withall in manner of an emplaſtre. But it ſufficeth to
make a cataplaſme thereof and lay it to the belly alone, of little babes and infants ſo troubled.
Finally, to cure the jauniſe it is ſingular, giuen in white wine when the Patient hath ſweat, and
is come out of the Baine.

* or Calamintha.

* called *Errhina* or *Naſcalia*.

Chap. XV.

F ¶ * *Of Cumin Ethyopick, which reſtraineth the flix of vrine: of Capres: of Lovach or Panax: and of a kind of Marjerom named Cunila-bubula.*

* It ſeemeth that this Title is corrupt.

BVt for the purpoſe aforeſaid, namely to cure the jauniſe, the Ethyopian Cumin is the beſt,
being taken after a bath with vinegre and water: alſo licked in maner of a Loch with hony.

As for the Cumin of Africk, it is thought to haue a ſingular proprietie by it ſelfe for to helpe G
thoſe who canot contain and hold their vrin. The garden Cumin, if it be parched drie, brought
into pouder, and giuen in vinegre, helpeth the defects and infirmities of the liuer: alſo it cureth
the dizzineſſe of the head. But in caſe the acrimonie or ſharpneſſe of the vrin be ſuch, as that it
* *Indulci*: hee meaneth *paſſum*. fret and moue ſmart in the paſſage, the pouder hereof would be tempered in ſweet wine * cuit.
For the impediments of the matrice it ought to be drunk in pure wine of the grape, and withal
there muſt be applied to the place offended, a cataplaſm of the leaues vpon a lock of wool. Dri-
ed againſt the fire, bruiſed and beaten into pouder, and ſo incorporat with oile of roſes & wax,
and wrought in the end to the form of a Cerot, and then applied, it abateth the ſwelling of the
cods. But the wild Cumin is more effectuall in all the caſes aboue mentioned, than that of the
garden. Ouer and beſides, it hath a ſpeciall vertue together with oile, againſt ſerpents, ſcorpi- H
ons, and Scolopendres. Take as much of Cumin ſeed as you may comprehend within three fin-
gers, drink it in wine, it wil ſtay immoderat vomit, yea and the ſick heauing of the ſtomacke, as
if it would caſt and canot. A drinke made therewith is giuen alſo for the colique: and to that
purpoſe a liniment thereof is very commendable, or if it be applied hot in quilted bags, ſo that
the ſame be kept ſwadled down vnto the region of the gut Colon. For a woman that is giuen
to the riſing and ſuffocation of the mother, let her drink it in wine after this proportion, Three
drams of Cumin to three cyaths of wine, ſhe ſhall find that it will reſolue thoſe vapors and fu-
moſities which cauſed the foreſaid maladie. With calues tallow or ſewet, or with honey, if it
be let drop into the eares, it cureth the ſounding and tingling therein. Being applied as a lini-
ment, with hony, raiſons, and vinegre, it reſolueth the blacke and blew markes remaining after I
ſtripes. Alſo with vinegre alone it cureth the black ſpots and ſpeckles appearing in any part of
the body, if the place be bathed therewith.

An herb there is reſembling Cumin for all the world, which the Greeks cal Ammi: although
ſome there are who thinke it to be all one with the Cumin of Ethyopia. *Hippocrates* calleth it,
the roial Cumin [of Egypt;] the reaſon was, no doubt, for that he deemed that of Egypt to ex-
ceed all the reſt in goodnes. But moſt writers beſides him do think it * an herb altogether of a-
Ruellius takes it for Baſill gentle. nother nature, becauſe it is ſmaller and whiter: and yet it ſerueth to the like vſe: for at Alexan-
dria in Egypt they put it commonly vnder their loaues of bread in the bottom cruſt, when they
go to the ouen, and ordinarily it is occupied in the kitchen about ſauces. Be it what it will, it
diſſolueth ventoſities, it pacifieth the wringing torment of the guts, it prouokes vrin, and brin- K
geth down womens moneths. Being taken in wine, together with Lineſeed, to the quantitie of
two drams, it cureth the venomous ſtings of ſcorpions: but put thereto an equall quantitie of
myrrh, it hath a ſingular vertue againſt the horned ſerpent Ceraſtes. And, like to the other Cu-
min before named, it altereth the colour of as many as drink of it, and makes them looke pale.
A ſuffumigation made thereof, with raiſons and roſin, mundifieth the matrice & natural parts
of women. Finally, it is commonly ſaid, That if a woman ſmell thereto in the very act of gene-
ration, ſhe ſhal conceiue the rather by that means.

As for Capres, we haue ſufficiently written thereof amongſt other ſhrubs that be ſtrangers:
and yet it wil not be amiſſe to reiterat thus much, That a man muſt be well aduiſed how he ta-
keth any outlandiſh Capres that come from beyond-ſea: but if he wil go ſafely to work, let him L
hardly keep him to thoſe of Italy, for they are leſſe harmeleſſe than the other: for if all be true
that is commonly reported, whoſoeuer daily eat Capres, ſhall not be in danger either of palſie
or pain of ſplene. The root of capres is ſingular good to take away the white ſpotted morphue
(couſin german to the leproſie) in caſe it be ſtamped, and the place affected rubbed therewith.
Take the rind of the root, the quantitie of two drams, and drink it in wine, it helpeth, the ſwel-
led ſplene; prouided alwaies, that the Patient forbeare the vſe of bains and hot houſes: for, by
report, this courſe continued 35 daies, will cauſe the ſaid ſplene to purge away, partly by vrine,
and partly by ſeege. The ſame if it be taken in drink allaieth pain in the loins, & cureth the pal-
ſie. The ſeed of Capres ſodden in vinegre, bruiſed & applied to the teeth, or otherwiſe the root
thereof chewed only, aſſwageth the tooth-ach. A decoction of Capres in oile inſtilled into the M
ears, mitigateth their pains. The leaues and the root newly gathered, and ſo applied as a Cata-
plaſme with hony, healeth the corroſiue vlcers that eat to the very bone. Likewiſe the root re-
ſolues all thoſe glandulous ſwellings which we name the Kings euil: and if the ſame be ſodden
in water, it diſcuſſeth the tumors behind the ears, and riddeth away the worms breeding within.

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A It cureth alſo the infirmities of the liuer. The manner is to giue the ſame in vinegre and honey for to chaſe away the vermin engendred within the guts. Boiled in vinegre, it is ſingular for the cankers or exulcerations within the mouth: howbeit, all authors doe accord, that they bee not good for the ſtomacke.

Touching Louage, which ſome call Panax, i: is * holeſome for the ſtomack. Likewiſe a proper medicine it is for convulſions and ventoſities. To conclude, there are ſome who name it Cunila Bubula, as I haue before noted, but they be deceiued. * *Vtile: nam concoctionem iuuat. Ex Dioſcor.*

CHAP. XVI.

B ¶ *Of the wilde Origan Cunila Bubula: of the Baſtard Marjoram, named Gallinacea Cunila, or Heracleoticum Origanum: of the tender Cunilago: of Roſemarie: of Garden Sauorie or Cunila, and that of the mountaines.*

OVer and beſides the garden Sauorie, there be many kinds of Cunila known in Phyſicke: and firſt that which is called Bubula, and hath ſeed like to Peniroiall, being either chewed in the mouth or applied outwardly, it is a good wound-hearb, ſo that it be not remooued but euery fiue daies. Taken in wine, it is ſingular againſt the poiſonous ſting of ſerpents, in caſe the hearbe it ſelfe be ſtamped, and laid withall vpon the ſore place: and verily it is an ordinarie thing, to rub therewith well and throughly, the wounds that they make. Semblably, the C Tortoiſes, againſt the time that they ſhould fight with Serpents, vſe this hearbe in manner of a defenſatiue, & take themſelues wel armed againſt their enemie: which is the reaſon, that ſome giue it the name of Panax. Being dried, it aſſuageth the pain of tumors, and cures the accidents that befall to the priuie members of men: or if the leaues be but ſtamped, they haue the like effect. And in one word, the operation thereof is excellent and wonderfull, if it be vſed in wine.

Another Cunila or Sauorie there is, which our countreymen call in Latine Gallinacea; the Greekes name it Origanum Heracleoticum. If it be braied and ſalt joined thereto, it is ſoueraigne for the eyes: it helpeth the cough alſo, and correcteth all faults of the liuer. If a thicke grewell or ſew be made thereof, together with floure, oile, and vinegre, ſo tempered as it may be ſupped, it cureth the pleuriſie or paines of the ſides: but aboue all, it is ſingular for the ſtinging of Serpents.

D A third kind there is, which the Greeks tearme the male, but we in Latin * Cunilago: a ſtinking ſmell it hath with it, a woodie hard root and a rough leafe: but it is generally ſaid, that the operations thereof be more effectuall, than of any other kind. It is verily thought, that if a man caſt an handfull thereof from him into any part of the houſe, al the moths and ſuch like vermin will gather about it. But to come to particulars, It hath a ſingular power againſt Scorpions if it be taken with water vinegre. Alſo if a man or woman take 3 leaues thereof, and rub his bodie thoroughly with it and oile together, there is not a Serpent ſo hardie as dare approch neare ſuch a bodie ſo perfumed. Contrariwiſe the Cunila, which is named Mollis, [*id eſt*, Soft] hath leaues and branches more hairie than the former, and thoſe ſharpe pointed like prickes. This hearbe if a man rub betweene his fingers, reſembleth honey in ſmell, and will ſticke faſt too in manner of honny. Another ſort there is of Cunila, which we, for the ſmell that it hath of Frankincenſe, call Libanotis. But both theſe, the one as well as the other, taken in wine or vinegre, cureth the biting and ſting of Serpents. If they be bruiſed or ſtamped into pouder, and ſo put into water, they kill all the fleas in the place where the ſaid water is caſt or ſpinckled. As for the garden Sauorie, it alſo hath many good properties: The juice thereof with oyle of roſes diſtilled into the eares, is very comfortable vnto them. The hearb it ſelfe taken in drink, helpeth thoſe who are ſtung with venomous Serpents. This Sauorie oftentimes doth degenerat into a baſtard kind, named Mountain Sauory. Like it is to wild running Thyme, and is effectuall alſo againſt the poyſon of ſerpents. It prouoketh vrin, and purgeth women newly deliuered, if haply they haue not ſufficient voidance. Singular it is for to help digeſtion, and ſtirreth vp appetit to meat wonderfully. In ſumme, as well the gentle Sauorie as the wild, is paſſing wholeſome for F crudities in the ſtomacke, if one ſpice his morning draught therewith faſting. It is vſed alſo to very good purpoſe in diſlocations and members out of joynt: with barley meale, water, and vigre, it is excellent for the ſtinging of waſpes, and ſuch like pricks. As touching the other kinds of Libanotis or Roſemarie, write I will more fully in due place. * Flea-bane.

G

Chap. XVII.

¶ *Of Piperitis and Origanum: of Onitis-Prasium: of Tragoriganum, and Heraclium: of Lepidium and Githor Melanthium: of Annise.*

* Ginney pepper.

PIperitis or Calecut Pepper-wort (which before we called * Siliquastrum) beeing taken in drinke, is very good for the falling sickenesse. *Castor* hath described it after another manner, namely, to be an herb rising vp with a long red stem, thicke set with joynts or little knees; bearing leaues resembling those of Lawrel; with white seed and the same smal, carying with it the tast of Pepper. The vertues of which hearb be these; To help the gumbs and teeth, to make a sweet breath, and withstand soure and stinking belches.

H

Cunila.

Origan or Orgament, which in tast (as we haue said) resembleth * Sauery, hath many kinds, & all medicinable, for there is one one sort therof sirnamed Onitis or Prasion, not vnlike to hyssope: a peculiar propertie this hearb hath being drunke in warme water, to quiet the gnawings in the stomacke, and to concoct the crudities there: but taken in white wine, to cure the venomous pricks of Spiders and Scorpions. The same applied outwardly with oile and vinegre vpon wooll, is singular good for dislocations, disjointures, spraines, contutions, and bruises.

As for Tragoriganum, it is more like vnto wild creeping Thyme: it hath vertue to prouoke vrin, to discusse and resolue all tumors or swellings. And more particularly, most effectuall it is for them that haue drunke the gum of Chamelæon, called Ixia: also against the Vipers sting: besides, for the stomacke that belcheth soure, and for the midriffe and precordiall parts. It is an approued medicine for the cough, the phrensie, and inflammation of the lungs, being with honey reduced into the forme of a Lohoch, for to be sucked downe leisurely.

I

Touching the Origan named Heracleum or Heracleoticum, the same also is diuided into three sorts: For the first is of a blacker & more duskish green, with broader leaues: also than the rest; and besides is glutinous and will cleaue to ones fingers. A second sort hath smaller leaues, softer it is & more tender in hand, not vnlike to Majoram; and this kind some would rather call Prasium. The third hath leaues of a mean bignes between the other two, not so large as the one nor so slender as the other, but not so forcible in operation as either of them both: but to return againe to our former Origanum: the best is that which groweth in Candy; for the same hath a pleasant and sweet sent besides: the next in goodnes is that which commeth from Smyrna: then after it, is the Origan that is brought from Heraclea: but that which is sirnamed * Onitis is simply the best of all others to be taken in drinke. Howbeit, the vse generally of them all in common, is to chase away serpents: by way of decoction or pottage made thereof, to cure them that be alreadie stung or wounded by them: beeing taken in drinke, to mooue vrine: and, together with the root of Panace, to helpe ruptures, convulsions, and spasmes: sodden in certaine Acetables with figs or hyssope, to the consumption of a sixt part, to cure the dropsie. At the entrance into the stouve or hot-house if it be taken good it is against the scab, the iteh, & the wild skurf. The juice with milk, is dropped into the ears, and that with very good successe. It helpeth also the mumps or inflammation of the Amygdales and Vvula; likewise the vlcers in the head. The decoction thereof taken with lie ashes in wine, is a countrepoison to kill the venom of Opium and Plastre. The measure of one Acetable, looseneth the belly. A liniment made thereof, recouereth the natiue colour of the blacke and blew marks remaining after stripes. With hony and nitre, it assuageth the paine of the teeth if they be rubbed therewith; and besides maketh them looke faire and white. It stauncheth bleeding at the nose. A decoction made therwith and barley meale, resolueth the swelling kernells and inflammations behind the eares. The pouder being incorporat in honey and gall-nuts, doth smooth and cleare the rustinesse of the windpipes, occasioned by a rheume. The leaues applied in manner of a cataplasme with honey and salt, mollifieth the splene. If the hearbe be sodden with honey and salt, and so taken by little and little, it doth cut, extenuate and make subtile, grosse fleagme, especially if blacke melancholy bee bedded therin. Stamped, and instilled into the nosthrils with oile, it cureth the iaundise. Such as be ouerwearied and tired with extreme trauell, find much aleuiation and ease by being rubbed and annointed all ouer with a liniment made thereof, with this caueat, That they come not so neer as to touch the belly with it. A plastre made with it & pitch & applied, healeth the angry bloudy-falls & chilblanes. Bruised with figs, it ripeneth felons. A pultes made with it, with oile,

* Bugle, or *Stœchas Arabica.*

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A oile,vinegre,and barly meale,ſoftneth and reſolueth the Kings euill. A liniment made therwith and figs together, aſſwageth the paine of the ſides. Being bruiſed and reduced into a liniment with vinegre,and ſo laid to the priuy parts,it reſtraineth the flux of bloud thither; and yet it hath a propertie to euacuate the reliques of bloud in women newly brought to bed,who ought to be purged.

As touching Lepidium [*i.* Paſſe-rage] it is to be ranged among the burning and cauſticke medicines: by which faculty that it hath,and by bliſtering the skin,it taketh away any ſpot or blemiſh in the face; yet ſo,as the exulceration which it cauſeth,may be ſoone helped and skinned again with a ſalue of wax and oile of Roſes. By the ſame means it ſerueth to clenſe the le-
proſie and wild ſcabs,which it doth alwaies with eaſe and expedition,as alſo to ſmooth the ci-
B catrices or ſcars after vlcers. Moreouer,it is commonly ſaid,that if it be tied faſt vnto the arme on that ſide where the teeth do ake,it * taketh the pain quite away.

* To wit,by raiſing a bliſter, and giuing iſſue.

Gith or Nigella,the Greeke writers ſome name Melanthion, others Melaſpermon: the beſt is that which is blackeſt,and beſides of quickeſt ſent. A ſingular remedie it is for the ſores and wounds occaſioned by venomous ſerpents and ſcorpions eſpecially,if a liniment be made of it, vinegre and hony mingled together. I find alſo,that if it be burnt,the very ſmoke and fume of it will chaſe away ſerpents: but particularly againſt the poiſon of venemous ſpiders,a dramme thereof is ſufficient to be taken in drink. Being bruiſed and knit in a linnen cloath,and ſo ſmelled vnto,it reſolueth the poſe,or breaketh the cold which ſtuffeth the noſthrils. Applied as a liniment with vinegre to the forehead,or infuſed into the noſthrils, it eaſeth the head-ache. And
C if it be ſo vſed with the oile of the floure de-lis root,it ſtaieth the wateriſh humors that fall into the eies, and abateth their ſwellings. The decoction thereof in Vinegre cureth the tooth-ache,if a colluſion thereof be made and the mouth waſhed therewith. Being ſtamped and ſo applied,or but chewed in the mouth,it healeth the cankers or exulcerations within. Likewiſe a liniment made of it and vinegre clenſeth the leproſie, and the hot red pimples breaking out in the skin. If it be taken in drink,with ſome addition of nitre,it eaſeth the difficulty of breathing in ſuch as blow ſhort. It helpeth all hard ſwellings,and old feſtred impoſtumes or biles,if they be anointed therewith. If a woman be deſirous to haue ſtore of milk,let her eat and drink ther-
of continually euery day. As touching the iuyce of Gith,it is drawn & gathered after the like maner as Henbane juice. And ſemblably taken in any great quantity, it is a very poiſon: which
D is a thing to be maruelled at,conſidering that the ſeed thereof ſeaſoneth loaues of bread,& gi-
ueth a moſt pleaſant reliſh to them. Moreouer,the ſeed of Nigella clenſeth the eies,prouoketh vrin and the monthly terms in women: yea and more than ſo,I reade,that thirty grains thereof tied in a linnen cloth,and applied to a woman newly deliuered,will draw down the after-birth. They ſay alſo,that if it be ſtamped in vrin and laid to the agnels or cornes of the feet, it cureth them: as alſo that the ſmoke killeth gnats or any other flies.

As for the herb Anniſe,if it be drunk with wine it is a counterpoiſon againſt ſcorpions. And *Pythagoras* hath giuen a ſpeciall praiſe and commendation to it both raw and boiled, as to few other herbs the like: for be it green or dry,it ſerues as well for ſeaſoning of all viands,as making all ſauces,inſomuch as the kitchen canot be without it. Ouer and beſides,when bakers ſet into
E the ouen,they put Anniſe between the bottom of their loaues and the peele. And for to commend wine,Vintners vſe to put it into their Hippocras bag, through which they ſtrain Hippocras and other aromaticall wines: and indeed with bitter almonds,it giueth a pleaſant and delicate taſt vnto any wine whatſoeuer. If one chew it euery morning vpon an empty ſtomack faſting,together with the ſeed of Smyrnum and a little hony, it maketh the breath ſweeter, and taketh away all ſtinking ſauours about one; prouided alwaies,that the mouth be preſently waſhed with a colluſion of wine. It cauſeth one to look freſh and young,if it be hanged about the bed vpon trauers or curtain, or otherwiſe ſticked to the pillow or bolſter, ſo as folke may haue the ſent thereof in their noſthrils while they lie aſleep,it riddeth them of troubleſome dreams and fantaſtical viſions. It procureth a good ſtomack to meat: for ſo our idle, nice,and delicate
F wantons,euer ſince they haue giuen ouer exerciſe and trauell (which ſhould get them an appetite & ſtomack to their victuals) & betaken themſelues to ſit ſtil and do nothing,haue deuiſed this artificial means among others,& haue recourſe to Anniſe: in which regards and for theſe cauſes,ſome haue giuen it the name of Anicetum. The beſt of all commeth from Candie: the next to it is that of Ægypt; and indeed this ſerueth in ſtead of Loveach in all ſauces. If a per-

fume thereof be drawn vp into the noſe, it appeaſeth the head-ache. *Iollas* ſaith, that the Anniſe G
root bruiſed and ſtamped together with Wine, and ſo applied, ſtayeth the flux of waterie and
weeping eies. The herb it ſelf, with an equall quantitie of ſaffron and wine, yea, or braied alone
with barly grots, reſtraineth all great fluxions and diſtillations: and the ſame compoſition ap-
plied to the eyes, driueth out any thing that hath fallen into them. A liniment made therwith
and water together, conſumeth and cureth the Polypes or cankerous vlcers within the noſe-
thrils. A collution of it in vinegre, with honey and hyſſop, vſed as a gargariſme, aſſwageth the
ſquinancie. Tempered with oile of roſes it is ſoueraigne for the eares to be inſtilled into them.
Being taken dried and parched at the fire, it clenſeth the breſt of the viſcous and tough flegme
there gathered; but if it be incorporat with honey it doth the deed the better. But would you
learn for the cough a ſoueraign lohoch or confection? Take one Acetable of Anniſe, and fifty H
* i, Almonds. *bitter nuts wel clenſed and blanched: ſtamp theſe all together in a mortar, and with hony re-
duce them into the conſiſtence of an Electuarie. And yet there is one Compoſition more for
this purpoſe, and of all other the eaſieſt and ſooneſt made. *Recipe*, of Anniſe three drammes, of
Poppy ſeed two drams, temper theſe with hony, & for three mornings together take the quan-
titie of a bean faſting. And this confection is ſingular beſides againſt ſoure riftings or belch-
ing: and therefore it cureth the ventoſities which puffe vp the ſtomacke: it aſſwageth the tor-
ments and wrings of the guts, and repreſſeth the continual flux proceeding from the weakneſſe
of the retentiue facultie in the ſtomacke. But to return againe to ſimple Anniſe ſeed, a drinke
made with the decoction thereof, or the very ſmell taken vp into the noſe, ſtayeth the trouble-
ſome yex or hocquet. The decoction of Aniſe leaues doth digeſt and reſolue all crudities. The I
iuyce drawne from it when it is ſodden with parſley, if it be ſmelled vnto, ſtinteth immoderate
ſneeſing. Moreouer, Anniſe taken in drink, procureth ſleep, expelleth the ſtone and grauel, ſtai-
eth vomits, and reſolueth the tumors in the precordial parts, cauſed of windineſſe. Further, it is
a moſt ſoueraign medicine for the diſeaſes in the breſt: comfortable alſo to the neruous parts,
membranes, and ligaments, wherein the muſcles of the body be either incloſed or tied and vni-
ted together. The juice of it being boiled with oile, and ſo dropped or inſtilled into the head,
is good for the pains thereof. It is thought that there is not a better thing for the belly and the
guts than Anniſe: and therefore it is giuen ordinarily (if it be firſt parched and roſted againſt
the fire) in caſe of the bloudy flix and exulceration of the guts: alſo for the inordinate profers
to the ſiege, & riſing from it without effect or any thing diſcharged. Some put thereto Opium K
alſo, and preſcribe to make three pils thereof to the bigneſſe of a Lupine ſeed, and to take them
euery day diſſolued in a cyath of wine. *Dieuches* vſed commonly the iuyce of Aniſe, to mitigat
the pain of the loins: to giue alſo the ſeed beaten to pouder with mints in wine, for the dropſey
and tho defluxion ſtomachicall: but the root he thought to be paſſing good for the kidneyes,
vſed and taken in that maner. *Dalion* that famous Herbariſt was woont to apply Anniſe and
Parſley together in forme of a cataplaſme, to women in labour, for better ſpeed in child-birth:
alſo for the pain of the Mother, yea, he would giue it alſo to drink with Dill, vnto women when
they cried out in trauell. He applied it alſo green, with barley grotes in manner of a liniment,
to the head, for to ſtay and ſettle the brains of phrentique perſons. And being ſo prepared, he
found it ſingular good for young infants ſubiect to the Falling-ſickeneſſe, or troubled with L
crampes and contractions of ſinewes. As for *Pythagoras* verely, he ſaith confidently, That who-
ſoeuer doe but hold this hearbe in his hand, hee ſhall not be ſurpriſed with a fit of the Falling-
euill: and therefore he aduiſeth men to ſow good ſtore of it in their gardens about their hou-
ſes, to be ready euer at hand. He affirmeth moreouer, that women in labour, if they ſmel there-
to, ſhall haue more ſpeedy and eaſie deliuerance. Hee giueth counſell beſides, That immedi-
ately after the childe is borne, the mother ſhould drinke a grewell made with it and ſome bar-
ley grotes ſtrewed among. *Soſimenes* the Phyſitian was wont to mollifie and reſolue all hard
ſwellings with Anniſe & Vinegre: he vſed alſo to giue the decoction therof in oile, with ſome
ſprinckling of Nitre among, to thoſe that felt wearineſſe in their lims. Moreouer, hee aſſured
trauellers and wayfaring men, that if they drank the ſeed thereof, they ſhould find preſent help M
if they were tired. *Heraclides* gaue ordinarily of the ſeed as much as might be taken vp with
three fingers, together with two oboles of Caſtoreum, in honied wine, for the hoving & inflati-
on of the ſtomack: ſemblably, for the puffing vp and ſwelling of belly and guts. Alſo, to thoſe
that were ſtreit winded, & could not take their breath but ſitting vpright, he miniſtred the like

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A proportion; to wit, as much as three fingers would contain, with equall quantitie of Henbane ſeed, in Aſſes milke. Many Phyſitians giue counſell to thoſe that would vomit luſtily, for to drink in water as they ſit at ſupper, an acetable thereof and ten leaues of Baies, bruiſed and beaten into pouder. If Anniſe ſeed be chewed, or applied hot in forme of a liniment, yea, or taken as a drink in vineger and hony, together with Caſtoreum; it helpeth the riſing of the mother and the danger of ſuffocation thereby. If a woman in child-bed preſently vpon her deliuery, drinke it with cucumber ſeed & line-ſeed together, of equall quantity, namely, as much as may be held between 3 fingers, in three Cyaths of white wine; it will ſettle the lightneſſe of the braine, and ſtay the dizzineſſe of her head. *Tlepolemus* preſcribed for feuers quartane, as much Anniſe ſeed
B as three fingers might comprehend, with the like quantity of Fennell ſeed to be taken in vineger and one Cyath of Honey. A liniment made with Anniſe and bitter nuts, allaieth the grieuous pains of the gout. There be who are of opinion, That it hath a ſpeciall vertue and property to reſiſt the poiſon of the Aſpis. Certain it is that it prouoketh vrine, allaieth thirſt and the appetite to drink, yea, and ſoliciteth to carnal luſt. Taken in wine, it gently putteth forth a kind ſweat. Moreouer, it keepeth cloths and apparel from the Moth. Generally, the freſher and newer alwaies that it is, and the blacker that it looketh, the more effectuall it is found to be. Howbeit, this one diſcommodity it hath, That it is an enemy to the ſtomacke, vnleſſe haply it bee peſtered with ventoſities.

C

Chap. XVIII.

¶ *Of Dill: of Sacopenium, and Sagapenum. Of Poppy both white and black. The manner of gathering and drawing iuice out of herbes. Alſo of Opium.*

Dill alſo hath a property to diſſolue ventoſities, to break wind and cauſe rifting; alſo to aſſuage any wrings or torments of the belly, & yet it ſtaieth the flux. The roots being reduced into a liniment with water or wine, reſtraineth the flux of watering eies. A perfume made of the ſeed as it boileth, receiued vp into the noſthrils, ſtaieth the yex. Taken as a drinke in water, it concocteth crudities, and appeaſeth the pain of windineſſe proceeding from thence. The aſhes of it burned, raiſe vp the Vvula in the throat that is fallen. Howbeit, Dill dimmeth the eie-ſight, and dulleth the vigor of genitall ſeed.

D As for our Sacopenium here in Italy, it differeth altogether from that which grows beyond ſea. For the outlandiſh kind, reſembling gum Ammoniack, is called Sagapen. Good it is for the pleuriſie and pain of the breſt, Convulſions or Spaſmes, and old ſetled Coughes; for thoſe that reach vp filthy and rotten matter; for the tumors of the midriffe and precordial parts. It cureth the ſwimming and giddineſſe of the head, the ſhaking and trembling of the joints, the crampe or convulſion that draweth the neck backward, the great ſwelled ſpleens, the pain of the bones, and all ſhaking and quiuering colds. A perfume made therewith in vineger, if a woman ſmell vnto, it helpeth the Mother that is ready to ſtop her wind. As for the other accidents, it is both giuen in drinke, and alſo rubbed into grieued parts with oile. It is thought to be ſoueraign alſo againſt poyſoned drinkes giuen by Witches and Sorcerers.

Touching garden Poppie and the ſeuerall kinds therof, I haue written already: but beſides
E them there be other ſorts alſo of the wild, whereof I promiſed to treat. Meane while, the heads of the foreſaid garden white poppy, if they be bruiſed whole as they grow with ſeed & all, and ſo drunk in wine, do procure ſleep. The ſeed it ſelfe alone cureth the Leproſie. *Diagoras* giueth counſell to cut the ſtem or ſtalk of the blacke Poppy when it beginneth to ſtrout and ſwell toward the flouring time, out of which there wil iſſue a certaine juice called Opium: but *Iollas* aduiſeth to make that inciſion when it hath bloomed, and to chuſe a faire cleare day for it, & that houre of the day when as the dew thereon is dried vp. Now would they haue them to be cut vnder the head before the bloom; but in the very head, after it hath don flouring; and verily, there is no other kind of herb wherein the head is cut, but this only. The ſaid juice of this herbe as
F well as of all other is receiued in wooll: or elſe if it run but in ſmall quantitie, they gather it with the thumbe naile, as the maner is in Lectuces: but the morrow after the inciſion, ſo much the more vigilant they muſt be to ſaue & gather that which is dried: and in very deed the iuice of Poppy commonly runneth out in great abundance, & gathereth into a thickneſſe: which afterward is ſtamped and reduced into little troſches, and dried in the ſhade. Which juice thus drawne

drawne and thus prepared, hath power not only to prouoke ſleep; but if it be taken in any great quantity, to make men dye in their ſleep: and this our Phyſitians call Opion. Certes, I haue knowne many come to their death by this meanes; and namely, the father of *Licinius Cecinna* late deceaſed, a man by calling a Pretor, who not able to indure the intollerable pains and torments of a certain diſeaſe, and being weary of his life, at Bilbil in Spaine, ſhortened his owne daies by taking Opium. By reaſon whereof, Phyſitians are growne to great variance, and be of contrary opinions as touching the vſe of the foreſaid Opium. *Diagoras* and *Eraſiſtratus* condemned it altogether as a moſt deadly thing, & would not allow that it ſhould be ſo much as injected or infuſed into the body by way of clyſter, for they held it no better than poiſon: and otherwiſe hurtful alſo to the eies. *Andreas* ſaith moreouer, That if Opium doth not preſently put out a mans eies & make him blind, it is becauſe they of Alexandria in Egypt do ſophiſticat it. But in proceſſe of time the later & modern Phyſitians did not vtterly reject it, but found a good vſe therof, as may appeare by that noble and famous Opiat confection called Diacodium. Moreouer, there be certain ordinary troſches made of Popy ſeed beaten into pouder, which with milk are commonly vſed by way of a liniment to bring ſicke patients to ſleepe. Likewiſe with oile Roſat, for the head-ach: and with the ſame oile they vſe to drop it into the eares for to mitigat their pain. Alſo a liniment made therof with breſt-milk is ſingular good for the gout. In which ſort there is a great vſe of the leaues alſo to the ſame purpoſe. And being applied as a cataplaſme with vineger, they help S. *Anthonies* fire, and all ſorts of wounds. For mine own part I would not haue it in any caſe to enter into Collyries, much leſſe vnto thoſe medicines which be ordained to driue away ague fits, or into maturatiues, no nor to go among other ingredients into thoſe remedies which are deuiſed to ſtay the flux that commeth from the ſtomack. Howbeit, in this caſe laſt ſpecified, many giue the black Poppy with wine. Al garden Poppies grow rounder in the head than the wild: for theſe beare a head longer & ſmaller, howbeit (for any vſe) of greater operation than thoſe of the garden. For the decoction therof taken as a drink, procureth ſleep to ſuch as be ouer watchfull: ſo doth a fomentation thereof, if either the viſage bee ſprinckled, or the mouth waſhed therewith. The beſt Poppies be they that grow in dry places and where it raineth ſeldome. When the heads and leaues both be ſodden & ſtamped, the iuice that is preſſed from them, Phyſitians call Meronium: and it is far weaker and duller in operation than Opium. Now to know which is good Opium indeed, the firſt and principal trial is by the noſe; for the true Opium is ſo ſtrong, that a man may not indure to ſmel it: the ſecond proof is by fire: for the right Opium will burn cleare like a candle; and when it is put forth yeeldeth a ſtinking ſent from it in the end: which ſignes are neuer to be found in that which is falſified and ſophiſticat; for this that is not right, will not ſo ſoon take a light fire, and beſides, is readie oftentimes to go out. There is another experiment by water: for the good and pure Opium being put into water, ſendeth forth a certaine miſt from it like a cloud, which floteth euen aloft: whereas the corrupt and depraued Opium gathereth into bliſters and bladders, and ſo bubleth vpon the water. And yet there is one way more admirable than the reſt to try good Opium euen by the Sun-ſhine in a Summers day: for if it be ſuch as it ought, it wil ſweat and reſolue into a thin liquor, like as when it came firſt out of the plant. To conclude, *Mneſicles* is of opinion, that the beſt means to keep and preſerue Opium, is to lay it in Henbane ſeed: but others thinke it better to let it lie among beanes.

Chap. XIX.

*Memithum.

¶ *Of the wandering Poppy, and the horned Poppy. Of* * *Glaucium or Paralium. Of Heraclium or Aprhum. Of the compoſition named Diacodium, and of the Tithymal.*

IN a middle nature betweene the garden Poppy and the wild, is to be ranged a third kinde: which becauſe it commeth vp in corne fields, but yet vnſown and of the own accord, we haue called Rhœas, and wandering Poppy. Some there be, who ſo ſoon as it is gathered, chew both hearb and head all whole as it grew, and ſo eat it. Fiue heads of this Poppy being ſodden in three hemines of wine, and ſo taken in drinke, do both purge the belly, and alſo bring the patient to ſleep.

Of theſe wild Poppies there is one kind called in Greek Ceratitis, of a dark or duskiſh green, growing vp with a ſtalke a cubit high; with a groſſe root, couered with a thicke rinde; the heads

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A heads or cups wherein the ſeed lieth,bend like vnto a little horne. The leaues are leſſe and ſlenderer of this Poppy than of any other wild. The ſeed alſo is ſmal,ripe and ready to be gathered in corn harueſt;which being taken in drink,to the quantity of half an Acetable in honied wine worketh downwards and ſcoureth the belly. The leaues being ſtamped with oyle,and ſo applyed,heale the haw in horſe eies. The root taken to the quantity of an Acetable, and ſodden in two ſextars of honied wine,vntill halfe be conſumed, is giuen in drinke for the infirmities of the loins and liuer. The leaues applied as a cataplaſme with hony, healeth Carbuncles. Some call this kind, Glaucium,others Paralium;for it growes within the aire of the ſea,or els in ſome brackiſh place ſtanding much vpon Nitre.

B Another kind of theſe wild Poppies is called of ſome Heraclion,or of others, Aphron, with leaues reſembling * Sparrows,if a man look a far off. The root runneth very ebbe and ſuperficially vnder the green ſord,and the ſeed ſeemeth charged with a certaine froth or ſome. Herewith linnen cloths in ſummer time vſe to be bleached,and to get a bright white colour. This herbe beaten in a mortar to the quantity of one Acetable,and taken in white wine,helpeth the falling ſickneſſe;for it cauſeth the patient to vomit. This kinde of Poppy is the principall ingredient or Baſis to the confection named Diacodium or Arteriacum. The compoſition or making whereof enſueth in this maner: Take of this Poppy heads,or of any other of the wilde ſort, 120: let them lie in ſoke or infuſed two daies together in three ſextaries or halfe a gallon of water:and in the ſame water boyle them wel. When this decoction hath paſſed through a ſtrainer or jelly bag,ſeeth it a ſecond time with hony vp to the height or conſiſtence of a Syr-
C rupt(that is to ſay,vntill halfe be conſumed away)ouer a ſoft and gentle fire. Herunto the modern Phyſicians which came after,put too,of Saffron,of Hypociſthis,Frankincenſe,Acacia, of each ſix drams,and in the end,of groſſe cuit of Candy one ſextar. But this later compoſition ſerued onely for a ſhew and vaine oſtentation;for the ſimple and plain making of it in old time with Hony and Poppy,and no other addition beſides,was as wholeſome and profitable as this. But to come again to our wild Poppies:there is a third kind therof named Tithymalos (which ſome call Mecon,others Paralion(carrying a ſmooth leafe and a white, with a head of the bigneſſe of a Bean. The time of gathering theſe Poppies,is when the grape is in the floure: & then the manner is to dry them in the ſhade. The ſeed if it be taken in drinke, the quantitie of halfe an Acetable in mead or honied wine,purgeth the belly. But what Poppy ſoeuer it be,the head
D either green and freſh,or dry,if it be applied as a liniment to the eies,repreſſeth the flux of wateriſh humors falling to them,and mitigateth their inflammations. If Opium be giuen in pure wine ſomwhat allaied,preſently after the Scorpion hath ſtung,it is a counterpoyſon. Howbeit, ſome there be who attribute this vertue only to the blacke Poppy, namely, if either the heads or leaues be bruiſed and reduced into pouder.

*Struthio ſimilibus.ex Dioſc. i. like to Struthium: wherin *Pliny* is foulely ouerſeen to tranſlate it *paſſeré preſentantibus:* becauſe that σπαρτον ſignifieth the herb Struthium, (a Fullers weed)and the bird called a ſparrow: vpon which one abſurdity more follow ſtill to maintaine the ſame, as commonly it is ſeene. For that which followeth of bleaching,agreeeth to the foreſaid hearbe in ſome ſort.

Chap. XX.

¶ *Of the wild Purcellane or Peplium. Of Coriander and Orach.*

E THere is a wild Purcellane alſo,which they cal Peplium: more effectual,though not much, than the garden Purcellane;for there be ſtrong and wonderfull properties reported thereof for ſundry vſes. Firſt it is holden for certain,that this herb if it be eaten as meat,dulleth the poiſon of venomous arrows,of Serpents alſo called * Hæmorrhoids and * Preſters:and being laid to the hurt place, draw forth the ſaid poyſon. The juice alſo of this herb preſſed forth and drunk in wine cuit,is a remedy for thoſe that be poyſoned with Henbane. Now if the herb it ſelfe is not to be gotten,the ſeed hath the like effect. Moreouer,it is thought to be ſingular good for the aquoſities gathered within the body,and the diſeaſes cauſed thereby, as dropſies, &c.for the head-ach;for rheumatick vlcers alſo,if it be bruſed and applied with wine. Al other ſores likewiſe it healeth,if it be chewed and laid too with honey. After the ſame manner prepa-
F red,it is good to be applied to childrens heads for to temper the heat of the brain, as alſo to their nauils when they beare out more than they ſhould. For al vehement diſtillations of watery humors into the eies,as well of old folke as ſmall infants,it is counted ſingular;for to be applied to the forehead & temples,together with Barly groats:but if it be laid vnto the very eys, then would the ſame be tempered with milk and hony. Now if it chance that the eies be ready to fall out of the head,the leaues ſtamped with the ſhales of Beane cods, and applied thereto,

*So called for that they cauſe flux of Blood. * Otherwiſe named *Dipſades*,becauſe they ſet one into a burning fire,as it were, and an vnquenchable thirſt:whereupon they tooke both their names.

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is an excellent remedy. A cataplaſme made of it, with Barly groats, ſalt, and vineger, cureth an- G
gry wheales and bliſters that break out in the skin. The ſame being chewed raw, repreſſeth the cankers in the mouth, and the ſmelling of the gums: likewiſe, it aſſuageth the tooth-ache. The iuice of it being well ſodden, cureth the ſores of the Amygdales, if the mouth & throat be waſhed therwith. And ſome put to this collution a little pouder of the ſtone Murra. And no maruell, for the very chewing only thereof doth faſten the teeth that be looſe in the head. It doth mitigate the inconuenience of crudity and indigeſtion, it ſtrengtheneth the voyce, and putteth by thirſt. A cataplaſme made therewith, hauing gal-nuts and line-ſeed among, of equal quantity, allayeth the pains and cricks in the nape or chine of the neck. Tempered with hony & white fullers clay, it is ſingular for the accidents that befall to womens breaſts. The ſeed taken with honey, is very wholſome for ſuch as be ſhort winded. Eaten in ſallads, it ſtrengtheneth the ſto- H
mack. If it be laid as a cataplaſme [to the belly and Hypochondrial region] it allaieth the heat of ardent and burning feauers; yea, & in other caſes the very chewing of it cooleth the heat of the guts and entrails. It ſtaieth vomits, eaten in vineger: or taken in drink with cumin, it is good for the bloudy flix and other inward impoſthumes and filthy ſores. Being firſt ſodden and then eaten, it is ſingular for thoſe that ſtrain hard vpon the ſtoole, and notwithſtanding many prouocations and profers, deliuer nothing. And whether it be taken in meat or drinke, it is a ſoueraigne thing for the falling ſickneſſe. For a ſhift or immoderat courſe of womens termes, it is giuen with great ſucceſſe, the quantity of one acetable meaſure in wine cuit. A liniment made with it and ſalt, is good for the hot gout & S. *Anthonics* fire. The juice if it be drunken, helpeth the reins and the bladder. It expelleth wormes and ſuch like vermine out of the belly. A good I
mitigatiue, it is of pain, if it be applied as a cataplaſme to wounds with oile and Barly groats. It mollifieth the ſtiffeneſſe and hardnes of the ſinews. *Metrodorus* in his book intituled the* Abridgement or Breuiary of thoſe roots that are to be cut vp or gathered; gaue counſell to giue this herb to women, newly laid vpon child-birth, for the immoderate and exceſſiue purgation that many times followeth them. It cooleth the heat of luſt, and repreſſeth dreames of wantonneſſe. I know my ſelfe a grand ſignior in Spain, father vnto a great perſonage, and one who had bin aduanced to the dignity of a Pretour, who carried euer about him a root of this Peplium hanging at his neck by a lace or ſmal thred, & that for the intollerable pains of the Vuula, wherto he was ſubiect; and neuer would he leaue it off, but when he went into the ſtoue or bayne: whereby he found ſuch eaſe, that he was neuer troubled afterward with the ſaid diſeaſe. Moreo- K
uer, I haue read in ſome writers, That if the head be annointed or well rubbed therewith, a man ſhall not for a yeare together find any inconuenience of a rheum diſtilling from the brain: howbeit, it is thought that the vſe thereof wil make the eyes dim.

* Ἐπιτομὴ τῶν ῥιζοτομικῶν.

Concerning Coriander, there is none found growing wild of it ſelfe without ſowing by the hand. But certaine it is, that the very beſt commeth out of Egypt: a ſpeciall and peculiar vertue it hath againſt one kind of ſerpent or venomous worm, which they call Amphisbæna [for that it ſeemeth to haue an head at both ends] whether it be inwardly taken in drinke, or outwardly applied. It healeth alſo other wounds. It cureth the night-foes or chilblans, the red angry pimples alſo, if it be but only ſtamped and layd too. There is not a ſwelling or apoſtemation gathering to an head, but a cataplaſme made with it, with hony and Raiſins, either reſolueth them, or L
quickly bringeth to maturation. If it be no more but ſtamped with vineger, it eaſeth the puſhes and biles that breed commonly in the ordinary emunctories. Three graines of Coriander ſeed ſome preſcribe to be eaten before the acceſſe or fit of a tertian ague: or more than three to bee rubbed vpon the forehead. Others there are who thinke, that to the ſame effect they are to bee laid vnder the bolſter and pillow where the patient lieth, before the Sun riſe; and then ſhall he be ſure to miſſe his fit and be wariſhed for that feuer. Indeed, Coriander whiles it is green, is of great force to coole the heat of agues. A cataplaſme thereof made with Honey or Raiſins, healeth vlcers alſo that be corroſiue and eat deep into the fleſh. In like manner ſo prepared, it is very good for the priuy members; for burns and ſcaldings, for carbuncles and for the eares. With womans milk it helps the eyes that water continually. The ſeed drunk in water, ſtaieth the flux M
of the belly & guts; yea, and in caſe of thoſe violent euacuations vpward & downward, through the rage of cholerick humors, being taken in drinke with Rue, it ſetleth and knitteth the body againe. If the ſeed of it be drunke with ſallet oile and the juice of a Pomgranat, it chaſeth forth worms out of the entrails. *Xenocrates* telleth a ſtrange thing, if it be true, namely, That if a wo

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A man drinke one onely grain or ſeed of Coriander, her menſtruall flux will ſtay one day; if twain, they will hold vp two daies: and proportionably, looke how many ſeeds ſhe drinketh, ſo many daies ſhal ſhe go cleare and ſee no token of them. *M. Varro* was of opinion, That if fleſh meat were poudered or corned with Coriander groſſe beaten together with vineger, it would keepe ſweet, and it were all the Summer long.

As for Orach, there is a wild kind of it growing of the owne accord: a very weed it is and no better, vtterly condemned by *Pythagoras*; as if it bred the Dropſie, ingendered the Iaundiſe, brought folk to look ill and pale, and were exceeding hard of digeſtion: and ſo far hee was out of conceit with it, that he thought nothing would like wel & proſper, no not in a garden, where this grew neere, but that it would ſenſibly decay and fade. *Dionyſius* and *Diocles* approoue this
B judgement of *Pythagoras*, and ſay moreouer, that moſt diſeaſes are bred therby. Nay, they would not haue it to be put into the pot to be ſodden, vnleſſe it had bin waſhed before in many waters. Theſe Phyſitians hold that it is a very enemy to the ſtomack, ingendring pimples, frecles, and whelks. But I muſe and maruell much why *Solon* of Smyrna ſhould write, that it hath much ado to grow and come vp in Italy. As for *Hippocrates*, he is not ſo far fallen out with it; for with it and Beets he maketh a decoction (to be injected by the Metrenchyte) to aſſwage the inflammation in the matrice & the natural parts of women. *Lycus* of Naples was wont to giue it to drink as a counterpoyſon againſt the green flies Cantharides. And he thought that a very good liniment might be made thereof, either raw or ſodden, to lay vnto biles, puſhes, fellons a breeding, and all hard tumors whatſoeuer. Semblably, that if S. *Anthonies* fire were annointed therewith,
C being incorporat with hony, vineger, and nitre; or if it were applied vnto the gouty parts, there would enſue great eaſement. Moreouer, in caſe the nailes be grown crooked, vneuen, & rugged, it is ſaid that it wil cauſe one to caſt them without any vlcer and ſore at all. Some there be who preſcribe an electuary, made with the ſeed of Orach and hony, to be giuen for the Iaundiſe: alſo if the windpipes be hoarſe with ſome fell or ſharp rheume falling downe vpon them, or, if the Amygdales on either ſide of the throat be amiſſe, it is very good to rub thoſe parts therewith. They affirme moreouer, That a ſimple decoction of it alone, moueth the body downward; but with Mallows or Lentils, prouoketh vpward and cauſeth vomit. Finally, to conclude with the wild Orach; it is vſed much to colour the haire black, and for the other aboue named purpoſes, as well as that of the gardens.

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Chap. XXI.

¶ *Of the common Mallow. Of the Mallow Malope. Of the Mariſh Mallow or Aitæa. Of the common Docke: the ſoure Docke or Sorrell: of the water Docke: of the tall Docke called Patience: and laſtly of that Docke with the long root, called Bulapathum.*

ORaches were not ſo much diſcommended, but on the contrary ſide Mallows be as highly praiſed, as wel that of the garden as the wild. Two kinds there be of the garden mallows; diſtinguiſhed both by the largeneſſe of their leaues. The greater of thoſe that grow in gardens, the Greekes call Malopum; the other is ſuppoſed to be named Malachum; for that it
E doth mollifie and ſoften the belly. Of the wild ſort, that which carrieth a broad leafe and white roots is called * Althæa, and of ſome, Ariſtalthæa, for the excellent vertues that it hath in Phyſick. This property haue Mallows, To inrich and fatten any ground, wherſoeuer they be ſown or ſet. But this mariſh Mallow Althæa, is more effectuall than the reſt againſt all wounds by ſharp pricks or thornes, and principally againſt the ſting of Scorpions, Waſpes, and ſuch like, as alſo the biting of the Hardiſhrew mouſe. Nay, whoſoeuer be throughly rubbed or annointed before hand with any Mallow whatſoeuer, ſtamped with oyle; or do but carry it about them, they ſhall not be ſtung or bitten at all. As for the leafe of Mallowes, if it be laid vpon a Scorpion, it will be ſtreightwaies benummed. Moreouer, good counterpoiſons they be all: a liniment made
F of them being raw, together with nitre, draweth forth all pricks or ſtings remaining within the fleſh: but if leafe and root be ſodden together and ſo drunk, it repreſſeth the poiſon of the venomous fiſh called the ſea-Hare; but ſome ſay it muſt be caſt vp and vomited againe, or elſe it doth no good. Certes, ſtrange and wonderfull things be ſpoken as touching the operation of Mallows, ouer and aboue thoſe already rehearſed. But this paſſeth all the reſt, That if a man or woman

* Ἀλθαία ἀπὸ τοῦ ἀλθαίνειν. To cure or heale.

woman ſup off a ſmal draught (though it were no more but half a cyath) euery day of the juice of any mallow, it skills not which, he ſhall be free from all diſeaſes and liue in perfect health. True it is, that if they be putrified and reſolued in chamber-lie, they will heale all the ſcurfe & running ſcalls in the head; but if they be tempered with hony, a collution made thereof cureth the cankers of the mouth; and a lauature repreſſeth all tettars, ringwormes, & any ſuch wildfire running vpon the skin. A decoction of the root, clenſeth the head of dandruffe, if it be waſhed therwith, & ſetteth the teeth faſt that were looſe. Take the root of that mallow which riſeth vp with one only ſtem, prick the gums therwith about the tooth pained; do this (I ſay) till the ach be gone. The ſame root reduced into a liniment, with the faſting ſpittle of man or woman, and applied accordingly, reſolues the Kings euil, diſpatcheth the ſwelling kernels behind the ears, and diſcuſſeth biles and puſhes, without any breaking of the skin or making vlcer. The ſeed of mallows if it be taken in thick wine, deliuereth the patient from phlegmatick humors, from the rheume, and the heauing of the ſtomack making offer to caſt and cannot. The root wrapped faſt and tied within a lock of blacke wooll, preuenteth the euill accidents that may befall vnto womens breſts. The ſame ſodden in milk & taken after a ſippling ſort (in manner of a ſupping) for fiue daies together, cureth the cough. And yet *Sextius Niger* ſaith, they be hurtfull to the ſtomack. And * *Olympias* of Thebes affirmeth, That if women vſe it with gooſe greaſe, they ſhall not go their full time with childe. Others do write, That if women take an handfull of Mallow leaues in oyle and wine, they ſhall be throughly purged in their due times. This is known for a truth and reſolued by all that write or make profeſſion of Phyſicke, That a woman in labour, if ſhe ſit vpon Mallows ſtrewed vnder her ſtoole, ſhal be deliuered with greater ſpeed and expedition: but then muſt they be taken away preſently after that ſhe is laied, for feare that the very matrice follow after the child. An ordinary practice it is of ſage and diſcreet midwiues, to giue vnto women in trauell faſting, a ſmall pint of the juice of Mallows ſodden in wine: & yet thoſe that cannot contain but ſhed their naturall ſeed, are inioined to take mallow ſeed bruſed, and ſo to bind it to their arme. Moreouer, ſo good and fauorable naturally be mallows to the game of loue, as if they grew for nothing els: inſomuch as *Xenocrates* doth affirme, That if the ſeed of that Mallow which runneth vp in one ſtalk, be reduced into pouder and ſtrewed vpon that part of a woman which Nature hath hidden, ſhe will be ſo wood after the company of a man, as ſhe will neuer be ſatisfied nor contented with embracing. The like effect (ſaith he) there wil enſue, if three roots thereof be bound neere to the place of Nature. Alſo, that a decoction of Mallows miniſtred by way of clyſter, is a ſingular injection to cure the bloudy flixe, or exulceration of the guts; as alſo the extraordinary and bootleſſe deſire to the ſeege. In like manner, a fomentation thereof is very good for other accidents befalling to the ſeat or tuil. The juice of Mallows is giuen warm, the quantity of three cyaths, to melancholick perſons that be troubled in mind; and of foure, to thoſe that be ſtark mad indeed and beſides themſelues. A whole hemina of the juice drawne and preſſed from mallows boyled, is giuen at one time to thoſe that be ſubject to the falling ſickneſſe. The ſame being reduced into a liniment, is to good purpoſe applied warm vnto thoſe, who are troubled with the ſtone and grauell, with winde cholique and ventoſities, with the cramp alſo or crick that doth draw their necks backward. The leaues being ſodden in oyle, are layd with good ſucceſſe in manner of a cataplaſme, vpon the hot fretting humor called S. *Anthonies* fire: alſo to places ſcorched, burnt, or ſcalded: but for the accidents and Symptomes concurrent with wounds, they be rather laid raw with crums of bread. The juice of mallows boiled, is comfortable to the ſinews, the bladder, and the fretting or grinding of the guts. Mallows being either eaten, or their decoction miniſtred by way of injection with a metrenchyte, mollifieth the ſaid tumors in the matrice. The juice of mallows wel ſodden, either taken in drinke or applyed by way of fomentation, inlargeth the Vretere conduits, and giueth good and eaſie paſſage for the vrine. The root of Althæa is more effectual to all theſe infirmities and purpoſes aboue named, than of any other Mallow; but eſpecially in caſe of convulſions, cramps, and ruptures. If it be ſodden in water, it bindeth the belly. Boyled in white wine and applyed as a cataplaſme, it reſolueth the ſwelling kernels, commonly called the Kings euil; thoſe alſo that appeare behind the ears; yea, and the inflammations of the paps and breaſts. As for the byles or riſings called Pani, the leaues of Althæa or the Mariſh Mallow ſodden in Wine and brought to the forme of a liniment, doe diſcuſſe and rid away. The ſame, after they bee drie, and ſodden in milke, cure the Cough, how tough and ſhrewd ſoeuer it were, and that moſt ſpeedily.

G H I K L M

Hippocrates

* A woman Phyſitian, who writ of Phyſick, or at leaſtwiſe a midwife of good authoritie.

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A *Hippocrates* gaue counſell to them that were wounded, & for loſſe of bloud exceeding thirſtie, for to drink the juice of Althæa roots ſodden. He ſaith moreouer, That the root it ſelfe emplaſtred with hony and roſin, is good for wounds, bruiſes, diſlocations, and ſwellings: comfortable alſo to muſcles, ſinews, or joints. He gaue it likewiſe to thoſe that were troubled with difficulty of taking wind, and with wheezing; for the dyſentery alſo or bloudy flix, to be drunken in wine. A wonderfull thing of this root, that if it be put into water, and the ſame let to ſtand abroad in the open aire, the water will gather to a thickneſſe and cruddle, yea turne white it wil like milk. To conclude, the newer and freſher Althæa is, the more effectuall you ſhal haue it in operation

Touching the Dock, the properties therof are not vnlike to thoſe of the marſh Mallow: there is a wild kind thereof, which ſome call Oxalis in Greek [*i.* wild Sorrel or Soure-dock] this herb
B reſembleth very neere that of the garden, in regard of the ſharpe pointed leaues; in colour like the white Beet, hauing a very ſmall root: our countrymen name it in Latine Rumex; other Lapathum Cantherinum: this herb being incorporat with hogs greaſe, is ſingular to mollifie all the ſwelled kernels, which ſome call the Kings euill. A ſecond ſort there is, which commonly is called Oxylapathum, *i.* Sharp pointed Docke; this commeth yet neerer to the garden Docke than the former: for it hath leaues ſharper at the point and redder, and groweth not but in mariſh grounds. There is another kind of Dock comming vp in the very water (as ſome ſay) Hydrolapathum. Yet is there one more called * Hippolapathum, bigger than the garden Docke or Sorrell; white alſo, and of a more faſt and pulpous ſubſtance. As for all the wild Dockes or
C Sorrells, they be holden medicinable to cure the ſting of Scorpions; and whoſoeuer hath any of them about him, is ſecure from the ſting or prick of Scorpions. The root, if it be ſodden in vineger and ſtrained, the juice thereof if the mouth be waſhed therewith, helpeth the teeth-ach: and if the ſame be taken in drink, it cureth the jaundiſe. The ſeed of this hearbe remooueth the tough humors bedded in the ſtomack, how hard impacted ſoeuer they be: the roots of Patience haue this peculiar property, To cauſe the nailes to fall off that grow rugged and vneuen. The ſeed taken to the weight of two drams in wine, riddeth away the bloudy flix. The ſeed of the ſharp Dock being waſhed in rain water, is ſingular good for thoſe that reach and caſt vp bloud, if there be added thereto as much Acacia as the bigneſſe of a Lentill. There be moſt excellent Trochiſques made of the leaues and root thereof, with the addition of nitre and ſome little quantity of * conuenient liquor, to incorporat and vnite them: and theſe muſt bee infuſed and
D diſſolued in vineger, at the time that they are to be vſed. As touching the garden Sorrell, there is a liniment made thereof, which being applied in manner of a frontall to the forehead, cureth the diſtillation of the watery humours to the eies. The root is ſingular for the wens or impoſthumes called Melecerides, and likewiſe of the Lepry. The decoction in wine is as good for the ſtone and grauell; as alſo to reſolue the Kings euill, and the ſwelling kernels behind the ears. If the ſeed be drunk in wine, it helpeth the ſpleen and the tumors thereof: the bloudy flix likewiſe, the ſtomachicall flux, and the vaine deſire to the ſtoole without effect. But for all theſe purpoſes, the juice of the Dock is more effectual. Ouer and aboue, it breaketh wind vpward, it prouoketh vrine, and diſcuſſeth the cloud and Miſt that troubleth the eies. If this herbe be put vp vnder the bathing tub within the baine, or otherwiſe if the body be annointed with a liniment
E thereof without oyle, before one enter into the bath, it taketh away the itch. If the root be but chewed only, it faſteneth the teeth that ſhake in the head. The ſame root ſodden in wine, ſtaieth the flux of the belly, and bindeth it; and yet the leaues make the body ſoluble. Finally (becauſe I would willingly omit nothing) *Solon* hath made mention of another Docke, called Bulapathum, nothing different from other Dockes; but that the root runneth deeper into the ground, which, if it be taken in wine, cureth the bloudy flix.

* *i.* Patience, or Monks Rheubarb.

* *Lure*, haply for *Thure*, *i.* Frankincenſe, accotding to *Cornarius*.

Chap. XXII.

¶ *Of three kinds of Senvey: of Horehound, and wilde running Thyme: of water Creſſes: of water Mints, otherwiſe called Thymbræum: of Lineſeed, and Bleets.*

F

THe herbe Senvey, whereof there be three kinds (as I haue already obſerued in my treatiſe of garden plants) *Pythagoras* hath placed in the higheſt ranke of thoſe ſimples that fume vp aloft: for there is not a thing that ſooner biteth one by the noſe, & pierceth and mounteth

teth more quickly into the brains than doth Senvey. The ſeed thereof [commonly called muſtard ſeed] being ſtamped, & with vineger reduced into a liniment, cureth the ſting of ſerpents, and namely the prick with the Scorpion. It hath beſides, a ſingular vertue to mortifie & kil the venomous quality of muſhrums. If it be but held in the mouth vntill it melt and reſolue, or otherwiſe be gargariſed with honied water, it draweth waterie fleame out of the head. Beeing chewed, it eaſeth the toothach. For the falling down of the Vvula, a gargariſme made of it with vineger and honey, is excellent. There is not a medicine ſo ſingular for the ſtomack and all the infirmities thereof, ne yet for the lungs. Being eaten at meat, it doth looſen ſuperfluous fleame, and cauſeth a man to reach and fetch it vp with eaſe; yea and to take his wind and breath at liberty. In like manner, being taken warm with the juice of Cucumber, it cureth the falling ſickneſſe. It purifieth the ſenſes: it purgeth the head by ſmelling: it keepeth the body ſoluble: it prouoketh womens monethly fleures, and vrine. A cataplaſme made therewith and applied accordingly, helpeth them that be in a dropſie: ſo it doth thoſe that be ſubject to the falling ſicknes. but then muſt it be ſtamped with three parts of Cumin and figs. If it be tempered with vineger and held to the noſe of ſuch women as with the riſing of the mother ſeeme to be ſtrangled and to lie in a trance, it raiſeth them vp again; in like ſort, it awakens thoſe who be in a fit of the lethargy: howbeit, in this caſe it is good to put thereto the ſeed of Seſeli of Candy, which they call Tordilion. But ſay that the Patients be in ſo deep a ſleep in this drowſie diſeaſe, that by ſuch means they will not ſtart vp and be raiſed; then take muſtard-ſeed and figgs, temper them with vineger into a cataplaſme, apply the ſame to the * legs or the * forehead or region of the brain rather. It hath a cauſtick or burning quality, and being applyed in form of a liniment to any part, it raiſeth pimples; by which means it cureth the old inueterat pains of the breſt, the ach of the loins, the haunch, and hucklebone, the ſhoulders or any part of the body where need is that the offenſiue humors ſetled deep within, ſhould tranſpire and be drawn outwardly to an iſſue. Now for that the nature thereof is to bliſter, in caſe the patient be timerous, & fear ſome extreme operation of that burning quality that it hath, it may be applied to the part affected between a doubled linnen cloth: otherwiſe, if the place be very thick and hard, it would be laid too without any figs at all. Moreouer, there is a good vſe of Senuy with red earth, for to make the haire come again which is faln; for ſcabs and ſcurfe, for foule morphew or the leproſie, the lowſie diſeaſe, the vniuerſall cramp that cauſeth the body to ſtand ſtiffe and ſtark, as it were all of one piece without ioint; alſo the particular cricke which ſetteth the neck backward, that it cannot ſtir. An vnction made with it and hony, cureth the eye-lids that be not ſmooth, but rugged and chapped; yea and clarifieth the eies which be ouercaſt with a muddy miſt.

* *adrevulſiones ad derivationem.*

As touching the juice of Senvie, it is after three ſorts drawne; the firſt, being preſſed forth, it is let to take a heat in the Sun gently by little and little, within an earthen pot. Secondly, there iſſueth forth of the ſmall ſtems or branches that it hath, a white milky liquor, which after it is dried and hardened in that manner, is a ſingular remedy for the tooth-ach. Where note by the way, that the ſeed & root both, after they haue bin wel ſteeped and ſoked in new wine, are ſtamped or brayed together: now if one do take in a ſupping as much of this iuice thus drawne, as may be held in the ball of the hand; it is very good to ſtrengthen the throat and chaws, to fortifie the ſtomack, to corroborat the eies, to confirm the head, and generally to preſerue all the ſenſes in their entire. And verily I know not the like wholſome medicine againe, to ſhake off and cure the lazy and lither feuers that come by fits many times vpon women. Senuy alſo being taken in drinke with vineger, breaketh the ſtone and expelleth it by grauell. There is an oyle alſo made of muſtard-ſeed, infuſed and ſteeped in oyle, and ſo preſſed out; which is much vſed to heat and comfort the ſtiffeneſſe of ſinewes occaſioned by cold; to warme alſo and bring into temper the thorough cold lying in the loins, hanches and hucklebones, whereof commeth the Sciatica. Of the ſame nature and operation that Senuie is, Adarca is thought to be (according as I haue touched in the diſcourſes of plants and trees growing wild in the woods;) which is a certain fomy ſubſtance ariſing and ſticking in the bark of certain Canes, vnder their very leaues and tufts that they beare in the head.

Concerning Horehound, which the Greekes call Praſion, others Linoſtrophon, ſome Phylopes or Philochares, an hearbe ſo well knowne and ſo common, that it needs no deſcription; many Phyſitians haue commended to be as medicinable as the beſt. And in truth, the leaues and ſeed both, being beaten into powder, are excellent good for the ſtinging of ſerpents, for the paine

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A paine of the breſt and ſides,& ſingular for an old cough. Moreouer, the juice is right ſoueraign for thoſe who haue their lungs periſhed and do reach vp bloud, if the branches therof gathered and bound vp into bunches,be ſodden firſt in water with the grain called Panick, for to mitigat in ſome ſort the vnpleaſant harſhneſſe of the ſaid juice. A cataplaſme of Horehound applied vnto the Kings euill with ſome conuenient fat or greaſe,reſolueth the hard kernels. Some preſcribe a receit for the cough in this maner; Take the ſeed of green Horehound,as much as a man may comprehend with two fingers,ſeeth it with a ſmal handful of the wheat called Far,putting thereto a little oile and ſalt,and ſo ſup off the decoction faſting. Others hold, That without all compariſon there is not a medicine in the world like to the juice of Horehound and Fennel to-
B gether,firſt drawn by way of expreſſion to the quantity of 3 ſextars,& afterwards boiled to the conſumption of a third part vntill there remaine but two ſextars; then to this decoction there muſt be put one ſextar of hony,& all ſodden again to the conſumption of one third part more, vnto the height of a ſyrrup; whereof one ſpoonfull euery day taken in a cyath of water,is a drink that in this caſe hath no fellow. Horehound ſtamped and mixed with hony,is of wonderfull effect being applied to the priuy parts of a man,for any griefes incident thereto. Laid with vineger,vnto ring-worms, tettars,and any ſuch running wildfires,it purgeth and riddeth them clean away. A wholſom medicine it is to be applied as a cataplaſm,to ruptures,conuulſions,ſpaſmes, and cramps of the ſinews. Taken in drink with ſalt and vineger, it eaſeth the belly and maketh it laxatiue. It prouoketh womens terms,and ſendeth out the after-birth. The powder of it drie,
C mixed with honey,is of exceeding great efficacy to ripen a dry cough,to cure gangrenes,white-flaws,and wertwalls about the root of the nails. The juice dropped into the ears with honey,or ſnuffed vp into the noſe,cureth their infirmities; it ſcoureth away the laundiſe alſo and purgeth cholerick humors. And for all kinds of poiſons, few herbs are ſo effectuall as Horehound; for it ſelfe alone without any addition,clenſeth the ſtomack and breaſt, by reaching and fetching vp the filthy and rotten fleam there ingendred. If it be taken with hony and the floure-de-lis root, it prouoketh vrine. Howbeit,where there is danger of any exulceration in kidnies or bladder,it muſt be vſed with great warineſſe,if it be vſed at all. Moreouer,the juice of Horehound is ſaid to clarifie the eie-ſight. *Caſtor* putteth downe two ſorts of Horehound; to wit,the black and the white; but he ſetteth greater ſtore by the white than the other. He preſcribeth to take an empty egg-ſhel,and to put into it the juice of Horehound and hony,by euen portions; & when the ſaid
D egge is warm,to miniſter the ſame by way of clyſter or ſyringe,promiſing vs that the ſaid iniection will breake all inward impoſthumes; and when they be broken, clenſe and heale them throughly. Alſo a liniment (ſaith hee) made of Horehound ſtamped together with old ſwines greaſe,cureth all wounds occaſioned by the biting of mad dogs.

Touching running Thyme,ſome think it is called Serpyllum in Latine,*a ſerpendo* [*i.* of creeping] becauſe it runneth and creepeth by the ground; a property indeed of the wild kind, and eſpecialy among rocks and ſtony grounds. The garden Serpyllum,which commeth of ſeed,creepeth not,but groweth to the height of four-fingers bredth. The wilde Thyme which commeth vp of the own accord,liketh and thriueth better, hauing whiter leaues and branches than the other: this (I ſay) is thought to haue a ſpeciall vertue againſt ſerpents,and namely the Cenchris,
E the Scolopendres alſo as well of the ſea as the land; likewiſe the Scorpions, in caſe the ſprigs and leaues thereof be ſodden in wine,and ſo taken inwardly: if the ſame be burned,it yeeldeth a perfume, which with the very ſent chaſeth them all away. A ſingular power it hath againſt all venomous creatures of the ſea. Boiled in vineger,& reduced into a liniment with oile of roſes, it cureth the head-ach,if it be applied as a frontall to the forehead and temples. In like manner it helpeth the phrenſie and lethargy: but if it be giuen to drink,the weight only of four drams, it eaſeth the wrings & torments of the belly,it giueth free paſſage with eaſe to the vrine, it reſolueth ſquinancy or bringeth them to maturity,and ſtaieth vomits. And if one drinke it with water,it is excellent good for the opilation,heat, inflammations, and other accidents of the liuer. The leaues, to the weight of four oboli,are giuen in vineger,for the inflation and hardneſſe
F of the ſplene. If it be beaten to pouder and giuen in 2 cyaths of vineger and hony, it is thought a good medicine for them that ſpit and reach vp bloud.

The wild Siſymbrium or Creſſes,called of ſome Thymbræum, groweth to a foot in heigth and no higher. That which commeth vp in watery places,is like vnto garden Creſſes: but both ſorts are effectuall againſt all pricks and ſtings of Hornets,and ſuch like creatures. That which

Some take it for water Mint or Horſe-mint.

ſpringeth vp in dry ground,hath the narrower leafe of the twain,and carrieth a ſweet ſmel with G
it; whereupon it is commonly plaited amongſt other odoriferous herbes in chaplets and guirlands.But both the one and the other allaieth head-ach: likewiſe they doe ſtay the flux of wateriſh humors which diſtill into the eyes. Some put crums of bread thereto;others ſeeth them alone in wine,and vſe the decoction. Being reduced into a cataplaſme, and ſo applied euery night and taken off in the day time,it heals within foure times laying on, the angry chilblanes and bloudy-fals that trouble the feet in the night ſeaſon;yea and taketh away the ſpots & pimples ariſing in womens faces,which marreth their beauty,whether it be eaten with meat in ſubſtance,or the juice only taken in drink;it ſtaieth vomits,yexes,wringings,gnawings,and the diſſolution or feebleneſſe of the ſtomack,which cauſeth inordinat flux. Women going with child H
muſt take heed how they eat Siſymbrium,vnleſſe the fruit of their bodies be dead within them; for if it be but applyed outwardly,it will ſend it forth. If one drinke it with wine, he ſhall find that it prouoketh vrine,and the wild kind ouer and beſides,expelleth the ſtone and the grauell. Such as had need to wake and watch,namely,thoſe that be giuen to drowſineſſe and lethargie, will be raiſed from their ſleep and throughly wakened, if it be diſtilled aloft vpon their heads with vineger.

Line-ſeed is imployed with other matters in diuers medicines to many vſes,but of it ſelfe alone it cleareth the skin of womens faces,taketh out ſpots, freckles,pimples, wems, and molls that be eye-ſores, if it be applied as a liniment thereto. The juice therof quickneth and helpeth the eye-ſight. With Frankincenſe and water,or els with Myrrhe and wine,it repreſſeth the violent flux of humors to the eyes. Reduced into a cataplaſme,with honey,greaſe,or waxe,and ſo I
applyed,it reſolueth the ſwelling kernels behind the ears. The meale thereof in manner of drie barley groats,if it be ſtrewed vpon the ſtomack,helpeth the weakneſſe and queaſineſſe thereof, which maketh it ready to ouerturn. If it be ſodden in water and oile,and ſo reduced into a liniment with Anniſe-ſeed,and applyed,it cureth the ſquinancie. It muſt be wel dried and parched at the fire,in caſe it be giuen to ſtay the running out of the belly. As for thoſe that be troubled with the ſtomachicall flux,or the exulceration of the guts; a cataplaſme thereof with vineger and ſo applied,bringeth them preſent eaſe. For the griefe of the liuer,it ought to be eaten with raiſons. This ſeed is paſſing good for lohoches or electuaries to be made thereof, in the cure of the Phthiſick,and conſumption of the lungs. Lineſeed growing into floure and mingled with nitre or ſalt,or els with aſhes put thereto,is of great operation to mollifie the hardneſſe of muſ- K
cles,ſinews,joints,and the nape or chine of the neck; yea and to mitigat the inflammations of the membrans or pellicles of the brain. The ſame applyed with figs,is an excellent maturatiue, and ripeneth all impoſtumes. But if it be laid too with the root of the wild Cucumber,it draweth forth any thing that ſticketh within the body,euen the very ſpils & ſhiuers of broken bones. The ſaid pouder or floure made of Line-ſeed ſodden in wine,and applied as a cataplaſme,ſtayeth cancerous vlcers that they run no further: the ſame alſo with hony ripeneth apoſtemations of flegmatick humors,and the breaking forth of the ſmall pox. Being mingled with an equall portion of garden Creſſes,it cureth the rough nailes that grow vntowardly,and fetcheth them
*Murrha. off without any inconuenience. Incorporat with roſin and * Myrrhe, and ſo laid to the cods, it helpeth their ſwelling and inflammations: it is good alſo for ruptures of all ſorts; & with wa- L
ter it healeth the gangrene. Take of Line-ſeed & Fenigreek ſeed,of each one ſextar,ſeeth them in honied water,and make a liniment thereof,it eaſeth the paine of the ſtomack. Line-ſeed miniſtred in a clyſtre with oile and hony,cureth the deadly maladies of the guts and breaſt parts.

Bleets ſeeme to be dull,vnſauorie,and fooliſh Woorts,hauing no taſt nor quickneſſe at all: whereupon *Menander* the comicall Poet, bringeth in a husband vpon the ſtage, who to reproch his wife for her ſottiſhneſſe and want of ſenſe,giueth her the terme of Bleet. And in very truth, good it is for little or nothing,and altogether hurtfull vnto the ſtomacke. It troubleth and diſquieteth the belly, inſomuch as it driueth ſome that vſe to eat it, into the dangerous diſeaſe Cholera,working both vpward and downward without any ſtay. And yet ſome ſay,that if it be drunk in wine,it is good againſt Scorpions,and ſerueth for a prety liniment to be applied vnto M
the agnels or corners of the feet;yea and maketh a reaſonable good cataplaſm with oile,for the ſpleen,and pain of the temples. Finally,*Hippocrates* is of opinion, that much feeding of Bleets, ſtaieth the monethly courſe of womens tearmes.

CHAP.

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A

Chap. XXIII.

¶ Of Meu, and Fenell, as well Gentle, named Fœniculum; as Wild, which is called Hippomarathrum, or Myrſineum: of Hempe, and Fenell-geant: and of Thiſtles and Artichoux.

MEu or Spicknell is not found in Italy, vnleſſe it be in ſome Phyſitians garden, and thoſe are very few that ſow or ſet it. Howbeit, there be two kinds thereof; the one, which is the better, is commonly called Athamanticum, of Prince *Athamas* the firſt inventer of this herbe, as ſome thinke; but according to other, becauſe the beſt Meu is found vpon Athamas, a
B mountaine in Theſſaly. Leafed it is like to * Anniſe, riſing vp with a ſtem otherwhile two cubits high, putting forth many roots, and thoſe blackiſh, whereof ſome run very deepe into the ground; neither is this Meu ſo red altogether as the other. If the root therof be beaten into pouder, or otherwiſe ſodden and ſo drunk in water, it cauſeth vrine to paſſe abundantly: in that order alſo it doth reſolue wonderfully the ventoſities gathered in the ſtomack. It aſſuageth mightily the wrings and torments of the guts; it openeth the obſtructions, and cureth other infirmities of the bladder and the matrice. Applied with honey, it is very good for the joints. Beeing laid as a cataplaſme with Parſley to the bottome of the belly of little children, it cauſeth them to make water.

* *Aniſo*, rather *Anetho*, Dill, after *Dioſc.* whereupon it is called of ſome, wilde Dil.

As for Fenell, the Serpents haue woon it much credit, and brought it into name, in this re-
C gard, That by taſting thereof (as I haue already noted) they caſt their old skin, and by the juice that it yeeldeth do cleare their eies: whereby we alſo are come to know, that this herbe hath a ſingular * property to mundifie our ſight, and take away the filme or web that ouercaſteth and dimmeth our eyes. Now the only time to gather and draw the ſaid juice out of Fennel, is when the ſtalke beginneth to ſwell and wax big: which after it is receiued, they vſe to dry in the Sun, and as need requireth, make an iniunction with it and honey together. There is of this juice to be had in all places: howbeit, the beſt is made in Iberia, partly of the gum that iſſueth or frieth (rather) out of the ſtalk [being brought neere to the fire;] or els drawn from the ſeed whiles it is freſh and green. There is another making thereof out of the roots, by way of inciſion, preſently after that Fennell beginneth to ſpring and put forth out of the ground, when Winter is done.
D There is another kind of wild Fenell, named by ſome Hippomarathrum, by others Myrſineum. Larger leaues this hath than that other of the Garden, and thoſe more ſharpe and biting at the tongues end: it groweth taller alſo, and ariſeth with a maine ſtem as big as a mans arm, & hath a white root. It groweth in hot grounds and thoſe that be ſtony. *Diocles* maketh mention of another kind yet of wild Fennell, with a long & narrow leafe, bearing ſeed reſembling Coriander. As touching the garden Fenell, and the medicinable vertues that it hath, it is holden, That the ſeed, if it be taken inwardly in wine, is a ſoueragne drinke for the prick of Scorpions or ſting of other Serpents. The juice thereof, if it be inſtilled by drops into the eares, killeth the wormes there. The herb it ſelfe carrieth ſuch ſway in the kitchin, that lightly there is no meat ſeaſoned nor any vineger ſauce ſerued vp without it. Moreouer, for to giue a commendable and pleaſant
E taſt vnto bread, it is ordinarily put vnder the bottome cruſt of our loues, when they be ſet into the ouen. The ſeed doth bind and corroborat a weake and feeble ſtomack, yea if it be taken in a very ague. Being beaten into pouder & drunk in cold water, it ſtaieth the inordinat heauing of the ſtomack, and the vain proffers to vomit; for the lights and the liuer, it is the moſt ſoueraign medicine of all other. Being taken moderatly, it ſtaieth the looſeneſſe of the belly, and yet prouoketh vrine. The decoction thereof appeaſeth the wrings of the guts: and taken in drink, it filleth womens breſts, and maketh them to ſtrout again with milk, when it is gone vpon ſome occaſion. The root taken in a Ptiſane of husked barly, purgeth the reins; ſo doth the ſyrrup made with the juice or decoction therof, yea and the ſeed. The root ſodden in wine, is ſingular good
G for the dropſie and the cramp. A liniment made with the leaues and vineger, and ſo applied, aſſuageth hot ſwellings and inflammations: and the ſaid leaues haue vertue to expel the ſtone of the bladder. Fennell taken inwardly any way, increaſeth ſperme or natural ſeed. A moſt friendly and comfortable herb it is to the * priuie parts, whether it be by fomenting them with a decoction of the roots boyled in wine, or by applying a liniment to them made with the ſaid roots ſtamped & incorporate with oile. Many do make a cerote thereof with wax, for ta lay vnto tumors,

* Such medicines be called ἐνδρομικὰ.

* either ſwolſ, exulcerate, or itching.

mours to places bruiſed & made black and blew with ſtripes. Alſo they vſe the root either prepared with the juice of the herb, or otherwiſe incorporat with hony, againſt the biting of dogs; and taken in wine, againſt the worm called Milleped. But for all theſe purpoſes beforeſaid, the wild Fennell is of greater operation than the garden Fennell: but this principal vertue it hath, mightily to expell the ſtone and grauell. If it be taken with any mild and ſmall wine, it is very good for the bladder [and namely the Strangury] alſo it prouoketh womens tearmes that be either ſuppreſſed or come not kindly away: to which purpoſe the ſeed is more effectuall than the root. But whether it be root or ſeed, it would be vſed in a mean & meaſure: for it is thought ſufficient to put into drink at once, as much as two fingers wil take vp. *Petridius*, who wrote the booke intituled * Ophiaca, and *Myction* likewiſe in his Treatiſe named *Rhizotomumena were of opinion, That there is not a better counterpoyſon againſt the venome of Serpents, than wild Fennell. And certes, *Nicander* himſelfe hath raunged it, not in the loweſt place of ſuch medicines.

G

* Of Serpents.
* Of cutting vp or gathering roots.

H

Concerning Hemp, at firſt it came vp without ſowing euen in the very woods, and carried a more duskiſh green leafe, and the ſame rougher. It is ſaid, that if men eat the ſeed, it wil extinguiſh vtterly their own ſeed. The juice of green Hemp-ſeed, being dropped into the eares, drieth out any wormes or vermin there ingendred, yea, and what ear-wigs or ſuch like creatures that are gotten into them: but it will cauſe head-ach withall. So forcible is this plant, that (by report) if it be put into water, it will make it to gather and coagulat. Which is the reaſon, that if horſes haue the gurry, they ſhall find help by drinking the ſaid water. The root if it be boiled in water, doth mollifie and ſoften ioints that be ſhrunk vp: it aſſuageth the pains likewiſe of the Gout, and ſuch like wicked humors that fall down vpon any part. Being yet green and reduced into a liniment and ſo applied, it is good for burnes or ſcaldings, but it muſt be often remoued and changed before it be drie.

I

As for Ferula or Fennel-geant, it carrieth a ſeed like to Dill. That kind which riſeth vp in one ſtem, and then diuideth it ſelf and brancheth forth in the head, is ſuppoſed to be the female. The ſtalks are good to be eaten boyled: and the right ſauce wherein they be ſerued vp, to giue them a more commendable taſt, is new wine and hony tempered accordingly; and ſo prepared, they be good for the ſtomack. Howbeit, if one eat ouer-liberally of them, they cauſe head-ach. Take the weight of one denier Roman of the root, beat it to pouder and drinke it in two cyaths of wine, you ſhall find it a ſoueraigne medicine againſt the ſtinging of ſerpents: but you muſt not forget meanwhile to apply the root it ſelf (ſtamped into a cataplaſme) vnto the hurt place. After this manner it helpeth the wringing torments of the guts. Make a liniment or vnguent thereof and vineger together, annoint the body therewith; it reſtraineth the immoderate ſweats that burſt out, although the Patient be ſick of a feuer. The juice of Ferula, if it be eaten (to the quantity of a Beane) doth looſen the belly. The ſmall tendrils or branches of greene Ferula, is good for all the infirmities abouenamed. Take ten grains of Ferula ſeed in pouder with wine, or ſo much of the pith within the ſtalk, it ſtancheth bloud. Some hold it good to giue a ſpoonful thereof euery fourth, ſixth, and ſeuenth day after the change of the Moon, to preuent the fits of the falling ſicknes. The nature of all theſe Fennel-geants is moſt aduerſe to Lampreies, for if they be touched neuer ſo little therewith, they will die vpon it. *Caſtor* was of opinion, That the juice is excellent good to cleare the eye-ſight.

K

L

And foraſmuch as I haue ſpoken ſomewhat of Thiſtles and Artichoux (how they ſhould be ordered) in my treatiſe of other garden plants, I will put off no longer to diſcourſe alſo of their properties and vertues in Phyſick. Of the wild Thiſtles there be two kinds: the one more ful of branches, ſhooting out immediatly from the root; the other riſeth vp in one intire ſtem, and the ſame is thicker withall. Both of them haue but few leaues, and thoſe beſet with prickles: they beare heads pointed with ſharp pricks round about in manner of caltrops. Howbeit, there is one kind, which is the Artichoke, which putteth forth a purple floure amidſt thoſe ſharpe pointed prickes, which very quickly turns into an hoarie downe, readie to flie away with euery puffe of wind: and this thiſtle the Greeks cal Scolymos. The juice of the Artichoke ſtamped & preſſed out before it bloome, bringeth haire again thicke, if the naked place be annointed therewith. The root either of Thiſtle or Artichoke, ſodden in water and ſo eaten, is as good as a ſhooing-horne to draw on pot after pot, for theſe great bibbers that deſire nothing more than to be thirſty and to make quarrell to the cup. It ſtrengtheneth the ſtomacke, and (if we may beleeue it) is

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A ſo appropriate vnto the matrice of women, that it diſpoſeth and prepareth it to conceiue men children. In good faith, *Chæreas* the Athenian, and *Glaucias* eſpecially, who ſeemeth to be moſt curious in deſcribing the nature and properties of theſe Thiſtles or Artichokes, giue out no leſſe. To conclude, if one chew them in his mouth, hee ſhall finde that they will cauſe a ſweet breath.

Chap. XXIV.

¶ *The compoſition of a Treacle which was the ordinarie and familiar medicine of King Antiochus.*

B BVt before that we go out of the garden, and leaue the herbes there growing, I think it good to ſet down one confection made of them, thought to be a moſt excellent and ſoueraigne antidote or preſeruatiue againſt the poiſon of all venomous beaſts whatſoeuer, and which for the excellency thereof was ingrauen in ſtone vpon the forefront of the temple dedicated to *Æſculapius*, in this maner following: Take of wild running Thyme the weight of two deniers; of Opopanax and * Meu of each the like quantitie; the ſeed of Dil, Fennel, Ameos, and Parſly, of each the weight of ſix deniers; of Ervil floure twelue deniers or drams. Let theſe be beaten into pouder and finely ſearced; and when they be incorporat in the beſt wine that may be had, they ought to be reduced into the form of Troſches, euery one weighing a victoriat or half denier. When occaſion is to vſe this compoſition, diſſolue one of theſe Troſches in three cyaths
C of wine, and drinke it. This is that famous Treacle or countrepoyſon which great *Antiochus* the King was wont (by report) to take againſt all venoms or poyſons whatſoeuer.

*Mei, non Milij. Ex Galen.

D

THE TVVENTY FIRST BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The nature of Floures, and namely thoſe of Chaplets and Guirlands.

E

Chap. I.

¶ *The wonderfull varietie of Floures.*

F CAto in his Treatiſe of Gardens ordained as a neceſſary point, That they ſhould be planted and inriched with ſuch herbs as might bring forth floures for Coronets and Garlands. And in very truth, their diuerſitie is ſuch, that vnpoſſible it is to decipher and expreſſe them accordingly. Whereby wee may ſee, that more eaſie it was for dame Nature to depaint & adorn the earth with ſundrie pictures, to beautifie the fields (I ſay) with all maner of colours, by her handy-worke (eſpecially where ſhe hath met with a ground to her minde, and when ſhe is in a merrie humour and diſpoſed to play and diſport her ſelfe) than for any man in the world to vtter the ſame by word of mouth. Wherin certes her admirable prouidence ſhe hath ſhewed principally

in

in this, That whereas ſhe hath giuen vnto thoſe fruits of the earth which ſerue for neceſſities & G
the ſuſtentation of man, long life and a kind of perpetuitie, euen to laſt yeares and hundreds of yeres; theſe floures of pleaſure and delight, good only to content the eye, or pleaſe the ſence of ſmelling, ſhe would haue to liue and die in one day. A great document and leſſon for vs men in generall to learne, How all things whatſoeuer that flouriſh moſt louely and be gayeſt in ſhew, ſooneſt fade and are gon ſuddenly. But to come again to the varietie of floures aforeſaid, together with their diuers mixtures: verily there is no painter with all his skil, able ſufficiently with his penſil to repreſent one liuely garland of floures indeed; whether they be plaited and intermedled in maner of noſegaies one with another, or ſet in ranks and rewes one by another; whether they be knit and twiſted cord-wiſe and in chain-work of one ſort of floures, either to wind and wreath about a chaplet, bias, or in faſhion of a circle, or whether they be ſorted round into a H
globe or ball, running one through another, to exhibit one goodly ſight and entire vniformity of a croſſe garland.

Chap. II.

¶ *Of Garlands, Coronets, Chaplets, and Noſegaies made of floures. Who deuiſed firſt the ſorting and ſetting of ſundry floures. The firſt inuention of the Coronet or Guirland, and the name of it in Latine, Corollæ: and whereupon it was ſo called.*

THe Coronets or Garlands vſed in antient time were twiſted very ſmall, and thereupon I
they were called Strophia, *i.* Wreaths: from whence came alſo womens gorgets & ſtomachers to be named Strophiola. As for the word Corona, a Coronet or Garland, long it was firſt ere it came to be vulgar and commonly taken vp, as a term chalenged either by prieſts and ſacrificers in their diuine ſeruice, or victorious captaines in their glorious triumphs. But thoſe Garlands and noſegaies being made of floures were called in Latine Serta, or Seruiæ, *à ſerendo*, *i.* of ſorting and ſetling together. The maner of which plaiting and broiding of herbes and floures, the antient Greekes took no pleaſure in: for at the beginning they vſed to crowne with branches only of trees, thoſe braue men who had woon the priſe in their ſacred games and ſolemne Tournies or exerciſes of actiuitie. But afterwards they began to beautifie and enrich their chaplets of triumph with ſundry floures entermingled together. And, to ſay a truth, the K
Sicyonians paſſed in this feat of ſorting together one with another, floures of ſweet ſauor and pleaſant color, in making of poſies and garlands. Howbeit the example of *Pauſias* the cunning painter, and *Glycera* the artificial maker of ſuch Chaplets, ſet them firſt a worke. This Painter was wonderfully enamoured vpon the ſaid *Glycera*, and courted her by all the meanes hee could deuiſe: among the reſt, he would ſeem to counterfeit and repreſent liuely with his penſil in colours, what floures ſoeuer ſhe wrought and ſet with her fingers into garlands; and ſhee againe ſtriued avie to change and alter her handiwork euery day, for to driue him to a non-plus at the length, or at leaſtwiſe to put him to his ſhifts: inſomuch, as it was a very pleaſant and worthie ſight, to behold of one ſide the works of Nature in the womans hand, and on the other ſide the artificiall cunning of the foreſaid painter. And verily there are at this day to be ſeene diuers L
painted tables of his workmanſhip: and namely one picture aboue the reſt, entituled, * Stephanoplocos, wherein hee painted his ſweet-heart *Glycera* twiſting and braiding Coronets and Chaplets, as her manner was. And this fell out to be after the hundreth Olympias was come and gon, by iuſt account.

* A Garland-maker.

Now when theſe Garlands of floures were taken vp and receiued commonly in all places for a certain time, there came ſoon after into requeſt thoſe Chaplets which are named Egyptian; and after them winter Coronets, to wit, when the earth affourdeth no floures to make them; and thoſe conſiſted of horn ſhauings died into ſundry colours. And ſo in proceſſe of time, by little and little crept into Rome alſo the name of Corollæ, as one would ſay, petty Garlands; for that theſe Winter Chaplets at firſt were ſo prety and ſmall: and not long after them, the coſtly Coronets and attires Corollaria, namely, when they are made of thinne leaues and plates and Latin, either guilded or ſiluered ouer, or elſe ſet out with golden and ſiluered ſpangles, and ſo preſented. M

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Chap. III.

¶ *Who was the firſt that exhibited in publicke ſhew a Guirland or Chaplet of gold and ſiluer-foile. How highly Coronets were eſteemed in old time. Of the honour done to Scipio. Of plaited Coronets. And one notable Act of Queene Cleopatra.*

Craſſus the rich was the firſt man, who at the ſolemn Games and Plaies which he ſet out in Rome, gaue away in a braue ſhew, Chaplets of gold and ſiluer, reſembling liuely floures and leaues of hearbes. Afterwards, ſuch Coronets were adorned with ribband alſo, and
B thoſe were added as pendants thereto for more honour and ſtate: a deuiſe reſpectiue to thoſe * Tuſcane Guirlands and Coronets, which might haue no ſuch ribbands or lace hanging vnto them but of gold. And in truth thoſe labels a long time were plaine and without any other ſetting forth ſaue only the bare gold: vntill *P. Claudius Pulcher* came in place, who exhibited in his publicke ſhewes, the ſaid labels wrought, chaſed, and engrauen; yea, and hee garniſhed the ſaid plates of gold with glittering and twinckling ſpangles beſides. Howbeit, were theſe Coronets neuer ſo rich and precious, yet thoſe Chaplets woon and gotten at the ſolemn Games for ſome worthy feats of actiuity performed, caried alwaies the greater credit & authority. For to gaine this priſe, the Grand-ſiegniors and great men of the citie thought it no ſcorne to enter themſelues in proper perſon into the publick place of Exerciſe to trie maſtries: yea, and thither they
C ſent euery man his ſeruant and ſlaue. Hereupon grew theſe Ordinances, ſpecified among the laws of the twelue tables in theſe words: *Whoſoeuer winneth Guirland, either himſelfe in perſon, or by his monie, goods and chattels, is to be honoured in regard of his vertue.* And certes who maketh doubt, but what Priſe or coronet, either ſlaues or horſes haue obtai ned, the ſame by vertue of this law, ſhould be reputed as gotten by the money and goods of the maſter or owner of the ſaid horſes or ſlaues? But what honor might this be which is thus atchieued by ſuch a chaplet? mary that which is right great, namely, that without all fraud and contradiction, not only the party himſelfe who woon it, ſhould be crowned therewith after his death, both whiles his body lay vnder bourd within houſe, and alſo all the way that it was caried forth to the place of ſepulture or funerall fire; but euen his parents likewiſe, both father and mother [if they were then liuing.] certes, ſuch Guirlands otherwiſe though they were not woon at games or prize, but only made for
D pleaſure & paſtime, might not come abroad ordinarily, nor be commonly worn; for the law was very ſtrict and ſeuere in this caſe: we read that *L. Fulvius Argentarius* in the time of the ſecond Punicke war, vpon an information or ſpeech giuen out, That in the open day time he only looked forth of a gallerie which he had in the publicke Forum or common place at Rome, with a Garland of Roſes vpon his head; was by authoritie of the Senate committed to priſon, and was not enlarged before the end of the warre. *P. Munatius* hauing taken from the head of *Marſyas* a Chaplet of floures, and ſet it vpon his owne; and thereupon being commaunded to ward, by the Triumvirs, called vnto the Tribunes of the Commons for their lawful fauour and protection: but they oppoſed not themſelues againſt this proceeding, but deemed him worthie of this
E chaſtiſement. See the diſcipline and ſeueritie at Rome, and compare it with the looſenes of the Athenians, where yong youths ordinarily followed reuils and bankets, and yet in the forenoon would ſeeme to frequent the ſchooles of Philoſophers, to learne good inſtructions of vertuous life. With vs verily we haue no example of diſorder in this behalf, namely, for the abuſe of garlands; but only the daughter of *Auguſtus Cæſar* late Emperor, and cannoniſed as a god at Rome, who complaineth of her in ſome letters of his yet extant, & that with grone and griefe of heart, to be giuen to ſuch riot and licentious looſeneſſe, that night by night ſhe would ſeem to adorn with Guirlands the ſtatue and image of *Marſyas* the Minſtrell. We do not read in Chronicles, that the people honoured in old time any other with a Coronet of floures, but onely *Scipio* ſirnamed *Serapio*, for the neere reſemblance that he had to his baily or ſeruant ſo called, who dealt
F vnder him in buying and ſelling of Swine: in which regard he was wonderous well beloued of the commons in his Tribuneſhip, as bearing himſelf worthy of the famous and noble houſe of the *Scipioes* ſirnamed *Africani*. Howbeit, as well deſcended and beloued as he was, yet when hee died, he left not behind him in goods ſufficient to defray the charges of his funerals: the people therfore made a collection, and contributed by the poll euery man one * As: and ſo took order

by

* These Guirlands or Chaplets were called *Hetruſcæ*. For ſo ſaith *Tertullian. Præferuntur etiam illis Hetruſcæ. Hoc vocabulum eſt Cornarù &c.* to be Ædiles.

* i. three farthings.

by a generall expence, that he ſhould be honourably enterred: and as his corpes was carried in G
the ſtreets to his funeral fire, they flung floures vpon his bere out of euery window all the way.
In thoſe daies the maner was to honor the gods with chaplets of floures, and namely thoſe that
were counted patrones and protectours, as well of cities and countries, as of priuat families; to
adorne and beautifie therewith the tombs and ſepulchres of thoſe that were departed, as alſo to
pacifie their ghoſts, and other infernall ſpirits: farther than thus, there was no vſe of ſuch Guir-
lands allowed. Now of all thoſe Chaplets, moſt account was made of them wherein the floures
were platted. We find moreouer, That the Sacrificers or Prieſts of *Mars* called *Salij*, were wont
in their ſolemnities & feaſts (which were very ſumptuous) to weare Coronets of ſundry floures
ſowed together. But afterwards, Chaplets of Roſes were only in credit and reputation: vntill
that in proceſſe of time, the world grew to ſuch ſuperfluitie and ſumptuous expence, that no H
Guirlands would pleaſe men, but of the meer precious and aromaticall leaf Malabathrum: and
not content therewith, ſoone after there muſt be Chaplets fet as far as from India, yea, and be-
yond the Indians, & thoſe wrought with needle work: and the richeſt coronet was that thought
to be, which conſiſted of the leaues of Nard: or els made of fine ſilke out of the Seres country,
and thoſe of ſundry colors, perfumed beſides & al wet with coſtly and odoriferous ointments.
Further than thus they could not proceed, and ſo our dainty wanton dames reſt contented hi-
thereto, and vſe no other Chaplets at this day. As for the Greekes verily, they haue written alſo
ſeuerall Treatiſes concerning floures and Garlands: and namely, *Mneſtheus* and *Callimachus*, two
renowmed Phyſicians, haue compiled bookes of thoſe Chaplets that be hurtfull to the braine
and cauſe head-ach. For euen herin alſo lieth ſome part of the preſeruation of our health, con- I
ſidering that perfumes do refreſh our ſpirits, eſpecially when we are ſet at table to drinke libe-
rally and to make merrie, whiles the ſubtile odour of flours pierceth to the braine ſecretly ere
we be aware. Where, by the way, I cannot chuſe but remember the deuiſe of Queene *Cleopatra*,
full of fine wit, and as wicked and miſchieuous withall: For at what time as *Antonie* prepared
the expidition and journey of Actium againſt *Auguſtus*, and ſtood in ſome doubt of jealouſie
of the ſaid Queen; for al the fair ſhew that ſhe made of gratifying him and doing him all plea-
ſure, he was at his taſter, & would neither eat nor drink at her table without aſſay made. *Cleopa-*
tra ſeeing how timorous he was, and minding yet to make good ſport and game at his needleſſe
feare and fooliſh curioſitie, cauſed a Chaplet to be made for *M. Antonius*, hauing before dipped
all the tips and edges of the flowres that went to it in a ſtrong and rank poiſon, and being thus K
prepared, ſet it vpon the head of the ſaid *Antonie*. Now, when they had ſitten at meat a good
while, and drunk themſelues merrie, the Queen began to make a motion and challenge to *An-*
tonie, for to drink each of them their chaplets; and withall began vnto him in a cup of wine ſea-
ſoned and ſpiced (as it were) with thoſe floures which ſhe ware her owne ſelf. Oh the ſhrewd &
vnhappy wit of a woman when ſhe is ſo diſpoſed! who would euer haue miſdoubted any danger
of hidden miſchiefe herein? Well, *M. Antonie* yeelded to pledge her: off goeth his owne Guir-
land, and with the floures minced ſmall, dreſſeth his own cup. Now when he was about to ſet it
to his head, *Cleopatra* preſently put her hand betweene, and ſtaied him from drinking, and with-
all vttered theſe words, My deare heart and beſt beloued *Antonie*, now ſee what ſhe is whome ſo
much thou doſt dread and ſtand in feare of, that for thy ſecurity there muſt wait at thy cup and L
trencher extraordinarie taſters; a ſtraunge and new faſhion ywis, and a curioſity more nice than
needfull: lo, how I am not to ſeek of means and opportunities to compaſſe thy death, if I could
find in my heart to liue without thee. Which ſaid, ſhe called for a priſoner immediately out of
the goale, whom ſhe cauſed to drink off the wine which *Antonie* had prepared for himſelfe. No
ſooner was the goblet from his lips againe, but the poor wretch died preſently in the place: but
to come again to the Phyſicians who haue written of floures beſides thoſe abouenamed. *Theo-*
phraſtus among the Greekes hath taken this argument in hand. As for our countreymen, ſome
* Of floure gathering. haue entituled their bookes * Anthologicon: but none of them all, ſo farre as euer I could find,
wrote any Treatiſe concerning floures. Neither is it any part of my meaning at this preſent to
make Noſegaies, or plat any Chaplets, for that were a friuolous and vaine peece of work: but as M
touching floures themſelues, I purpoſe to diſcourſe ſo much as I think and find to be memora-
ble and worth the penning. But before I enter into this Treatiſe, I am to aduertiſe the Reader,
that we Romanes are acquainted with very few garden floures for Guirlands, and know in man-
ner none but Violets and roſes.

CHAP.

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Chap. IV.

¶ Of the Roſe employed in Coronets. The diuers kinds thereof: and where it is ſet and groweth.

THe plant whereupon the Roſe doth grow is more like a thorn or buſh, than a ſhrub or any thing elſe. For it will come of a very Brier or Eglantine alſo, where it wil caſt a ſweet and pleaſant ſmell, although it reach not far off. All Roſes at their firſt knitting ſeeme to be incloſed within a certain cod or huske full of graines: which ſoon after beginneth to ſwell and grow ſharp pointed into certain green indented or cut buds: then by little and little as they wax red, they open and ſpred themſelues abroad, containing in the midſt of their cup as it were certain ſmall tufts or yellow threds ſtanding out in the top. * Vſed they are exceeding much in Chaplets and Guirlands. As touching the oile Roſat, made by way of infuſion, it was in requeſt before the deſtruction of Troy, as may appeare by the poet *Homer*. Moreouer, Roſes enter into the compoſition of ſweet ointments and perfumes. Ouer and beſides, the Roſe of it ſelfe alone as it is, hath medicinable vertues, and ſerueth to many purpoſes in phyſick. It goeth into emplaſtres and collyries or eye-ſalues, by reaſon of a certain ſubtil mordacitie and penetratiue qualitie that it hath. Furthermore, many delicate and dainty diſhes are ſerued vp to the table, either couered and beſtrewed with Roſe leaues, or bedewed and ſmeared all ouer with their iuice; which doth no harme to thoſe viands, but giue a commendable taſt therto. We at Rome make moſt account of two kinds of Roſes aboue the reſt, to wit, thoſe of Præneſte, and of Capua. And yet ſome haue ranged with theſe principal Roſes, thoſe of Miletum, which are of a moſt liuely and deep red colour, and haue but twelue leaues in a floure at the moſt. The next to them are the Trachinian Roſes, not ſo red all out. Then thoſe of Alabanda, which be of a baſer reckoning, with a weak colour inclining to white. Howbeit the meaneſt and worſt of all, is the Roſe * Spineola. Moſt leaues in number it hath of all others, and thoſe in quantity ſmaller. For this would be knowne, that Roſes differ one from another either in number of leaues, more or leſſe; or els that ſome be ſmooth, others rough and pricky: alſo in colour and ſmell. The feweſt leaues that a Roſe hath be fiue: and ſo vpward they grow euer ſtill more and more, vntill they come to thoſe that haue an hundred, namely about Campain in Italy, and neere to Philippos a city in Greece, whereupon the Roſe is called in Latine Centifolia. Howbeit, the territorie of Philippi hath no ſuch ſoile as to bring forth theſe hundred-leafe Roſes: for it is the mountain Pangæus neare adioyning, vpon which they naturally doe grow, with a number of leaues I ſay, but the ſame ſmall: which being remoued & tranſplanted by the neighbor borderers, do mightily thriue in another ground, namely about Philippi aforeſaid, & proue much fairer than thoſe of Pangæus. Yet are not ſuch Roſes of the ſweeteſt kind, that are ſo double and double againe; no more than thoſe which are furniſhed with the largeſt and greateſt leaues. But in one word, if you would know a ſweet ſmelling roſe indeed, chuſe that which hath the cup or knob vnder the floure, rough & pricky. *Cæpio*, who liued in the time of *Tiberius* the Emperour, was of opinion, That the hundred-leafe Roſe had no grace at all in a garland, either for ſmel or beauty; & therfore ſhould not be put into chaplets, vnleſſe it were laſt in maner of a tuft, to make a ſur-croiſt, or about the edges as a border: no more than the Roſe Campion, which our men cal the Greek Roſe, and the Greekes name Lychnis, which lightly groweth not but in moiſt grounds, and neuer hath more than fiue leaues. The floure exceeds not the bignes of a certain violet, and carieth no ſent or ſauor at all. Yet is there another Roſe called Græcula, the floures & leaues wherof are folded and lapped one within another, neither wil they open of themſelues, vnleſſe they be forced with ones fingers, but looke alwaies as if they were in the bud, notwithſtanding that the leaues when they be out are of all others largeſt. Moreouer, there be Roſes growing from a buſh that hath a ſtalk like a Mallow, and beareth leaues reſembling thoſe of the oliue: and this kind is named in Greek Moſcheuton. Of a middle ſiſe between theſe abouenamed, is the Roſe of Autumne, commonly called Coroneola. And to ſay a truth, all the ſaid Roſes, except this Coroneola, and that which groweth vpon the brier or Eglantine before-named, haue no ſmell with them in the whole world naturally, but are brought to it by many deuiſes & ſophiſtications: yea, & the very Roſe it ſelfe, which of the own nature is odoriferous, carieth a better ſmell in ſome one ſoile than in another. For at Cyrene they paſſe all other for ſweetnes and pleaſant ſauor:

* *Vſus eius prope nimius eſt.*

* Our white Roſe.

ſauor: which is the reaſon that the oile Roſat, and ointment compounded thereof, is moſt ex- G
cellent there of all other places. And at Cartagena in Spain there be certaine timely or haſtie Roſes, that blow and floure all winter long. The climat alſo and temperature of the aire makes for the ſweetneſſe of the Roſe: for in ſome yeares yee ſhall haue them leſſe odoriferous than in others. Ouer & beſides, the place would be conſidered: for the roſes be euer more ſweet growing vpon dry than wet grounds. And indeed the Roſe buſh loueth not to be planted in a fat and rich ſoile, ne yet vpon a vein of cley, no more than it liketh to grow neere vnto riuers where the banks be ouerflowed, or in a wateriſh plot; but it agreeth beſt with a light and looſe kinde of earth, and principally with a ground full of rubbiſh, and among the ruines of old houſes. The Campain Roſe bloweth early and is very forward. The Mileſian comes as late. Howbeit thoſe of Prænеſte be longeſt ere they giue ouer bearing. As touching the maner of planting them: as H
the ground would be delued deeper than for corn, ſo a lighter ſtitch had need be taken than for Vine ſets. Thoſe that be ſowed of ſeed be lateſt of all others ere they come vp, and thriue moſt ſlowly. [Now lieth this ſeed in the cup or husk thereof iuſt vnder the very floure, and is couered all ouer with a down.] And therefore it is better to ſet ſions cut from the ſtalk, or els to ſlip the little oilets and ſhoots from the root, as the maner is in reeds and canes. After which ſort they vſe to ſet, yea & to graf one kind of a pricky & pale roſe buſh, putting forth very long twigs & ſhoots like to thoſe of the Cinq-foile roſe, which is one of the Greekiſh kind. There is no roſe buſh whatſoeuer, but proſpereth the better for cutting, pruning, yea and burning. Moreouer, it loueth to be remoued and tranſplanted as well as the Vine, and by that meanes will it come to the proof and beare beſt. As for the ſets or ſions, they ought to be foure fingers long or more a- I
boue the ground, when they be firſt put into the earth, to wit, after the occultation of the brood Hen ſtar. Then would they be tranſlated in Februarie; at what time as the Weſtern wind Favonius is aloft, and replanted with a foot diſtance one from another: but they require to be euer and anon digged about the root. They that deſire to haue Roſes blow betimes in the yeare, before their neighbours, vſe to make a trench round about the root a foot deep, and poure hot water into it, euen at the firſt when the bud of the Roſe beginneth to be knotted.

Chap. X.

¶ *Of Lillies three kinds: and the maner of planting or ſetting them.* K

NExt to the Roſe, there is not a fairer floure than the Lilly, nor of greater eſtimation. The oiles alſo and ointments made of them both haue a reſemblance and affinitie one to the other. As touching the oile of Lillies, the phyſitians call it Lirinon: & if a man ſhould ſpeak truly, a Lilly growing among Roſes becommeth and beautifieth the place very well; for it beginneth then to floure when Roſes haue halfe done. There is not a floure in the garden again that groweth taller than the Lilly, reaching otherwhile to the height of three cubits from the ground: but a weak and ſlender neck it hath, and carieth it not ſtreight and vpright, but it bendeth and noddeth downeward, as being not of ſtrength ſufficient to beare the weight of the head ſtanding vpon it. The floure is of incomparable whiteneſſe, diuided into leaues, which without-forth are chamfered, narrow at the bottom, and by little and little ſpreading broader L
toward the top: faſhioned altogether in maner of a broad mouthed cup or beaker, the brims or lips wherof turn vp ſomewhat backward round about, and lie very open. Within theſe leaues there appeare certain fine threds in maner of ſeeds: and iuſt in the midſt ſtand yellow chiues like as in Saffron. As the colour of the Lilly is twofold, ſo carieth it a double ſmell; one in the leaues which reſembleth the cup aforeſaid, and another in thoſe ſtrings or chiues; howbeit the difference is not much. Now for to make the oile and ointment of Lillies, the leaues alſo are not reiected.

There is an herb named in Latine Convolvulus [*i.* with wind] growing among ſhrubs & buſhes; which carieth a floure not vnlike to this Lilly, ſaue that it yeeldeth no ſmell, nor hath thoſe chiues within: for whiteneſſe they reſemble one another very much, as if Nature in ma- M
king this floure, were a learning and trying her skill how to frame the Lilly indeed.

Now Lillies be ſet and ſowed after the ſame maner in all reſpects as the Roſes, and grow as many waies. This vantage moreouer they haue of the roſes, That they will come vp of the verie liquor that diſtilleth and droppeth from them, like as the herbe Aliſanders: neither is there in the

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A the world an herb more fruitful, inſomuch as you ſhal haue one head of a root put forth oftentimes fiue hundred bulbes orcloues.

There is beſides a red Lilly, which the Greeks in their language cal Crinon: and ſome name the floure of it Cynorrhodon. The excellent Lilly of this kind groweth in Antiochia & Laodicea, cities both in Syria: the next to that is found in Phaſelis. In a fourth place, is to be ſet the Lilly growing in Italy. There are beſides, purple Lillies, which otherwhiles riſe vp with a double ſtem: theſe differ from the reſt only in the pulpous root which they haue; and the ſame carrie a great bulbe in one entire head, and no more: ſuch they call Daffodills. A ſecond ſort there is of theſe Daffodils with a white floure, & a purple cup or bel within. Herin differ Daffodils from Lillies, for that the Daffodil leaues be toward the root, & namely thoſe in the beſt mountains of Lycia; wheras in Lillies they put forth in the ſtalk. The third kind agreeth in al points with the reſt; but that the cup in the mids of the floure, is of a graſſe greene. Al the ſort of them be late ere they floure, and begin not to blow before the retreat of the ſtar Arcturus, and about the Autumn Æquinox: but ſuch are the monſtrous deuiſes of ſome ſantaſtical ſpirits, that they inuented forſooth a new kind of artificiall * coloring and dying of Lillies: for which purpoſe, in the month of Iuly they gather their ſtems, when they begin to wither, & hang them vp in the ſmoke to drie. Now when the knobs or heads of their roots looke once bare and are ſhot out from the ſaid ſtalks, (which commonly falleth out in the month of March) they infuſe & ſteep them in the lees of deepe red wine, or ſome Greekiſh wine, for to ſuck and drinke in the colour thereof: which done, they ſet them in little trenches, whereinto they poure certaine hemines or pints of the ſaid wine: and by this means become the Lillies aforeſaid, purple. A ſtraunge and wonderfull matter that any root ſhould take a tincture ſo deep, as to bring forth a flour of the ſame die and colour.

B

C

* *Inficiendi.*

Chap. VI.

¶ *Of the Violet and the Marygold: of Bacchar, and Combretum: of Azara-bacca, and Saffron.*

IN the third ranke of floures, be ranged the * Violets: whereof be many kinds: to wit, the purple, the yellow, and the white. All of them may be ſet of plants, like as worts, and garden pot-hearbs. But of thoſe which naturally come vp & grow of their own accord in leane grounds, and thoſe expoſed to the Sunne, the purple [March] Violets, they haue a broader leafe than the reſt, & thoſe ſpring immediatly from the root, which is pulpous and fleſhy. Theſe alone be diſtinct from the reſt by a Greek name, and are called * Ia; whereupon purple cloth is likewiſe of them named Ianthina. But of thoſe which are ſowne or ſet by hand, the * yellow beare the greateſt name aboue all other. Theſe floures be diſtinguiſhed into diuers kinds, namely, into the Tuſcan Violets; and thoſe of the ſea, which haue a broader leafe but are not ſo ſweet as others. Some ſmell not at all, to wit, the * Calathian Violet with the ſmall leafe, a floure this is that Autumne yeeldeth, whereas the reſt doe flouriſh in the Spring.

D

* Note that *Viola* in *Plinie* and other authors, reacheth to our Stocke-gillofres, wall-floures and other floures, as to the purple March Violet, * ἰὸν λευκὸν *Cheiri* or Wal floures. * Some take it for a kind of Foxe gloue.

Next vnto the Violet, are the Marigolds, all of one colour. In number of leaues this floure paſſeth the Sea-violet aforeſaid, which neuer exceedeth fiue: but in recompence of that defect, this Violet goeth beyond the Marigold, in ſweet ſauour, for the Marigold carrieth a ſtrong ſent with it and an vnpleaſant. As for the hearb called * Scopia regia, it hath a ſmell nothing milder than it; although the leaues (to ſay a truth) doe ſmell, and not the floures.

E

* Which ſome take for yellow Yarrow.

Bacchar is named by ſome Ruſtick-Nard: this plant hath nothing in it odoriferous and ſenting well, but the root. Of which root, (as *Ariſtophanes* an auncient Comicall Poet teſtifieth in one of his Comœdies) they were woont in old time to make ſweet perfumes and odoriferous compoſitions for their ointments: whereupon ſome there be who call the root Barbarica, but falſly; for deceiued they are. The ſauour that this root doth caſt, draweth very neere to the ſent of Cinamon. It loueth a leane and light ſoile, and in no wiſe commeth vp in a moiſt ground.

F

As touching the hearb named Combretum, it reſembleth the ſame very much: howbeit the leaues be paſſing ſmall and as ſlender as threds, but the plant it ſelfe is taller than Bacchar: well, reſt we muſt not in the deſcription of theſe hearbes and floures only, but alſo we are to reforme and correct their error, who haue giuen to Bacchar the name of Nard-ruſtick: For there is another hearbe properly ſo called, to wit, that which the Greeks name Aſaron, [*i.* Aſara-bacca, or

Fole-foot;] a plant far different from Bacchar, as may appear by the deſcription therof, which I haue ſet down among the ſundrie kinds of Nardus. And verily I do find, that this plant is named * Aſarum, becauſe it is neuer vſed in making of guirlands and chaplets. G

*Χαρὰ τῦ, στεφανῶ, ἰ. ornare: ἢ ἀ στεφάνων, becauſe it adorneth no chaplets.

Concerning Saffron, the wild is the beſt. To plant it within any garden in Italie, is held no good husbandry, for it will not quit coſt, conſidering there is neuer a quarter ſet therewith, but it asketh a * ſcruple more in expence, than the fruit or increaſe commeth to, when all the cards be told. For to haue Saffron grow, you muſt ſet the cloues or bulbous heads of the root: and being thus planted, it prooueth larger, bigger, and fairer than the other: howbeit ſooner far it doth degenerate and become a baſtard kind: neither is it fruitfull and beareth chiues in euerie place, no not about Cyrene, where the goodlieſt floures of Saffron in the world are to be ſeen at all times. The principal Saffron groweth in Cilicia, and eſpecially vpon the mountain Corycus there: next to it, is that of Lycia, and namely vpon the hill Olympus: and then in a third degree of goodneſſe, is reckoned the Saffron Centuripinum in Sicily: although ſome there bee, who attribute the ſecond place vnto the ſaffron of the mount * Phlegra. Nothing is ſo ſubject to ſophiſtication as Saffron, and therfore the only triall of true Saffron indeed, is this. If a man lay his hands vpon it, he ſhall heare it to cracke as if it were brittle and readie to burſt: for that which is moiſt (a qualitie comming by ſome indirect means and cunning caſt) yeeldeth to the hand and makes no words. Yet is there another proofe of good Saffron, If a man after hee haue handled it, reach his hand vp preſently to his mouth, & perceiue that the aire and breath therof ſmiteth to his face and eyes, and therewith fretteth and ſtingeth them a little, for then he may be ſure that the ſaffron is right: there is a kind of garden ſaffron by it ſelf, and this commonly is thought beſt, and pleaſeth moſt, when there appeareth ſome white in the mids of the floure, and thereupon they name it Dialeucon; whereas contrariwiſe this is thought to be a fault and imperfection in the Coryſian Saffron, which is chiefe: and indeed the floure of it is blacker than any other, & ſooneſt fadeth. But the beſt ſimply in any place wherſoeuer, is that which is thickeſt and ſeemes to like beſt, hauing beſides ſhort chiues like hairs: the worſt is that which ſmelleth of muſtines. *Mutianus* writeth, that in Lycia the practiſe is to take it vp euery 7 or 8 yere, and remoue it to a plot of ground wel digged and delued to a fine mould; where, if it be replanted, it will become freſh again and youg, whereas it was ready before to decay and degenerate. No vſe there is in (any place) of Saffron floures in garlands; for the leaues are ſmall and narrow, in manner almoſt of threads. Howbeit with wine it accordeth paſſing well, eſpecially if it be of any ſweet kind: and being reduced into powder and tempered therewith, it is commonly ſprinkled ouer all the theatres, and filleth the place with a perfume. It bloometh at the ſetting or occultation of the ſtar Vergiliæ, and continueth in floure but few daies: and the leaf driueth out the floure. In the mids of winter, it is in the verdure and al green, and then would it be taken vp and gathered: which done, it ought ro be dried in the ſhadow; and the colder that the ſhade is, ſo much the better. For the root of Saffron is pulpous and full of carnoſitie; and no root liueth ſo long aboue ground as it doth. Saffron loueth a-life to be trampled and trod vpon vnder foot: and in truth, the more injurie is done vnto it for to mar it, the better it thriueth: and therefore neare to beaten paths, and wells much frequented, it commeth forward and proſpereth moſt. H I K L

* *Phlegræo* but *Turneb.* readeth *Ægæo*, according to *Dioſcor.*

Chap. VII.

¶ *Of the floures vſed in old time about coronets and guirlands: the great diuerſitie in aromaticall and ſweet ſmelling ſimples. Of Saliunca and Polium.*

SAffron was (no doubt) in great credit and eſtimation, during the flowring eſtate of Troy; for certes, the Poet *Homer* highly commendeth theſe three floures, to wit, Melilot, Saffron, and Hyacinth. Of all odoriferous and ſweet ſenting ſimples, nay of all hearbes and floures whatſoeuer, the difference conſiſteth in the colour, the ſmel, and the juice. And note this to begin withall, that ſeldome or neuer you ſhal meet with any thing ſweet in ſent, but it is bitter in taſt; and contrariwiſe, ſweet things in the mouth, be few or none odoriferous to the noſe: And this is the reaſon that wine refined, ſmelleth better than new in the lees; and ſimples growing wild, haue a better ſauor far than thoſe of the garden. Some floures, the further they be off, the more pleaſant is their ſmell: come nearer vnto them, their ſent is more dull and weaker than it M

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A was,as namely Violets. A freſh and new gathered roſe caſteth a better ſmel afar off than neere at hand; let it be ſomwhat withered and dry,you ſhal ſent it better at the noſe than farther off. Generally,all floures be more odoriferous and pleaſant in the Spring, than at any other ſeaſon of the yeare: and in the morning they haue a quicker and more piercing ſent,than at any houre of the day beſides: the neerer to noon,the weaker is the ſmell of any herb or floure. Moreouer, the floures of new plants are nothing ſo ſweet as thoſe of an old ſtock: and yet I muſt needs ſay that floures ſmell ſtrongeſt in the mids of Summer. As for Roſes and Saffron floures they caſt the pleaſanter ſmell if they be gathered in cleare weather, when it is faire and dry aboue head: and in one word, ſuch as grow in hot countries be euer ſweeter to ſmell vnto, than in cold Climats. Howbeit in Ægypt the floures haue no good ſent at all, by reaſon that the aire is foggie
B and miſtie,with the dewes riſing from the riuer Nilus. Moreouer,certain floures there be that are ſweet and pleaſant enough,yet they ſtuffe and fil the head. Others,ſo long as they be freſh and green,haue no ſmel at all, for the exceſſiue abundance of moiſture within them; as we may perceiue in Fenigreek,which the Grecians call Buceros. Many floures caſt a quick and liuely ſmel,and yet are not without good ſtore of juice,but moiſt enough,as violets,roſes,and ſaffron: but ſuch as are deſtitute of ſuch moiſture, and yet their ſent is piercing and penetrant,they all of them be of a ſtrong ſauor alſo,as for example the Lilly of both kinds. Sothernwood & Marjeram haue a hot and ſtrong ſauor. Some herbs there be which yeeld no ſmel nor goodnes at all but in their floure only,for all their other parts be dul and good for nothing,as violets and roſes. Of garden herbes,the ſtrongeſt of ſmel be alwaies dry,as Rue,Mints,and Ach or Parſley:
C likewiſe are all ſuch as grow in dry places. Some fruits,the elder they be and the longer kept, the ſweeter is their ſauor, as Quinces: and the ſame Quinces *de gard* ſmell better when they be gathered,than if they hung ſtil vpon the tree and ſo preſerued. Others there are,that vnles they be broken,bruiſed,rubbed,and cruſhed, haue no ſmell: and ye ſhall haue thoſe that caſt no ſent at all,vnleſſe their rind or bark be taken off: as alſo ſuch as except they be caſt into the fire and burnt,yeeld no ſauor,as Frankincenſe and Myrrhe. Furthermore, all floures being bruiſed,are more bitter than they were vntouched and vnhandled. Some after they be dry retain their odor longeſt,as the Melilot. There are that make the place ſweeter where they grow,as the floure de lis,inſomuch as it perfumeth the whole tree (whatſoeuer it is) the roots whereof it toucheth. The herb Heſperis ſmels more by night than day,whereupon that name was deuiſed. * There
D are no liuing creatures which yeeld from their bodies a ſweet ſauor, vnleſſe we giue credit to that which hath bin reported of the Panthers.

* *Plinie* neuer heard of the Musk-goats nor Ciuet cats in theſe daies.

Furthermore this would not be paſſed ouer as touching the difference of odoriferous plants and their floures,in this reſpect,that many of them are neuer imployed to the making of Guirlands and chaplets,as namely the Floure-de-lis and Nard Celticke,Saliunca, which although they yeeld both of them an excellent ſauor,yet are not vſed that way. But as for the * Flour-de-lis,it is the root only therof that is comfortable for the odor: as if Nature had made the plant it ſelfe to ſerue only for phyſick vſes,and compoſitions of ſweet perfumes. The beſt Floure-de-lis is that which groweth in Illyricum or Sclauonia; and not in all parts thereof, not(I ſay) in the maritime coaſts,but farther vp into the main, among the mountaines and forreſts of Drilo
E and Narona. The next to it in goodnes commeth out of Macedon, and it hath the longeſt root of all others,but ſlender withall and whitiſh. In the third place is to be ranged the flour-de-lis of Africk or Barbary,which as it is the biggeſt in hand,ſo is it alſo the bittereſt in taſt. As touching the Illyrian Ireos,there be two ſorts of it; namely, Rhaphanitis, which is the better of the twain,ſo called for the reſemblance that it hath to the Radiſh root. The ſecond they name Rhizotomos,and it is ſomwhat reddiſh. In ſum,the beſt Ireos, if a man do but touch it wil prouoke ſneeſing. The ſtem of the Flour-de-lis groweth ſtreight and vpright to the height of a cubit. The floure is of diuers colours, like as we ſee in the rainebow,whereupon it took the name Iris. The Ireos of Piſidia is not reiected,but held to be very good. Moreouer, they vſe in Sclavonia to be very ceremonious in digging vp the root of flour-de-lis; for 3 moneths before they
F purpoſe to take it forth of the ground, the manner is to poure meade or honied water round about the root in the place where it groweth,hauing before-hand drawne a threefold circle with a ſwords point; as it were to curry fauor with the Earth,& make ſome ſatisfaction for breaking it vp and robbing her of ſo noble a plant: and no ſooner is it forth of the ground,but preſently they hold it vp aloft toward heauen. This root is of a feruent & cauſtick nature,for in the very

* Commonly called *Ireos*.

handling it raiſeth pimples and bliſters in maner of a burn,vpon their hands that gather it. A- G
nother ceremonie alſo they haue in gathering thereof, for none muſt come about this worke, but ſuch as haue liued chaſt and not touched a woman: this (I ſay) aboue all is obſerued moſt preciſely. This root aboue all others is moſt ſubiect to the worme, for not onely when it is dry, but alſo while it is within the earth, it quickly commeth to be worme-eaten. In old time the beſt Irinum or oile of Ireos was brought from the cape of Leucas and the city of Elis in Bœotia; for planted it hath bin in thoſe parts many a yeare. But now there is excellent good commeth out of Pamphylia: howbeit that of Silicia, and namely from the Septentrionall parts is moſt highly commended.

As for the plant Saliunca or Nard Celtick, ful of leaues verily it is, yet they be ſo ſhort, that handſomly they canot be knit and twiſted for garlands: a number of roots it putteth forth, to H
which the floure or herbe groweth cloſe: for ſurely a man would iudge it all herbe rather than floure, as if it were platted and preſſed flat to the root with ones hand: and in one word, reſembling a very thick tuft of graſſe by it ſelfe. This herb groweth in Auſtria and Hungarie; alſo among the Morici, and the Alps on the Sun ſide. As for that which commeth vp about the citie Eporrhedia, it is ſo pleaſant and odoriferous, that there is as much ſeeking after it as if it were ſome precious mettall; and it yeeldeth a reuenue to the City no leſſe than ſome mettall mine. And in very truth, a ſingular herbe it is in a wardrobe to lie among good cloathes, for to get them a moſt pleaſant and commendable ſmell.

Another plant there is which the Greekes vſe likewiſe in their Wardrobes, called Polium. This herbe *Muſæus* and *Heſiodus* the Poets extoll and ſet out to the higheſt degree; for they re- I
port that it is good for all things that it ſhall be imployed about; but principally, that it auaileth much to win men fame, renown, promotions, and dignities. Ouer and aboue which vertues, miraculous it is (if it be true which they ſay) * that the leaues thereof in the morning ſeeme white, about noon purple, and at the Sun-ſetting blew. Two kinds there be of it; one groweth in the plains & champian grounds, and is the greater: another in the woods, and is the leſſe. Some call it Teuthrion. The leaues reſemble the gray haires of an old man, ſpringing directly from the root, and neuer paſſe in height a hand bredth. Thus much may ſuffice concerning odoriferous floures.

* *Dioſc.* reporteth this of *Tripolium*, and not of *Polium*: wherby it ſeemeth that *Pliny* is in a fault.

Chap. VIII.

¶ *The colours of Cloth reſembling thoſe of Floures, and ſtriuing with them for the better.* K
Of Amarantus or Paſſe-velours: of Chryſocome or Chryſitis.

THe exceſſiue ryot and prodigall ſuperfluitie of men is grown to this paſſe, that hauing taken no ſmall pleaſure in ſurmounting the natural ſauor of ſimple floures, by their artificial odors and compound perfumes; they canot reſt ſo, but muſt proceed alſo in the craft and myſterie of dying cloth, to challenge the faireſt floures in the garden, and to match, if not to ſurpaſſe, the liuely colours of Natures ſetting. Of theſe tinctures I finde that there be three principal: the one in grain, which ſtriueth with that bright orient colour in Roſes: and there is not a more pleaſant thing to the eye, than to ſee the Scarlet or purple of Tyros, or to behold the double died Dibapha, or the Laconian purple. The ſecond rich dy ſtands vpon the Ame- L
thyſt colour, and reſembleth the March violet: this alſo beareth much vpon that purple, which of the ſaid violet is called Ianthinus: for now I handle dies and colors in general terms, which neuertheleſſe may be ſubdiuided into many other ſpeciall ſorts. The third is ordinarily made of the purple & porcellane ſhel-fiſhes, and that in diuers & ſundry maners; for of this tincture there are cloathes which incline much to the colour of Turnſoll; and of theſe ſome be many times of a deeper and fuller dy than others. Alſo there is another ſort which ſtandeth much on the Mallow floure, inclining to a purple: and a third ſort which reſembleth the violet that commeth late in the yere [called the purple ſtock-gillofre] and indeed this is the freſheſt & richeſt color that can be died out of thoſe fiſhes aforeſaid. Certes, the tinctures & dies now adaies are ſo liuely, as wel for ſimple colors as mixt and compound (ſuch artificiall means are deuiſed by M
our ſumptuous gallants) than in this ſtrife of Nature and art together, a man ſhal hardly iudge whether of them haue the better hand. As touching yellow, I finde that it is a moſt antient colour, and highly reputed of in old time: for the wedding vaile which the Bride ware on her marying day, was all of yellow, and women only were permitted to vſe them: which might wel be

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A the cauſe that this color is not reckoned among thoſe that be principall, that is to ſay, common as well to men as women: for the wearing and vſing of colours indifferently by the one and the other, is that which hath giuen them their name and ſpeciall credit. Howbeit, doe what we can fo all our skill and induſtry we muſt giue place without all doubt to the purple floure-gentle, for we cannot reach poſſibly to the color thereof. Now to ſay a truth, a purple Spike rather this isr than a floure, and the ſame altogether without any ſmell. Of a ſtrange and wonderfull nature this is: it loues of all things to be cropped, and the more it is plucked, the better it commeth againe: it beginneth to ſpike or put out the floure in the month of Auguſt, and continueth vntill Autume. The beſt is that of Alexandria, for after it is gathered, it will keep the freſh and liuely colour ſtill. This maruellous propertie it hath by it ſelfe, That when all other floures doe faile
B and are gone, if it be wet in water it looketh freſh againe; and for want of others, ſerues all winter long to make chaplets & guirlands. The chiefe and principall vertue that it hath, is ſhewed in the very name Amaranthus, for ſo it is called in Greek, becauſe it neuer doth fade or wither.

But to come again to our artificiall colors, we haue one that anſwereth to the floure named Cyanos, *i.* blewbottle: likewiſe to the yellow golden floure Elichryſon. Verily none of all theſe floures or colors were in requeſt in the daies of K. *Alexander* the Great, for the Greeke authors who wrot next after his diceaſe, haue made no mention at al of them, whereby it is plaine, that they grew into a name & liking ſince their time: howbeit no man needs to make doubt or queſtion, That found out they were firſt by the Greekes: for how els ſhould it be, that their names
C which be meere Greekiſh, are currant here in Italy? Howbeit this cannot be denied, that Italie hath giuen name to the hearb Petilium, which floureth in Autumne, groweth about briers and brambles, and is only commendable for the colour ſake, which is much like to the wild Roſe or Eglantine: the leaues of which floure be ſmall, and no more than fiue. A wonderfull thing to be noted in this floure, That the head ſhould bend and nod downward ſo, as vnleſſe it bee thus (as it were) wreathed and bowed, the ſaid leaues will not ſhew out of a ſmall cup or veſſell of ſundrie colours, and encloſing within it a yellow ſeed.

As touching a daſie, a yellow cup it hath alſo, and the ſame is crowned as it were with a garland conſiſting of fiue and fifty little leaues, ſet round about in manner of fine pales. Theſe bee floures of the medow, and moſt of ſuch are of no vſe at all; no maruell therfore if they be nameleſſe: howbeit ſome giue them one tearme, and ſome another. As for Chryſocon or Chryſitis,
D no Latine denomination it hath at all: an hearbe it is, growing an hand-breadth high, putting forth certaine buttons (as it were) in the head, glittering as bright as gold, with a black root, taſting harſh and yet ſweetiſh withall: it groweth commonly in places full of ſtones & ſhadowy.

Chap. IX.

¶ *The excellencie of Chaplets and Guirlands: of Cyclaminus, and Melilot: of Trifolie or Clauer, and three kinds thereof.*

NOw that we haue gone through in manner the principall dies and richeſt colours that be it remaineth that we paſſe to the treatiſe of thoſe Guirlands, which being made of diuers colored floures, in regard only of that varietie, are delectable & pleaſing to the eye. And
E conſidering that ſome of them ſtand vpon flours, others of leaf, they may be all reduced to two principall heads. Among flours, I take to be all kinds of broom (for from them there be gathered yellow floures) and the Oleander. *Item*, the bloſſoms of the Iujube tree, which alſo is called Cappadocia, for they reſemble much the odor of the oliue blooms: as for Cyclaminum, *i.* Sowbreed, it groweth among buſhes, whereof more ſhall be ſaid in another place: a purple Coloſſian flour it caries, which is vſed to beautifie & ſet out game-coronets. To come now to chaplets made of leaues; the faireſt that goe vnto them be * Smilax and Iuy; and therein alſo their * Bindweed.
berries interlaced among, do make a goodly ſhew aboue al: of which we haue ſpoken at large in the treatiſe of ſhrubs and trees. Many kinds there are beſides of plants proper for this purpoſe,
F which we muſt be faine to expreſſe by Greeke names, foraſmuch as our countreymen haue not beene ſtudious in this behalfe, to giue any Latine names to the greateſt part of them: beſides, moſt of them are meere ſtrangers in Italy, and grow in forrain parts: howbeit, looked for it will be at our hands that we ſhould enter into the diſcourſe of them alſo, for that our purpoſe & deſigne reacheth to all the works of Nature, and is not limited & confined within the bounds of

* *Vitis alba*, of some: *Glycypicron Dodonæi*, of others.
* *Viburnum Matthioli.*

Italy. Well then, to begin withall, * Melothron, Spireon, Trigonon, * Cneoron, which *Hyginus* calleth Casia (affourd leaues very meet to make chaplets: so doth Conyza, called otherwise cunilago; Melyssophyllon named also Apiastrum, *i.* Bawme; and Melilot, which wee commonly terme Sertula Campana; & good reason, for the best in Italy is that of Campain: & in Greece, that which groweth in the promentory Sunium. Next to these the Melilot of Chalcis & Candie is wel accepted of: but grow it in what countrey it wil, rough thickets and woods it delighteth most in. And that of this hearb they were woont vsually in old time to make garlands, may appeare by the very name Sertula, which it took therupon, and retaineth still. In sauor & floure both, it commeth neare to Saffron: the hearbe otherwise of it selfe is hoary and gray. The best Melilot is counted that which hath shortest leaues, and those most plumpe and fattie withall. Semblably, the hearbe Trifoile or Clauer, hath leaues which go to the making of coronets and guirlands. And hereof there be three kinds: the first is that which the Greeks call Mynianthes, others Asphaltion, hauing a bigger leafe than the rest; an hearbe that garden-makers commonly vse: the second with a sharpe leafe, called thereupon Oxytriphyllon: the third, which is least of al other. Among these Trifoiles, I cannot but aduertise the reader, that some there be which haue strong and firme stems: as neruous as those of garden Fennell and Fennell wild, yea and as stiffe as those of Myophonos. But to returne againe to our chaplets, there bee emploied about them, both the maine stalkes of Ferula, as also the berries and purple floures of the Iuie. There is besides a kind of them, like vnto the wild roses: and in them verily the colour only is delectable, for odour they haue just none. To conclude, of Cneoron there be two kinds, the blacke and the white: both well branched and full of leaues, but the white is most odoriferous: and as well the one as the other, doe flourish after the Æquinox in Autumne.

Chap. X.

¶ *Of Origanum, and Thyme: of the Athenien honey: of Conyza, and Iupiters floure, of Southernewood and Camomile.*

As many sorts also there be of Origanum, seruing to make guirlands: as for one of them, it hath no seed; but the other which is sweet, is called Origan of Candy. In like manner, two kinds there be of Thyme, to wit, the white and the blacke: this hearb doth flourish about the Summer Solstice, at what time as Bees also begin to gather honey from it: and according to the flouring of it more or lesse, a man may guesse ful wel what season there wil be for hony: for honey-masters and such as keep Bees, hope to haue a good yere of honey when they see the Thyme to bloume abundantly. Thyme canot well away with rain, and therfore it taketh harme by shoures and sheddeth the floure. Thyme seed lyeth so close, that vnneth or hardly it can bee found; wheras the seed of Origan, notwithstanding it be exceeding smal, is euident enough and may soone be seene. But what matter maketh it, that Nature hath so hidden the seed, considering it is wel known, that it lyeth in the very floure, which if it be sowen, commeth vp as well as any other seed? See the industrie of men, and how there is nothing but they haue made trial of and put in practise! The honey of Athens carieth the name for the best honey in the world, by reason of the Thyme growing thereabout. Men therfore haue brought ouer into other countries, Thyme out of Attica, although hardly and with much ado (being sown thus in the floure as I haue said) it commeth vp. But there is another reason in Nature, why it should thriue so badly in Italy, or elsewhere, considering that the Atticke Thyme wil not continue & liue, but within the aire and breath of the sea. Certes this was an opinion receiued generally of our auncient fore-fathers, That no Thyme would doe well and prosper, but neere vnto the Sea; which should be the cause, that in Arcadia there is none of it to be found. And in those daies also, men were verily persuaded, that the Oliue would not grow but in the compasse of three hundred stadia from the Sea side: howbeit, in this our age verily we are aduertised and know for certain, That in Languedoc and the prouince of Narbon, the very stonie places are all ouergrowne and couered with Thyme, vpon which there are fed thousands of sheepe and other cattaile: in such sort, as this kind of herbage and pasturage, yeeldeth a great reuenue to the inhabitants and paisants of that countrey, by joisting and laying in of the said beasts brought thither out of far remote parts for to feed vpon Thyme.

Concerning the hearbe Conyza, which goeth also to the making of Chaplets, there be two kinds

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A kinds likewiſe of it, namely, the male & the female. And theſe differ onely in leaues: for thoſe of the female Conyza be thinner, ſmaller, narrower, and growing cloſer together than the other of the male, which indeed branch and ſpread abroad more, lapping one ouer another in manner of creſt tiles. The floures alſo of the male Conyza is more bright and liuely: howbeit, both the one and the other floure late, and not before the riſing or apparition of the ſtar Arcturus. The male carrieth a ſtrong ſent: but that of the female is more penetrant; in which regard the female is better for the bite and ſting of venomous beaſts. The leaues of the female, ſmell of Hony. The root of the male, is by ſome called Libanotis, whereof we haue already written.

As touching theſe herbs following, * Dios Anthos, Majoran, the day Lillie Hemerocalles, Sothernwood, Elecampane, water Mints, and wild running Thyme, as alſo all which do branch
B and put forth ſhoots as Roſes do, ſuch ſerue only in leafe for garlands. As for the ſaid *Iupiters* floure or Dios Anthos, particularly, there is nothing in it but the colour to commend it; for ſauor it hath none, no more than another herb which the Greeks call Phlox. As for the reſt, their floures and branches both be odoriferous, except the running wild Thyme.

* or *Iouis Flos.* which ſome take to be the Columbines.

Elecampane, named in Greeke Helenium, ſprang firſt (as men ſay) from the teares of Ladie *Helena*: and therefore the beſt Elecampane is that which groweth in the Iſland of Helena. The plant is leafed like vnto wild Thyme, ſpreading & running low by the ground with little branches, nine inches or a ſpan long.

* Helenium here deſcribed agreeth not with our Elecampane.

Sothernwood doth flouriſh in Summer, and carrieth a ſweet and pleaſant ſauor, howbeit, the head it ſomwhat ſtuffeth and offendeth. The floure is of a golden colour. And ſay, that it carri-
C eth neither ſeed nor floure, yet commeth it vp of it ſelfe in void and vacant places altogether neglected and without any culture, for it doth propagat and increaſe by the tops and tips of the branches lying vpon the ground, and ſo taking root. And therefore it groweth the better if it be ſet of root or ſlip, than ſowed of ſeed. For of ſeed, much adoe there is to make it come vp: and when it is aboue ground, the yong plants are remoued and ſet, as it were in *Adonis* gardens, within pots of earth; and that in Summer time, after the maner of the herb and floure Adonium: for as well the one as the very tender, and can abide no cold: and yet as chill as they be, they may not away with ouer-much heat of the Sun, for taking harme. But when they haue gotten head once and be ſtrong enough, they grow and branch as * Rue doth.

* *Ruta vica.*

Much like vnto Sothernwood in ſent and ſmell, is Camomile: the floure is white, conſiſting
D of a number of pretty fine leaues ſet round about the yellow within.

Chap. XI.

¶ *Of Marioram, the greater and the leſſe, called in Latine Amaracus or Sampſuchum. Of Nyctygretum, Melilote, the white Violet · of Codiaminum, and wild Bulbes: of Heliochryſum, and Lychnis or Roſe Campain. And of many other herbs growing on this ſide the ſea.*

Dioclesthe Phyſitian, and the whole nation in maner of the Sicilians, haue called that herb Amaracus, which in Egypt and Syria is commonly named Sampſuchum. It commeth vp both waies, as well of ſeed as of a ſlip and branch. It liueth and continueth longer than
E the herbs beforenamed, and hath a more pleaſant and odoriferous ſent. Marjoram is as plentifull in ſeed, as Sothernewood: but whereas Sothernewood hath but one tap root and the ſame running deep into the ground, the reſt haue their roots creeping lightly aloft and eb within the earth. As for all the other herbes, they are for the moſt part ſet and ſowne in the beginning of the Autumne; ſome of them alſo in the ſpring, and namely in places which ſtand much in the ſhade, which loue to be well watered alſo and inriched with dung.

As touching Nyctygretum [or Lunaria] *Democritus* held it to be a wonderfull herb, and few like vnto it; ſaying that it reſembleth the colour of fire, that the leaues be pricky like a thorne, that it creeps along the ground: he reporteth moreouer, That the beſt kind therof growes in the
F lad Gedroſia, That if it be plucked out of the ground root and all after the Spring Æquinox, and be laid to drie in the Moonſhine for 3 daies together, it will giue light and ſhine all night long; alſo, That the Magi or Sages of Perſia, as alſo the Parthian kings vſe this herb ordinarily in their ſolemn vowes that they make to their gods: laſt of all, That ſome call it Chenomychos, becauſe Geeſe are afraid of it when they ſee it firſt; others name it Nyctilops, becauſe in the night

night ſeaſon it ſhineth and glitter eth afarre off. As for Melilote, it commeth vp euerywhere: howbeit, the beſt ſimply & wherof is made the greateſt account, is in Attica: but inwhat place ſoeuer it growes, that is moſt acc pted which is freſh & new gathered, not enclining to white, but as like vnto Saffron as is poſſible. And yet in Italie the white Melilote is the ſweeter and more odoriferous. G

The firſt floure bringing tidings of the ſprings approch, is the white bulbous ſtock-Gillofre. And in ſome warmer climates they put forth and ſhew euen in Winter. Next vnto it for their timely appearance is the purple March Violet: and then after them the Panſe, called in Latine Flammea, and in Greeke Phlox, I meane the wild kind onely.

Codiaminon bloweth twice in the yeare, namely, in the Spring and the Autumne: for it cannot abide either Winter or Summer. Somewhat later than thoſe before rehearſed, are the Daffodil and Lilly ere they flour, eſpecially in countries beyond ſea. [in Italy verily (as I haue ſaid before) they bloum not till after Roſes:] for in Greece the Paſſe-floure* Anemone is yet more lateward. Now is this Anemone the floure of certain wild Bulbes, different from that other Anemone whereof I will ſpeake in the Treatiſe of Phyſick-hearbs. Then followeth * Oenanthe, and Melanion, and of the wild ſort Heliochryſos. After them, a ſecond kind of Paſſe-flower or Anemone, called alſo Leimonia, beginneth to blow. And immediatly vpon it the pety Gladen or ſword-graſſe, accompanied with the Hyacinth: & laſt of all the Roſe ſheweth in her likenes. But quickly hath the Roſe done, and none ſo ſoone, and yet I muſt except the garden Roſe. Of all the reſt, the Hyacinths or Harebels, the * ſtock-Gillo floure, and Oenanthe or Filipendula, beare floures longeſt. But of this Oenanthe, this regard muſt bee had, that the floures bee often picked and plucked off, and not ſuffered to run to ſeed. This groweth in warme places. It hath the very ſame ſent that Grapes when they firſt bud and put out bloſſom, whereupon it took the name Oenanthe. But before I leaue the Hyacinth, I cannot chuſe but report the fable or tale that goeth thereof, and which is told 2 maner of waies, by reaſon that the floure hath certaine veines to be ſeen running in and out, reſembling theſe two letters in Greek AI, plaine and eaſie to be read: which as ſome ſay, betoken the lamentable mone [a] that *Apollo* made for his wanton minion *Hyacinthus* whome he loued, or as others make report, ſprung vp of the bloud of *Aiax* who flew himſelfe, and repreſented the two firſt letters of his name AI. H I

* Pulſatilla or Wind-floure.

* Filipendula ſuppoſed of ſome.

* or rather the Wall-flower.

Helyachryſos beareth a yellow floure like to gold, a ſmall and fine leafe, a little ſtalk alſo & a ſlender, but hard and ſtiffe withall. The Magi or Sages of Perſia vſe to weare this hearbe and floure in their Guirlands: and they be fully perſuaded, that by this meanes they ſhall win grace and fauour in this life, yea, and attaine to much honour in glorie; prouided alwaies, that their ſweet compoſitions wherewith they annoint and perfume themſelues, be kept in a veſſel or box of gold, not yet fined nor purified in the fire; which gold they call Apyron. And thus much for the floures of the Spring. K

Now ſucceed and come after in their rank, the ſummer floures, to wit, Lychnis, *Iupiters* flower or Columbine-and a ſecond kind of * Lilly: likewiſe Iphyon, and that Amaracus or Marjeram, which they cal the Phrygian. But of all others, the flower Pathos is moſt louely & beautifull: whereof there be two kinds, the one with a purple flower like vnto the Hyacinth, the other is whiter, and groweth commonly in churchyards among graues and tombs, and the ſame holdeth on flouring better, and liueth longer. The flower de-luce alſo is a Summer flower. Theſe haue their time, fade, and are ſoone gone. And then come other flowers for them in their place in Autumne, to wit, a third kind of Lillie, and Saffron: But of both theſe, the one is of a dull or no ſent at all: the other is very odoriferous, but all of them breake out and ſhew abroad with the firſt ſhower of rain in Autumne. Our-chaplet makers vſe the floures alſo of Bedegnar or white Thiſtle in their Guirlands: and no maruell, ſince that our Cookes dreſſe the young tendrells and crops thereof, for to make a daintie diſh for to content our taſt and goe pleaſantly downe the throat. Thus you ſee the order and manner of beyond-ſea floures, how and when they come abroad. In Italy it is ſomewhat otherwiſe: for the Roſe followeth immediatly after the violets: and when the Roſe is in the mids of his ruffe, in comes the Lilly to bear him company. No ſooner hath the Roſe plaied his part, but the blew-blaw entereth the ſtage: and after him the Paſſeveluer or floure-gentle. As for the Pervincle, it continueth freſh and greene all the yeare long: this hearbe windeth and runneth too and fro with her fine and ſlender twigges in manner of threads or laces, and thoſe beſet with leaues two by two in order, at euery knot or joint. L M

* Some read Cerynthus rather,

Paſſing

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A Paſſing good and proper indeed for vinet and ſtory worke in borders, arbors or knots, and meet for fine and curious Gardeners: howbeit, for default of other floures, the Garland-makers borrow a little of the law, and make vp their defects with a ſupply from it. The Greeks cal it Chamædaphne.

The life of the white Violet or bulbous ſtock-Gillofre, is three yeares at moſt, and ſo long it holdeth the owne well; after that terme it doth degenerat and wax worſer. The Roſe-buſh will continue fiue yeares, without cutting downe or burning (which are the meanes to maintaine it in youth ſtill.) But as we haue already obſerued, there lieth very much in the ſoile, which would be conſidered eſpecially in floures: for in Egypt, none of all theſe aboue rehearſed, haue any odor or ſent at all; and yet the Myrtle trees there, they alone carry a moſt ſweet and pleaſant ſa-
B vor. Moreouer, in ſome tracts all theſe herbes and floures beſorenamed, do preuent in budding and blowing (two months) thoſe of other places. As for Roſe-rewes, the earth ought to be digged and opened about the roots; firſt preſently vpon the comming of the Weſtern wind Fauonius in February, and then a ſecond time about the Summer Solſtice: to conclude, theſe would be looked vnto aboue all things, that before and between thoſe times, they be kept well pruned and cleanſed from all ſuperfluities.

Chap. XII.

¶ *The order of nouriſhing and maintaining Bees. What meat is to be giuen them. Their diſeaſes, and the remedies to them belonging.*

C IN this diſcourſe of ours concerning gardens and gay floures appertaining to Garlands, requiſit it is to ſpeak of bees and bee-hiues, which become the garden very wel: conſidering the gain that commeth in ſo eaſily by them, eſpecially when they ſtand and do well. In regard therefore of theſe bees, ſo beneficiall as they be, and kept with ſo ſmall charges, a garden ought to be well planted and ſtored with Thyme, Baulme, Roſes, Violets of all kindes, Lillies, ſweet Trefoile, Beanes, Eruile, Cunila or Sauerie, Poppies, Conyza, Caſia, to wit, Lauander and Roſemary, Melilote, Meliſſophyllum, and Cerinthe. This Cerinthe is an herb bearing white leaues, and thoſe bending downward: it groweth a cubit high, and carrieth an hollow head, containing within it a certaine ſweet liquor reſembling honey: bees are moſt eager and greedy after the
D floure of this herbe, as alſo of Senuie; whereat we may well make a wonder, ſeeing that for certaine they wil not touch nor come neere to the bloſſome of the Oliue trees. And therfore good it is to ſet bee-hiues far enough from this tree. And yet of neceſſity ſome there would be planted neere vnto them, that when the bees do ſwarme or caſt, they might haue a conuenient place at hand to ſettle vpon, for feare they ſhould flie too far from the hiue. The Cornell tree alſo is not good for bees, for if they chance to taſt the floure therof, they fal preſently into a vehement lask, wherof the poore wretches (if they haue not help the ſooner) die: and therfore it would not ſtand in their way. Howbeit, there is a remedy to cure them of this flux, namely, to take ſoruiſes and ſtamp them together with hony, and ſo to giue it them: to ſet vnto them either mans vrine or beaſts ſtale or els laſt of all to ſerue them with graines of the Pomgranate, beſprinckled
E and drenched in wine of the Ammincan grape: but if you ſet broome all about their hiues, you do them an high pleaſure.

As touching their food and nouriſhment, I will tell you a wonderfull and memorable thing vpon mine own knowledge. There is a towne or Burgade called Hoſtilia, ſcituat vpon the riuer Po, the inhabitants of this village, when they ſee that their bees meat goeth low therabout, and is like to faile, take me their hiues with bees and al, and ſet them in certain boats or barges, and in the night row vp the ſaid riuer Po againſt the ſtreame fiue miles forward. The morrow morning out go the bees to ſeeke food and reliefe. Now when they haue met with meat, and fedde themſelues, they returne againe to the veſſels aforeſaid: and thus they continue daily, although they change their place and haunt; vntill ſuch time as their maſters perceiue that the hiues bee
F full, by the ſetling of their boats low within the water with their weight, and then they returne home againe downe the ſtreame, and diſcharge the hiues of the honey within.

CHAP.

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Chap. XIII.

¶ *Of a certaine venomous and poiſonfull honey. The remedies as well againſt the ſaid Honey, as another kind that maketh folke beſides themſelues.*

SEmblably in Spain they deale with their Bees & hiues vpon Mules backs in the like caſe, and carry them vp into the countrey for to be prouided of victuals. But here it would be conſidered by the way, what paſturage it is that they be put into; for that there is ſome kind of food, which poiſoneth all the honey that is gathered from it. At Heraclea in Pontus, in ſome yeares, all the hony that the Bees do make, is found to be venomous and no better than poiſon; and yet the ſame bees in other yeres gather good and wholſome hony. Howbeit, thoſe authors who haue deliuered thus much in writing, haue not ſet downe what floures they be that yeeld this hurtfull hony: and therefore I thinke it not amiſſe to write what I haue found and knowne as touching this point. There is an herbe called Ægolethron in Greek, which killeth horſes verily, but Goats moſt of all, feeding therupon; and therfore it took that name: the floures of this herb, if it chance to be a wet and rainy Spring, do conceiue and ingender within them a certain deadly venome which doth corrupt and rot them. This may be a probable reaſon, that the foreſaid miſchiefe and bane is not alwaies felt alike. This poiſonſome honey may be knowne by theſe ſigns: firſt it will neuer thicken but continue liquid ſtil; ſecondly, the colour is more deep and reddiſh than ordinary; thirdly, it carrieth a ſtrange ſent or ſmell with it, and will cauſe one to ſneeſe preſently; laſt of all, it is more ponderous and heauy than the good and harmleſſe hony. The ſymptomes or accidents that inſue vpon the eating of this honey, are theſe, They that haue taſted thereof, caſt themſelues vpon the ground and there fall a tumbling: they ſeek by all means they can to be cooled; and no maruell, for they run all to ſweat, that one drop ouertakes the other. Howbeit, there be many remedies for this poiſon, which I will ſhew in place conuenient. Mean while, becauſe a man would not be without ſome good thing ready at hand, ſince the world is ſo ful of villany & ſet vpon ſuch ſecret miſchiefe, I muſt needs put down one good receit, and that is this: take honied wine that is old, mingle and incorporat it with the beſt hony you can meet withal, and Rue together: vſe this confection at your need. *Item*, Eat much of ſalt-fiſh, although it come vp again, and that your ſtomack do caſt it. Moreouer, this hony is ſo pernicious, that the very dogs if they chance to lick vp any excrements that paſſe from the partie ſo infected (either by reaching, ſpitting, vomit, or ſeege) they are ſure to be ſped therewith, and to feele the like torments. Howbeit, the honied wine that is made therewith, if it may haue age enough and be ſtale, is knowne for a certainty to do no creature harm. And there is not a better medicine in the world, either to fetch out ſpots in womens faces, and make their skin faire and cleare (if it be applied with Coſtus;) or to take out the black and blew marks remaining after ſtripes in eye or elſwhere, ſo it be tempered with Aloe. Another kind of honey there is in the ſame region of Pontus, and namely among the Sanni (a people there inhabiting) which becauſe it drieth folke into a fit of rage and madneſſe, they call in Greeke Mænomenon. Some attribute the occaſion hereof to the floure of the Oleander, whereof the woods and forreſts there be full. This nation ſelleth no hony at all, becauſe it is ſo venomous and deadly: notwithſtanding they do pay for tribute a huge maſſe of wax vnto the Romans euery yeare. Moreouer, in the kingdome of Perſis, and in Getulia, which lieth within Mauritania Cæſarienſis, a country confining and bordering vpon the Maſſæſuli, there be venomous hony-combs; yea, you ſhall haue in one hiue ſome hony combs full of poiſoned hony, whereas others be ſound and good: a dangerous thing no doubt, and than which, there could be no greater deceit to poiſon a number of people; but that they may be known from the reſt by their leaden and wan hew that they haue. What ſhould we think was Natures meaning and intent by theſe ſecret ſleights and hidden miſchiefes, That either the ſame Bees ſhould not euery yeare gather venomous hony; or not lay the ſame vp in all their combs differently? Was it not enough that ſhe had beſtowed vpon vs a thing, wherein poyſon might be ſooneſt giuen and leaſt perceiued? Was ſhe not content thus to indanger our liues, but ſhe muſt proceed farther, enen to incorporat poiſon her ſelfe in hony, as it commeth from the Bee, for to empoiſon ſo many liuing creatures? Certes, I am of this mind and beliefe verily, That ſhee had no other purpoſe herein, than to make men more warie what they eat, and leſſe greedy of ſweet meats to content and pleaſe the tooth. For the very

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oney indeed ſhe had not generally infected with this hurtful quality, like as ſhe had armed all Bees with ſharp pricks and ſtings, yea, and the ſame of a venomous nature; and therfore againſt theſe creatures verily ſhe hath not deferred and put off to furniſh vs with a preſent remedy: for the juice of Mallowes or of Yvie leaues ſerueth to annoint the ſtinged place, and keep it from rankling; yea, and it is an excellent thing for them that be ſtung, to take the very Bees in drink; for it is an approued cure. But this I maruell much at, That the Bees themſelues, which feed of theſe venomous herbs, that cary the poiſon in their mouths, and are the makers of this miſchievous honey, do eſcape and die not thereof? Whereof I can giue no reaſon at all, vnleſſe dame Nature, that lady and miſtreſſe of the world, hath giuen vnto theſe poore Bees a certaine Antipathy and vertue contrary vnto poiſon: like as among vs men to the *Marſi* and *Pſylli*, ſhee hath
B imprinted (as it were) a repugnancy in their bodies, to reſiſt the venome of all Serpents whatſoeuer.

Chap. XIIII.

¶ *Of a certaine kind of honey which Flies will not touch. Of Bee-hiues. How to order the ſame, and namely when Bees want meat and are in danger to be famiſhed. The manner alſo of making Wax.*

C THere is in Candy another ſtrange and wonderful thing, as touching hony, gathered about the mountaine Carina, which taketh nine miles in compaſſe: within which ſpace and circuit of ground, there is not a Flie to be had; and the honey there made, Flies wil not touch in any place whereſoeuer. By which experiment, this honey is thought to be ſingular for medicines, and therefore choiſe is made thereof before any other.

As touching Bee-hiues, they ought to ſtand on the open ſide vpon the Æquinoctiall Sunne riſing, that is to ſay, when the daies and nights be equall. And in any wiſe, regard would be had, that they open not in the Northeaſt, and much leſſe the full Weſt. The beſt Bee-hiues be made of barks and rinds of trees: the ſecond in goodneſſe be thoſe of Ferula or Fenell-geant. In the third place are ſuch as be wrought of oiſier twigs. Many haue made them of Talc, which is a kind of tranſparent glaſſe ſtone, becauſe they would ſee through them how the Bees do worke and labor within. Daubed they ſhould be if they were well ſerued, both without & within with Oxe dung. The couer and lidde thereof ought to be moueable and haue liberty to play vp and
D down behind, that it may be let down far within-forth, in caſe either the hiue be too large & of greater receit in proportion than the Bees are in number; for feare they ſhould ſlack their work and giue ouer their trauell, diſpairing euer to fill the ſame, ſeeing it ſo big and of ſo great capacity; and being thus let downe (to make their hiue ſeem the leſſe) it muſt be gently drawn vp again by little & little, that the Bees may be deceiued thereby, & not perceiue how their worke grows vpon them. In Winter time Bee-hiues ſhould be couered with ſtraw: & oftentimes perfumed with beaſts dung eſpecially; * for this is agreeable to their nature. Ouer and beſides, it killeth the wicked verm in that breed in them, Spiders, Butterflies, and Wood-worms; yea, and this property it hath moreouer, to ſtir vp and quicken the Bees, and make them more liuely and nimble about their buſineſſe. As for the Spiders aforeſaid, they verily are not ſo harmful, & be
E ſoon deſtroied: but the Butterflies do the more miſchiefe, & are not ſo eaſily rid away. Howbeit there is a way to chaſe them alſo, namely, to wait the time when the Mallow doth begin to bloſſome, to take the change of the Moone, and chuſe a faire and cleare night, and then to ſet vp certaine burning lights juſt before the Bee-hiues: for theſe Butterflies will couet to flie into the flame. But what is to be done, when you perceiue that the bees do want victuals? then it wil be good to take dry Raiſins of the Sun, and Figs, to ſtamp them together into a maſſe, and lay it at the entry of the hiue. *Item*, It were not amiſſe to haue certain locks of wool well touzed and carded, and thoſe wet & drenched in cuit either ſodden to the thirds, or to two thirds, or els ſoked in honied wine, for them to ſettle vpon and ſuck. Alſo to ſet before them in their way the raw carkaſes of Hens, naked and pulled to the bare fleſh. Moreouer, there be certain Summers
F ſo dry and continually without raine, that the fields want floures to yeeld them food, and then muſt they be ſerued with the foreſaid viands, as well as in Winter ſeaſon. When hony is to be taken forth of the hiues, the holes and paſſages for the ingreſſe and egreſſe of the bees ought to be well rubbed and beſmeared with the herb Meliſſophyllon and Geniſta bruſed and ſtamped: or elſe the hiues muſt be compaſſed about in the middeſt with branches of the White Vine,

* Conſidering that of a beaſts carkaſſe they will be engendred.

for

for feare leſt the Bees depart and flie away. The veſſels whereout hony hath been imploied, yea, and honey combes, would be well rinced and waſhed in water; which being throughly ſodden, maketh a moſt wholeſome and excellent vineger. G

As touching wax, it is made of the combes after the hony is preſſed and wrong out of them. But firſt they muſt be purified and clenſed with water, and for three daies dried in ſome darke place: vpon the fourth day they are to be diſſolued and melted vpon the fire in a new earthen pot neuer occupied before, with ſo much water as will couer the combs: and then it ſhould bee ſtrained through a panier of reeds or ruſhes; which done, the wax is to be ſet ouer the fire a ſecond time in the ſaid pot, and with the ſelf-ſame water, and ſodden again; and then it ought to run out of it into other veſſels of cold water, but thoſe firſt ſhould be al about within annointed and beſmeared with honey. The beſt wax is that which is called Punica, *i.* of Barbary, and is H white. The next in goodneſſe is the yelloweſt, and ſmelleth of hony, pure and clean without ſophiſtication; ſuch commeth from the country of Pontus; and verily I wonder much how this wax ſhould hold good, conſidering the venomous hony whereof it is made. In the third place is to be ranged the wax of Candy: for this ſtandeth much vpon that matter which they cal Propolis, wherof I haue already ſpoken in the Treatiſe of Bees and their nature. After all theſe, the wax of the Iſle Corſyca may be reckoned in the fourth rank; which becauſe it is made much of the Box tree, is thought to haue a vertue medicinable. Now the making & working of the firſt and beſt Punick white wax, is after this manner: They take yellow wax, and turne it often in the wind without the houſe in the open aire; then they let it ſeeth in ſea-water, and namely, ſuch as hath bin fet far from the ſhore out of the very deep, putting thereto Niter; this done, they ſcum I off the floure (that is to ſay, the whiteſt of it) with ſpoons; & this cream (as it wer) they change into another veſſell, which hath a little cold water in it. Then once againe they boyle it in ſea-water by it ſelfe alone, and ſet the veſſel by for to coole. After they haue done thus three times, they let it dry in the open aire vpon an hurdle of ruſhes, in the Sun and Moon, both night and day: and this ordering bringeth it to be faire and white. Now in the drying, for feare that it ſhould melt, they couer it all ouer with a fine Linnen cloth. But if they would haue it to be exceeding white indeed, they ſeeth it yet once more, after it hath bin thus ſunned and mooned. In truth, this Punick white wax, is ſimply the beſt to be vſed about medicines. If one be diſpoſed to make wax black, let him put therto the aſhes of paper: like as with an addition or Orchanet it will be red. Moreouer, wax may be brought into all manner of colours, for painters, limners, K and enamellers, and ſuch curious artificers, to repreſent the forme and ſimilitude of any thing they liſt. And for a thouſand other purpoſes men haue vſe thereof, but principally to preſerue their walls and armors withall. All other things as touching Hony and Bees, haue bin handled already in the peculiar Treatiſe to them and their nature belonging. Here an end therefore of Gardens and Gardinage.

Chap. XV.

¶ *Of hearbs which come vp of themſelues, and ſuch eſpecially as be armed with prickes.*

IT remaineth now to ſpeake of certain wild herbs growing of their own accord, which in many nations ſerue for the kitchin, and principally in Ægypt; for this countrey, although it bee moſt plentifull in corne, yet may ſeem to haue leaſt need thereof, and of all nations vnder heauen beſt able to liue without the ſame: ſo well ſtored it is with hearbs, wherof the people doth ordinarily feed: whereas in Italy here, we know as few of that kind good to be eaten, namely, Strawberries, *Tanus, Ruſcus, Creſtemarine or Sampire; as alſo Batis Hortenſiana, which ſome call French Sperage: we haue alſo the wild Parſnep of the medowes, and the Hop, but wee vſe them rather for pleaſure and delight, and to giue contentment to our taſt, than for any neceſſary food to maintain life. But to come again to Egypt, there is to be found the nobleſt plant of all others, Colocaſia, which ſome name Cyamos, [*i.* the Egyptian beane:] this herbe they gather and cut downe out of the riuer Nilus: it putteth forth a main ſtem, which being ſodden, yeel- M deth in the eating and chewing, a certaine threddy matter or woolly ſubſtance, drawing out in manner of a cob-web; but the ſtalk as it groweth vp amid the leaues, maketh a faire and goodly ſhew: for indeed the ſaid leaues be exceeding large, and comparable to the broadeſt that any tree beareth; reſembling thoſe for all the world of the Clote or great Burrhe growing in our ri-

* The fruit or berry whereof is *Vua Taminia*

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A vers,which we eal Perſonata. A wonderful thing it is to ſee,what ſtore they in Ægypt ſet by the commodities that their riuer Nilus doth affoord:for of the leaues of this Colocaſia(plaited & infolded naturally one within another)they make them cups of diuers forms and fa thions,out of which they take no ſmall pleaſure to drink. And now adaies this herb is planted here in Italy. Next to Colocaſia,the Ægyptians make moſt account of that Cichory,which I named before,the wild and wandring Endiue;which herb commeth vp in that country after the riſing of the Brood-hen ſtar:it floureth not all at once,but bloweth by branches one after another:a ſupple and pliable root it hath,and therefore the Ægyptians vſe it in ſtead of cords to binde withall. As for Anthalium,it groweth not in Nilus, but not far from the riuer: it beareth a fruit in bigneſſe and roundneſſe reſembling a Medlar,hauing neither kernell within,nor husk without:
B and the leafe of this plant is like to Cyperus,or Engliſh Galangale. This herbe they vſe to eat, being firſt * dreſſed and prepared in the kitchin. They feed likewiſe vpon Oetum, a plant that hath few leaues and thoſe very ſmall, howbeit a great root. Touching Aracidna and Aracos, they haue many roots verily branching and ſpreading from them,but neither leafe nor herbage ne yet any thing els appearing aboue ground. And thus much of the chiefeſt and greateſt herbs of Egypt ſerued vp to the table: the reſt are common or vulgar,and euery mans meat,by name, Condrylla,Hypochœris,Caucalis,Authriſcum,Scandix (called by ſome Tragopogon,which beareth leaues like to Saffron;) Parthenium,Strychnum,Corchorus,and * Apace,which ſheweth his head about the Æquinox: alſo Acinos,and that which they name Epipetron,and it neuer beareth floure; whereas Aphace contrariwiſe neuer giueth ouer flouring, but when one
C floure is faded and ſhed, another commeth vp, and this courſe it holdeth all Winter long; throughout the Spring alſo,euen to the heat of Summer. Many other hearbs they haue of baſe reckoning: but aboue all,they make greateſt account of * Cnicus(an herbe not knowne in Italy)not for any good meat they find in it, but for the oyle drawne out of the ſeed thereof. Of this herb there be two principall kinds; to wit,the Wild,and the Tame: the Wild is ſubdiuided into two ſpeciall ſorts, the one of a more mild and gentle nature than the other, although the ſtalks of both be alike,that is to ſay,ſtiffe and ſtreight vpright: and therefore women in old time vſed the ſtems thereof for rocks and * diſtaffes;whereupon ſome do call the herb Atractylis: the ſeed is white,big,and bitter. The ſecond is more rough and hairy,creeping long on the ground,with ſtalks more muſculous and fleſhy,and carrieth a ſmall ſeed. The herb may be ran-
D ged among thoſe that be prickly:for ſo muſt herbs be diuided into ſuch general heads;namely, that ſome be full of pricks, others cleane without and ſmooth. As for thoſe which ſtand vpon pricks,they be ſubdiuided into many members and branches. And to begin with a kind of Sperage,called alſo Scorpio,it hath no leafe at all;but inſtead therof, pricks and nothing els:ſome there be leafed indeed,but thoſe are beſet with prickes, as the Thiſtle, Sea-holly, * Liquorice, and Nettle: for the leaues of all theſe herbs be pricky & ſtinging withall. Others,beſides their leaues,haue prickles alſo,as the * bramble,& Reſt harrow or whin. Some be prouided of pricks both in leafe and ſtalk,as Phleos,which others haue called Stœbe. As for Hippophacet,it hath a prick or thorne in euery joint: but the bramble Tribulus aforeſaid, hath this property by it ſelfe,That the fruit alſo which it beareth,is ſet with pricks. Of all theſe ſorts,the Nettle is beſt
E knowne,which carrieth certain goblets and concauities,and the ſame yeelding a purple kind of downe in the floure,and it riſeth vp ſometimes aboue two cubits high. Many kinds there be of theſe Nettles; namely, the wild Nettle, which ſome would haue to be the female, and this is more milde than the reſt. In this wilde kinde is to be reckoned alſo,that which they cal Cania, and is of the twain more ægre,for the very ſtalke will ſting, and the leaues be purfled as it were and jagged. But that Nettle which carrieth a ſtinking ſauor with it,called is Herculanea. All the ſort of them are full of ſeed,and the ſame blacke. A ſtrange quality in theſe Nettles, that the very hairy downe of them(hauing no euident prickes ſticking out)ſhould be ſo ſhrewd as it is,that if one touch it neuer ſo little,preſently there followeth a ſmarting kind of itch,and anon the skin riſeth vp in pimples and bliſters,as if it had been skalt or burnt: but well knowne
F is the remedie of this ſmart,namely,to annoint the place with oyle. Howbeit this biting property that it hath,commeth not to it at the beginning when it is new comevp,but it is the heat of the Sun that fortifieth this mordacitie. And verily in the Spring when the Nettle is young and peepeth firſt out of the ground,they vſe to eat the crops therof for a pleaſant kind of meat, and many be perſuaded beſides that it is medicinable, & therefere preciſely & religiouſly feed thereupon;

* as *Theophraſtus* ſaith, ſodden in ale: *herdeaceo Zytho.*

* Thought to be *Dent de lion*

* *Carthamus*, or baſtard ſafron: but *Turnebus* ſuppoſes it to be put for *Cici*, whereof commeth *Oleum Cicinum.*

* *Colu*, although ſome read *fuſis*, i. ſpindles.

* *Glycyrrhizon* but this agreeeth not with our Liquorice.

* *Tribulus.*

* *Acetabulis.*

thereupon, as a preſervatiue to put by all diſeaſes for that preſent yeare. Alſo the root of the G
wild Nettle, if it be ſodden with any fleſh, maketh it to eat more tender. The dead nettle, which ſtingeth not at all, is called Lamium. As touching the herb Scorpio, I will write in the treatiſe of herbs medicinable.

Chap. XVI.

¶ *Of Cardnus, and Ixine: of Tribulus and Anchuſa.*

*A kind of thiſtle: ſome call it Mans bloud. *S. Mary thiſtle.

THe common Thiſtle is ful of pricky hairs, both in leafe & ſtalk: likewiſe * Acorna, * Leucacanthos, Chalceos, Cnicos, Polyacanthos, Onopyxos, Ixine, & Scolymos. As touching the Thiſtle Chamæleon, it hath no pricks in the leafe. Moreouer, theſe pricky hearbes are H
diſtinguiſhed & different one from another in this, that ſome of them be furniſhed with many ſtems, and ſpred into diuers branches, as the Thiſtle: others againe riſe vp with one maine ſtalk, and branch not as Cnecos. Alſo there be of them that be prickly only in the head, as the Eryngium or Sea-holly. Some floure in Summer, as Tetralix and Ixine. As for Scolymus, late it is alſo ere it blow, but it continueth long in the floure. Acorna differeth from it onely in the red colour and fattier juice that commeth from it. Atractylis alſo might go for Scolymus, but that it is whiter and yeeldeth a liquor like bloud: wherupon there be ſome who cal it Phonos, *i.* Murderer: this quality it hath beſides that it ſenteth ſtrong: the ſeed alſo ripeneth late, & not before Autumne: and yet this is a property common to all plants of this pricky and thiſtly kind. But all theſe herbs wil come of ſeed and root both. As for Scolymus, it differeth from the reſt of I
theſe Thiſtles herein, that the root, if it be ſodden, is good to be eaten: beſides, it hath a ſtrange nature, for all the ſort of them during the Summer throughout, neuer reſt and giue ouer, but either they floure, or they apple, or els be ready to bring forth fruit: and look when the leaues begin to wither, their prickes loſe their force and will not pierce.

* *Nonnata viſum eſt æquè in omnibus terris naſcitur: Ex Theop.* which is clean contrary to *Pliny.*

Ixine * is a rare herb and geaſon to be ſeen, and not found growing in al countries alike. Immediatly from the root it putteth forth leaus plenty; out of the mids of which root there ſwelleth out a bunch like an apple, but the ſame is couered with the foreſaid leaues: in the very top of which fruit there is contained a gum of a pleaſant taſt, called the thiſtle Maſtick. Touching the herb Cactos, which groweth alſo in Sicily and no where els, it hath a property by it ſelf; the ſtalks whereof ſhooting from the root, creep along the ground, and it carrieth a broad leafe full K
of pricks and thorns; and indeed theſe ſtalks thus running vpon the earth, the Sicilians cal Cactos, which they vſe to keep and preſerue; and being thus condited alſo, they commonly eat, as very good meat. One ſtem it hath growing vpright, which they terme Pternix, as ſweet & pleaſant as the other, but it will not abide to be kept long. The ſeed thereof is couered with a certain ſoft down, which they call Pappos, which being taken off with the husk, there remaineth a tender kernell within, which they eat, & find it as delicat as the very heart of the Date tree top, which is called the Brain: and this pith aforeſaid, the Sicilians name Aſcalia.

* ἀμμώδης. for σπαμώδης, *in Theophraſt.* *i.* like the ſeed of Seſama.

The Caltrop thiſtle Tribulus, groweth not but in moory grounds and ſtanding dead waters. Surely in other places, folke curſe it as they paſſe by, the prickes and ſpurs ſtick out ſo dangerouſly: but about the riuers Nilus and Strymon, the inhabitants do gather it for their meat: the L
nature of this plant, is to lean and bend downward in the head to the water. The leafe reſembles in form thoſe of the Elme, and they hang by a long ſtele or taile. But in other parts of the world there be two other kinds of Tribulus: the one is leafed like vnto the Cichling peaſe; the other hath leaues ſharp pointed; this ſecond kind is later ere it floure, and commonly groweth about the mounds of cloſes lying by villages and town ſides; the ſeed lieth in a cod rounder than the other, and black withall; whereas the former hath a * ſandy ſeed. Of theſe thorny and pricky plants, there is yet one kind more, namely Ononis, *i.* Reſt-harrow; for it carrieth pricks cloſe to the very branches; the leafe is like to Rue: the whole ſtalk throughout is ſet with leaues diſpoſed in manner of a garland. This plant commonly groweth after corn, it * plagueth the plough, and yet there is much adoto rid it out of a ground, ſo loth it is to die. Of plants that be prickie, M
ſome haue their ſtalkes and branches trailing by the ground, as namely that hearbe which they call Coronopus, *i.* Harts-horn, or Buck-horne Plantaine: contrariwiſe, there ſtand vpright, Orchanet, the root whereof is ſo good to colour wax and wood red. And of ſuch as be more gentle in handling * Camomile, Phyllanthus, Anemone, and Aphace. As for Crepis & * Apate, their

* And therfore it is called *reſta bouis* or *reſta ſratri*, becauſe it ſtaieth the draught of the Oxe at plough.

* *Anthemius.*

* Deceit: ſo called, becauſe the bitternes deceiueth many a one, looking like to a kind of Cichorie.

ſtalkes

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A ſtalks be all leaſe. Moreouer, this would be noted, that the leaues of herbs differ one from another, as well as in trees: ſome in the length or ſhortneſſe of the ſtele whereto they hang; others in the breadth or narrowneſſe of the leaſe it ſelfe; in form alſo, whereby you ſhal haue ſome cornered, others cut and indented; likewiſe in ſent and floure, for ſome there be that continue longer in flouring than others, and blow not all at once, but one part after another, as Baſill, Tornſall, Aphaca, and Onocheile.

Chap. XVII.

¶ The difference of herbs in their leaſe: what hearbes they be that floure all the yeare long: of the Aſphodell, Piſtana, and Petie-Gladen or Sword-graſſe.

B MAny hearbes there be as well as ſome trees, which continue greene and hold their leaues from one end of the yeare to the other, as Tornſol, and Adianthum or Capillus Veneris. Another ſort there is of herbs that floure ſpike-wiſe, of which kind are Cynops, Alopecurus [*i.* Foxtaile] Stelephuros, which ſome call Ortyx, others Plantaine (of which I will write more at large among Phyſick herbs) and Thryollis. Of theſe, Alopecurus carrieth a ſoft ſpike, and a thick moſſie down, not vnlike to Fox-tails, whereupon it tooke that name in Greeke: and Stelephurus reſembleth it very much, but that the Foxtaile bloweth not all together, but beareth floures ſome at one time & ſome at another. Cichory and ſuch like, haue their leaues ſpreading vpon the ground, and thoſe put forth directly from the root, beginning to ſpring immedi-
C atly after the apparition of the ſtar Vergiliæ. As touching Parietary, there be other nations as wel as the Ægyptians, who feed vpon it: it took the name Perdicium in Latine, of the bird Perdix, *i.* the Partridge, that ſeeketh after it ſo much, and plucketh it out of the wals where it groweth: it hath many roots and the ſame thick. In like maner, the herb Ornithogale, *i.* Dogs onion, hath a ſmall ſtem and a white, but a root, * halfe a foot long. the ſame is full of bulbs like oni-
ons, ſoft alſo, and accompanied with three or foure other ſpurs growing out of it. This hearbe they vſe to ſeeth among other pot-herbs for potage. I will tell you a ſtrange quality of the herb Lotos and of Ægilops; if their ſeed be caſt into the ground, it wil not come vp in a yeare. As wonderfull is the nature alſo of the Camomile: for it beginneth to floure in the head, whereas all other herbes which blow not all at once, floure at the foot firſt. Notable is the Bur likewiſe
D and worthy to be obſerued, I mean that which ſticketh to our clothes as we paſſe by, the floure lieth cloſe and groweth within the ſaid Bur, and neuer appeareth without-forth: it is I ſay as it were hatched within, much like vnto thoſe liuing creatures that couve and quicken their egges within their belly. Semblably, about the city Opus there is an herb called Opuntia, which men delight to eat: this admirable gift the leaſe hath, That if it be laied in the ground, it will take root; and there is no other way to plant this herb, & maintain the kind. As for Iaſione, one leaſe it hath and no more: but ſo lapped and infolded, that it ſeemeth as if they were many. Touching Condrylla, the herb it ſelfe is bitter; but the juice of the root is hot and biting. Bitter alſo is Aphaca or Dent de Lion; as alſo that which is called Picris, which name it took of the exceeding bitterneſſe that it hath; the ſame floureth all the yere long. As for Squilla and Safron, they
E be both of a maruellous nature; for whereas all other hearbes put out leaſe firſt, and then knit round into a ſtem, in thoſe two a man may euidently ſee the ſtalk before the leaſe. And in Safron verily, the ſaid ſtalk thruſteth out the floure before it; but in the Sea-onion Squilla, firſt ſheweth the ſtalk, and then afterwards the floure breaketh out of it. The ſame Squilla floureth thrice in the yeare, as I haue ſaid heretofore, ſhewing thereby the three ſeaſons of ſeednes. In the range of theſe bulbous and onion-rooted plants, ſome place the root of *Cyperus, that is to ſay, of Gladiolus [*i.* Petie-gladen, Flags, or Sword-wort,] this is a ſweet root, and being ſodden or baked with bread, it giueth it a more pleaſant taſt; & beſides, it mendeth the weight of bread wel if it be wrought & kneaded with it in dough. Not vnlike to it is that herbe which they call Theſion, but that the root is harſh and vnpleaſant. Al others of the ſame kind differ in leaſe: the
F Aſphodell hath long and narrow leaues; Squilla is broad leafed, and may be handled without offence; wheras the Gladen leaſe is like a ſword blade indeed, and keen-edged according to the name [both in Greek and Latine.] The Aſphodell ſeed is good to be eaten, if it be parched or fried; ſo is the bulbous root of it alſo; but this ſhould be roſted vnder the embers, & then eaten with ſalt and oile. Ouer and beſides, if it be ſtamped with figs, it is an excellent diſh; and this

* *Semipedali*, Dioſcor. hath *Seſquipedali*; *i.* a foot and a halfe.

* *Cyperi*, or rather *Xyphij*, or *Phaſgani*.

indeed (according to *Heſiodus*) is the only way to dreſſe it. Moreouer, it is ſaid, that Aſphodels G
planted before the gates of any ferme houſe in the countrey, preſerue the place from all charms
and ſorceries. *Homer* alſo the Poet hath made mention of the Aſphodell. The root reſembleth
* *Napis*: Dioſcor. *Glandibus*, (*i.*) nuts or acornes. * Navews of a mean bigneſſe: and there is not another root with more heads, for oftentimes a
man ſhal ſee 80 bulbs cluſtred in a bunch together. *Theophraſtus* and all Greeke writers almoſt,
and namely *Pythagoras* (the chiefe prince of Philoſophers) deſcribe this plant to haue a ſtem of
of one cubit in length, yea and oftentimes of two; with leaues like to wild Porret: and the ſayd
ſtem they called Anthericon; but the root, (*i.*) thoſe bulbs reſembling onions, Aſphodelas: but
our countrymen haue named in Latin, the ſtem Albucus; but the root, Haſtula Regia. This is
the name alſo of the ſtalk, full of grains or berries; and thereof they would make two kinds [the
male and the female.] Well, the ſtem of the Aſphodell then, is commonly a cubit long, large H
and big, clean and ſmooth. Of this herb *Mago* hath written, and ordained, that it ſhould be cut
down in the going out of March and entrance of Aprill; namely, after it hath don flouring, and
before that the ſeed be ſwelled and grown to any bigneſſe: then vpon the fourth day after, when
the ſaid ſtems are ſlit and clouen, they muſt be laid abroad to drie in the Sunne: when they be
dried, they ought to be made vp into knitchets or handfuls. He ſaith moreouer, that the Greeks
name that herb Piſtana, which we cal in Latin Sagitta, growing in mariſhes and moores among
other fenny weeds. This alſo would he haue to be cut downe and gathered, betweene the Ides
of May and the end of the month of October: then, to be pilled, and ſo to be dried by little and
little with the moderat heat of the Sun. The ſame author giueth order likewiſe, that the other
kind of Gladiolus, which they call Cypiros, which alſo is an herbe growing about lakes and I
meeres, any time within Iuly ſhould be cut downe to the very root; and the third day after, to
be dried in the Sun vntill it looke white; but euery day that it lieth abroad, it muſt be brought
into the houſe before the Sun go downe; becauſe all herbs growing vpon mariſh grounds, take
harm by dewes in the night.

Chap. XVIII.

¶ *Of Ruſhes, ſix kinds; and of Cyperus: their medicinable vertues. Of Cypirus, and the ſweet Ruſh Scœnanth.*

Mago writing of the Ruſh, commonly called Mariſcon, ſaith, That for to twiſt and weaue K
into mats, it ought to be gathered out of the mariſh ground where it groweth, in Iune
vntill mid-Iuly. As for the drying of it, the ſame order muſt be obſerued in all points, as
we haue ſet downe before in the diſcourſe of other marais weeds. Hee maketh a ſecond kinde
of water Ruſhes, which I find to be called the ſea Ruſh, and of the Greekes Oxyſchœnon, *i.* the
ſharp Ruſh: which alſo is ſubdiuided into three other ſorts; for there is the barren ruſh, called
alſo the male, & in Greek Oxys: the female Ruſh bearing a black ſeed, which they call Melan-
cranis. This is thicker than the other, fuller alſo of branches and tufts. And the third more than
it, which is named Holoſchœnus. Of all theſe, Melancranis commeth vp of the own ſeed, with-
out any other kinds intermingled with it: but Oxys and Holoſchœnus, grow both together out
of one turfe. Of all others, the great Ruſh Holoſchœnus is beſt for to be wrought in mats, and L
ſuch like implements about an houſe, becauſe it is ſoft and fleſhy; it beareth a fruit hanging &
cluſtering together in maner of fiſh ſpawn. As for that ruſh, which we called the male, it grow-
eth of it ſelfe, by reaſon that his top faſteneth in the ground, and ſo taketh root by way of pro-
pagation: but Melancranis ſoweth her owne ſelfe, and commeth vp of ſeed; for otherwiſe their
race would periſh, conſidering the roots of them all euery yere do die. Theſe Ruſhes are vſed to
make leaps and weels for fiſhers at ſea, & fine & dainty wicker veſſels: alſo candle-wick & mat-
ches; eſpecially the marow or pith within, which is ſo great (eſpecially about the foot of the
Alps reaching to the ſea-ſide) that when a Ruſh is ſlit, there is found in the belly a pith almoſt
an inch broad by the ruſe. And in Egypt there be found Ruſhes ſo big, that they will ſerue to
make ſieues, rangers, and vans. In ſuch ſort, that the Egyptians can finde no matter for that pur- M
poſe, better. Some there be, that would haue the triangled or three ſquare ruſh Cyperus, to be a
ſeuerall kind by it ſelfe. This Cyperus, many there be that cannot diſtinguiſh from Cypirus,
by reaſon of the great affinity of their two names: but I mean to put a difference betweene them
both; for Cypirus is the Petie-glader or Sword-graſſe (as I haue before ſhewed) with a bulbous

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A or onion root: the beſt of which kind, groweth in the Iſland of Crete: next to it in goodneſſe, is that of the Iſle Naxos: and in a third degree, is to placed that of Phœnice: and indeed that of Crete or Candy, in * whiteneſſe and odor commeth neere to Nard. The Naxian Cypirus hath a quicker ſent: the Phœnician Cypirus ſmelleth but a little: as for that in Egypt, it hath no ſauor at all; for there alſo groweth Cypirus. But now to come vnto the properties thereof, it hath vertue to diſcuſſe and reſolue hard ſwellings in the body. For now my purpoſe is to ſpeake of their medicinable vertues, foraſmuch as there is great vſe in Phyſicke, as well of ſuch aromaticall ſimples, as odoriferous floures. As touching Cypirus therefore, I profeſſe verily that I will follow *Apollodorus*, who forbiddeth expreſſely to take Cypirus inwardly in any drink: and yet he proteſteth, that it is moſt effectuall for them that be troubled with the ſtone, and full of grauel;
B but, by way of fomentation onely. He affirmeth moreouer, that without all doubt it cauſes women to trauell before their time, & to ſlip their vntimely fruit. But one miraculous effect thereof he reports, namely, that the Barbarians vſe to receiue the fume of this herb into their mouth, and thereby waſt and conſume their ſwelled Spleens: alſo, they neuer go forth of dores, before they haue drunk a pipe therof in that maner: for perſuaded they are verily (ſaith he) that by this means they are more youthful, liuely, and ſtrong. He ſaith moreouer, that if it be applied as a liniment with oile, it healeth all merry-gals and raw places where the fleſh is rubbed off or chafed: it helpeth the rank rammiſh ſmel vnder the arm-holes; and without faile cureth any chilling, numneſſe, and through cold. Thus much of Cypirus.

As for Cyperus, a Ruſh it is (as I haue ſaid) growing ſquare and cornered: neere the ground
C it is white; toward the top, of a dark blackiſh green, and fattiſh: the vnder leaues that be loweſt, are ſlenderer than leek-blades; the vppermoſt in the head, are ſmal, among which is the ſeed: the root is like vnto a black oliue, which if it grow long-wiſe, is called Cyperis, and is of ſingular operation in Phyſick. The beſt Cyperus is that which groweth amongſt the ſands in Africke, neere the temple of *Iupiter Ammon*: in a ſecond rank, is that of Rhodes: in a third place may bee ranged the Cyperus in Thracia: and in the loweſt degree, that of Egypt. And hereupon came the confounding of theſe two plants, Cyperus and Cypirus, becauſe both the one and the other grow there. * But the Cyperus of Egypt is very hard, and hath no ſmell at all; whereas in the other, there is a ſauor reſembling the very Spikenard. There is another herb alſo comming from the Indians, called * Cyperis, of a ſeuerall kind by it ſelfe, in forme like vnto ginger: if a man
D chew it in the mouth, it coloureth the ſpittle yellow, like as Saffron.

But to come again to Cyperus, and the medicinable properties therof, It is counted to haue a depilatory vertue for to feth off haire. In a liniment it is ſingular good for the excreſcence of the fleſh about the naile roots, or the departure and looſeneſſe therof about them; which both imperfections be called Pterygia: it helpeth the vlcers of the ſecret parts, and generally all exulcerations proceeding of rheumatick humors, as the cankers in the mouth. The root of Cyperus is a preſent remedy againſt the ſtinging of ſerpents, and ſcorpions ſpecially. Taken in drink it doth deſopilat & open the obſtructions of the matrice: but if a woman drink too much therof it is ſo forcible that it will driue the matrice out of the body. It prouoketh vrine, ſo as it expelleth the ſtone and grauell withall; in which regard alſo, it is an excellent medicine for the
E dropſie. A liniment thereof is ſingular for cancerous and eating ſores, but eſpecially for thoſe that be in the ſtomack, if it be annointed with wine or vineger tempered with it.

As concerning the ruſhes beforeſaid, their root ſodden in three hemines of water, vntill one third part be conſumed, cureth the cough. The ſeed parched againſt the fire, and ſo drunk in water, ſtaieth the flux of the belly, and ſtoppeth the immoderat courſe of womens moneths; but it procureth head-ach. As for the ruſh called Holoſchœnos, take that part of it which is next the root, and chew it; then lay it to the place that is ſtung with a venomous ſpider, it is an approoued remedie. I find one ſort more of Ruſhes, which they cal Euripice; and this property withal, That it bringeth one to ſleepe: but it muſt be vſed with moderation, for otherwiſe it breedeth
F drowſineſſe, ſib to the lethargy. Now ſeeing I am entred into the treatiſe of ruſhes, I muſt needs ſet down the medicinable vertues of the ſweet Ruſh called Squinanth; and the rather, becauſe (as I haue already ſhewed) it groweth in Syria ſurnamed Cœle. The moſt excellent Squinanth commeth out of Nabatæa, and the ſame is knowne by the addition or ſyrname Teuchites. In a ſecond place is that of Babylon. The worſt of all is brought out of Africke, and it is altogether without ſmell. Squinanth is round, of an hote and fiery * taſte, biting at the tongues end.

* *candor*: ſome reade *Color*: in colour.

* No more hath *Cypirus* in Ægypt, by his owne ſaying.

* This *Cyperis* is taken to be *Curcuma*, or *Terramerita*, called therupon corruptly, *Turmericke*.

* *Ignea mordacitatis.*

The true Squinant indeed which is not ſophiſticated, if a man rub it hard, yeeldeth the ſmel of G
a Roſe: and the fragments broken from it do ſhew red. As touching the vertues thereof, It reſol-
ueth all ventoſities, and therefore comfortable it is and good for the wind in the ſtomack: alſo
it helpeth them that puke vp choler, or reach and ſpit bloud: it ſtinteth the yex, cauſeth riſting
and breaking wind vpward; it prouoketh vrine, & helpeth the bladder. The decoction thereof
is good for womens infirmities, if they ſit therein. A cerot made therewith, and dry roſin toge-
ther, is excellent againſt ſpaſmes and cricks that ſet the neck far backward.

As concerning Roſes, the temperature thereof is hot; howbeit they knit the matrice by an
aſtrictiue quality that they haue, and coole the naturall parts of women. The vſe of Roſes is
twofold, according to the leafe of the floure, and the floure it ſelfe (which is the yellow.) The
head of the Roſe leafe, to wit, the white part thereof, is called in Latine Vnguis, *i.* the Naile. In H
the yellow floure aforeſaid, are to be conſidered ſeuerally, the ſeed, the hairy threds in the top,
the huſk and pellicle that couereth the Roſe in the bud, & the cup within: & euery one of theſe
haue their proper qualities & vertues by themſelues. The leaues are dried, or the iuice is drawn
and preſſed out of them three waies: either all whole as they be, without clipping off the white
nailes, for therein lyeth the moſt moiſture: or when the ſaid nails are taken off, and the reſt be-
hind is infuſed in the ſun, lying either in wine or oile within glaſſes, for oile roſat or wine roſat.
Some put thereto ſalt, others mingle withall either Orchanet or Aſpalathus, or els Squinanth:
and this manner of juice thus drawne and prepared, is very good for the matrice, and the bloudy
flix. The ſame leaues, with the whites taken away, are ſtamped, & then preſſed through a thicke
linnen cloth into a veſſell of braſſe; and the ſaid juice is ſodden with a ſoft fire vnto the conſi- I
ſtence of hony: and for this purpoſe, choiſe would be made of the moſt odoriferous leaues.

Chap. XIX.

¶ *The medicinable vertues of Roſes: of the Lilly and Daffodill, called Laus tibi. Of the Violet, of Bacchar, Combretum, and Azarabacca.*

HOw wine of Roſes ſhould be made, I haue ſhewed ſufficiently in the treatiſe of diuers kinds of wines. The vſe of the juice drawn out of Roſes, is good for the eares, the cankers, and exulcerations in the mouth, the gums, the Tonſils or Amygdales, for gargariſmes, for the ſtomack, the matrice, the infirmities and accidents of the tuil or fundament, and the head-ach. Taken alone, it is ſingular good for the ague; with vineger, for to procure ſleep, & to reſtrain K
the heauing of the ſtomack, and the offers to vomit. The aſhes of Roſes burnt, ſerue to trim the haires of the eiebrowes. Roſes dried and reduced into powder, repreſſe the ſweat betweene the * legs, if it be ſtrewed vpon the place. Dried Roſe leaues do repreſſe and ſtay the flux of humors into the eies. The floure [which is the yellow in the mids] procureth ſleepe. The ſame taken inwardly with vineger & water, ſtaieth the immoderat flux of women; and the whites eſpecially: alſo it repreſſeth the reaching and ſpitting of bloud. The pain of the ſtomack it appeaſeth, being taken in three cyaths of wine. The ſeed or fruit of the Roſe (which is of a Saffron colour) is beſt, ſo it be not aboue a yeare old, and the ſame dried in the ſhade. As for the black, it is nought and good for nothing. To rub the teeth with this ſeed, eaſeth the toothach: the ſame prouoketh vrine. Being applied to the ſtomack, it is comfortable: & ſo it helpes S. *Anthonies* fire, if it hath L
not run too long. If it be drawn vp by the noſthrils, it purgeth and clenſeth the head. As for the heads or knobs, if they be taken in drinke, they knit and bind the belly, and withall, do ſtay the flux of bloud vpward. The whites or nails of the Roſe leafe be ſingular for wateriſh eies, ſo they be applied dry with bread crums: the leaues verily if they be brought only into a liniment, and outwardly applied, are reputed ſoueraigne for the queaſineſſe and pain of the ſtomack, for the gnawings and other accidents which the belly and guts be ſubiect vnto; alſo for the Midriffe and other precordiall parts. Moreouer, they are good to be eaten, if they be condite and preſerued in manner of garden Dock or Patience. But in keeping of Roſe leaues, an eie would be had to them, for fear leaſt they grow to a mouldineſſe, that quickly will ſettle vp them. Drie Roſe M
leaues are of good vſe in Phyſick, yea, the very Roſe cake after the iuice & moiſture is preſſed out of the leaues, ſerueth for ſome purpoſe. For of them be made bags and quilts, yea, and drie pouders for to repreſſe ſweat, and to palliat the ſtrong ſmel therof: with this charge and caueat, that preſently after that one is come out of the ſtouve or baine, the pouder be ſuffered to dry vpon

* *Siccis fœmina aſpergunntur:* I doubt that *Pliny* read in *Dioſcorides*, μυρεψικοῖς for μύροις, (i.) *Vnguenta:* and then it carieth this ſence; that dried Roſes & powdred, enter into ſweet ointments.

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A vpon the body, and then afterward waſhed off with cold water. The wild Roſe * leaues reduced into a liniment with Beares greaſe, doth wonderfully make haire to grow again, where through ſome diſeaſe it is fallen away.

* or rather the ſpungie ſubſtance growing vpon the Cancre brier and wild Roſe.

Lilly roots through their ſingular vertues and operations many waies, haue ennobled their own floures: for firſt and formoſt, if they be taken in wine, they be countrepoyſons againſt the ſting of ſerpents, and the venom of Muſhroms. Sodden in wine, and applied in maner of a cataplaſme, and ſo bound to the feet, they mollifie and reſolue the cornes; but this muſt not be vndone and remoued in three daies. Boiled with greaſe or oile, they cauſe haire to come againe euen in places that were burnt. If Lilly roots be drunk in honied wine, they do euacuat downeward at the ſiege with other ordure, the cluttered, bruiſed, and hurtfull bloud within the body. Ouer and beſides, in this maner they help the ſpleen, them that are burſten and bruiſed, & withall, bring down womens terms orderly. But if they be ſodden in wine, and ſo laid to in forme of a cataplaſm, they knit and heale ſinues that were cut aſunder. They rectifie running tettars and lepries, they ſcoure away dandruf and pilling skales in the face, they make the skin ſmooth and take away riuels and wrinkles. The leaues of Lillies boiled in vinegre are good to be layed to green wounds: reduced into a cataplaſme with Hony, Henbane, and wheat meale, incorporate and vnited all together, and ſo applied to the cods, they repreſſe the flux of humors falling to thoſe parts. The ſeed made into a liniment allayeth the heat of S. *Anthonies* fire. And in the ſame ſort the floures and leaues applied doe heale old ſores. As touching the iuice which is
C preſſed forth of the floures, of ſome it is called Mel [*i.* hony;] of others Syrium: ſingular good for to ſoften and mollifie the matrice, for to procure ſweat and to ripen impoſtumes tending to ſuppuration.

Now for Daffodils, there be two kinds of them admitted by the Phyſitians for to be vſed in medicine; the one with a purple floure, the other of a graſſe green. This later Daffodil is aduerſe and hurtfull to the ſtomack, and therfore cauſeth it to ouerturn and vomit: it ſetteth the belly alſo into a flux: contrary it is to the ſinues, and ſtuffeth the head: for which narcoticke qualitie of ſtupifying & benumming the ſences, it took the name in Greek Narciſſus, of Narce which betokeneth nummedneſſe or dulneſſe of ſence; and not of the yong boy *Narciſſus*, as the Poets do feign and fable. The roots as wel of the one as the other Daffodil, haue a pleaſant taſt as it were of honied wine: the ſame is good for burns, applied to the place with a little honey:
D and ſo it helpeth diſlocations and healeth wounds. Moreouer, a cataplaſme made of it, honey, and oatmeale, doth reſolue and ripen biles and great apoſtemations: and in that ſort it drawes forth ſpils, ſhiuers, arrow heads, and thorns, and whatſoeuer ſtick within the body. Being ſtamped and incorporat with barley groats and oile, it cureth them that be bruiſed and ſmitten with a ſtone. Mingled with meale it cleanſeth wounds, it ſcoureth the skin from all ſpots that disfigure it, yea and taketh away the black morphew. Of this floure is made the oile Narciſſinum, good to ſupple and ſoften all hard tumours, good alſo to reuiue and heat againe whatſoeuer is ſtark and benummed with extreme cold. And aboue all, this floure is excellent for the ears, howbeit it maketh the head to ake.

Of Violets there be ſome wild and of the field: others domeſticall, and growing in our gar-
E dens. The purple violets are refrigeratiue and do coole. And therefore a good liniment is made of them to be applied vnto an hot ſtomack, againſt burning inflammations. A frontall likewiſe may be made of them to be laid vnto the forehead. But a peculiar vertue they haue beſides to ſtay the running and waterie eies: as alſo to help the procidence or falling downe both of tuill and matrice, and to reduce them again into their places. Moreouer, being applied to ſwellings and impoſtumations, they reſolue the ſame without any head or ſuppuration. Guirlands being made of violets and ſet vpon the head, reſiſt the heauineſſe of the head, and withſtand the ouerturning of the brains vpon ouer-liberall drinking; yea, the very ſmel thereof will diſcuſſe ſuch fumes and vapors as would trouble and diſquiet the head. Violets being drunk with water, doe cure the Squinancie. That which is purple in the floure of the Violets, helpeth the falling euil,
F in children eſpecially, if they drink it with water. Violet ſeed reſiſteth the poiſon of ſcorpions. Contrariwiſe, the floure of the white Violet, to wit the bulbous ſtocke-Gillofre, is good to break all impoſtumat ſwellings, whereas March violets did reſolue them. But as wel the white Violets as the yellow wall-floures, are ſingular good to extenuate the groſſe bloud of womens terms, and to moue vrine. Violets, if they be freſh and new gotten, are not ſo effectuall for theſe

purpoſes

purpoſes as the dry and old gathered,and therefore they would haue a whole yeares drying be- G
fore they be vſed. The wall-floure being taken to the quantitie of halfe a cyath in three cyaths of water,ſtirreth womens fleurs,and draweth them downe. A liniment made with the root and vinegre together,do mitigate and allay the pain of the ſpleen: likewiſe it aſſwageth the gout: and being tempered with myrrh and ſaffron, it is ſingular for inflammations of the eyes. The leaues mixed with hony clenſe the head from ſcurfe and skall: reduced into a cerot, it healeth vp the chaps in the ſeat or fundament, as alſo all ſuch Fiſſures in any moiſt place whatſoeuer. And with vinegre they be good for all collections of humors and apoſtemations.

Bacchar alſo is an herb whereof there is good vſe in phyſick. Some of our countrymen haue called it in Latine Perpenſa. It affourdeth a good remedie againſt ſerpents: it qualifieth the exceſſiue heat of the head,allaieth the ach,and reſtraineth the flux of humours downe into the H
eyes. A cataplaſme is made thereof for womens breaſts,ſwelling immediatly after childbirth, for to breake the kernell. Alſo for fiſtulous vlcers, beginning to breed betweene the corners of the eies and of the noſe,and Saint *Anthonies* fire. The very odour thereof is a good inducement to ſleep. The root ſodden and taken in drink is ſingular for them that are troubled with cramps and convulſions; that haue fallen from on high; that be drawn togetther with ſpaſmes; and finally for ſuch as labor for wind. A decoction made of three or foure of the roots,boiled away to the thirds,is giuen with good ſucceſſe for an old cough. And this drink or Iuleb is very conuenient for to purge women that haue trauelled and bin deliuered before their time. It taketh away the ſtitches in the ſide,cureth the pleuriſie,and skoureth the ſtone. Herof be bags and quilts made, and thoſe if they be laid in a wardrobe among cloathes and apparel,cauſeth I
them to ſmell ſweet.

As for Combretum (which I ſaid was much like vnto Bacchar) if it be beaten to pouder and tempered with hogs greaſe it maketh a ſoueraign ſalue that healeth wounds wonderfully. Aſarum (by report) is an appropriat medicine for the liuer,if an ounce of it be taken in one hemine of honied wine. It purgeth the belly as violently as Ellebore. In caſe of the dropſy it is ſingular; as alſo for the midriffe,precordial parts,the Matrice,and the Iauniſe. If it be put into new wine when it worketh,and ſo tunned vp,it maketh a ſingular diuretick wine for to prouoke vrin. It muſt for this purpoſe be digged out of the ground when the leaues begin to put forth. Dried it ought to be in the ſhade; although it be ſubiect to corruption and mouldeth very ſoon.

K

Chap. XX.

¶ *Of French Nard,and Saffron. The medicinable vertues of Saffron,and the cake or dregs thereof. Of Saliunca,Polium,and Floure de-lis. Of Holochryſon, Chryſocome, and Melilote.*

FOraſmuch as ſome haue taken ruſtick-Nard to be the root of Bacchar,and ſo named it: the which hath put me in mind of French Nard,and the promiſe which I made in my treatiſe of ſtrange and forrein trees,to put off no longer than this place for to ſpeake of it,and the properties thereto belong. To acquit my ſelfe therefore, I will here ſet down the vertues of the ſaid Nard, as touching the vſe thereof in Phyſicke. Firſt therefore, if two drammes of French L
Nard be taken in wine,it is ſingular againſt the ſting and biting of ſerpents. *Item*,if one drinke it either in wine or water,it eaſeth the paſſions of the Collick, proceeding from the inflammation of the gut Colon. In like ſort it cureth the inflaammtion of the liuer and the reins,the ouerflowing alſo of the gal,and the Iauniſe thereupon. Taken alone by it ſelfe or with Wormewood,it is a good remedy for the Dropſie. It repreſſeth the immoderat flux of womens fleurs.

Zedoarium. As touching Setwall or Valerian,which in the foreſaid place we named Phu; the * root either beaten into pouder,or ſodden and ſo giuen in drinke,is excellent for the riſing of the Mother,which threatneth ſuffocation; for the pains of the breaſt and pleuriſie. The ſame prouoketh the courſe in womens terms,ſo it be taken in wine.

Saffron will not reſolue nor be mixed wel with hony or any ſweet thing. Howbeit,in wine or M
water,it wil diſſolue very ſoon and be incorporated therewith. A ſoueraign ſpice this is, & ſingular for many maladies. The beſt way to keep ſaffron is within a box of horn. It diſcuſſeth verily all inflammations, but principally thoſe of the eies, if together with an egge it be applied in forme of a liniment. Excellent it is for the ſuffocation of the matrice, the exulcerations

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A of the ſtomacke,breaſt,kidnies,liuer,lungs,and bladder: and more particularly,if any of theſe parts be enflamed,a proper remedie alſo it is in that caſe. Likewiſe it cureth the cough & pleuriſie. It killeth an itch,and prouoketh vrin. Our wine-knights when they purpoſe to ſit ſquare at the tauerne and carouſe luſtily,if they drinke Saffron,neuer feare ſurfeit nor the ouerturning of their braine:and they are verily perſuaded, that this keepeth them from drunkenneſſe, and maketh them carie their drinke well. Certes, a Chaplet of Saffron vpon the head, dooth allay the fumes aſcending vp thither,and preuent drunkenneſſe. Saffron induceth ſleep,but it troubleth the braine * ſomewhat it pricketh forward to wanton luſt. The floure of Saffron reduced into a liniment with white Fullers earth,helpeth the Shingles and S. *Anthonies* fire. And ſaffron it ſelf entereth into very many compoſitions of Phyſicke. One Collyrie or *eye-ſalue there is,which B taketh the name alſo of ſaffron. And when the ointment made of Saffron called Crocinium,is ſtrained and preſſed out, the grounds which remaine is named Crocomagma, which alſo is not without ſome ſpeciall vſes,for it cureth the ſuffuſion of the eyes, or the cataract:but it cauſeth ardeur and heat of vrine more than Saffron it ſelfe. The beſt is that accounted, which if a man taſt in his mouth,doth colour his ſpittle and ſtaine his teeth.

* Nay it is a great enemie vnto it.

* *Dia crocis. Paul. Ægin.*

As touching the Flower-de-lis,the red is thought to be better than the white. Certes if little infants do wear it tied about them by way of necklace,collar,or girdle,it is ſuppoſed to be a ſingular remedie,eſpecially when they breed teeth or haue the chincough. Alſo if they be trou-
C bled with the * worms,they hold it good gently to inſtill the ſame in the body [either by drink or clyſtres.] All other operations that the Flour-de-lis hath,differ not much in effect from hony. A ſingular property it hath to clenſe the head from ſores and skalls, and generally to mundifie all impoſtumat vlcers. Two drams thereof taken with hony,eaſeth the belly,& prouoketh to the ſtoole. Giuen in ordinary drink,it ſtaieth the cough,appeaſeth wrings, & diſſolueth ventoſities in the belly. In vinegre it openeth the opilations of the ſpleene. And being taken with water and vinegre together, it is an effectuall remedie againſt the ſtinging of ſerpents and ſpiders. The weight of two drams eaten with bread or drunk in water,reſiſteth the poiſon of ſcorpions. Being made into a liniment with oile,and ſo applied,it cureth the bitings of mad dogs, and heateth the parts mortified with extreame cold. In like manner alſo it allaieth the paines of the ſinews. Reduced into an ointment with Roſin,it is ſingular for the paine of the loins and
D the gout Sciatica. This root is hot in operation. If it be drawne or ſnuffed vp into the noſe, it cauſeth ſneeſing, and purgeth the head. A liniment of it and Pome-quinces or Peare-quinces, eaſeth the head-ach: it repreſſeth alſo the vapours flying vp into the head,cauſing diſtemperature of the braine,in a ſurfeit of wine or ſtrong drinke. It helpeth ſtreightneſſe of breath, and ſuch as cannot take their winde but ſitting vpright. It prouoketh vomit, if it be taken to the weight of 2 Oboli. A cataplaſme of it and hony together, draweth forth ſpils of broken bones. The pouder of it is much vſed for Whit-flawes: and the ſame applied with wine, taketh away cornes and werts: but it muſt lie on three daies before you vnbind and take it from the place. The very chewing of it,correcteth a ſtrong and ſtinking breath: as alſo the filthie ſauour of the arme-holes. The juice thereof doth mollifie all hard tumors. It prouoketh ſleepe,but it conſumeth ſperme or natural ſeed. The Fiſſures in the ſeat,as alſo the blind and ſwelling piles in the
E fundament and all ſuperfluous excreſcences of the bodie, it cureth.

* *Tineayum vitio. Plinie* commonly taketh *Tineas* for wormes in the belly: although otherwiſe it betokeneth ſores and skals in the head.

There is a wild kind of Floure-de-lis,which ſome call Xyris: the root of this herb is good to reſolue & diſcuſſe the ſwelling kernels named the Kings euil,hot biles, & riſings in the groin. Howbeit for to work theſe effects,there be certain ceremonies preciſely to be obſerued,namely, That it be taken out of the ground with the left hand in any caſe. *Item*, that they who gather it do ſay in the gathering, For whoſe ſake they pluck it vp; and withall,name the perſon: & here in making mention of this matter, I canot but detect the knauery of theſe Harbariſts and ſimplers: Their maner is not to employ & occupie all that they haue gathered,but reſerue & keep part thereof,as alſo of ſome other hearbes,as namely of Plantaine, and if they be not well contented,nor thinke themſelues paied thoroughly for their paines in the cure,they make no more
F ado but burie and couer within the earth that part which they kept by them, in the ſame place where it was digged forth. And I beleeue verily they haue an vnhappy meaning and a certaine kind of witchcraft herin: forſooth, That the maladies which they ſeemed to haue healed,ſhould breake out and be ſore again,to the end that they might be ſet on work anew. As touching Saliunca, the decoction of it in wine and ſo taken,ſtaieth vomits, and corrobroateth the ſtomack.

Muſæus

Muſæus and *Heſiodus* the Poets haue a great opinion of Polium: for they giue counſell to all thoſe that would come to preferment & promotion, for to be anointed all ouer with a liniment thereof: ſuch alſo as be deſirous of renowme and glory, to be euer handling of it, to ſet it alſo, and maintaine it in their gardens. True it is, that ſolke do carie Polium about them ordinarily, or lay it vnder their beds for to chaſe away ſerpents. Phyſicians do ſeeth it either new & green, or drie, in wine, and therof make a liniment: or els they giue it to drink in vinegre, to thoſe that be pained with the jaundiſe; yea, & to ſuch as be newly fallen into the dropſie, they giue counſell to drinke the decoction thereof, being ſodden in wine. And of it ſo prepared, they make a liniment for to be applied vnto green wounds. Moreouer, this herb is very good to ſend out the after-burden in women newly brought to bed, and to expell the dead infant out of the mothers wombe. And otherwiſe it ſerueth well to mitigate any paines of the body. It doth purge and euacuate the bladder: and in a liniment applied to the eyes, reſtraineth their exceſſiue watering. I know not any other hearbe better to goe with other ingredients into antidots or countrepoiſons (named of the Greeks Alexipharmaca) than this. Howbeit, ſome denie all this, and are of opinion that it is hurtful to the ſtomacke, that the drinking of it ſtuffeth the head, and cauſeth women to fal into labor before their time. They ſay alſo, that this cerimonie would be preciſely obſerued, That in the very place where this plant is found, ſo ſoone as euer it is gathered it ſhould be hanged preſently vpon the necke of the partie, with a ſpeciall care that it touch not the ground firſt, and then is it an excellent remedie for the cataract in the eye. And theſe authors deſcribe this hearbe to haue leaues like Thyme, but that they be ſofter and couered ouer with a more hoarie and woollie downe. Being taken with wild Rue in raine water, ſo that it be beaten before into pouder, it doth mitigat (by report) the deadly paines cauſed by the ſting of the Aſpis, it bindeth and draweth vp a wound, it keepeth corroſiue ſores from feſtering and going farther, as well as the floures of the Pomegranate.

G

H

As namely *Dioſcorides.*

I

The hearb Holochryſos if it be taken in wine, helpeth the ſtrangury, and ſuch as cannot piſſe but by drops. And a liniment therof is paſſing good to repreſſe the flux of humors to the eyes. If it bee incorporat with Tartar or wine lees burnt into aſhes, and drie Barley groats; it mundifieth the skin, and riddeth away ring-wormes, tettars, and ſuch like wild fires.

As for Chryſocome, the root of it is hot, and yet aſtringent. It is giuen to drinke for the diſeaſes of the liuer and the lights. And being ſodden in honied water, it aſſuageth the paines incident to the matrice. It prouoketh womens monthly purgation: and being giuen in drink raw, it purgeth waterie humors gathered in the dropſie.

K

Touching Baulm, which the Greeks call Melittis or Meliſſophyllon: if Bee-hiues be rubbed all ouer and beſmeared with the juice thereof, the Bees will neuer away, for there is not a floure whereof they be more deſirous and faine, than of it : and in truth, looke in what garden there groweth abundance of this hearbe, the Bees there when they ſwarme, will be ſoone intreated to tarie, & not be haſtie to wander far abroad. The ſame is a moſt preſent remedy not only againſt their ſtings, but alſo of weſpes, ſpiders, and Scorpions. And being tempered with a little nitre, it is ſingular againſt the * ſtrangulation of the mother. Taken in wine, it pacifieth the wrings and torments of the belly. The leaues therof being ſodden with ſalt, and brought into an ointment, are ſingular good for to be applied vnto the ſcrophules or ſwelling kernills called the Kings euill: and likewiſe to the accidents of the ſeat and fundament, as the ſwelling hæmorrhoids or piles. The juice taken in drinke, bringeth women to their ordinary monethly courſes: it diſcuſſeth veutoſities, and healeth vlcers: it allaieth the paines of any gouts, and cureth the biting of mad dogs: it is good for the bloudy flix that hath run on a long time: as alſo thoſe fluxes which proceed from the imbecillitie of the ſtomack: it helpeth them that be ſtreight in the cheſt, and cannot take their wind but bolt vpright: it mundifieth alſo the vlcers within the breaſt. To conclude, it is ſaid to be a ſingular remedie & none like vnto it, for to diſpatch the webs in the eye, if they be annointed with the juice thereof and honey tempered together.

* *Dioſcorides* hath μυκητων, i. Muſhromes: whereof there be ſome that be daungerous for ſuffocation. But *Plinie* as it ſhould ſeeme, read it μαγων, and accordingly hath tranſlated it.

L

Melilot is thought alſo to be good for the eyes, if it be applied with milk or line ſeed. It aſſuageth alſo the paine of the jawes and head, if it be laid too with oile of Roſes: likewiſe it doth mitigat the paine of the ears, if it be inſtilled or dropped into them with wine cuit. Moreouer, the tumors and breaking out of the hands it helpeth. Being boiled in wine or ſtamped green, it eaſeth the griefe of the ſtomacke. The ſame effect it hath in the pain of the matrice. But if the cods be amiſſe, if the Longaon or tuill bee fallen, and beare out of the bodie; or if that part bee affected

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A affected with other accidents, Bath the place with a decoction of it, boiled greene in water or cuit, and the patient ſhal find eaſe. But if there be an ointment made of it and oile of Roſes incorporat together, it is a ſoueraign remedie for all cancerous ſores. If it be boiled firſt in ſweet wine or cuit, it is the better for the purpoſe aforeſaid: and ſo prepared, a ſpeciall and effectuall thing it is for the wens called Melicerides: wherein is engendred matter reſembling honey.

Chap. XXI.

¶ *Of Trefoile, and Thyme: of the day Lillie Hemerocalles: of Elecampane, and Southernewood, and Cypres.*

B I Am not ignorant that folke are verily perſuaded, how that Trefoile or three leaued graſſe, is of great force againſt the ſtings of ſerpents and ſcorpions, if either 20 graines of the ſeed bee inwardly taken in wine, or warer and vinegre together; or if the leaues and the whole hearb be ſodden, and the decoction drunk: as alſo, that ſerpents are neuer ſeen to lie vnder this Trefoile. Moreouer, I know full well that diuerſe Authors renowmed and of great credit, haue deliuered in their bookes, That fiue and twentie graines of that Trefoile, which we called Menianthes, is ſufficient for a preſeruatiue and antidot againſt all poiſons whatſoeuer: beſides many other medicinable vertues which be aſcribed to this hearb. But for mine owne part, I am iuduced by the
C authoritie of the moſt graue and reuerend Poet *Sophocles*, to ſtand againſt their opinion; for hee affirmeth plainely, That Trefoile is venomous. Likewiſe, *Simus* the Phyſician doth report, that if the decoction of it ſodden, or the juice thereof ſtamped, bee poured or dropped vpon any part of the body which is ſound, it wil cauſe the ſame fiery and burning ſmart as followeth vpon a place bitten or ſtung with a ſerpent. And therefore I would thinke with them, and giue counſell alſo, that it is not to be vſed otherwiſe than a countrepoiſon. For it may bee peraduenture, th at in this as in many other, one poyſon (by a certaine antipathie and contrarietie in nature) expelleth & mortifieth another. Moreouer, this I markand obſerue in their writings, that the ſeed of the Trefoile which hath ſmalleſt leaues, if it be reduced into a liniment, is ſingular good to embelliſh womens skin, and to preſerue their beauty, if the face be anointed therwith.

Thyme ought to be gathered whiles it is in the floure, and then to be dried in the ſhade: now
D there are of Thyme two kinds, to wit, the white, which hath a woodie root, growing vpon little hills; and this is thought to be the better: the ſecond, is blacker, & caries beſides a black floure. They are thought both of them, the one as well as the other, very good to cleare the eyeſight, whether they be eaten with meats or taken as a medicine. In like maner, an electuarie or lohoch made of Thyme, is ſuppoſed to be excellent good for an old cough, and being taken with hony and ſalt, to raiſe and breake fleam, cauſing the ſame to be raught vp with more facility: alſo that if it be incorporat with hony, it will not ſuffer the bloud to clutter and congeale within the bodie. Applied outwardly as a liniment with Senuie, it doth extenuate and ſubtiliate the rheume that hath of long time fallen in the throat and windpipe: and ſo alſo it amendeth the grieuance of ſtomacke and belly. Howbeit, theſe Thymes muſt be vſed with meaſure and moderation: becauſe they ſet the body in an heat, although they be binding and make the belly coſtiue. Now
E in caſe there be an exulceration in the guts, there muſt be taken the weight of 1 denier or dram in Thyme, to euery Sextar of honey and vinegre: ſemblably, it muſt bee ordered in caſe of the pleuriſie; and when there lyeth a paine between the ſhoulders or in the breaſt. A drink made of Thyme with honey and vinegre in manner of a juleb or ſyrrup, cureth the griefe of the midriffe and precordiall parts neere vnto the heart. And verily a ſoueraign potion this is to be giuen vnto them that be troubled in mind and lunaticke, as alſo to melancholicke perſons. The ſame alſo may be giuen to thoſe who be ſubject to the epilepſy or falling ſicknes: whom the very perfume and ſmell of Thyme wil raiſe out of a fit, and fetch them again, when the diſeaſe is vpon them: It is ſaid, that ſuch ſhould lie ordinarily in a ſoft bed of Thyme. This hearb is proper for thoſe that canot draw their breath vnleſſe the ſit vpright, and to ſuch as are ſhort winded, yea,
F and good for women, in whoſe monethly courſes are either ſuppreſſed or come but ſlowly. And ſay that the infant were dead in the wombe, a decoction of Thyme, ſodden in water vnto the thirds and ſo taken, doth ſend it forth of the bodie. Men alſo doe find a great benefit by Thyme if they drinke a ſyrrup made of it with honey and vinegre, in caſe of ventoſities and inflations: alſo, if their bellies be ſwoln or their cods; yea, and when their bladder is pained: moreouer if it

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be applied as a cataplaſme with wine, it aſſuageth all tumors, and bringeth downe ſwellings: it G
ſtaieth alſo the impetuous and violent flux of any humours to a place, readie to breed an impoſtumation. But if the ſame be applied with vinegre, it taketh away werts and hard callofities. It is good for the Sciatica and other gouts, for diſlocations and lims out of joint, being beaten to pouder, and beſtrewed vpon a quilt of wooll, moiſtned and bathed with oile, and ſo laid to the place in manner of a fomentation. A potion alſo thereof is vſually giuen in caſe of the gout, to wit, the weight of 3 Oboles, in as many cyaths of vinegre and honey. Alſo when the ſtomacke riſeth againſt meat and refuſeth it, a drage or pouder of it with ſalt, brings the appetite againe.

The day Lillie Hemerocalles, hath leaues of a pale and wanniſh green colour, otherwiſe ſoft and gentle, the root is bulbous or Onion like, and odoriferous: which if it bee laid to the bellie in manner of a cataplaſme, doth euacuat waterie humors, yea, and thick bloud that lieth cluttered within the bodie, ready to do a miſchiefe. H
The leaues make an excellent liniment to anoint the eies and the parts about it, as a defenſatiue againſt the rheum falling thither with violence; as alſo to be applied vnto the paps and breaſts of women, which ake and are pained preſently after child-birth.

Helenium, an hearbe which ſprang firſt from the teares of lady *Helena*, as I haue already ſhewed, is thought to haue a ſpecial vertue to preſerue beauty, and to maintain the skin fair, pure, and delicat, as well in the face of women, as in other parts of their body. Moreouer, a deepe opinion there is of this hearb, that whoſoeuer vſe it ſhall proue amiable and gracious, they ſhall I ſay, win loue and fauour wherſoeuer they come. Alſo there is attributed and preſcribed to this herb, if it be taken in wine, a mightie operation to procure mirth and make the heart mery, and I
it is thought to be as effectuall that way, as was that noble drinke Nepenthes (ſo highly commended in *Homer*) ſo called, for that it puts away al heauineſſe, ſorrow, and melancholy. And in faith the juice of Helenium is * paſſing ſweet and pleaſant: the root of Helenium taken in water vpon an emptie ſtomacke when a man is faſting, is very good for them that are ſtreight winded and cannot take their breath but vpright. Now is the root white within and * ſweet alſo as is the hearb. The ſame is giuen to drinke in wine againſt the ſting of ſerpents. To conclude, being beaten into pouder, it is ſaid for to kill Mice.

* So is not *Inula*, or our Elecampane. And therefore either it is not Helenium here: or elſe *Plinie* doth miſtake in this place, as in many others. * which agreeth not with ours.

As touching Abrotonum, I find that there be two kinds of it. The one of the plaines, which I take to be the male; the other of the mountaines, which I would haue to goe for the female. Neither of them both there is, but it is as bitter as Wormwood. The beſt is that which growes K
in Sicilie: next to which, that of Galatia is moſt eſteemed. The leaues are much vſed, but the ſeed much more, for to heat and chauſe any part of the bodie. And therfore it is good and comfortable for the ſinewes: it cureth the cough: it procureth them libertie of breath, who cannot fetch their wind lying or leaning with their heads: it helpeth the crampe: it conſolidateth ruptures: it eaſeth the paine of the loines, and maketh free paſſage for vrine. The right manner of the decoction as well of the one as the other, is to ſeeth them in bunches or bundles like handfulls, vntill a third part of the water be conſumed; and foure cyaths is an ordinarie draught of this decoction. The ſeed alſo being beaten into pouder, is giuen to the weight of a dram in water, for a drink. And indeed ſo taken, it comforteth the matrice and the natural parts of women.
A poulteſſe made of it and Barley meale: applied vnto dull and broad ſwellings which gather L
not quickely to an head, doth ripen them apace and bring them to ſuppuration. Alſo beeing reduced into a liniment with a quince roſted or baked, it cureth the inflammation of the eyes, if they be annointed therwith; it hath a vertue to driue away ſerpents; & in caſe one be ſtung with them alreadie, it expelleth the poiſon taken inwardly in drinke; or laid too outwardly in forme of an ointment, draweth it forth. But moſt effectually is the power thereof ſeen, in thoſe poiſoned and venomous ſtings which cauſe the bodie to ſhake, chill, and quake for cold; as namely thoſe of ſcorpions, and the ſpiders called phalangia. Moreouer, good it is alſo for other poiſons, if it be taken in drinke: and ſo it helpeth thoſe that be ſurpriſed with any extreme cold howſoeuer. This propertie likewiſe it hath, to draw forth of the bodie all ſpills or any thing elſe that ſticketh within the ſame. It drieth out of the body the worms engendred in the guts. Finallly M
it is ſaid, that if a branch therof be laid vnder the pillow where folk lieth in bed, it wil put them in mind of wantonneſſe, and prouoke them to luſt: and againſt all charmes, enchantments, and witchcrafts, which cool the heat of the fleſh, and diſable or bind any perſon from the act of generation, it is the moſt powerfull hearb of all others.

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A

Chap. XXII.

¶ *The medicinable vertues of Leucanthemum, and Sampſuchum,* [*i. Marjerom.*]

Leucanthemum mingled with 2 parts of vinegre, and ſo giuen to drinke, is good for thoſe that be ſhort winded. As for Sampſuchum or Amacacum, that of Cyprus is moſt commended, and the ſweeteſt of all other: this hearb brought into a liniment, and applied with vinegre and ſalt, is good againſt the venom of Scorpions. Moreouer, if it be put vp into the naturall parts of a woman in forme of a peſſarie, it helpeth much to bring downe their monethly courſes: for if it be taken in drinke, it is not ſo effectuall. Appled as a liniment, after it is incor-
B porat with barley groats, it reſtraineth the flux of humors to the eyes. The juice therof when it is ſodden, diſcuſſeth and diſſolueth the ventoſities that moue pangs and wrings in the belly: a good medicine it is to prouoke vrine, and by conſequence, for thoſe that be in a dropſie. Marjoram dried, mooueth ſneeſing. Thereof is made an artificiall oile, called Sampſuchinum or Amaracinum, ſingular for to heat the ſinewes, and to mollifie their ſtiffeneſſe and hardneſſe: as alſo by the heat thereof to comfort the matrice. The leaues applied with hony, ſerue very well to reduce the black and blew marks occaſioned by ſtripes or bruiſes, to their natural and liuely colour: and brought into a cerot with wax, it is good for diſlocations of joynts.

Chap. XXIII.

C ¶ *The vertues and properties of Anemone or Windfloure, requiſit in Phyſicke.*

We haue diſcourſed of Anemone and thoſe kinds thereof, which go to the making of chaplets and guirlands: it remaineth now therefore to ſpeake of thoſe which ſerue for good vſe in Phyſicke. But firſt as touching Anemone in generall: ſome there bee who call it Phenion; and two principal kinds there be of it: The firſt groweth wild in the woods: the ſecond commeth in places wel tilled and in gardens: but both the one and the other loue ſandy grounds. As for this later kind, it is ſubdiuided into many ſpeciall ſorts: for ſome haue a deepe red skarlet floure; and indeed ſuch are found in greateſt plenty: others bear a purple floure: and there be again which are white. The leaues of all theſe three be like vnto Parſly. None of them
D ordinarily grow in height aboue halfe a foot; and in the head of their ſtemme, they ſhoot forth ſprouts in manner of the tendrils of Aſparagus. The floure hath this property, Neuer to open but when the wind doth blow; wereupon it tooke the name * Anemone in Greek. But the wild Anemone is greater and taller: the leaues alſo are larger; and the floures are of a red colour. Many writers, being carried away with an error, thinke this Anemone and Argemone to bee both one: others confound it with that wild Poppy which we named Rhœas: but there is a great difference betweene them, for that both theſe hearbes doe floure after Anemone: neither doe the Anemonæ yeeld the like juice from them, as doth either Argemone or Rhœas before-named: they haue not alſo ſuch cups and heads in the top, but only a certaine muſculoſitie at the ends and tips of their branches, much like to the tender buds of Aſparagus.

Hereupon Anemone is called Roſe-parſly * ἀπὸ τοῦ, in Greek betokeneth Wind whereupon *Ruellius* called it *Herba-uenti*: and *Gerard*, Wind-floure more properly.

E All the ſorts of Anemone or Wind-floure, bee good for the head-ach and inflammations thereof; comfortable to the matrice of women, and increaſeth their milk. Being taken inwardly in a Ptiſane or barly gruell, or applied outwardly as a cataplaſme with wooll, this hearb prouoketh their monthly tearms. The root chewed in the mouth, purgeth the head of fleame, and cureth the infirmities of the teeth. The ſame being ſodden, and laid to the eyes as a cataplaſm, repreſſeth the vehement flux of waterie humours thither. The Magicians and Wiſe men attribute much to theſe hearbes, and tell many wonders of them; namely, That a man ſhould gather the firſt that he ſeeth in any yeare, and in gathering to ſay theſe words, *I gather thee for a remedie againſt tertian and quartan agues*: which done, the partie muſt lap and bind faſt in a red cloth the ſaid floure, and ſo keep it in a ſhady place; and when need requireth, to take the ſame, and either
F hang it about the necke, or tie it to the arme or ſome other place. The root of that Anemone which beareth the red floure, if it be bruiſed and laid vpon any liuing creature what ſoeuer, raiſeth a bliſter, by that cauſtik and corroſiue vertue which it hath: and therfore it is vſed to mundifie and cleanſe filthie vlcers.

G

Chap. XXIIII.

¶ *The vertues of Oenanthe in Physicke.*

OEnanthe is an hearb growing vpon rocky and stony grounds. The leafe resembleth those of the Parsnep: roots it hath many, and those big. The stemme and leaues of this herb, if they be taken inwardly with honey and thicke sweet wine, doe cause women in labor, to haue easie deliuerance, and withall, doe clense them wel of the after-birth. Eaten in an Electuarie, or licked in a lohoch made with hony, the said leaues doe rid away the cough, and prouoke vrine. To conclude, the root also is singular for the infirmities and diseases of the bladder.

H

Chap. XXV.

¶ *The medicines made with the hearbe Heliochryson.*

HEliochryson, which others name Chrysanthemon, putteth forth little branches very faire and white: the leaues are whitish too, much like vnto Abrotonum: From the tips and ends of which branches, there hang down certaine buttons (as it were) like berries round in a circle, which with the repercussion and reuerberation of the Sun-beames, doe shine againe like resplendent gold. These tufts or buttons, doe neuer fade nor wither: which is the cause that the chaplets wherewith they crowne and adorne the heads of the gods, be made thereof: a ceremonie that *Ptolomæus* K. of Ægypt obserued most precisely. This herbe groweth in rough pla- I
ces among bushes and shrubs. If it be taken in wine, it prouoketh vrine, and womens fleures. All hard tumors and inflammations it doth discusse and resolue without suppuration. A liniment made with it & honey, is good to be applied to any place burnt or scalded. It is giuen in drinke vsually for the stlng of serpents: for the paines and infirmities also of the loines. If it be drunke in honyed wine, it dissolueth and consumeth the cluttered bloud, either in the belly and guts, or the bladder. The leaues taken to the weight of three Oboli in white wine, do stay the immoderat flux of the whites in women. This hearbe, if it be laid in wardrobes, keepeth apparel sweet, for it is of a pleasant odour.

Chap. XXVI.

¶ *The vertues and properties of the Hyacinth, and Lychnis, in Physicke.* K

THe Hyacinth loueth France very well, and prospereth there exceedingly. The French vse therewith to die their light reds or lustie-gallant, for default of graine to color their scarlet. The root is bulbous & Onion-like, well known to these slaue-coursers, who buy them at best hand: and after, tricking, trimming, and pampering them vp for sale, make gain of them: for being reduced into a liniment, they vse it with wine to annoint as well the share of youths, as the chin and cheeks, to keep them for euer being vnder-grown, or hauing haire on their face, that they may appeare young still and smooth. It is a good defensatiue against the prick of venomous spiders: and besides, allaieth the griping torments of the belly. It forciby prouoketh
ἴσως in Dioscorides, it seemeth he read περσίνη. vrine. The seed of this hearbe, giuen with * Abrotonum, is a preseruatiue against the venome of L
serpents and scorpions; it cureth the jaundise.

As touching Lychnis, that flaming hearbe surnamed Flammea, the seed of it beaten to pouder and taken in wine, is singular good against the sting of serpents, scorpions, hornets, and such like. The wild of this kind is hurtfull to the stomacke, and yet it is laxatiue and purgeth downward. Two drams thereof is a sufficient dose to purge choller, for it worketh mightily. Such an enemie it is to scorpions, that if they doe but see it, they are taken with a nummednesse that they cannot stir. In Asia or Natolia, they call the root of this hearbe Bolites, which if it be laid vpon the eies and kept bound thereto, taketh away the pin and the web, as they say.

Chap. XXVII.

M

¶ *The medicinable vertues of Pervincle, Ruscus, Batis, and Acinos.*

ALso the Peruincle, called by the Greeks * Chamædaphne, if it be stamped drie into pouder, and a spoonful thereof giuen in water to those that are full of the dropsie, it doth euacuat most speedily, the watry humors collected in their belly, or otherwise: the same root
* or rather *Daphnoides*, out of *Dioscor.*

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A roſted in embres,and well ſprinkled and wet with wine, diſcuſſeth and drieth vp all tumors, being applied thereto. The iuyce thereof dropped into the ears,cureth their infirmities. A cataplaſme applied to the belly, helpeth them (as they ſay) very much, who are vexed either with gripes or fluxes of the wombe.

Concerning Ruſcus, the decoction of the root, if it be giuen in drink each other day, to them that be tormented either with the ſtone, or the wringing paines of the ſtrangurie, or to ſuch as piſſe bloud, it helpeth them. Now the preparing of this medicine, and the proportion alſo of it, is in this wiſe: The ſaid root muſt be taken out of the ground as it might be to day, and tomorrow morning betimes it would be ſodden; and a ſextar of this decoction is to be mingled with two cyaths of wine, and ſo the Patient is to drink it. Some make no ſuch ado, but take the root
B while it is green, ſtamp it, and in water draw the juice raw as it is, and ſo drink it. In ſum, it is held for certain, That there is no better thing in the world for the infirmities and diſeaſes incident to the priuy members of men, than to bruſe the tender crops of this herbe, and then with wine and vinegre to preſſe out the juice, and afterwards to drink the ſame. In like maner, * Batis is good for them that be bound and coſtiue in the belly: and a liniment of it, after it is roſted in the embres and ſtamped, is ſingular for the gout. Laſt of all, as touching the herbe Acinos, the Egyptians vſe to ſow it, as well to make guirlands thereof, as to eat it. Surely I would ſay it were Baſil, but that the branches and leaues be more hairy; for certainly it is very odoriferous. It hath a property to prouoke vrine, and womens fleures.

* Taken by the moſt part for wild Baſil.

C

Chap. XXVIII.

¶ *The medicines that Colocaſia or the Egyptian Bean doth afford.*

G *Lauſias* was of opinion, that Colocaſia was good to lenifie or mitigat the acrimony of humors within the body, and withall to help the ſtomack.

Chap. XXIX.

¶ *The medicines made of Anthalium.*

D TOuching Anthalium (wherof the Egyptians vſe much to eat) I find no other vſe of it, but only from the kitchin to the table. Indeed there is an herb much like to it in name, which ſome call * Anthyllion, others Anticellion: whereof be two kind; the one hath leaues and branches like to the Lentill, and groweth a hand breadth or ſpan high: it commeth vp in * ſandy grounds expoſed to the Sun, and is ſaltiſh in taſte. The other reſembles * Chamæpitys but that it is lower and more hairy: it beareth a purple floure, carrieth a ſtrong ſent, and loueth to grow in ſtony places. The former kind is a moſt conuenient and proper herb for the diſeaſes of the matrice and the natural parts of women. Alſo being applied as a cataplaſme with oyle Roſat and milke, it is an vmbretarie medicine. In caſe of the ſtrangury and pains of the kidnies it is giuen with good ſucceſſe to the quantitie of three drams. The other likewiſe is giuen to drink the weight of four drams with hony and vinegre, for to mollifie the hardneſſe of the ma-
E trice, to aſſwage the torments of the belly, and to cure thoſe that be taken with the falling ſickneſſe.

* Some take it for *Kali.*
* *ὑσσωπίτις. Dioſcor.* ſomewhat brackiſh.
* *Iua muſcata,* or *Arthritica.*

Chap. XXX.

¶ *Of* * *Parthenium, and the medicinable vertues that it hath.*

AS for Parthenium, ſome name it Leucanthe, others Tamnaum; but our countryman *Celſus* the Phyſitian calleth it Perdicium and Muralium. It groweth in the mounds & hedges about gardens: it bringeth forth a white floure, ſauouring like an * apple, and hauing a bitter taſte. The decoction of this herbe, if a woman ſit ouer it and receiue the fume into her body, is good to mollifie the hard tumours of the matrice and natural parts; as alſo to diſcuſſe
F all inflammations. A pouder made of this herb dried, and incorporat with honey and vinegre, [*i.* Oxymel] and ſo applied, purgeth choler aduſt and melancholy. In which regard it is good for the ſwimming and dizzineſſe of the brain, and thoſe that are giuen to breed the ſtone. Being vſed in maner of a liniment, it is good for the ſhingles and S. *Anthonies* fire: likewiſe for the Kings euil, if it be incorporate with old ſwines greaſe. The Magitians vſe it much for Tertian agues.

* Some thinke it is Mother-woort, others Feuerfew.
* Surely according to *Dioſcorid.* 3, *Plinie* ſhould haue written thus: *Flore per ambitum candido, intus melino; id eſt,* with a floure white round about: but within of a darke yellow like to honey: & this agreeth to Feuerfew.

agues: but they lay a great charge, that it ſhould in any wiſe be plucked vp with the left hand, G
and the parties preciſely named for whoſe ſake they gather it: but in any caſe they who pluck it, muſt not look behind them: which done, a leafe of the herbe muſt be put vnder the tongue of the ſick patient; and when it hath bin held ſo a little while, it muſt anon be ſwallowed down in a cyath of water.

Chap. XXXI.

¶ *Of Night-ſhade or Morell: of Alkakengi and Halicacabus, and their vſe in Phyſicke.*

NOw concerning Nightſhade or Morel, which ſome name Strychnos, others haue written H
by the name of Trychnos: would to God that the guirland-makers of Ægypt had not imployed and vſed in their chaplets the floures of two kinds of them, induced therto by the reſemblance that they haue to the Iuy floures: of which, the ſecond that hath red berries like cherries of a ſcarlet colour, contained within certain bladders, & thoſe berries ful of grains or ſeeds, ſome name * Halicacabus, others Callion: but our countreymen here in Italy call it * Veſicaria, becauſe it is good for the ſtone in the bladder. Certes this plant is more like a ſhrub, or little tree full of branches, than any herb; bearing great and large bladders, & thoſe faſhioned like a top, broad and flat at one end, and ſharp pointed at another, incloſing within it a great berry, which ripeneth in the month Nouember. The third kind of Strychnos or Solanum hath leaues like to Baſil: but I muſt but lightly touch this herb, and not ſtand long about the I
deſcription either of it or the properties which it hath; ſince my purpoſe is to treat of holſom remedies to ſaue folke, and not of deadly poiſons to kill them: for certes this herb is ſo dangerous, that a very little of the iuice therof is enough to trouble a mans brain, and put him beſide his right wits. And yet the Greeke writers haue made good ſport with this herb, and reported pretty jeaſts of it: For, ſay they, whoſoeuer taketh a dram of the iuice ſhall haue many ſtrange fantaſies appearing euidently vnto them in their dreames; if they be men, that they dally with faire women: if they be women, that they be wantons, playing and toying with men without all ſhame and modeſty; and a thouſand ſuch vain illuſions: but in caſe they take this doſe double, then they ſhall proue fooliſh indeed broad waking, yea & go beſides themſelues: let them take neuer ſo little more, it is mortal, and no remedy then but death. This is that poiſon which K
the moſt harmleſſe and beſt minded writers that euer wrot, called ſimply Dorycnion; for that ſoldiers going to battel vſed to anoint and invenom therewith the heads of their arrows, darts, and ſpeares, growing as it did ſo commonly in euery place. But other Writers, who had not ſought ſo far into the matter, nor aduiſedly conſidered of it, gaue it the name of Manicon. But thoſe that of a naughty mind, cared not ſecretly to impoiſon the whole world, haue hidden the danger thereof, and term it by a name pretending no harm; ſome calling it Neuris, others Periſſon. But as I proteſted before, I think it not good to be too curious and buſie about the deſcription of this herb, notwithſtanding I might ſeem to giue a good caueat of it by further particularizing thereof. Well, the very ſecond kind which they cal Halicacabus, is bad enough, for it is more ſoporiferous than Opium, and ſooner caſteth a man into a dead ſleep, that he ſhal ne- L
uer riſe again. Some name it Morion, others Moly: and yet it hath not wanted thoſe that haue thought it praiſe-worthy: for *Diocles* and *Euenor* haue highly commended it: and *Tamariſtus* verily hath not ſtuck to write verſes in the commendation of it: A wonderfull thing, that men ſhould ſo far ouerpaſſe themſelues, and forget all honeſty and plaine dealing: for they ſay, forſooth, that a colluſion made of this herbe confirmeth the teeth that be looſe in the head, if the mouth be waſhed therewith. And one onely fault they found in Halicacabus (otherwiſe it might be praiſed without exception) that if the ſaid collution were long continued, it would trouble the brain, & bring them that vſed it to foolerie & idleneſſe of head. But for mine own part, my meaning is not to ſet down any ſuch receits and remedies, which may bring a further danger with them, than the very diſeaſe it ſelfe for which they were deuiſed. The third kind M
alſo is commended for to be eaten as meate, although the garden Morell is preferred before it in pleaſantneſſe of taſte. Moreouer, *Xenocrates* auoucheth, That there is no maladie incident to our bodie, but the ſaid Morell is good for it. Howbeit, I make not ſo great reckoning and account of all the helpes that theſe and ſuch like herbes may afford, as I doe make conſcience

to

* *Alkakengi*, or winter-cherry * or rather for that the ſayd berry lieth within a cod like a bladder.

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A to deliuer them in writing, eſpecially ſeeing we haue ſo great ſtore of ſafe and harmleſſe medicines, which we may be ſure can do no hurt. Indeed, the root of Halicacabus they vſe to drinke and make no bones at it, who would be known for great Prophets to foretell future things: and therefore it is alone for them to be ſeen furious and raging, the better to colour their knauerie and lead the world by the noſe in a ſuperſtitious conceit and perſuaſion of their diuine gift of propheſie, and ſo to feed men ſtill in their folly. But what is the remedie when a man is thus ouertaken? (for ſurely I am better content to deliuer that) Euen to giue the party thus intoxicate, a great quantity of Mede or honied water, and to cauſe him to drink it off as hot as he can. Neither wil I ouerpaſſe this one thing beſides, That Halicacabus is ſo aduerſe vnto the nature of the Aſpis, that if the root thereof be held any thing neere vnto the ſaid ſerpent, it will bring
B aſleepe and mortifie that venomous creature, which by a ſoporiferous power that it hath alſo of the own, caſteth a man into a deadly ſleep, and killeth him therewith. And therefore to conclude, hereupon it commeth, that the ſame root bruiſed and applied with oile, is a ſoueraigne and preſent remedie to them who are ſtung by the foreſaid Aſpis.

Chap. XXXII.

¶ *Of Corchorum and Cnicus.*

C THey of Alexandria in Egypt vſe to eat ordinarily of Corchorum. This herb hath leaues inwrapped and infolded one within another, after the maner of the Mulberry. Good it is (as they ſay) for the midriffe and the parts about the heart: alſo to recouer haire that is fallen away by ſome infirmitie; and likewiſe for the red pimples or ſauce-flegme in the face. I reade moreouer, that the skab or mange in kine and oxen is moſt ſpeedily cured thereby. And *Nicander* verily doth report, that it helpeth the ſtinging of ſerpents, if it be vſed before it be in the floure. As touching Cnicus, otherwiſe called Atractylis (an herb appropriate to the land of Egypt) I would thinke it meet not to vſe many words about it, but that it yeeldeth a ſoueraigne remedie againſt the poiſon of venomous beaſts; yea, and the dangerous Muſhroms if a man haue eaten them. This is certain, and an approued experiment, That whoſoeuer are wounded by the ſting of Scorpions, ſhall neuer feele ſmart or paine, ſo long as they hold that herb in
D their hand.

Chap. XXXIII.

¶ *Of Perſoluta.*

THe Chaplet-makers in Egypt ſet great ſtore by Perſoluta alſo, which they ſow and plant in their gardens onely for to make Coronets and Guirlands. Two kindes there be of it, the male and the female. It is ſaid, That the one as well as the other, if it bee put vnder man or woman in bed, they ſhal haue no minde nor power at all to play at *Venus* game, and ſpecially the man.

E

Chap. XXXIV.

¶ *Of Meaſures and Weights.*

ANd foraſmuch as we ſhall haue occaſion oftentimes in ſetting downe weights and meaſures, to vſe Greeke vocables, I care not much euen in this place to interpret thoſe words once for all. Firſt and foremoſt, the Atticke Drachma [for all Phyſitians in manner go by the poiſe of Athens] doth peiſe iuſt a Roman ſiluer denier: and the ſame weigheth alſo ſix Oboli: now one Obulus is as much in weight as ten Chalci. A Cyathus of it ſelfe alone commeth to ten drams in weight. When you ſhal reade the meaſure of Acetabulum, take it for the fourth part of Hemina, that is to ſay, fifteen drams. To conclude, Mna, which we in Latine call
F Mina, amounteth iuſt to an hundred drams Atticke.

G

THE TVVENTY SECOND BOOK OF THE HISTORIE OF NATVRE,

H

WRITTEN BY C. PLINIVS SECVNDVS.

The Proeme.

A Man would thinke who did but reade the former Booke, That dame Nature and the Earth both had done their parts, and shewed their wonderfull perfection sufficiently; if he considered withall the admirable vertues of so many herbes which they haue brought forth and bestowed vpon mankinde, as well for pleasure as profit. But see what a deale of riches more I *is yet behind; and how the same, as it is harder to be found, so it is in effect more miraculous! As for those Simples whereof wee haue already written, for the most part they are such as haue serued our turne at the bourd: or else in regard of their beauty, odor, and smell, haue enduced vs to search farther into them, and to make triall of their manifold vertues and operations in Physick. But yet there remain behind many more, and those so powerfull, that they proue euidently vnto vs, how Nature hath produced nothing in vaine and without some cause: although the same be occult and hidden many times from vs, and reserued only in her closet and secret counsell.*

K

CHAP. I.

¶ *Of certaine Nations which vse herbs for procuring and preseruing of beauty.*

CEertes I do find and obserue, that there be forrein Nations who time out of mind haue been euer accustomed to annoint their bodies with the iuice of certain herbs, for to imbellish and beautifie them, as they thought. And verily in some of these * barbarous countries ye shall haue the women paint their faces, some with this herbe, and others with that: yea and among the Dakes and Sarmatians, in Transyluania, Valachia, Tartaria, & those parts, the men also marke their bodies with certain characters. But to goe no farther than into Gaule, there groweth an herb there like vnto Plantain, and they call it Glastum, [*i.* Woad] with the iuyce whereof the women of Britain, as wel the maried wiues, as yong maidens their daughters, anoint and dy their bodies all ouer, resembling by that tincture the color of Moores and Ethyopians: in which manner they vse at some solemne feasts and sacrifices to go all naked.

* All such as be neither within Greece nor Italie.

L

CHAP. II.

¶ *That Clothes be died with certaine Herbs.*

AND now of late dayes, we know there hath been taken vp a strange and wonderfull maner of dying and colouring clothes. For (to say nothing of the groin brought out of Galatia, Africke, and Portugal, whereof is made the royall Skarlet, reserued for princes only and great captains to weare in their rich mantles of estate and coats of armes:) behold, the French inhabiting beyond the Alps, haue inuented the means to counterfeit the Purple of Tyrus, the Skar-

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A Skarlet alſo and Violet in graine; yea, and to ſet all other colours that can bee deuiſed, with the
juice only of certain hearbs. Theſe men are wiſer (beleeue mee) than their neighbours of other
nations before them: they hazard not themſelues to ſound and ſearch into the bottome of the
deepe ſea for Burrets, Purples, and ſuch ſhell-fiſhes. Theſe aduenture not their liues in ſtrange
coaſts and blind baies, where neuer ſhip hath rid at anker, offering their bodies as a prey to feed
the monſtrous Whales of the ſea, while they ſeeke to beguile them of their food in fiſhing for
the ſaid Burrets: & all to feed that, wherby as well vnchaſt dames of light behauiour might ſet
out themſelues and ſeeme more proper, to allure and content adulterous ruffians: as alſo thoſe
gallants again, ſquaring and ruffling thus in their colours, might court faire ladies and wedded
wiues; yea, and with more eaſe entrap and encompaſſe them to yeeld to their pleaſure: but theſe
B men ſtand ſafe vpon drie land, and gather thoſe hearbs for to die ſuch colors, as an honeſt min-
ded perſon hath no cauſe to blame, nor the world raſon to crie out vpon. Nay our braue mini-
ons and riotous wantons, it might beſeeme alſo to be furniſhed therewith; if not altogether ſo
glorious to the eye, yet certainly with leſſe offence and harm. But no part it is of my deſſeigne
and intent to diſcourſe vpon theſe matters at this preſent: neither will I ſtand on the thrift and
good husbandry that may be ſeen in ſuch a thing as this, leaſt I might ſeeme to colour any va-
nitie with a ſhew of commodity and frugalitie: and to limit exceſſe and ſuperfluitie within the
tearms of profit and cheapneſſe, which indeed will not be gaged and brought within any com-
paſſe. Beſides, I ſhall haue occaſion hereafter in ſome other place to make mention both of dy-
ing ſtones, and alſo of painting walls with herbs. As for the art and myſterie of Diers, if euer it
C had been counted any of the liberal Sciences, beſeeming a gentleman either to profeſſe or pra- * *Portibus au-*
ctiſe, I aſſure you I would not haue ouerpaſſed it in ſilence. And yet I promiſe you, this feat *getur auctoritas.*
grows to credit euery day more than other: and the * hauens abroad where thoſe fiſhes be taken
which furniſh them with colors, are mightily frequented and in greater name and requeſt than
euer they were. In which regard, I canot chuſe but ſhew and declare what account we ought to
make of theſe dumbe tinctures in that behalfe; I meane ſuch hearbs and ſimples, whereof there
is but baſe reckoning or none at all made: for thoſe great princes which were the firſt founders
and eſtabliſhers of the Roman Empire, did mighty things therewith, and emploied theſe herbs
in the higheſt matters of ſtate. For in the affaires of greateſt importance, namely, either in pub-
lick ſacrifice for the auerting of ſome heauy judgement of the gods threatened: or in expiation
D of any grieuous ſinne and offence committed (whether they performed diuine ſeruice to their
gods, or diſpatched honourable embaſſages to other States) they vſed their Sagmina and Ver-
benæ, by which two words verily was meant one and the ſame thing, euen ſome plain and com-
mon graſſe plucked vp with ceremoniall deuotion, turfe and all, from their caſtle hil or citadel
of Rome. And this at all times was obſerued religiouſly, that they neuer ſent their heraulds to
the enemies of the people of Rome for to clarigat, that is to ſay, to ſummone them with a lowd
voice for to make reſtitution of that which they detained of theirs; without a turfe and tuft of
the ſaid graſſe: and euermore there accompanied theſe heraulds in their train, one ſpeciall offi-
cer who had the charge to carie and tender that hearbe, who thereupon was called Verbenarius.

E

Chap. III.

¶ *Of graſſe Chaplets.*

NO Coronets verily were there euer at Rome better eſteemed, either to teſtifie the triumphant majeſtie of that victorious citie (the ſoueraign lady of the whole world) or to giue teſtimony of honour and reward for ſome notable ſeruice performed for the Commonweale, than thoſe which were made ſimply of green graſſe. The crownes of beaten gold, and enriched with pearle; the Vallare and Murall Chaplets beſtowed vpon braue knights and valiant ſouldiers, who either entred the fortified camp of the enemie ouer trench & rampier, or mounted the wals in the aſſault of a city, came nothing neer to this: the Nauall garlands giuen to ad-
F mirals and generals at ſea, for obtaining victory in that kind of ſeruice: the ciuick coronets alſo preſented vnto ſuch as had reſcued a Romane citizen, and ſaued his life, came behind theſe: and in one word, the Chaplet triumphal, which they ware who entred with triumph into Rome, was nothing comparable to theſe. And yet all theſe Guirlands abouenamed haue notable prerogatiues, and differ one from another in many reſpects. In a word, thoſe Coronets and Chaplets of honour

honor,all ſaue theſe made of graſſe, were giuen many times by ſome priuat and particular perſons,are by the captains and generals themſelues vnto their ſoldiers;yea,and otherwhiles from one Generall to another,when they were ioined together in equall commiſſion,in teſtimony of vertue and valour. G

Chap. IIII.

¶ *The ſingularitie and rare examples of ſuch Chaplets made of graſſe.*

NOw,whereas other Garlands of honour and Coronets of triumph,were alwaies either ordained by a decree from the Senat in time of peace,and after the troubles of warre ouerblowne;or granted by an act of the people,being quiet and in repoſe, when dangers were H paſt;this Chaplet of graſſe aforeſaid,it was neuer any mans hap to haue,but in ſome extremity and deſperat caſe of the whole ſtate:nor at any time adiudged to a man,but by the whole army, confeſſing with one voice and generall conſent,That by him alone they were all ſaued from the edge of the ſword,or famine. As for the reſt,the captaines and generals vſed to giue them: this onely was preſented by the ſouldiers to their chiefe leader. The ſame was called alſo an Obſidionall coronet or ſiege-garland; namely, when ſome captaine had forced the enemies to raiſe the ſiege and diſlodge,and thereby ſaued either a whole towne or campe from vtter ſhame and finall deſtruction. And Certes,if there were ſo great account made of a ciuicke garland for reſcuing the life of one only citizen of Rome (and ſuch an one perchance as was of all others the meaneſt) that whoſe fortune it was to obtain it,he was honored euer after with many priuiledges and immunities,and counted ſacred:how highly then is he to be eſteemed,who by his own valour and proeſſe hath ſaued many thouſands,and a whole army of ſuch citizens? This Chaplet then,ſo ſingular and excellent,was made of the green graſſe, or herbes taken and gathered from the very place where a man had ſaued & deliuered the beſieged. For in truth,the greateſt ſigne of victory in old time,and of yeelding to the mercy of the enemy,was this, If the vanquiſhed did take vp graſſe,and tender it vnto the conqueror:for this ſerued as a confeſſion and proteſtation,That they rendered vp all their intereſt which they might challenge in the earth(the mother that bred and fed them) yea,and the very right of ſepulture in her:which cuſtome I vnderſtand,the Germans do retaine and obſerue,euen at this day.

Made of Oke leaues and branches; I

K

Chap. V.

¶ *What captaines they were,who alone receiued the honor of a braſſe Chaplet.*

Lvcius Siccius ſyrnamed *Dentalus*,was crowned but once with this Coronet of graſſe: notwithſtanding it was his good fortune to deſerue and obtaine foureteene Ciuick garlands: to fight with his enemy in a hundred and twenty battels,and euer to return out of the field with victory:whereby we may ſee how rare a thing it was in times paſt, to ſee an army thus ſaued through the valour of their captaine,for to recogniſe by this publick preſent their only ſauior. And ſome leaders and captains haue bin honoured this way oftener than ſo: as for example,*P. Decius Mus* receiued two ſuch Coronets:for being a Colonell and knight Marſhal of the L camp,he behaued himſelfe ſo valiantly,that one was giuen him by the regiment or army which himſelfe led;and another by thoſe who had bin beſieged within their fort. And how highly he eſteemed of this honourable reward, hee teſtified by his religious deuotion and the ſacrifices which he offered thereupon to the gods: for no ſooner had hee receiued theſe Coronets; but whereas the armie aforeſaid beſieged, and by him deliuered, had beſtowed vpon him ouer and aboue for his braue ſeruice,one white Oxe, and an hundred others, which were brended, hee ſacrificed them all vnto god *Mars*. This was that *P. Decius*,who afterwards being Conſull together with that ſurly and imperious colleague of his[*T. Manlius*] ſyrnamed *Imperioſus*,devowed and yeelded himſelfe to all the diuels of hell for the ſafety of his armie, and the obtaining of victory. Moreouer,that noble and renowned *Fabius*,who ſet vpright again the declining ſtate M of the Romane Commonweale, with lying off and not fighting at all with *Annibal*, was crowned therfore with ſuch a chaplet,by authority from the Senat and people of Rome:ſuch an honor in my judgement as no man in this world can reach and attain to higher. True it is,that beforetime he had performed good ſeruice,& namely,when being Dictator,he reſcued & ſaued his

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A his high* Conſtable or grand maſter of the Cauallery, together with his whole army: and yet was he not thus highly rewarded then, with this Coronet of green graſſe. For in teſtimony of thankfulneſſe, this gratuity they whom hee had ſaued, thought at that time better, namely, to crowne him (as it were) with a new name & title to his former ſtile, calling him with one voice, Father: but the honor aboue named was giuen vnto him (as I ſaid) by the general conſent as wel of Senat as people, at what time as he chaſed *Annibal* out of Italy. And in truth, neuer man yet was in this wiſe knowne to be crowned by the hands (if I may ſo ſay) of the whole Empire, but himſelfe alone. This peculiar honor obtained he aboue all others, that this Chaplet alone was offered and preſented vnto him by all the ſtates of Italy. * *M. Minutius.*

B

CHAP. VI.

¶ *What he was, who alone of all Centurions receiued this Chaplet of graſſe.*

BEſides thoſe abouenamed, I find that *M. Calphurnius Flamma*, a Colonell of a regiment of ſouldiers in Sicily, was in this manner rewarded and honored with a graſſe garland. But neuer was there known to this day any one to haue bin crowned in this wiſe, of ſo baſe degree and condition as *C. Perreius Atinas*, in that war wherein the Cimbrians were defeated, who indeed was no better than a ſimple Centurion. This Centurion hauing by his place the conduct of the formoſt band of a regiment of ſoldiers vnder Colonel *Catulus*; ſeeing vpon a time certain companies excluded out of their owne campe, by reaſon that the enemies had put themſelues
C between them and home, and there incamped; perceiuing his captaine or Colonell *Catulus* aforeſaid, timorous and doubtfull to breake through the enemies camp; put on a reſolute mind, ſlew his own Colonell, exhorted and encouraged the companies to quit themſelues like men, and follow his enſigne; and ſo he defeated his enemies and deliuered his own legion. I reade moreouer in the Chronicles, That the ſame Centurion ouer and aboue the foreſaid braue ornament of a graſſe Coronet, had this honor done vnto him, that being clad in a long robe of purple imbrodered, and aſſiſted with both the Conſuls for the time being, *Marius* and *Catulus*, he was allowed to ſacrifice vnto the gods with a noiſe of fifes and haut-boies ſounding hard by the hearth or alter fire. Furthermore, *Sylla* the Dictator hath left in writing, That when he was lieutenant Generall vnder the Conſuls, and had the leading of the army in the expedition or journy
D againſt the Marſians, the whole army preſented vnto him a Chaplet of graſſe, before the city of Nola. And in very truth hee cauſed this to be pourtraied in a painted table within a houſe of pleaſure which he had in Thuſculum, the ſame that afterwards *M. Tullius Cicero* was maſter of. Which if it were true, the more ſhame deſerued he in my conceit: and I hold and pronounce him ſo much the more accurſed and deteſtable, for taking this crowne from his own head, and loſing ſuch a braue badge of honor, in proſcribing, ouerthrowing, baniſhing, and murdering afterwards, a greater number of citizens (without all compariſon) than thoſe ſouldiers came to, whoſe liues he ſaued, at what time as he took that garland firſt vpon his head. Let him vaunt as much as he wil of the ſaid Coronet, as alſo of the proud and vain glorious title of Fœlix, *i.* happy (which addition or ſyrname he took vpon him & cauſed to be put into his ſtile) yet, when as
E through his tyranny he held beſieged thoſe Roman citizens whom he had proſcribed and confined into all parts of the world, ſurely he forewent all and yeelded that crowne vnto *Sertorius*.

Moreouer, *M. Varro* doth report, That *Scipio* ſyrnamed *Æmilianus*, was honoured with an Obſidionall Coronet in Africk (the ſame yere when as *Manlius* was Conſull) for ſauing three cohorts beſieged; as alſo three companies beſides which he led forth to deliuer the other, and by whoſe means he forced the enemy to break vp his ſiege. This is to be ſeen and read in a Table, which *Auguſtus Cæſar* late Emperor of famous memory, cauſed to be hanged vp at the baſe or foot of the ſaid *Scipios* ſtatue erected in the Forum or publick hall which himſelfe built. As for *Auguſtus* himſelfe, the Senate crowned him with an Obſidionall Chaplet, vpon the thirteenth day of September, that yeare when he was Conſull with *M. Cicero*, the ſon of that great
F *Cicero* the Orator. Whereby we may ſee, that a Ciuick Chaplet was not thought ſufficient nor any waies comparable to this Coronet. And ſetting aſide theſe aboue named, I do not find in hiſtories, of any one who was crowned with a green chaplet of graſſe. Now, this you muſt note withall, That there was not one certaine hearbe ſet out & appointed for theſe honorable Guirlands: but look what kind of herbage grew then in the place beſieged & where the danger was,

that

that very ſame they tooke, were they neuer ſo baſe weeds and of no reckoning: for as contemptible otherwiſe as they were, yet being once imploied to this vſe, they innobled & adorned the perſon himſelfe who ware them in a Chaplet. And certes, the leſſe maruel I haue if theſe things be vnknowne to vs now adaies, ſeeing as I doe, how little or no account is made euen of thoſe things which make to the maintenance and preſeruation of our health; to the cure of all dolorous griefes and maladies of the body, yea, and to the preuention of death it ſelf. But what man is there well giuen and honeſtly minded, who can containe and hold his peace, hauing ſo juſt cauſe to reproue and rebuke the maner of the world in theſe our daies? firſt and formoſt, our life was neuer ſo coſtly as now it is, in regard of the dainties, delights, and ſuperfluities, which muſt be maintained, if will liue to the faſhion of the time: and for to injoy theſe pleaſures onely, we hold our liues more ſweet and precious. Neuer were men more deſirous of long life, and neuer leſſe carefull to entertaine the means of long life. The gouernment of our health we commit to the charge of others, and ſtrangers we credit with our owne bodies, and yet ſlacke enough and negligent are they, to ordain according to our truſt and confidence, that which indeed ſhould do vs good. Thus the Phyſitians are prouided well for; they thriue alone and go away with the gains by this means. Oh good God, to ſee the folly and vanity of man! Nature hauing put ſo many good things into our own hands as ſhe hath, and willing that we ſhould inioy them for our health and pleaſure: yet we (to our great ſhame and rebuke be it ſpoken) are ſo vnhappy, as to commit our ſelues to other mens tuition, & liue vnder their warrantize and aſſurance. Full well I know, that I for my part alſo, ſhall haue but ſmall thanks of many a one for all my paines taken in writing this hiſtory of the world and Natures works: nay, I am aſſured that I make my ſelfe a laughing ſtocke, and am condemned of them for ſpending and loſing my time in ſuch a frivolous piece of worke as this is. Howbeit, this is yet my comfort and no ſmall contentment I take herein, that my labors and trauels (exceſſiue and infinit though they be) cannot be deſpiſed, but the contempt will redound likewiſe to dame Nature her ſelfe. And yet ſhe againe, as a kind and tender nurce ouer mankind, hath not failed (as I wil declare hereafter) for our good, to indue the very weeds which we tread vnder foot with medicinable vertues, yea, & hath beſtowed vpon thoſe which otherwiſe we hate & dare not approch, but with careful heed (for the ſhrewd pricks and thorns which they carry about them) ſingular properties to cure diſeaſes. For ouer and beſides thoſe whereof I made mention in the booke going next before this, there be other herbs of that pricking kinde, which are ſo wonderfull in their operation and effects, that I can neuer admire ſufficiently and comprehend her prouidence appearing in them. Furniſhed ſhee had the earth, with ſmooth & prickleſſe plants enough, in the nature of meats, for to content our tooth, & ſatisfie our appetite; ſhe had ingrauen and liuely painted in floures, notable properties in phyſick for to recouer & maintain our health; & by the ſingular beauty which ſhe gaue vnto them, to allure the heart and eye of man to look toward them, ſaying (as it were) Come and gather vs: wherin ſhe had made a good medley of profit and pleaſure together. And when ſhe had thus done, ſhe ſtaid not there, but deuiſed to bring other herbs, hideous to the eie, and vntractable in hand. As if in the forming of them in that faſhion, wee might heare her to giue a reaſon, Why ſhe ſo did? ſaying after a ſort vnto vs in an audible voice, That ſhe made them with pricks and thornes, becauſe ſhe would not haue the foure footed beaſts (as hungry and greedy after meat as they be) to eat them down, That the ſhrewd hands of ſome vngracious folk, who can let nothing ſtand, might not be euer & anon plucking and twitching at them for wantonneſſe, that people ſhould not go careleſſely trampling vpon them with their feet: finally, for feare that birds pecking & ſetling aloft vpon their tender branches would ſliue them down or knap them aſunder. Therfore (I ſay) with theſe prickles, ſeruing in ſtead of weapons as wel defenſiue as offenſiue, ſhe hath both protected and alſo armed them: and al to keep them ſafe and ſure, for the health of man, and to do him ſeruice. Lo, how euen that which wee hate and ſeem to abhorre in theſe herbs, was deuiſed for our comfort and benefit, if we had the grace to ſee it.

G H I K L

Chap. VII.

M

¶ *The medicinable vertues of other floures and herbs ſeruing for Chaplets. Alſo of Erynge.*

AMong thoſe hearbes which beare pricks, * Erynge or Eryngion, is ſingular: for a ſoueraigne hearbe it is againſt ſerpents, and all poyſons whatſoeuer, as if it grew for nothing els. But to come

* Sea holly.

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A ecme to particulars,for ſtings & bitings of venomous creatures,the root therof to the quantity of one dram,is taken in wine. And in caſe(as moſt times it falleth out) that a feuer follow vpon ſuch accidents,then the patient muſt drinke it with water. A ſpeciall and effectuall property it hath againſt certain land-ſnakes called Cherſydri, and venomous todes, if it be reduced into a liniment,and ſo applied to the ſore. But *Heraclides* the Phyſitian is of opinion, That if the ſaid root be boiled in the broth of a gooſe, it is of more efficacie than all other, againſt the Toxica and Aconita But whereas others do boile it in ſheere water againſt the poiſons Toxica; *Appollodorus* would haue a frog ſodden withal. The herb it ſelfe is of ſubſtance hard,branching much, full of leaues,and thoſe beſet with pricks. A ſtem or ſtalk it carieth,parted by knots and joints, a cubit high & ſomwhat more. Moreouer,as there is white Erynge,ſo you ſhal haue of it black:
B The root is odoriferous. Eryngion verily commeth vp ordinarily of ſeeds and by ſetting. But it groweth alſo in rough and ſtony places of the own accord. And that which we ſee along the ſea ſhore is harder and blacker than the reſt,leaued alſo like common Ach or Perſely.

Chap. VIII.

¶ *Of the hearbe or thiſtle commonly called Centum-Capita,i. the hundred heads.*

C AS for the white Erynge,our countrymen call it in Latine Centum-capita. But they be all of one and the ſame operation and effect. And the Greeks verily make their ordinary meat as well of their ſtalks as roots,both waies,to wit,either raw or boiled,as they liſt. Certes, there be wonders reported of this herb;namely,That the root of this white Eryngion(which is very geaſon and hard to be found) reſembleth one while the male ſexe,and otherwhiles the female of our kind. But if it chance that a man do meet with that Eryngion which is like to that member which diſtinguiſheth him from a woman,he ſhall be very amiable and beloued of women. Which was the reaſon (men ſay) that lady *Sappho* was ſo enamoured on the yong knight *Phao* of Lesbos. And verily,as touching this herb,not only the Magitians,but the diſciples alſo and followers of *Pythagoras*,tell vs many vain and fooliſh tales.

But to come indeed to the vſe of it in Phyſick. Ouer and beſides thoſe vertues and properties which I haue related already,good it is to reſolue ventoſities:it eaſeth the gripes and wrings in the belly;it cureth the diſeaſes and debility of the heart;it helpeth the ſtomack and liuer. For
D the midriffe and precordial parts,it is very wholſome taken in honied water:and for the ſpleen, in vineger & water together. Alſo drunk in mead or honied water aforeſaid,it is ſingular for the kidneies,the ſtrangury,the cramp or crick that pulleth the head of a body backward: for other ſpaſmes alſo and convulſions:for the loines,the dropſie,and the falling ſickneſſe. Soueraigne it is moreouer for womens monthly fleures, whether they do ſtay vpon them,or contrariwiſe run exceſſiuely from them:and in one word,it cureth all the accidents & infirmities of the matrice. Being applied as a liniment with hony,it draweth forth any offenſiue thing ſticking within the body. And if it be laid too with ſalt,lard,or hogs greaſe,and ſo incorporat into a cerot,it heales the kings euill,the ſwelling kernels within the eares,and the flat biles and botches. It reioineth alſo the fleſh that is gone from the bone;& finally,ſoudereth and knitteth broken bones or fra-
E ctures. Taken before a man ſit downe to eat or drink,it preſerueth him from ſurfet or drunkenneſſe: and bindeth the belly. Some of our Latine writers would haue it to be gathered a little before the ſummer-ſolſtice,ſaying moreouer,That if it be applied with rain water,it helpeth al the infirmities incident to the nape of the neck;and by their report,if it be bound to the eies,it cureth the pin and the web.

Chap. IX.

¶ *Of Acanus and Liquorice.*

F SOme there be who take Acanus for a kind of Eryngium. And they deſcribe it to be a low herbe,and yet growing broad and large,full of prickes and thornes,and thoſe likewiſe bigger than ordinary;being applied outwardly,wonderfull effectuall it is (by their ſaying) to ſtanch bloud. Others there are,who haue thought Erynge and Liquorice to be all one,but they are deceiued. Howbeit,for ſome reſemblance that is between them, I think it not amiſſe to ſet down the deſcription therof immediatly after theſe Erynges. Doubtleſſe this Liquorice alſo is

to

to be counted among these thorny plants, for that the leaues stand *pricking vp sharp pointed; the same are fatty, and in handling gummy and glewie. It putteth forth many branches, and those two cubits high: it carrieth a floure in manner of the Hyacinth, and beareth fruit resembling bals of the bignesse of those which hang vpon the Plane tree. The excellent Liquorice is that which groweth in Cilicia; the next for goodnesse commeth from Pontus: and hath a sweet root which only is vsed in Physick. Taken vp this is and gathered at the setting or occultation of the Brood-hen star, and is found running along in the ground in manner of the Vine root: in colour like to the Box tree. That which is duskish and somwhat black, is thought to be the better: like as the lithe & pliable root which wil wind and turn euery way, is preferred before that which is brittle and easie to break. Great vse there is of it in those medicines which be *held vnder the tongue, so to resolue & melt leasurely, namely, after it hath bin sodden to the thirds: yea, and otherwhiles boiled to the height and consistence of hony. Somtimes they vse to bruse it; and in that manner they do lay it vpon wounds, where it doth much good: as also if it be applied to all the diseases and accidents befalling to the throat and jawes. The juice of Liquorice reduced to a thick consistence, if it be put vnder the tongue, is singular for to cleare the voice. In like manner it is supposed very wholsome for the brest and liuer. And therewith (as I haue sayd before) both thirst and hunger may be slaked and allaied. Which is the cause that some haue called it Adipson: and in that regard ministred it to those persons who be fallen into a dropsie, for to preuent and take away their thirstinesse. Therfore it is thought to be a proper remedy for the diseases of the mouth, if it be either chewed, or otherwise cast and strewed vpon the vlcers therein: and so it cureth the excrescences also and exulcerations about the roots of the nailes. Moreouer, it healeth the excoriation & soreneſſe of the bladder, assuageth the paine of the kidneies, cureth the swelling & aking piles, the fissures also in the seat, and finally the vlcers of the priuy parts. Some Physitians haue prescribed to drink in a quartaine ague, the weight of two drams of Liquorice, & one of Pepper, in a draught of water to the quantity of a smal pint or hemina: this root being chewed, staieth bleeding in a wound. To conclude, some haue written that it expelleth the stone and grauell.

*Echinatis. It seemeth that *Pliny* neuer saw Liquorice, but read it in for *Lentisci*: & indeed the leaues are like to those of the Lentiske tree.

*In lingue subditu: such as be our Ecligmata or Lochs.

G H I

Chap. X.

¶ *Of the Caltrop thistle Tribulus. The sundry kinds thereof, and the medicines which they yeeld.* K

SOme of these Thistles come vp in gardens: others grow in and about riuers only. The juice which is drawne from these, is thought to be good for the eies: for this herb being as it is of a cooling nature, is a singular remedy for inflammations and gathering of imposthumes. A good medicine for all vlcers, but those especially which break out of themselues in the mouth: it cureth likewise those of the Amygdales or almonds of either side of the throat. If it be taken in drink, it fretteth & breaketh the stone. The Thracians dwelling vpon the riuer Strymon, feed their horses fat with the leaues of this herb: and liue themselues with the kernels or fruit therof, making a kind of sweet bread therewith, which also bindeth the belly. The root if it be gathered by the chast and pure hands of a virgin discusseth and dissolueth the kings euill. The seed if it be tied to the swelling vains, assuageth their pain. Lastly, being beaten into pouder and cast into water, it killeth the fleas in any place where that water is thrown or sprinckled. L

Chap. XI.

¶ *Of Stœbe, and the medicines which it affoordeth.*

STœbe, * which some call Phleon, boiled in wine, is a soueraigne remedy for eares that run with atter: likewise for bloudshotten eies, especially vpon a stripe or stroke giuen. Beeing ministred by way of clyster, it is good for the bloudy flix and the exulceration of the guts.

*A kinde of Matfellon or Knapweed.

Chap. XII. M

¶ *Of Hippophyes and Hippope, with their medicinable vertues.*

HIppophyes is an hearbe growing in grauelly and sandy places, and namely along the sea-side, armed with white prickes or thornes: it beareth berries by clusters after the manner of

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A of Iuie,and thoſe be partly white & partly red. The root is ful of a certain juice, which is good either to be condite and confected alone,or els to be reduced into Troſchs with Eruile meale: this being taken to the weight of one Obolus,purgeth cholericke humors; and a moſt wholeſome medicine it is,eſpecially with honied wine. *Ervi farina.*

Another herb ther is,named Hippope,which neither riſeth vp in ſtalk,nor beareth floure,but hath leaues only,and thoſe ſmall. The juice alſo of this herb, is wonderfull good for thoſe who are in a dropſie. Where it is to be noted, That theſe two herbs ſhould haue ſome eſpeciall properties reſpectiue to the nature of horſes, conſidering both their names are deriued from nothing elſe; for in very truth, ſome things there be which Nature hath brought forth as appropriat remedies for certain particular beaſts,whereby we may ſee her diuine power,and how wel
B appointed ſhe is and prouided for to bring forth medicines of all ſorts; ſo as the depth of her prouidence canot be ſounded,neither are we able ſufficiently to admire her wit and deſcrition in diſpoſing and digeſting her remedies according to ſundry kinds of creatures, according to diuers cauſes,and different ſeaſons: inſomuch as the remedies ſeruing one, are not fitted for another,neither are they of the ſame effect and operation at all times: nay,there is not a day almoſt in the yere throughout,but it yeeldeth a remedy reſpectiue vnto it.

Chap. XIII.

¶ *Of the Nettle,and the medicinable vertues thereof.*

C IS there any thing more hated and odious than the Nettle? and yet to ſay nothing of the oile made of it in Egypt (according as we haue ſhewed heretofore) indued ſhee is and furniſhed with many good properties ſeruing for Phyſick. For firſt,as touching Nettle ſeed, *Nicander* affirms, That it is a very counterpoiſon againſt Hemlock, venomous muſhrums,and Quickſiluer. *Apollodorus* addeth moreouer,and ſaith, That being boiled in the broth of a Tortoiſe, it is ſingular good for the poiſon of Salamanders: alſo that it is contrary to the pernicious nature of Henbane; and the deadly poyſon of ſerpents, & namely, of ſcorpions. Euen that very bitterneſſe and mordacity which the Nettle hath, cauſeth the Vvula in the mouth which is falne,to knit vp againe: the matrice alſo which is ouer-looſe and beareth downe,to ariſe into the place,
D yea and the tuill or fundament in children hanging forth of the body,to return & abide where it ought to be,only with touching theſe parts therewith. If the legs be rubbed,and the forehead eſpecially with Nettles,it is a good meanes to awake them out of their drowſie and dead ſleep, who are ſurpriſed with a lethargy. The ſame being applied with ſalt,is paſſing good for the biting of dogs. If it be bruiſed and put vp to the noſthrils, it ſtancheth bleeding at the noſe; but principally the root of it. If it be tempered with ſalt, it mundifieth cancerous and foule filthie vlcers; likewiſe it helpeth diſlocations and bones out of joint; it diſcuſſeth or ripeneth botches in the emunctories,and the ſwelling kernels behind the eares; and healeth vp the places where the fleſhy parts be gon from the bones. Nettle ſeed taken in wine cuit (as a drinke) openeth the matrice when it is ready to ſtrangle or ſuffocate a woman: and being applied with wine,it ſtai-
E eth bleeding at the noſe. If one driake Nettle ſeed after ſupper, with hony and water, to the quantity of two oboles weight,it openeth the paſſages & maketh way for to womit with greater facility: but the weight of one Obolus taken in wine, refreſheth thoſe who haue a laſſitude or wearineſſe vpon them. The ſame being parched againſt the fire and drunk to the meaſure of one Acetabulum,is ſingular for the imperfections of the matrice: and in cuit, it withſtandeth the ventoſities and inflations of the ſtomack. Giuen inwardly with hony in the form of a loch, it doth them good who labor for wind,and cannot take their breath but ſitting vpright; and after the ſame manner it cutteth fleame and clenſeth the breſt of it. Being applied in a bag, together with line-ſeed,it taketh away the ſtitch and pain in the ſides: but ſome put hyſſope therto,
F and a little pepper. A liniment made therewith,cureth the ſpleen. Being parched or roſted and ſo eaten with meat,it keepeth the body ſoluble. And *Hippocrates* affirmeth, that the ſaid ſeed is very good to be taken in drink,for to cleanſe the matrice in women: and being ſo parched and giuen to the quantity of one Acetabulum in ſweet wine cuit,it allaieth the griefe and paine of the ſaid part,in caſe withall there be a cataplaſme applied to the region thereof,together with the juice of Mallows. If it be taken in hydromel, *i.* honied water,together with ſalt, it expelleth

(by his saying) the worms in the belly. Applied in a liniment to the bare and naked places of G
the head, it causeth the haire to grow again, and bringeth all to the former beauty. Many do vse to make a cataplasme of Nettle-seed and old oile; or els stamp the leaues together with Bears grease, for the pain of the gout: and verily for that purpose, as also for the spleen, the root pouned with vineger, is no lesse effectuall. Being boiled in wine, it discusseth and driueth down risings in the groine, and such like emunctories, so it be laid too with old hogs grease salted. But the same root dry, is a very depilatorie, and fetcheth haire off. *Phanias* (the naturall Philosopher and Physitian) in a seuerall treatise which he made in the praise of Nettles, professeth, That he knoweth not the like remedy to the Nettle, boiled first and then condite, for the windpipe, the cough, the distillation and flux of the belly, the stomacke, the biles and botches in the emun- H
ctories, the swelling and inflamed kernels behind the eares, and kibed heels. The same with oile procureth sweat: and sodden with muscles, and such like shell-fishes, it moueth to the stoole: with ptisane or barly broth, it purgeth the brest, and sendeth down womens terms: applied with salt, it restraineth vlcers that be corrosiue and apt to run & spread farther. The juice also of the Nettle, serueth to many vses; for being presséd forth & laied as a liniment to the forehead in a frontall, it stancheth bleeding at the nose. The same taken in drinke, prouoketh vrine, and breaketh the stone: but if one gargle with it, it staies the Vvula from falling: as for the seed, it ought to be gathered in haruest time: & that which is brought from Alexandria, is esteemed best: for all the particular diseases aboue rehearsed, the kinder and gentler Nettles also, euen those that be yong and tender, are knowne to be of good operation; but principally that wild kind beforesaid; and this property moreouer it hath, To rid away the leprosie out of the face, if it be taken I
in wine. Finally, if a foure-footed beast will not abide to be couered or serued with the male of that kind, an ordinary practise it is, to rub the nature or shap with a Nettle, for that will make her stand to the fellow.

Chap. XIIII.

¶ *Of Lamium, and the medicinable vertues thereof.*

AS touching that dead-Nettle, which among the other kinds we named before Lamium, *i.* Archangell, it is the mildest of all others and most tractable, for the leaues bite not nor sting at all. The same, if it be applied with some corns of salt, to contusions and bruises, to K
deep burns, the Kings euill, swellings, gouts, and wounds, cureth them all. The white that it hath in the mids of the leafe, is singular for S. *Anthonies* fire, the shingles, and such like. Some there be of our Latine writers, who treating of Nettles, haue couched them in their ranks respectiuely to the time, saying, That the root of a Nettle which commeth in the Autumne, cureth the tertian ague; but it must be tied fast to the Patient: and these ceremonies are to be obserued also in the taking it forth of the ground, That the party be named for whom it is gathered; the feuer also, of what type or kind it is; yea and who be the parents of the sick person; and then hee or shee shall be sure to be deliuered of that disease. The said root, with the same circumstances, is of the like operation to driue away the quartan ague also. The selfesame authors do affirme L
moreouer, That the root of a Nettle being applied with salt, draweth forth all thorns and shiuers that stick within the flesh. Also, that a cataplasm of the leaues and hogs grease incorporat together, doth resolue the scrophules or swelling kernels called the Kings-euill: or if they are come to suppuration, eateth and worketh them forth, and doth incarnat & fil vp the place again

Chap. XV.

¶ *Of the herb Scorpius: the sundry kinds thereof, and the medicinable properties.*

* *Scorpioides.* THere is an herb called * Scorpius, which took that name of the resemblance that the head hath to a scorpions taile. Few leaues it beareth; but (according to the name) it is good a-
gainst the sting of scorpions. Another herb there is of the same appellation, & of like ef- M
fect to the other; but it sheweth no leaues at all; the stalke is smooth, and resembleth garden Sperage: in the top or head whereof, there is a pricke to be seen like a sting, which gaue occasion of the foresaid name.

CHAP.

A

Chap. XVI.

¶ *Of Leucacantha, and the vertues thereof good in Phyſicke,*

THe Greeks, ſome cal this Thiſtle, Leucacantha, or the white thiſtle; others, Phyllon: ſome Iſchias, others, Polygonaton; but be the name what it will, it hath a root reſembling that of * Cyperus, which if it be chewed in the mouth, allaieth the tooth-ache. *Hiceſius* ſaith likewiſe, That if either the ſeed or the juice of the root therof, be taken in drinke to the weight of eight drams, it aſſuageth the pain of the ſides and loins. The ſame alſo cureth ruptures, convulſions and crampes.

* or *Cyprus*,

B

Chap. XVII.

¶ *Of Helxine or Perdicium, called alſo Parthenium or Sideritis, and the vertues medicinable.*

AS for Helxine, ſome cal it Perdicium, becauſe Partridges delight moſt to feed thereupon; others name it Sideritis, and many giue it the name of Parthenium. Leaues it carrieth of a mixt form and reſemblance, between Plantain and Horehound. The branches or ſmall ſtalks grow in thick tufts, and thoſe be of a light reddiſh colour: the ſeed in the head, of a Bur kind which ſticketh to folks cloaths, whereupon they would haue it to be called Helxine. But in the former booke I haue deſcribed the form of the right * Helxine or Parietarie indeed. The property of this herb is to giue a tincture or die to wooll: it healeth the ſhingles and S. *Anthonies* fire: it cureth ſwellings, and all apoſtemations of humours, yea and alſo burnes. The juice thereof incorporat with ceruſe or white lead, and ſo applied, ſerueth greatly for biles and botches, S. *Anthonies* fire, tumors, gatherings and riſings in the fleſh; yea and helpeth them whoſe throat begins to ſwell. Alſo if a man take the quantity of one cyath thereof, it cureth inueterat and old coughs: it healeth all infirmities either occaſioned by phlegmatick humors, or els incident to moiſt parts: like as with oile roſat it is a proper medicine for the accidents of the amygdales about the paſſage to the throat; and for the ſwelling of veins. Moreouer, if it be reduced into the form of a cerot, with goats ſuet and wax of Cypres, and ſo applied, it cureth the gout. Moreouer, Perdicium or Parthenium (for Sideritis is another herb) our countreymen cal in Latine, * Vrceolaris; of others, Aſtericum. In leafe it is like to Baſil, ſaue only that it is blacker; it groweth vpon tile-houſes, and old decaied wals, and ſuch ruinous places. Being beaten into powder & applied with corns of ſalt, it hath the ſame operation that the Nettle Lamium, and cureth the ſelf ſame diſeaſes; and the one is vſed in like ſort as the other: & if the juice be drunk hot, it is ſingular for inward and ſecret impoſthumes ful of filthy matter, and driueth them outward. Alſo it is excellent for vlcers, ruptures, and bruiſes, whether it be that one hath tumbled head-long from ſome high downfal, or that he hath bin cruſhed by the ouerthrow of ſome waggon or chariot. It fortuned that a Page of *Pericles* a prince of the Atheniens (whom he loued intirely) hauing climed vp to the top of the lanterne or ſpire of a temple which the ſaid prince built in the caſtle or citadell of Athens, fel downe from thence; who was cured by the means of this herb, reuealed vnto *Pericles* in his ſleep by the goddeſſe *Minerva*: whereupon it tooke the name firſt of Parthenium, and is conſecrat vnto the ſaid goddeſſe: this is that Page whoſe molten ſtatue is to be ſeen at this day made of braſſe: this is (I ſay) that noble and famous image called * *Splanchnoptes*.

* Parietary of the wall.

* Where, to ſay a truth, he deſcribeth *Helxine* for *Ixine*, or *Chamæleon* the white.

* Dioſc. *Cerato Cyprino.*

* or *Vitraria*, becauſe it is vſed to ſcoure glaſſe and pipkins withall.

* Made with a deuiſe to blow coles & kindle fire for to roſt the inwards of beaſts ſacrificed: or as ſome thinke, it was the proper name of that youth.

C D E

Chap. XVIII.

¶ *Of Chamæleon the hearbe, the ſundry kindes thereof, and the vertues medicinable.*

CConcerning Chamæleon, ſome there be who name it Ixias: whereof be two kinds: the whiter hath the rougher leaues: it creepeth cloſe by the ground, and ſetteth vp ſtiffe prickles in manner of an Vrchin: the root is ſweet in taſt, but of a moſt ſtrong ſent. In ſome places it ingendreth a white kind of gum or clammie glew, vnder the wings or arm-pits (as it were) of the leaues, after the ſame manner as Frankincenſe is ſaid to breed, but eſpecially about the

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riſing of the Dog-ſtar:& for that it is like to a kind of birdlime, it is called Ixia:our women vſe G
this inſtead of Maſtick. And the reaſon why this herb is named Chamæleon, is by occaſion of the variable leaues which it beareth, for according to the nature of the ſoile where it groweth, it changeth hew; whereby in one place you ſhall haue it blacke, in another green; here you ſhall ſee it look blew, and there yellow, and euermore altering the color. Of which Chamæleons, the white cureth ſuch as are in a dropſie, if the root be boiled, and the juice thereof taken to the quantity of a dram in ſweet wine cuit. The meaſure of one acetable of the ſame juice, if one drink in a green harſh wine made of the hedge vnripe grape, wherein certain bunches of Origanum haue lien infuſed, it is thought to be a ſingular remedy to kill the worms that breed in the guts. It auaileth much alſo to help thoſe who piſſe with difficulty: and yet this juice being H
giuen to dogs or ſwine in barly groats, killeth them. If there be water and oile mingled therto, it draweth rats and mice to it, but it is their bane, vnleſſe preſently they drinke water. Some preſcribe for to cut the root thereof into thin roundles, and to keep them enfiled vp, or hanging by a ſtring, and then to ſeeth them; for to be eaten againſt the flux of humours, which the Greekes name Rheumatiſmes. Of the black kind, ſome hath named that the male, which hath the purple floure; and the female with the violet colour. They all grow vp with one ſtem and no more, and the ſame is a cubit high, and a finger thick. The roots are good to heale ringworms, tettars, and ſuch like wild fires, if they be ſodden together with brimſtone and Bitumen: but if the ſaid root be chewed in the mouth, or a collution be made therwith ſodden in vineger, it faſtens the teeth which ſhake and be looſe in the head. The juice of this root healeth the ſcab or mange in four-footed beaſts. Herewith alſo folke vſe to kill the ticks that breed in dogges: but it ſtoppeth the I
wind of heifers and yong ſteers in maner of a ſquinancy: and therefore of ſome it is called Vlophonon and Cynozolon, in regard of the ſtrong and ſtinking ſmell that it hath. Theſe Chamæleons do beare a certain viſcous gumme, moſt proper for vlcers. And the roots of all the ſort of them, as well blacke as white, are ſingular againſt the poiſon of ſerpents.

Chap. XIX.

¶ *Of Coronopus or Harts-horne, with the medicinable vertues thereof.*

Coronopus is an herb bearing long leaues, and thoſe clouen into certain fiſſures and knags: and how ſoeuer it groweth wild, yet otherwhiles it is ſet and ſowne in gardens, for the ex- K
cellency of the root; which being roſted vnder the aſhes, is ſoueraign for the flux, & weakneſſe of the ſtomacke.

Chap. XX.

¶ *Of Orchanet or Alkanet, as well the right as the baſtard, and their properties in Phyſicke.*

THe root of Orchanet is much vſed about medicines: of the thickneſſe it is of a finger: it wil rend and cleaue in manner of the papyr reed: and it coloreth the hands of as many as handle it, with a red and bloudy colour: it prepareth wooll and woollen cloth for to take rich L
and deep colours. If it be incorporat into the form of a cerot, it healeth vlcers, eſpecially in old men; as alſo places that be burnt. It cannot be reſolued in water, but it is oile that muſt diſſolue it: and verily this is a good experiment of that which is true and nothing ſophiſticat. A dram thereof giuen in wine to drink, is ſingular good for the pain in the kidnies: but in caſe the Patient haue a feuer vpon him, then it ought to be taken in the decoction of * Balanos. In like manner is it to be vſed in the opilations or obſtructions of the liuer, of the ſpleen, and in the Iaundiſe. A liniment made of it and vineger, cureth the leproſie, and the red pimples ariſing in the face. The leaues ſtamped with hony and meale vntill they be incorporat together, and ſo applied as a cataplaſme, are thought to be good for diſlocations: but if they be taken inwardly to the quantity of two drams in honied wine, they bind and knit the belly. The root boiled in water is M
ſaid to kill fleas.

Another herb there is much like vnto it, and thereupon called Pſeudanchuſa [*i.* baſtard Orchanet] of ſome, but of others Enchuſa or Doris; and many other names it hath beſides. More full of downe or hairy moſſe it is, and leſſe fatty; but the leaues are ſmaller, more ranke and feeble.

* Haply hee meaneth *Phœnicobalanos, (i)* the Ægyptian Date: or *Oxyphœnices*, our Tamarinds, a kind of Dates appropriat for agues.

A feeble. The root yeeldeth no oleous ſubſtance, but a reddiſh juice; wherin it differeth from the right Anchuſa or Orchanet. The leaues or ſeed being taken in drinke, is a moſt effectual counterpoiſon againſt ſerpents. The ſubſtance of the leaues being applied to the places which bee ſtung, are ſoueraigne for to cure and heale them vp. The very herb it ſelfe chaſeth away all poiſon of ſerpents. There is a drink made therof, commended highly for the chine or ridge-bone of the back. The Magitians do preſcribe the leaues to be bound vnto ſome part of the Patient againſt a tertian ague, with this charge, That they be gathered with the left hand, & that in the gathering, the party or patient for whoſe ſake they are gotten, be named.

Chap. XXI.

B ¶ *Of Onochiles, Anthemis, Lotos, and Lotometra: of Turaſoll-Tricoccus: of Adiantum, and Callitrichon.*

ANother herb there is, particularly named Onochiles, which ſome call Anchuſa; others Arcebion or Onochelis; ſome Rhexias, and many Enchuſa: a ſmall herb this is; it carrieth a purple floure, leaues and branches rough: a root in harueſt time as red as bloud, otherwiſe black; and groweth in ſandy grounds: effectuall it is againſt ſerpents, and Vipers moſt of all others, both in the root and leaſe, as well eaten with meat as taken in drinke. In the full ſtrength it is in harueſt. The leaues if it be bruiſed or ſtamped, do yeeld the ſauor and ſmel of a Cucum-
C ber. If the matrice of a woman be ſlipt downe, a draught of three cyaths thereof, doth reduce it vp into the place: and together with hyſſope, it driueth out the broad wormes in the belly. For the pain of the kidnies or the liuer, it ought to be taken in mead or honied water, if the Patient haue an ague withall; otherwiſe in wine. The root brought into a liniment, cureth the Lentils or red ſpots, yea and the infection of the leproſie. And it is ſaid, That as many as haue it about them, cannot be ſtung by ſerpents. There is yet another Orchanet or Anchuſa like vnto this, in regard of the red floure which it beareth; howbeit a leſſe herb than the other, hauing the like operation, and imploied in the ſame vſes. It is reported, That if one chew it in his mouth, & ſpit it forth vpon a ſerpent, the ſame will ſurely die thereupon.

As touching Anthemis [*i.* Camomile] *Aſclepiades* the Phyſitian doth highly praiſe and commend it. Some name it Leucanthemis, others Leucanthemus; & there be, who giue it the name
D Eranthemon, becauſe it flouriſheth in the Spring: others againe name it Chamæmelon, for the ſent or ſauour that it hath of an Apple: many call it Melanthemon. Three kinds there be of it, differing onely in the floures (for none of them exceed an hand-breadth in heighth) which bee ſmall, and in forme reſemble thoſe of Rue: howbeit, theſe floures be either white, yellow, or red. In a lean ground and neer to beaten paths, this herb loueth to grow: gathered it is in the ſpring, and layed vp for to ſerue in garlands: at which time the Phyſitians alſo ſtampe the leaues and make them vp into Troſches: ſo do they alſo by the floure and the root. This vertue they haue, That if they be all mingled together to the weight of one dram, they are thought to be a ſoueraigne remedie againſt the ſting of all ſerpents. This herbe expelleth dead infants within the mothers wombe, if it be taken in drinke. It bringeth downe alſo the monthly fleurs of women;
E prouoketh vrine, and ſendeth forth the ſtone and grauell. Being chewed, it diſſolueth ventoſities, it cureth the obſtructions and defects of the liuer, it helpeth the jaundiſe, healeth the fiſtuloes between the angle of the eye and the noſe, and generally all running ſores and mattering vlcers. But of all theſe kinds, that which beareth the red purple floure hath moſt effectuall operation for the ſtone: and indeed, both the leaues, and alſo the branches of this Camomile, are ſomewhat larger than of the reſt: and ſome there be, who giue this a name it ſelfe, and call it Eranthemon As for thoſe who take lotos to be a tree only, may be conuinced euen by the authority and teſtimony of *Homer*, who among other herbes growing for the delight and pleaſure of the gods, hath named Lotos as principall. The leaues of this herbe incorporat with honey, and ſo applied, cureth the cicatrices or ſcars in the eie; the ſpots alſo appearing therein, and diſſolueth the cloudy skins which ouercaſt the ſight: there is a kind of lotos named Lotometra, com-
F ming of the garden Lotos: it carrieth a ſeed like to Millet, whereof in Ægypt the Bakers make bread; but they work & knead the floure of this ſeed with water or milk. There is not any bread in the world (by report) more wholſom and lighter than this, ſo long as it is hot; but being once cold, it is harder of digeſtion, & becommeth weighty & ponderous. This is known for certain,

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that as many as liue thereof are infeſted & troubled neither with the dyſenterie or bloudy flix, G
ne yet with the troubleſome offers and ſtrains to the ſiege without doing any thing, nor any o-
ther diſeaſes of the belly: and therefore it is counted a principal remedie for thoſe maladies.
Concerning Turnſol, I haue oftentimes related the wonderfull nature thereof, namely, how it
turneth about with the ſun, although it be a cloſe and cloudy day (ſo great is the loue of this
herb to that planet:) and in the night ſeaſon for want of the Suns preſence, as if it had a great
* This is verified of the Cichory flour rather, which alſo doth regard the Sun. miſſe thereof, * it draweth in and ſhutteth the blew floure which it beareth. Two kinds there
be of this Heliotropium or Turneſol, of which the leſſe is called Tricoccum, the other Helio-
ſcopium: of the twain, this later is the taller (and yet neither of them both exceedeth halfe a
a foot in height) and putteth forth branches from the very root. The ſeed of this greater ſort li-
eth within a little cod, and is gathered in harueſt time: it groweth not but in a fat ſoil wel ma- H
nured, whereas Tricoccum comes vp euery where. I find, that if it be boiled it is a pleaſant and
delectable meat; but ſodden in milk it looſneth the belly gently and with eaſe: for otherwiſe
the bare colature of the decoction in water, if it be taken, purgeth moſt extremely. The juice
of the greater kinde ought to be drawn or gathered in ſummer at noontide; which, if it be tem-
pered with wine, becommeth more ſtrong and effectual. A property it hath being mingled with
oile of roſes, to mitigat the head-ach. The juice drawn out of the leafe, medled with ſalt, takes
away werts: whereupon our herbariſts haue called the herb in Latine Verrucaria, i. Wertwort:
whereas indeed for other better effects and operations that it hath, it deſerueth to haue ſome
denominations correſpondent thereunto: for, a countre-poiſon it is againſt ſerpents and ſcorpi-
ons, if it be drunk with wine or honied water, as *Apollophanes* and *Apollodorus* do report in their I
writings. A liniment made of the leaues cureth the rheumes and diſtillations of the braine in
* This is called *Ærdor capitis* by *Pliny* himſelfe, and is an hot diſtemperature of the head. children; which diſeaſe they call * Siriaſis. Likewiſe it helpeth contractions of ſinues, and the
drawing in of joints, although the patient be taken after the maner of the falling ſickneſſe: and
for ſuch as be thus afflicted, a fomentation made of the decoction of this herb, is very whole-
ſom and comfortable: but if one drink the colature thereof, it thruſteth forth the wormes in the
belly, and ſcoureth out the grauell in the kidnies. If Cumin be put thereto, it breaks the ſtones
ingendred and confirmed there already. Boiled it ought to be root and all, the which with the
leaues and goats tallow, being reduced into a liniment, is ſingular good for all kinds of gout.

The other kind which we call Tricoccon, and is otherwiſe named Scorpiurion, hath not on-
ly ſmaller leaues, but alſo they incline and bend downward to the ground. A ſeed it beareth re- K
ſembling the figure of a ſcorpions taile, whereupon it took that name. A liniment made there-
with is powerfull againſt all venomous beaſts, and namely the perillous ſpiders Phalangia, but
ſpecially againſt the poiſon of ſcorpions. And in truth, look who carry this herbe about them
ſhall not be ſtung. If a man make a circle or compaſſe vpon the earth with the branch of this
herb, a ſcorpion (as ſome ſay) being within the ſame, ſhall not haue the power to get forth: nay,
if the herb be laid vpon a ſcorpion, or if with the ſame being wet a man beſprinckle the ſaid
ſcorpion, it wil ſurely die out of hand. It is ſaid, that foure grains of the ſeed taken in drink, do
cure the quartan, and three the tertian: or if the very herb it ſelfe be laid vnder the patients head,
after it hath bin thrice caried about the bed, it worketh the like effect. The ſeed is of power to
ſtir vp carnal luſt. Applied with hony, it diſcuſſeth biles riſing in the emunctories. Yea & this L
Heliotropium for a certaintie cauſeth werts to fall of by the very roots: as alſo it taketh away
all excreſcences in the fundament. It draweth down by vrin the corrupt bloud in the reines and
loins, lying cluttered about the ridge bone, in caſe the ſeed be either applied as a liniment, or
ſodden in the broth of a cock or capon, and ſo ſupped off, or elſe with Beets and Lentils. As for
the vtmoſt rind of this herbe, it is ſingular for to recouer the freſh and natiue colour in places
black and blew with ſtripes. The Magitians and Wiſe-men do preſcribe for the quartan & ter-
tian agues, That the Patient ſhould tie the herbe Heliotropium, with three knots in a tertian,
and with four in a quartan, praying withall and making a vow, That he would vndo thoſe knots
after he were once cleare of the feuer: but this he muſt do before the herbe be taken out of the
ground. M

* Maidenhair. Another property as ſtrange and miraculous is reported of * Adiantum: in Summer it is
green: in winter it withereth and decaieth not: it checketh all water, for being beſpreint, da-
ſhed, and drenched quite therewith, yet it looketh as if it were dry: ſo great is the antipathy or
contrarietie between them: whereupon the Greeks gaue it that name. And otherwiſe a plant

it

A it is fit for Vinet-workes and knots in a garden. Some call it Callitrichon, others Polytrichon, both which names were giuen it for the effect that it worketh. For it coloreth the hair [black] And for this purpoſe it is ſodden in wine with the ſeed of Ach or Perſley: and a good quantity of oile is put thereto, for to make the haire curled and to grow thick, by which meanes it keeps the hair from ſhedding and falling off: 2 kinds there be of it, the white and the black, which alſo is the ſhorter. The greater kind they cal Polytrichon: the other, Trichomanes. Both of them haue pretie fine branches ſhining with a blacke color, and the leaues reſemble fearn, in which, the nether ſides vnderneath be rough, duskiſh, and browne: but all the leaues ſtand directly one a gainſt another in order, faſtened to the ſtalkes by ſlender ſteles. No root at all theſe Capillar hearbes haue: but they grow vpon ſhadowie rocks and walls, daſhed and beaten on with water:
B but moſt of all they ſeek after pits or holes of wels and ſprings, and ſtony places wherout fountains iſſue: and that is a ſtrange & maruellous thing, conſidering they be not wet with water, nor haue any ſence or feeling thereof. They haue a wonderful faculty, and the black eſpecially, to break the ſtone, and to expel it out of the body. For which cauſe, rather than for growing on ſtones and rocks, I beleeue verily it was by our countrymen called in Latin Saxifrage. To this purpoſe, as much as 3 fingers be able to pluck vp, is ordinarily taken in wine: they prouoke vrin: and reſiſt the poiſon of ſerpents and venomous ſpiders. Being boiled in wine, they ſtay the flux of the belly. A Chaplet made of them, allaieth the head-ach. And a liniment therof is thought good to be applied againſt the ſting of the Scolopendres: but it muſt be often taken off and renewed, for feare the hearb become ouer-drie and loſe all the vertue. In this wiſe it is to be vſed
C where the haire is fallen away by ſome infirmitie. Theſe hearbes diſcuſſe and reſolue the kings euill: they diſpatch and rid away the skales or dandruffe in the viſage, and heale the skals of the head. A decoction of theſe Maiden-haires, is ſingular good for thoſe who are ſhort winded: for the liuer alſo, the ſpleene, the jaundiſe, and the dropſie. An ointment made with Maiden-haire and Wormewood, eaſeth the paines of the kidney: and in caſe of ſtrangurie, procureth eaſe and free paſſage of vrine. They bring downe the after-birth in women, and their monethly tearmes. Howbeit, drink them with vinegre or the juice of the blackberrie bramble, they ſtanch bloud. A proper liniment is made thereof with oile Roſat, to annoint young children that haue the red gum and be all broken out: but firſt they would be bathed in wine. The leaues of Maiden-haire ſtamped with the vrine of a man child vnder fourteene yeares of age, and yet not vndergrowne,
D together with the ſome of ſalt petre, is ſaid to keep the bellies of women from wrinkles and riuels vpon child-bearing, if they be annointed therwith. To conclude, men ſay, That Partridges and cockes of the game will fight more luſtily, in caſe this hearbe bee entermingled with their meat. And the ſame alſo is very good for ſheepe to graſe vpon about their folds.

Chap. XXII.

¶ *Of Picris, Theſium, Aſphodill, Alimus, Acanthus or Brankurſine, Elaphoboſcum, Scandix, Iaſione. Of Caucalis, Sium, Silybum, Scolymus, or Zimonium, Sonchus, Chondrillum or Chodrilles: and of Muſhromes.*

E THe hearbe * Picris tooke the name (as heretofore we haue ſaid) of the notable bitterneſſe which it hath. The leaues thereof be * round. Excellent good it is to take away werts.

* A kind of Cichorie.
* So are none of our Cichories.

Theſium likewiſe commeth nothing behind for bitterneſſe: but it purgeth the bellie: for which purpoſe it muſt be ſtamped, ſtrained, and taken in water.

As touching the Aſphodell, it is one of the ſoueraign & moſt renowmed herbs in the world. Some haue giuen it the name Heroion. And *Heſiodus* hath written that it growes in the woods. *Dionyſius* ſaith, That there is both male and female of it. Certain it is, that the bulbous roots of the aſphodel ſodden with husked barly, is a ſingular reſtoratiue for thoſe bodies which are waſted with a conſumption, & eſpecially of the lungs: and bread made of them, wrought together with corne meale of floure into a dough, is moſt wholeſome for mans bodie. As for *Nicander*, he
F vſed to giue either the ſtem which we called Antherichon, or the ſeed, or els the Onion bulbous roots thereof, in wine, to the quantitie of three drams, as a preſeruatiue againſt ſerpents & ſcorpions: and to preuent the feare and daunger of theſe harmefull and peſtilent creatures, hee appointed the ſame to be laid vnder folks heads as they lay aſleep. Vſually alſo is this herb giuen againſt venomous fiſhes of the ſea, and the Scolopendres of the land. In Campaine, the ſhell-

ſnailes

ſnailes haue a wonderf ull ſpight againſt the maine ſtalke of this hearbe Aſphodel,for they ne- G
uer lin ſucking it,vntil they haue made it as drie as a kex. The leaues alſo are reduced into a li-
niment,for to be applied to enuenomed wounds,occaſioned by ſuch ſerpents & hurtful beaſts.
Likewiſe an ointment may bee made of the bulbous roots thereof,ſtamped together with Bar-
ley groats,for to annoint the ſinews and joynts. Good it is alſo to cut them into roundles,and
therewith together with vinegre, to rub ring-wormes and tettars. In like manner if they be ap-
plied with water,they doe cleanſe putrified and rotten vlcers,yea,and the hot apoſtemations of
the paps and the cods. Beeing ſodden in wine lees,and ſo laid to the eies with a fine linnen rag
betweene,they cure the flux of humors thither,which cauſeth the eyes alwaies to water. Gene-
rally in any diſeaſe whatſoeuer, Phyſicians vſe the root of this hearbe boiled for the moſt part,
rather than otherwiſe:likewiſe for the mor-males and vgly ſores in the legs,they vſe the pouder H
of them dried:as alſo for the fiſſures and chaps appearing in any part of the body. Now,the on-
ly fit and conuenient ſeaſon to gather theſe roots is in Autumne,at what time they bee moſt in
force. Being ſtamped raw,or ſodden,there is a juice preſſed foorth of them:which is ſoueraigne
with honey,for any pains of the bodie,whether it be the collicke,or ſeated in the muskles. And
the ſame being mixed with the drie root of Flower-de-lis,and a little quantity of ſalt,is paſſing
good for thoſe that affect a ſweet ſmel,and would palliat the ranke ſauor of any part of the bo-
dy. Moreouer,the leaues of the Aſphodel ſerue for al the former maladies,as alſo for the kings
euill:for red and flat biles,gout-roſat,ſauce-fleame,ale-pocks,and ſuch like vlcers in the face;if
the ſame be ſodden in wine,and therwith the grieued parts bathed. The aſhes of the root burnt,
bring hair againe vpon the head where it was loſt and gon,and healeth vp the chaps and rifts in I
the feet. The juice of the root ſodden in oile,is good for kibed heles,for burns or skals. To help
the hardnes of hearing,the ſame juice is to be dropped into the eares,but to aſſuage the tooth-
ach,it muſt be inſtilled into the ear of the contrary ſide. The ſame root taken in drink moderat-
ly,is ſingular for to procure vrine,to prouoke womens moneths,and to mitigat the paine of the
ſides or pleuriſie. But giuen in wine to the weight of one dram,it cureth ruptures,convulſions,
or cramps andcoughs. The ſame being chewed,helpeth forward vomites, and cauſeth them to
come with more eaſe. The ſeed,if it be taken inwardly,troubleth and wringeth the belly. *Chry-*
ſermus the Phyſician vſed to boile the root in wine, and therewith cured the ſwelling kernills
The ſeed of a kind of Roſe-mary. and inflammations behind the ears:alſo,with an addition of * Cachrys and wine,he healed the
kings euil. Some ſay,that if one take the Aſphodel root,and lay one part thereof to thoſe ſwel- K
ling kernils called the kings euill,and remoue it vpon the fourth day, letting the other part to
hang in the ſmoke;the ſaid kernils wil drie away,euen as the root doth in the chimny. *Sophocles*
(for the gout) vſed the root both waies, as well raw as boiled. In caſe of humble-heels he appli-
ed it ſodden in oile:but to them that were fallen into the jauniſe or dropſie,he gaue it in wine.
Some writers haue ſet down in their books,that if either the members of generation be anoin-
ted with a liniment made therwith and wine and hony together,or if the ſame be taken in drink
it will mightily prouoke fleſhly luſt. *Xenocrates* affirmeth, That a decoction of the root in vine-
gre taketh away the ring-worms,tettars,& running ſcabs. *Item*, If the root be boiled with Hen-
bane and Tar,and therewith the armholes and parts between the legs be well rubbed,it wil rid
away the ſtrong and rank ſauor which commeth from thence,and if the head be firſt ſhauen,& L
afterwards rubbed with the ſaid root, the haire comming afterwards will curle and frizzle the
better. *Simus* the Phyſician boileth it in wine,and ſo giueth it in drinke, for to ſcoure away the
ſtones of the kidnies. *Hippocrates* preſcribeth to giue the ſeed againſt the hardnes of the ſpleen
and the flux proceeding from thence:furthermore,the root being brought to a liniment,or the
very iuice thereof ſodden and vſed accordingly, healeth the farſins, mange,and ſcab,in horſes,
and reduceth the place to bear hair again as faire as before. Aſphodel hath a property to chaſe
away mice and rats:and if their holes be ſtopped vp therewith,they die within.

Some are of opinion,that *Heſiod*. called Aſphodel,a limon:which I take to be a meer vntruth:
for ther is an herb by it ſelf called Alimon:about which writers haue erred not a little:for ſome
ſay,that it is a ſhrub growing thick,of a white color,without any prick or thorn, bearing leaus M
like the Oliue tree,but they be ſofter: & this plant is entertained in the kitchin,there ſodden
and dreſſed for to be ſerued vp as meat to the table:the root taken to the quantity of one dram
*Alyris rather according to *Aëtius*.* in honied water,diſpatcheth the torments of the belly:it cureth alſo convulſions and ruptures.
Others affirme, that * Alimon is a ſea-wort,of a ſalt and brackiſh taſt, whereof it had the name.

The

A The leaues be round, and yet after a ſort long withall: and the whole herb is highly commended for the pleaſant taſt, and good to be eaten. Moreouer, there be two kinds of it: for the one is wild, the other is of a more ciuil and gentle nature. And both of them, by their ſaying, are good to be eaten with bread for the bloudy flixe, euen when the guts be already exulcerate: but with vinegre, for to comfort and help the ſtomack. A liniment made of Alimon raw, is ſingular for old feſtered vlcers, and the ſame mitigateth the ſymptomes that follow green wounds: as alſo aſſuageth the pains enſuing vpon ſprains and diſlocations of the foot: yea & pacifieth the grief of the bladder. The wild of this kind hath ſmaller leaues, but more effectuall it is in the remedies beforeſaid: and withall, healeth the ſcab as well in man as beaſt. Ouer and beſides, they do affirm, That if the body be rubbed with the root, the skin wil be the fairer and more ſmooth: or
B if the teeth be ſo ſerued they will be the whiter. Alſo that whoſoeuer hold the ſeed thereof vnder their tongues, they ſhall not be dry nor feel thirſt. This kind is likewiſe eaten at the boord, and both of them are kept and preſerued condite. *Crateuas* hath made mention of a third ſort, which hath longer leaues than the reſt, and more rough in the hand, in ſmel reſembling the Cipres tree; who ſaith, that it delighteth principally to grow vnder the Yuie tree: which if it be taken to the weight of 3 oboli in a ſextar of water, helpeth thoſe that haue their heads & bodies drawn far back, and ſuch as be troubled with the contraction and ſhrinking of ſinues.

As touching Acanthus or Brankurſine: an herb it is cheriſhed much is gardens, proper for vinets and ſtory-workes, bearing vpright and long leaues, wherewith beds-ſides and borders of quarters in gardens are decked and beautified. Two kinds there be of it: one with pricky leaues
C in maner of thiſtles, and the ſame jagged, which is the leſſe & lower of the twain: but the greater, which ſome in Greek call Pæderos, others Melamphyllon, is ſmooth leaued. The leaues of this Brankurſine being applied, are wondrous good for burns and diſlocations. Alſo being ſodden with meat, and eſpecially with Ptiſane or husked barly, it is ſingular for thoſe who are burſten, troubled with the crampe, and ſubiect to the conſumption of the lungs. Alſo if they be ſtamped and reduced into the form of a liniment, and laid too hot, they cure the gouts proceeding from an hot cauſe.

The herb * Bupleuron is reckoned by the Greeke writers in the number of worts that grow of themſelues: a ſtem it hath of a cubit in height, many leaues, and thoſe growing long in a ſpoke-tuft or rundle in the head, in maner of Dill; highly commended by *Hippocrates* for good
D meat; but *Glycon* and *Nicander* praiſe it as much for the vſe thereof in Phyſick: and in very truth the ſeed is powerfull againſt ſerpents. The leaues alſo or the very juice incorporate with wine into the form of a liniment, they imploy for to bring down the afterbirth of women newly deliuered: as alſo the leaues with ſalt and Wine are vſed by way of cataplaſme, for to diſſolue the ſwellings called the Kings euill. As for the root, it is vſually giuen in wine againſt venomous ſerpents, and to prouoke vrine.

* Some name it Hares eare.

* Bupreſtis is an herb about which the Greek writers haue ſhewed themſelues, namely, how inconſtant and light of credit they be; in that they haue ſo highly praiſed it to be a ſpeciall wholſom meat, yea and a ſingular remedie againſt poiſons. For the very name ſheweth euidently that it is a poiſon it ſelfe, of kine and oxen at leſtwiſe. And they themſelues do confeſſe, that
E if ſuch cattel taſt of * Bupreſtis it wil make them inraged, and fall a gadding vntil they burſt in ſunder. And therefore I will not ſpeak any more of this herb; for there is no reaſon that may induce me to deſcribe theſe venimous weeds among thoſe that ſerue for the green garlands aforeſaid made of graſſe: vnleſſe haply it be this, That ſome one or other would ſeek after this herbe to weare it in a chaplet for luſt-ſake: * which indeed they ſay it wil prouoke no leſſe that way, than if it were taken in drinke.

Heſych βύπρηστις· βοῦπρησις ἰὸς βοῦπρησις ἰὸ ἕλκος νεναμένον.

* But they meane the venomous Iuſect βοῦπρησις.

* In truth the flies Bupreſtes, which ſome take to be Cantharides, are thought to haue ſome operation in that kind.

* Elaphoboſcon is an herb growing vp with a main ſtem, after the maner of Fenel-geant: the ſame is full of knots and joints as thick as a mans finger. The ſeed is made after the faſhion of berries hanging downe in maner of Sili or Siler-mountaine; howbeit nothing bitter they are, and the leaues reſemble thoſe of Aliſanders. This herb is taken for a commendable meat; and
F in truth is kept alſo and preſerued a long time confected and condite, for a ſingular remedie to procure vrin, to allay the pain of the ſides in the pleuriſie, to heale ruptures, to cure conuulſions and cramps, to diſcuſſe ventoſities, to aſſwage the dolorous torment of the collicke, yea, and as a very countre-poyſon againſt the ſting of ſerpents and all other creatures armed with ſtings: for the report goeth, That ſtags and hindes by feeding thereupon withſtand the venom of Ser-

* Which ſome take for a kind of wild *angelica* or *Gratia dei*.

pents.

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pents. The root alſo reduced into a liniment with Sal-nitrum put thereto and incorporate to- G
gether, cureth old ſores called fiſtulaes. But the ſaid root ought to be dried firſt for thoſe purpoſes, to the end that it ſhould not be full of the own juice and moiſture: and yet this humour dulleth not the vertue thereof, nor maketh it leſſe effectuall againſt the ſting of ſerpents.

Pecten veneris, wild Cheruile, or Shepheards needle.

Touching the herb * Scandix, the Greeks haue ranged it alſo among the wild worts, or pot-herbs good for to be eaten, according to *Opion* and *Eraſiſtratus*. The ſame being ſodden, knitteth the belly and ſtoppeth a laske. The ſeed taken with vinegre preſently ſtayeth the yox or hicquet: it prouoketh vrin, and ſerueth well in a liniment to heale vp burns. The juice of it being boiled to a juleb, is good for the ſtomack, liuer, kidnies, and bladder. This is the herb which *Ariſtophanes* the Comædian twitted the Tragicall Poet *Euripides* by, obiecting vnto him merily by way of a ſcoffe, that his mother, who was a gardener, vſed to ſit in the market and ſel neuer H
a good wort or pot-herb indeed, but made her markets only of Scandix. And verily I would ſay
Our Chervile. that * Anthriſcus were the ſame herb, if it had ſmaller, tenderer, and ſweeter leaues. This peculiar praiſe and commendable propertie it hath, that if the body be ouerlayed and wearied with the vſe of women, it reſtoreth the ſpirits and refreſheth them again. Yea & ſuch as be wel ſtept in yeares, and begin to droup, it maketh luſty and able to perform the act of generation youthfully. It ſtayeth the flux of the whites in women.

A kinde of ſmooth Bindweed.

Moreouer, * Iaſione is counted alſo a wilde wort, comming vp of it ſelfe and good to be eaten. This herb creepeth by the ground, full of milk it is, and beareth a white floure which ſome call Concilium. The like name and commendation there goeth of this herbe for ſtirring vnto letcherie. Being taken raw with meat in a vinegre ſauce, it breedeth plenty of milke in women. I
A ſingular reſtoratiue it is for them that feele themſelues wearing & decaying by a conſumption. A liniment made therwith and applied to the head of yong infants, cauſeth hair to come vp thicke: and by ſhutting the pores of the skin more cloſe, it is a means to retain the hair ſtill that it ſhed not eaſily.

Baſtard Parſly

As for * Caucalis, an herb like to Fenel, but that it hath a ſhort ſtalke and a white floure: it is good alſo to be eaten, and is beſides counted a cordial. A drink likewiſe is made of the juice thereof, paſſing comfortable to the ſtomack, of power to prouoke vrin, to expel grauel & ſtone, and to ſtay the itching within the bladder: it doth ſubtiliat the groſſe and tough flegm which cauſeth obſtructions in the ſpleen, liuer, and kidnies. The ſeed being taken inwardly helps forward the monthly ſickneſſe of women when it ſtayeth vpon them, and drieth vp the cholericke K
humors which flow after child-birth, or the after-burden. It is giuen alſo to men for the ſpilling of natural ſeed, or the running of the reins. *Chryſippus* is of opinion, that it is ſingular good to help women for to conceiue, if they be deſirous of children. But the maner is to drinke it in wine next the heart faſting. And as *Petricus* the Poet hath deliuered in verſe, a liniment of this herb is ſingular againſt the poiſons of venomous ſea-beaſts.

A kind of water Creſſes or Lauer.

Among theſe herbs is reckoned * Sion, a plant growing in waters of it ſelfe, with leaues like Parſly or Smallach, but that they be larger, fatter, & of a deeper blackiſh green: it beareth ſeed plentifully, and in taſt reſembleth water-Creſſes. It is thought to be excellent good for thoſe that canot make water, for the diſeaſes of the reins, and paine of the ſpleene, yea and for women whoſe monethly termes are ſuppreſſed; whether the ſubſtance thereof be taken as meat, or the L
juice of the herb decocted, or the ſeed drunk in wine to the weight of two drams. It breaks the ſtones ingendred within the body, and notwithſtanding it groweth in water, yet it euacuateth thoſe aquoſities and waterie humors which ingender the ſame. Being cliſterized it helps thoſe that haue the bloudy flix. If women anoint their faces with a liniment made of it ouer-night, it doth embelliſh their skin at one inſtant and with one dreſſing: yea, it taketh away the pimples and ſpots that disfigure the face, in maner of Lentils. This ointment is held alſo to be good for the farſins and ſuch ſores, in horſes and ſuch like beaſts, and to mitigat the grieuous paines and trouble of any ruptures.

As concerning Silybus, an herbe like vnto the white Chamæleon, and as full of thornes; it groweth abundantly in Cilicia, Syria, and Phœnice: and yet in theſe countries they make not M
ſo much account of it as to beſtow the dreſſing of it, it asketh ſo much adoe in the kitchen, before it be in caſe to be ſerued vp in the hall. And for phyſicke there is no goodneſſe in it at all.

Some take theſe for our Artichokes.

The plant * Scolymus is vſed alſo much to be eaten in the Eaſt parts, where they call it by another name Limonia: It neuer exceedeth a cubit in height: the leaues be creſted: the root blacke,

A blacke, but yet ſweet. *Eratoſthenes* commendeth it as a principal diſh for a poor mans table: and it is ſaid that it hath a ſpecial vertue to prouoke vrine: and with vinegre if it be applied, to cure the foule tettars called Lichenes, and the leproſie: alſo by the teſtimony of *Heſiodus* and *Alcæus*, if it be taken in wine, it inciteth to wantonneſſe and fleſhly pleaſures. Theſe Poets doe write, That when this hearb doth flouriſh and is at the beſt, then graſhoppers chaunt loudeſt and ſing moſt ſhril: and as women at ſuch a time be moſt deſirous of mens company and hotteſt in luſt, ſo contrariwiſe men are moſt loth to turn vnto them, and leaſt able to content their appetite: as if Nature to ſatisfie the pleaſure of theſe good wiues, had prouided againſt that faint ſeaſon, the help of the Artichoke, as a viand moſt powerful at this time to ſet their husbands in a heat, and to enable them to that buſineſſe. Moreouer, an ounce of the root cleanſed from the pith,
B. ſodden to the thirds in three hemines of the beſt Falerne wine, and either taken in drinke vpon an emptie ſtomack, preſently after that one hath ſweat, and is new come foorth of the Baine: or elſe to the quantitie of one cyath immediatly after euery meale, doth correct and take away the ſtinke and ranke ſmell of the arme-pits. And a ſtraunge thing it is, that *Xenocrates* affirmeth vpon his owne experience, and promiſeth, That this decoction is of ſuch efficacie, that it cauſeth the ſaid ſtrong ſent to paſſe away by the vrine.

Moreouer, the * Sowthiſtle is an hearbe for to be eaten, for we read in the Poet *Callimachus*, That the poore old woman *Hecale*, at what time as prince *Theſeus* fortuned on neceſſitie to take his repaſt in her ſimple cottage, made him a feaſt, and ſet before him a principal diſh of Sowthiſtles. Two kinds there be of them, the white, and the black: both, like vnto lectuce, but that they
C are full of pricks. They run vp into a ſtalke of a cubite in height, the ſame is cornered and hollow within; but breake it, and you ſhall ſee it run out with milke plentifully. The white, which hath that bright colour of the milke within it, is thought to bee as good as Lectuces, for thoſe that be ſtreight winded, and cannot take their breath but vpright. *Eraſiſtratus* ſheweth plainely, That if it be eaten, it expelleth grauell by vrine: and chewed only, it correcteth the ſtinking ſauor of the mouth, and cauſeth one to haue a ſweet breath. The juice thereof drawn to the meaſure of three ciaths, made hot in white wine and oile, and ſo taken, helpeth women in labor, that they may be ſoone deliuered, but preſently after they haue drunk it, they ought to ſtir their bodies and walke vp and down their chamber. Alſo it is vſed to be ſodden in broth, and ſo ſupped vp. The very ſtalke therof being boiled, maketh milch nources to haue good ſtore of milk, and
D the children at their breaſt to be better coloured. But moſt excellent it is for ſuch nources as feele their milk to cruddle in their breaſts. The juice thereof dropped into the ears, doth them much good, and a meaſure of one cyath drunk hot, is as good for the ſtrangurie. But in the fretting and gnawing of the ſtomack, it would be taken with Cucumber ſeed and Pine-nut kernils. Applied in form of a liniment, it cureth the apoſtemations in the fundament. A drinke is made thereof, which is a countrepoiſon againſt ſerpents and ſcorpions: but then the root alſo muſt be laid outwardly vnto the ſore place. The ſame root boiled with oile within the pill of a pomgranat, is a good remedie for the paines and maladies of the ears. Note, that all theſe vertues muſt be vnderſtood of the white Sowthiſtle. And *Cleemporus* doth accord hereunto as touching the white, but he alloweth in no wiſe to eat of the black, for he is of opinion, that it breedeth diſea-
E ſes. *Agathocles* alſo preſcribeth the juice of the white Sowthiſtle to them who haue drunk Bulls bloud, and ſuſpect themſelues poyſoned therwith. Howbeit, they be all agreed, that the blacke is refrigeratiue: in which regard it ought to be applied outwardly with Barly groats. *Zenon* declareth, That the root of the white Sow-thiſtle, cureth the ſtrangurie.

As for * Chondrillon or Chondrille, it hath leaues like to Endiue or Cichory leaues gnawed or eaten round about: a ſtem not a foot high, and the ſame full of a bitter iuice: a root like vnto * Beane, and otherwhile there be many of them together. This hearbe putteth forth cloſe to the ground a certain kind of gum like Maſtick, ſwelling out to the bigneſſe of a Bean, which being applied to the naturall parts of women, is ſaid to draw down their monthly courſes. The ſame hearbe being ſtamped root and all together, and digeſted into troſches, is thought to bee
F ſingular good againſt ſerpents: and a probable reaſon herof is collected, becauſe the field mice and rats when they are ſtung by ſerpents, haue recourſe to this hearb, and eat thereof. The juice drawne out of this herb, after it is ſodden in wine, bindeth the belly. The ſame is ſingular good to rectifie, couch and lay euen the diſorderly hairs of the eye-lids, as effectually as the beſt gum in the world. *Dorotheus* the Poet hath deliuered in his verſes, that it is good for the ſtomack, and helpeth

* Sonchus.

* Gum Succorie.

* *Dioſ.* ἁπαλὸν, i. tul and freſh: but it ſeemeth that *Plinie* read it κωνῶπιον.

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helpeth digeſtion. Some hold opinion, That it is naught for women & hurtful to the eies, alſo G
that it is contrarie to the ſeed of man and doth hinder generation.

Among all thoſe things which are eaten with danger, I take that Muſhromes may iuſtly be ranged in the firſt and principal place: true it is, that they haue a moſt pleaſant and delicat taſt, but diſcredited much they are and brought into an ill name, by occaſion of the poyſon which *Agrippina* the Empreſſe conueighed vnto her husband *Tiberius Claudius* the Emperour, by their means: a daungerous preſident giuen for the like practiſe afterwards. And verily by that fact of hers, ſhe ſet on foot another poiſon, to the miſchiefe of the whole world and her owne bane eſpecially (euen her own ſonne *Nero*, the Emperor, that wicked monſter.) The venomous qualitie of ſome of theſe Muſhromes, may be ſoone known by their weak redneſſe, their mouldy hew ſo vnpleaſant to ſee to, their leaden and wan colour within-forth, their chamfered ſtreakes full of H
chinks and chaps, and finally, their edges round about pale and yellow. For others there be that haue none of all theſe markes: but are drie, and carie certain white ſpots like to drops or grains of Sal-nitre, putting foorth in the top out of their tunicles. And in truth, before that the Muſhrome is formed, the earth bringeth forth a certain pellicle or coat firſt, called in Latin Volua; for this purpoſe, that the Muſhrome ſhould lie in it: and then afterwards ſhee engendreth it encloſed within, much like as the yolke of an egge couched within the white. And ſo long as the Muſhrome is young and not come forth, but lieth as a babe within, the ſaid core or tunicle is as good meat as the Muſhrom it ſelfe: but ſo ſoon as the Muſhrom is formed, this membran breaketh, and incontinently the body or ſubſtance therof is ſpent in the ſtele or foot that beareth it vp: and ſeldom ſhall you ſee 2 Muſhromes vpon one of theſe ſteles or feet. Moreouer, theſe muſhroms take their firſt originall and beginning of a ſlimy mud, and the humor of the earth that I
is in the way of corruption: or els of ſome root of a tree, & ſuch for the moſt part as beare Maſt. It ſeemeth at the firſt, as if it were a kind of glutinous fome or froth, then it growes to the ſubſtance of a pellicle or skin, and ſoone after ſheweth the Muſhrom indeed, bred, formed, and conſummat within, as is aforeſaid. And verily al ſuch are pernicious and vtterly to be rejected neer to which when they come new out of the ground, there lay either a grieue-ſtud or leg harneis-naile or ſome ruſtie yron, or ſo much as an old rotten clout: for looke what naughtineſſe ſoeuer was in any of them, the ſame they draw and conuert into venome and poyſon. But none are able to diſcern theſe hurtful Muſhromes from others, how curious and circumſpect ſoeuer they be, ſaue only the peaſants of the country where they grow, and ſuch as haue the gathering of them. K
And here is not al the miſchiefe that lieth in them: For dangerous they be otherwiſe, and meet with more meanes to make them deadly, namely, if a ſerpents hole or neſt be neare by, or if at their firſt diſcouerie and comming forth, a ſerpent chance to breath and blow vpon them: for ſo prepared they be and diſpoſed as a fit ſubject, to enter, that preſently they will catch and entertain any poiſon. And therfore on any hand we muſt not be bold and luſty with them before the time that ſerpents be retired into the ground, & there taken vp their harbor. Which is an eaſy matter to know, by the tokens of ſo many herbs, trees, & ſhrubs, which from the time that they firſt came abroad aboue ground, vntill they haue taken vp their winrer lodging again, looke alwaies freſh and greene: and principally by the leaues of the Aſh, alone, if there were no more trees: for Aſhes neither bud and ſpring forth, but after that ſerpents come abroad, nor ſhed and L
fall away, before they be gone into the ground again. In ſumme, this would be noted, That Muſhromes be vp and down, come and gon, alwaies in a ſeuen-night ſpace. Thus much of the Muſhromes named in Latine Boleti.

Chap. XXIII.

¶ *Of other Muſhromes or Tad-ſtoles called Fungi. Of Silphium, and Laſer.*

AS touching thoſe excreſcenſes in manner of Muſhromes, which be named Fungi, they are by nature more dull and ſlow. And albeit there bee many kinds of them, yet they all take their beginning of nothing els but the ſlimy humor of trees. The ſafeſt and leaſt daunge- M
rous be thoſe, which haue a red calloſitie or outward skin, and the ſame not of ſo weak a red, as that of the Muſhromes called Boleti. Next to them in goodneſſe are the white, and ſuch as hauing a white foot alſo, bear a head much reſembling the Flamins turbant or mitre, with a tuffet or creſt in the crown. As for the third ſort that be called Suilli, as one would ſay, Swine-Muſh-

romes

A roms or Puffs, they are of al others moſt perilous, and haue the beſt warrant to poiſon folk. It is not long ſince that in one place there died thereof, all that were of one houſhold; and in another, as many as met at a feaſt and did eat thereof at the ſame bourd. Thus *Anneus Serenus*, captaine of the Emperour *Nero* his guard, came by his death, with diuers coronels and centurions, at one dinner. And I wonder much, what pleaſure men ſhould take thus to venture vpon ſo doubtfull and daungerous a meat. Some haue put a difference of theſe muſhroms, according to the ſeuerall Trees from which they ſeeme to ſpring, and haue made choiſe of thoſe that come from the Fig-tree, the * Birch, and ſuch as beare gum. For mine own part, as I haue ſaid before, I hold thoſe good that the Beech, Oke, and Cypreſſe trees doe yeeld. But what aſſurance can a man haue hereof, from their mouths who ſit in the market to ſell them? for all the ſort of thoſe
B Puffes and Toadſtooles look with a leaden hew and wan color. Howbeit, the nearer that a Muſhrome or Toadſtoole commeth to the color of a fig hanging vpon the tree, the leſſe preſumption there is that it is venomous.

* *Betula, non Ferula.*

Touching the remedies for to help thoſe who ſuſpect they haue eaten theſe dangerous muſhroms, I haue ſaid ſomwhat alreadie, and wil ſay more herafter. Mean while this would be noted, that as perilous as they be, yet ſome goodneſſe there is in them, and diuers medicines they doe yeeld. Firſt and foremoſt, *Glaucias* thinketh and affirmeth, That the Muſhromes Boleti be good for the ſtomacke. As for the ſwine muſhromes, named in Latin Suilli, they are hanged vp
C to dry infiled vpon a ruſh running through them, as wee may ſee in thoſe that come out of Bithynia. And theſe are ſuppoſed to be ſingular for thoſe fluxes and catarrhs that take a courſe to the belly and breed fluxes, called by the Greekes Rheumatiſmes: theſe cure the excreſcenſes of the fleſh, that riſe in the fundament; for they eat them down, & in tract of time conſume them quite: alſo they are good to take away the pimples and freckles that appeare vpon the skin, like to Lentils, yea and the deformities and ſpots in womens faces that disfigure their beauty: theſe muſhroms be * waſhed as lead, for to enter into collyries and eye-ſalues: and a liniment is made thereof, which being applied with water, cleanſeth filthie ſores and vlcers, cureth the skals that breake out in the head, and healeth the wounds occaſioned by the biting of dogs.

* *Lauantur vt plumbum*, ſome read *Linuntur ad plumbum*, (*i.*) a liniment is made of the for lead-ſhotte eyes, &c. *vide cap* 13. *lib.* 25.

And now for that our fine mouthed and dainty wantons who ſet ſuch ſtore by their tooth, take ſo great delight to dreſſe this only diſh with their own hands, that they may feed thereon in conceit and cogitation all the while they bee handling and preparing the ſame, furniſhed in
D this their buſineſſe with their fine kniues and raſors of amber, and other veſſels of ſiluer plate about them: I for my part alſo am content to frame and accomodate my ſelfe to their humorous fanſie, and will ſhew vnto them in generall, certaine obſeruations and rules how to order and vſe them, that they may be eaten with ſecurity. Marke then thoſe muſhroms, which in the ſeething proue hard and tough, ſuch be all of them hurtfull: Leſſe daungerous they be, if ſome ſalt-nitre be put to them whiles they be a boiling ouer the fire; prouided alwaies, that they be fully ſodden before they be taken off. Alſo, a man may be more bold to eat thoſe which be ſodden together with fleſh meat, or with the tailes or ſteles of peares. The eating alſo of peares immediatly after one hath fed vpon Muſhroms, doth kil or dull all the malice that they may haue. Alſo vinegre is of a contrary nature vnto them, and doth extinguiſh or mortifie their venomous qualitie. To conclude, all theſe muſhromes do come vp and are engendred in rain. Semblably, good
E ſhowres doe breed Silphium.

This Silphium came at the firſt from Cyrenæ (as I haue before written) but now adays, ſince time that all the Cyrenaick Silphium is deſtroied and gon (as hath bin ſaid) the greateſt ſtore thereof is brought out of Syria: howbeit ſo good it is not as that which Parthia yeelds, though it be better than that which the merchants bring ouer with them out of Media: this * Silphium is of great vſe in Phyſicke; for the leaues are ſodden in white odoriferous wine: of which decoction, there is made a drink for to cleanſe and purifie the matrice, and to expell the dead infants therein, ſo it be takn to the meaſure of one Acetabulum, immediatly after the woman hath bin in the ſtouve, and there ſwet. The root is ſingular for to cleare the windpipes, and to take away
F all the aſperity and roughnes in thoſe parts; and being applied in form of a liniment, it helpeth impoſtumat inflammations proceeding from the ranknes and ebullition of the bloud: & yet as many as take it at the mouth and eat therof, find that it is hard of digeſtion; for it breedeth ventoſities and cauſeth much belching. Hurtful alſo it is and contrarie to the free paſſage of vrine. A liniment made thereof together with wine & oile, is a moſt familiar and agreeable medicine

* *or Laſerpitium.*

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for the black and blew marks remaining after ſtripes: but if the ſame with ſome adition of wax, G
be reduced into a cerot, it healeth the Kings euil. The piles or werts growing in the fundament,
with a ſuffumigation of Silphium oftentimes vſed, will fall off.

As for the liquor Laſer, iſſuing from Silphium (in that maner as I haue ſhewed) it is holden
for one of the moſt ſingular gifts that Nature hath beſtowed vpon the world, and entreth into
many excellent confections and compoſitions. Of it ſelfe alone, it reduceth thoſe to their natu-
rall heat, who are ſtaruen and benummed with extreame cold. Taken in drinke, it allaieth the
accidents and griefes of the nerues. It is both giuen to women in wine, and applied alſo in ſoft
locks of wooll to their natural parts, for to bring down their menſtrual purgation. If it be mix-
ed and incorporat with wax, it draweth and fetcheth out by the roots, the agnels or corns in the
feet, if ſo be they be ſcarified round about before with the lancer. Being diſſolued in ſome con- H
uenient liquor and taken to the quantity of a cich peaſe, it prouoketh vrin. *Andreas* the Phyſici-
an doth aſſure and warrant vs, That if it be taken in greater quantity, it breedes no windineſſe in
the ſtomacke, but helpeth digeſtion mightily both in women and alſo in old men: Who ſaith
moreouer, that it is better and more wholeſome in winter than in ſummer, and for thoſe eſpeci-
ally who drinke nothing els but water: only they muſt look to this and take heed, that there be
no exulceration within the body. A great reſtoratiue it is with meat, and quickly ſetteth them
on foot, who haue lien along and bin brought low by ſickneſſe: for Laſer if it be applied in due
time, is as good as a potentiall cautery * to raiſe a bliſter: but better it is for them who are ac-
quainted with it, than for thoſe who haue not bin vſed to it. Outwardly applied, no man makes
doubt but it is of ſingular operation, and worketh many effects: taken in drink, it extinguiſheth I
the venome left in the bodie, either by poiſoned dart, or ſerpents ſting: and if the wounds be an-
nointed with the ſame, diſſolued in water, it is the better: but particularly for the prickes of
ſcorpions, it would be applied with oile. Alſo in caſe that vlcers will not grow to any maturati-
on, nor yeeld from them conçocted matter; a pultes made of Laſer, together with barley floure
or figs, is a ſingular digeſtiue. Being laid too with Rue, or hony, or by it ſelfe alone (ſo the place
be annointed ouer it with ſome viſcous gum to keep it too that it run not off) it is excellent for
the carbuncle, and the biting of dogs. If it be ſodden in vinegre with the rind or pil of a pome-
granat, it is paſſing good for the excreſcences riſing about the tiwil, if the place be bathed with
that decoction. Being incorporat with Sal-nitre, and well wrought withall beforehand, and ſo
applied, it taketh away the hard horns and dead cornes ariſing in the feet, which commonly be K
called in Latin Morticini. Tempered with wine & ſaffron and pepper, or if it be but with mice
dung and vinegre, it is a good incarnatiue in vlcers: & an excellent drawer to the outward parts
for to fil vp the skin and make a bodie fat. A good fomentation there is made of it and wine, for
to bath kibed heels: for which purpoſe, it is boiled in oile and ſo applied. In like manner, it ſer-
ueth to ſoften hard calloſities in any place whatſoeuer: and for the foreſaid corns of the feet e-
ſpecially, if they be ſcarrified & ſcraped before, it is of great efficacy. Singula it is againſt vn-
wholſom waters, peſtilent tracts, and contagious airs; as in times ſuſpected of infection. Soue-
raigne it is for the cough, the fall of the Vvula, and an old jauniſe or ouerflowing of the gall: for
the dropſy alſo and hoarſneſſe of the throat; for preſently it skoureth the pipes, cleers the voice
again, and maketh it audible. If it be infuſed and diſſolued in water and vinegre, and ſo applied L
with a ſpunge. It aſſuageth the gout. Taken in a broth or thin ſupping, it is good for the pleuri-
ſie, eſpecially if the patient purpoſe to drink wine after it: being couered al ouer with wax to the
quantity of one cich peaſe, it is giuen very well in caſe of contractions & ſhrinking of ſinewes,
and namely to ſuch as cary their heads backward perforce, by occaſion of ſome crick or cramp.
For the ſquinance, it is good to gargarize therwith. Semblably it is giuen with leeks and vine-
gre, to thoſe that wheaze in their cheſt, and be ſhort winded, & haue had an old cough ſticking
long by them: alſo with vinegre alone, to ſuch as haue ſupped off and drunk quailed milke, that
is cluttered within their ſtomack. Taken in wine, it is ſingular for the faintings about the heart;
as alſo for colliquations and ſuch as are faln away and far gone in a conſumption, & thoſe that
be taken with the falling ſickneſs: but in honied water, it hath a ſpecial operation reſpectiue to M
the palſie, or reſolution of the tongue. With ſodden honey and Laſer together, there is made a
liniment, very proper to annoint the region of the hucklebone, where the Sciatica is ſeated; and
the ſmall of the backe, to allay the pain of the loins. I would not giue counſel (as many writers
doe preſcribe) for to put it in the concauitie or hole of a rotten tooth, and ſo ſtop vp the place
cloſe

*He meaneth by *cauterium*, κατακαυστικὸν, *medicamẽte* φαρμακευτικὸν, or μεταποιητικὸν, which doth draw humours and the bloud to the habit and outward parts: a neceſſarie courſe to be taken in Atrophia, and namely after long diſeaſes, that the body may be equally nouriſhed.

A cloſe with wax, for feare of that which might enſue thereupon: for I haue ſeene the fearfull ſequel of that experiment in a man, who vpon the taking of that medicine, threw himſelfe headlong from an high loft and brake his necke; ſuch intolerable paines he ſuſtained of the toothache: and no maruell, for do but anoint the muffle or noſe of a Bull therewith it wil ſet him on a fire & make him horn-mad: and being mingled with wine, if ſerpents (as they are moſt greedie of wine) chance to lap or lick thereof, it wil cauſe them to burſt. And therefore I would not aduiſe any to be anointed with it and hony of Athens incorporat together, howſoeuer there be ſome phyſitians who ſet down ſuch a receit. Certes, if I ſhould take in hand to particularize of the vertues that Laſer hath, being mingled with other matter in confections, I ſhould neuer make an end. But my purpoſe is to deale with ſimples only, wherein Natures work is moſt ap-
B parant & euident to be ſeen; whereas in compoſitions we go altogether by coniectures which many times deceiue vs: neither can a man be aſſured of their operation; for who is able to obſerue the iuſt proportion in theſe mixtures, either of the contrarieties and repugnances, or the concord and agreement of the ingredients in Nature? But of this point I will write more at large hereafter.

Chap. XXIV.

¶ *Of the nature and properties of Hony. Of honied water or Mead called Hydromel. How it commeth to paſſe that the manners and behauiours of men be altered by meat and viands. Of honied wine named Melitites, and of Wax. Alſo againſt the abuſe in compoſition of medicines.*

C

HOny, were it not ſo common as it is, and euery where to be had, would be as high eſteemed and of as great price as Laſer. As for this drug, Nature hath framed and made it immediatly her own ſelf; but for the getting and working of hony ſhe hath created a liuing creature of purpoſe, as we haue already ſaid: by means whereof we haue this cœleſtial liquor, which ſerueth for an infinite number of vſes, conſidering how often it entreth into mixtures and compoſitions. And firſt to ſpeak of that cereous ſubſtance Propolis, which, as it hath bin ſhewed already, offereth it ſelfe firſt to be ſeen at the very entry of the Bee-hiue. Theſe vertues medicinable it hath, namely to draw forth all pricks, thorns, and what offenſiue thing ſoe-
D uer ſticketh within the fleſh of a body; to diſſolue and diſſipate all tumours and ſwelling bunches, to concoct and mollifie any hardneſſe, to aſſuage the pains of ſinews, and finally to incarnat, heale vp, and skin any deſperat vlcers.

As touching Hony it ſelfe, of this nature verily it is, That it wil ſuffer no dead bodies to putrifie, notwithſtanding it be of a ſweet and pleaſant taſt, far from any ægreneſſe, and contrary to the nature of ſalt: for the throat, the kernels of each ſide thereof called the Tonſils or Amygdals; for the ſquinancie, and all the accidents befalling to the mouth; as alſo for the drineſſe of the tongue through extremitie of heate in feuers, it is the moſt ſoueraigne thing in the world. Hony boiled is ſingular for the inflammation of the lungs, and for the pleuriſie: alſo it cureth the wounds inflicted by the ſting or teeth of ſerpents; and helpeth thoſe who haue eaten veno-
E mous muſhroms. Being taken in dulcet or honied wine, it cureth thoſe that lie of a palſie; although indeed the ſaid honied wine alone hath many gifts and properties by it ſelfe. Hony together with oile of Roſes dropped into the ears, cureth their ſinging and pain. Good it is alſo for to kil lice and ſuch like vermin in the head, and to rid away nits: where note by the way, that if hony be diſpumed, that is to ſay, skummed and clarified, it is euermore the better for any vſe. Howbeit, the ſtomack it puffeth vp and maketh to ſwel with ventoſities: it ingendreth and encreaſeth cholerick humors, and taketh away appetite to meat: yea and ſome are of opinion, that being vſed ſimply alone, and not compounded with other things, it is hurtfull to the eies: and yet others giue counſel to touch and anoint the corners of the eies therewith, when they be exulcerat. Touching the materiall cauſe whereof honey is ingendred, the maner how, the diuers
F ſorts, the countries where it is made, the price alſo and value, with the ſundry proofs and tria's thereof, I haue written already once in my treatiſe of Bees; and a ſecond time in my diſcourſe of the nature of Floures: for ſo the order and courſe of this my Worke forced me to treat diſtinctly of thoſe matters; which, they that be deſirous to know exactly the nature of Simples, may put together and mingle again at their pleaſures. By the ſame reaſon alſo, ſince we are en-

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tred into the vertues and operations of Hony, I muſt of neceſſitie handle and declare the qualitie of Hydromel or honied water, ſo neere a dependant thereto. G

Of which there be two kinds: the one is freſh and new made in haſt vpon occaſion, and preſently vſed: the other is kept and preſerued. As touching the former Hydromel, if it be made as it ſhould be of diſpumed and clarified hony, it is of ſingular vſe in that exquiſit & ſpary diet fit for ſick perſons, and namely in meats of light digeſtion, ſuch as is a thin gruell made of naked frumenty waſhed in many waters: alſo to be ioyned in reſtoratiues for to recouer the Patients ſtrength much enfeebled. Moreouer, good it is for the mouth and the ſtomacke, to mitigat the fretting humors ſetled and bedded therin, & to cool the extremity of heat: for I find in good authors, that to eaſe and mollifie the belly, it is better to be giuen cold than otherwiſe: alſo that it is a proper and conuenient drink for thoſe who chil and quake for cold: likewiſe for H
ſuch as be heartleſſe & haue ſmal or no courage at all, whom thoſe writers cal * Micropſychos.

* Some reade μικροσφύκτους out of *Dioſcor.* hauing a faint & weak pulſe.

Moreouer, there is a reaſon rendred full of infinite ſubtiltie, and the ſame fathered firſt vpon *Cato*, Why the ſame things feel not alwaies bitter or ſweet alike in euery mans taſt? for he ſaith that this diuerſitie proceedeth from thoſe little motes or * bodies that go to the making of all things: whiles ſome of them be ſmooth, others rough & rugged; ſome cornered, others round: in ſum, according as they be more or leſſe reſpectiue and agreeable to the nature of each man: this is the cauſe, that thoſe perſons who are ouer-wearied or exceeding thirſty, be more cholerick and prone to anger. Good reaſon therefore, that ſuch aſperity of the ſpirit, or rather indeed of the vital breath, ſhould be dulced and appeaſed by the vſe of ſome ſweet and pleaſant liquor which may lenifie the paſſage, and mollifie the conduits of the ſaid ſpirit, that they do not cut, I
race, and interrupt it going in & out in drawing or deliuering the wind. And in very truth, euerie man may find by experience in his own ſelf, how meat and drink doth moderat and appeaſe anger, ſorrow, heauineſſe; and any paſſion or perturbation of the mind whatſoeuer. And therefore thoſe things would be obſerued which make not onely to the nouriſhment and health of the body, but alſo ſerue for to rectifie and reform the maners and demeanor of the mind.

* Corpuſculis rerum.

Now to return again vnto our Hydromel or honied water; very good, by report, it is for the cough, and being taken warm it prouoketh to vomit: put oile thereto, and it is ſingular againſt the poiſon of Ceruſe or white lead. A countre-poiſon alſo it is and a preſeruatiue to ſuch as haue eaten Henbane and Dwale, eſpecially taken with aſſes milk, as I haue obſerued hertofore. Inſtilled into the eares, or poured into the fiſtulous ſores of the ſecret parts, it is thought to be K
excellent. Incorporat with the crums of ſoft bread, and reduced into the form of a peſſarie, and ſo put vp, it is ſingular for the infirmities of the natural parts of women; and being applied accordingly, it taketh down all ſudden ſwellings [occaſioned by windines;] cureth diſlocations, and in one word, mitigateth all pains. Thus much of Hydromel new made: for our moderne phyſitians haue vtterly condemned the vſe of that which is kept vntil it be ſtale. And this they generally hold, That it is not ſo harmleſſe as water, nor ſo ſolid and powerfull in operation as wine. Howbeit let it be long kept it turneth into the nature of wine, and (as all writers do accord) then is it moſt hurtfull to the ſtomack, and contrary to the ſinewes.

As for honied wine, the beſt and moſt wholſome is alwayes that which is made of the oldeſt wine, that is hard: and indeed with it you ſhall haue it to incorporat very eaſily; which it will L
neuer do with any that is new & ſweet: and being made of green, harſh, or auſtere wine, it doth not fill and charge the ſtomacke, no more it doth being made of boiled honey; and ingendreth leſſe ventoſities, which is an vſual thing with hony. This honey bringeth them to appetite of meat who haue loſt their ſtomack. Taken actually cold, in many it looſneth the belly; but being hot it ſtayeth and bindeth the ſame. The honied wine is very nutritiue and breedeth good fleſh. Many haue held out a long time freſh and luſty in their old age, with the nouriſhment of honied wine alone without any other food: whereof we haue one notable example of *Pollio Romilus*, who being aboue an hundred yeres old, bare his age paſſing well: whereat the Emperour *Auguſtus* of famous memorie maruelled much; and being vpon a time lodged as a gueſt in his houſe, he demanded of him, what means he vſed moſt ſo to maintaine that freſh vigour both of M
body and mind? to whom *Pollio* anſwered, By vſing honied wine within, and oile without. *Varro* ſaith, that the yellow jaundiſe was called a * Kings diſeaſe, or a ſickneſſe for a King, becauſe it was cured ordinarily with this honied wine, called Mulſe.

* Regius morbus.

As touching another kind of honied wine, named Melitites, how it is made of Muſt, or new

wine

A wine & hony together, I haue declared ſufficiently in my treatiſe of wines. But I ſuppoſe there hath bin none of this ſort confected theſe hundred yeares paſt and aboue, for that it was found to be a drink which bred ventoſities in the ſtomacke and other inward parts. Howbeit, the manner was in old time, to preſcribe it for to bee giuen in agues, to make the bodie ſoluble; prouided alwaies, that it had the due age: alſo to thoſe who lay of the gout: to ſuch likewiſe as had weake and feeble ſinews: and to women who abſtained altogether from meere wine.

Next after Honey, the treatiſe of Wax (which is correſpondent to the nature of honey) by good order followeth. Corcerning the originall working and framing thereof, the goodneſſe, the ſeueral kinds according to diuers countries, I haue written in conuenient place. This is generally obſerued, that al ſorts of wax be emollitiue, heating, and incarnatiue; but the newer and
B freſher they are, the better they are thought to be. Wax taken inwardly in a ſupping or broth, is ſingular for the bloudy flix and exulceration of the guts: ſo be the very honey-combes giuen in a gruell made of frumenty, firſt parched and dried at the fire. Contrarie it is to the nature of milk: for take ten grains of wax, made in ſmal pills of the bigneſſe of millet corns, in ſome conuenient lipuor, they will not ſuffer the milke to cruddle in the ſtomacke. If there be a riſing or ſwelling in the ſhare, the preſent remedie is to ſticke a plaſtre of white wax vpon the groine. Moreouer, to reckon vp and decipher the ſundry yſes that wax is put vnto in matters of Phyſicke, as it is mixed with other things, it is no more poſſible for a Phyſician, than to particula-
C rize of other ſimples and of their wholſom vertues, according as they enter iuto many compoſitions: which proceed all (as I haue ſaid) from the wit and artificiall inuention of man: for wee neuer find, that Cerots, Cataplaſms, Emollitiues, Plaſtres, Collyries or Eye-ſalues, Antidotes or Preſeruatiue confections, were euer of our great mother dame natures making: who indeed is the diuine worke miſtreſſe of all things; theſe are the deuiſes of Apothecaries, nay they are rather tricks proceeding from auarice and couetouſneſſe. As for Nature, ſhe hath made nothing vnperfect, her workes be abſolute all and accompliſhed in their eſſence: ordained hath ſhee no compounds, vnleſſe it be very few, wherein ſhe proceedeth vpon good cauſe and reaſon, and goeth not by blind aime and doubtfull conjectures: as namely, when according to her rule and order, ſhee doth incorporate ſome things of a drie conſtitution and ſubſtance, with a liquor, that they may pierce & enter better within the pores of the body, or els when ſhe giueth conſiſtence
D to liquid matters by ſome bodily ſubſtance, which may vnite and knit them together. To goe about for to compaſſe the vertues of euery ſimple ingredient in theſe compoſitions curiouſly by ſcruples and graines, ſauoureth of impudencie rather than a worke grounded vpon humane conjecture. For mine owne part, I haue nothing to doe with theſe drugs and far-fet wares that come from India and Arabia: I meddle not (I ſay) with theſe medicinable ſpices brought out (as it were) of another world. Theſe ſimples growing ſo far off in ſuch remote countries, pleaſe me not, neither do I thinke them meet for to cure our maladies: they were neuer brought forth by Nature for vs; no nor for them neither, where they grow: otherwiſe they were not ſuch fools (I trow) as to ſell and paſſe them away as they doe. Buy them, and ſpare not, for ſweet pomanders, perfumes, and delicat ointments: ye may buy them alſo (if you pleaſe) vpon a ſuperſtitious deuotion for the worſhip of gods; for that now we canot ſacrifice, pray, & ſerue God (forſooth)
E without Frankincenſe and Coſtus. And that our daintie ones and effeminat perſons ſhould be the more aſhamed of themſelues, I will the rather ſhew and proue, That we may both preſerue and recouer our health well enough without theſe exotical and forraine drugs: and that ech region is furniſhed ſufficiently with home-phyſicke of their owne. But now, ſince we haue taken ſo much paines as to collect the medicinable vertues of guirland-floures, of pot-hearbes alſo, harden woorts, and ſallad hearbes, How may I for very ſhame leaue out the properties of corne and grain ſeruing for Phyſick? and therefore in this place it ſhall be well done, to diſcourſe of them likewiſe.

Chap. XXV.

F ¶ *The medicinable vertues and properties of corne and graine.*

Firſt and formoſt this is holden for certain, that they be the moſt ingenious and wiſeſt creatures of all others, which liue of corn. The grains of the fine blanched wheat Siligo, being burnt, brought into pouder, and applied with Amminien wine in manner of a liniment, doe

reſtraine the flux of humors to the eies. Alſo the cornes of the ordinary wheat Triticum, being G
parched or roſted vpon a red hot yron, are a preſent remedie for thoſe who are ſcortched and
ſindged with nipping cold. The meale of the ſaid wheat ſodden in vinegre, and applied as a ca-
taplaſm, helpeth the contraction and ſhrinking vp of the ſinews: but wheat brans, with oile of
roſes, drie figges, and ſebeſten ſodden together, make a collution, the gargarizing wherewith, is
good for the inflammation of the Tonſills or Amygdales, and to cure all the accidents of the
throat. *Sextus Pompeius*, who in his daies was one of the principal peers of high Spain, & left a
ſonne behind him, who afterward was lord Pretour of Rome, ſitting on a time before his barne-
dores to ſee his corn winowed, was ſurpriſed ſodainly with a fit of the gout, and whether it were
by chance, or in a rage for the extremitie of paine, thruſt his legs aboue the knees into the heap
of wheat lying thereby: but finding his legs mightily dried hereby, and himſelfe wonderfully H
eaſed of his paine by that meanes, he neuer vſed any other remedie afterwards, but ſo ſoone as he
felt a fit of his gout comming, he plunged his feet and legs into a heap of wheat. Certes wheat
is ſuch a deſiccatiue, that it wil draw and drie vp the wine or any other liquor in a barrell which
Vide Galen, lib. 1. de Naturalibus facultatibus. is buried within it. Moreouer, the beſt experienced Chirurgians in the cure of ruptures, affirm,
That there is nothing better, than to lay the chaffe of wheat or barley hot to the grieued place;
and to foment the ſame with a decoction wherein it was ſodden.

As for the bearded wheat Far, there is a certaine worme breeding in it like to a moth or the
grub that eateth wood, which is ſingular good to make rotten teeth to fal out of the head; for if
the ſame be lapped within wax, and ſo put into the hole of the faultie tooth, it wil drop out: or
if the ſound teeth be but rubbed therewith, they will ſhed and fall forth of the head. I

Touching the graine Olyra, we haue ſaid already that it is called alſo Arinca. The Ægyptians
make thereof a certaine medicinable decoction or gruell, which they call Athara, paſſing
good for young babes; yea and it ſerueth to bath and annoint elder folke withall.

Barly meale either raw or boiled, doth diſcuſſe and reſolue, aſſuage & ripen, all impoſtumes
engendred either by way of gathering and collection of humours, or by ſome deflux and rheu-
matick deſcent. The ſame otherwhiles is ſodden in honyed water, or els with dried figs: but for
the paines of the liuer, it had need to be boiled with Oxycatre, *i.* water and vinegre together, or
els with wine. But when the caſe ſtandeth ſo, that the tumor muſt be partly diſſipated, & partly
brought to maturation, then it is better that it be incorporate in vinegre, or the lees of vinegre,
or at leaſt waies in ſodden peares or ſodden quinces. Being tempered and medled with hony, it K
is very good for the biting of the cheeſlips or many-feet worms, called Multipedes: but for the
ſting of ſerpents, it is better to mix it with vinegre; as alſo to keep ſores from feſtering and ran-
kling: but in caſe it be needful and requiſit to clenſe them from ſuppurat matter therein gathe-
red, then it would be applied with vinegre and water, with roſin alſo and gal-nuts added therto.
For inueterat and old vlcers, to bring them to maturation, it is laid too with roſin: for to ſoften
hard tumors, it is vſed either with pigeons dung, or with drie figs, or aſhes. Being applied with
Poppie or Melilot, it is ſingular for the inflammation of the nerues, of the guts & ſides: alſo for
the paines of mens priuie parts: or when the fleſh is departed from the bone. Incorporate with
pitch, and the vrine of a boy not yet vndergrowne nor fourteene yeares old, it is a proper medi-
cine for the ſwelling kernels named the Kings euill: with oile and Fenigreeke, it helpeth the tu- L
mors of the midriffe and precordiall parts: or in caſe the feuer be buſie with the Patient, then it
muſt bee vſed with honey or old greaſe. But if thoſe ſwellings tend to maturation, then wheat
meale is commonly more lenitiue, and aſſuageth pain better. The ſame being reduced into a li-
niment with the juice of Henbane, is good for the nerues; but with honey and vinegre, it taketh
away the red pimples and ſpots appearing in the skin, called Lentils.

Spelta. Touching * Zea, whereof is made the ordinary frumenty as I haue ſaid: the meale of it is
counted better in operation than the other of barley, but that of the three-moneth corn is more
moiſt and emollatiue. Tempered with red wine, and ſo applied warm, it is commended for the
pricke of Scorpions: alſo for them that reach and ſpit vp bloud: and all accidents happening to
the throat and windpipes: but with goats ſuet or butter, it is good for the cough. The floure M
or meale of Fenigreek, is the ſofteſt of al other: it healeth running vlcers, it skoureth dandruffe
or skales in any part of the body, it appeaſeth and aſſuageth the pains of the ſtomack, it cureth
the maladies incident to the feet and paps, if it be ſodden with ſal-nitre and wine, and ſo appli-
ed accordingly.

The

A The meale of Yurain or Darnell, doth clenſe old vlcers and gangrenes more than any other. Tempered with raddiſh, ſalt, and vineger, it cureth ring-worms, tettars, ſhingles, and ſuch like: with Sulphur-vif or quick brimſtone, it ſcoureth away the leproſie. Applied in a frontall to the forehead with Gooſe-greaſe, it helpeth the head-ache. Boiled in wine with Pigeons dung and Line-ſeed, it digeſteth and bringeth to maturation the ſwelling kernels named the Kings-euil, and other biles which be long ere they gather to an head and do ripen.

Of the ſundry ſorts of Barly groats or groſſe meale called Polenta, I haue ſaid enough in my Treatiſe of corn, which did require alſo the diſcourſe of ſuch things as be made of corn. It differeth from Barly meale, in that it is torrified or parched: in which regard it doth the ſtomack good. It bindeth and ſtaieth the flux of the belly: it repreſſeth alſo and ſmiteth back the fluB ſhing of humors, to the breeding of red and angry tumors. It ſerueth for a liniment tō the eies, and eaſeth head-ach, if it be applied with * Mints, or ſome other cooling herb. In like manner it cureth kibed heels, and the wounds occaſioned by ſerpents: alſo it healeth burnes and ſcalds if it be laid too with wine: and in that ſort it keepeth them from bliſtering. If meale be driuen through a ſercer or boulter, and ſo reduced to floure, and afterwards made with dough or paſte, it is a great drawer of noiſom humors to the outward parts: which is the cauſe that being applied to ſuch places which look dead & mortified, by reaſon of the bloud ſpread vnder the skin, it draweth out the ſame, ſo that the very linnen bands wherwith they be lapped & rolled, become bloudy again. But if wine cuit be ioined therewith, the operation is more effectuall. Moreouer, the ſaid floure is good to be laid vnto the calloſities and corns of the feet. For the fine floure of

C meale being ſodden with old oile and pitch, and applied ſo hot as the patient may abide it, doth wonderfully cure the ſwelling piles and all other griefs about the fundament. As touching the thick gruell or paps made with floure, it nouriſheth much, and cauſeth the body to feed wel: the paſt made of meale, wherewith they vſe to glew Papyr, is ordinarily giuen warm to good effect, for the reaching and ſpitting of bloud.

* *cum Menta*, rather *Melle*, i. honey. according to *Columella*: for Mints be hot.

As for the frumenty called Alica, it is a meere Roman inuention, and not long ago firſt deuiſed: for otherwiſe the Greeks if they had known of it, would neuer haue written as they did in the commendation of husked Barly named Ptiſana, rather than of it. And I thinke verily, that the vſe thereof was not taken vp in the daies of *Pompey* the great, and therefore the followers and diſciples of *Aſclepiades* haue left little or nothing therof in writing. That it is a ſoueraign and

D moſt wholſom thing, no man verily maketh doubt or queſtion; whether it be waſhed and ſo giuen in honied water, or whether it be ſodden and ſo vſed in a thin ſupping, or boiled higher to the conſiſtence of a thick gruel or pottage. The ſame for to ſtay the belly, and ſtop a lask, is torrified: and then afterwards ſodden with virgin-wax, as before I haue ſhewed. But a peculiar vertue it hath by it ſelfe to reſtore thoſe that are conſumed and fallen away through a long & languiſhing ſickneſſe: and then it muſt be ordered thus, Take three cyaths of the ſaid Frumentie, ſeeth it in a ſextar of faire water ouer a ſoft fire gently, vntill by little and little all the water be conſumed: now after this imbibition, when that the Frumenty hath thus drunk vp all the water, there muſt be added thereto a ſextar of Ewes milk or Goats milk, and in the end a little hony. This the patient is to take for certain daies together. And in truth, ſuch a broth or ſupping

E is this, as there is not in the world a more ſoueraigne reſtoratiue for all colliquations and conſumptions whatſoeuer, nor that will ſooner ſet vpon their feet again thoſe who be far gone and ſpent that way.

To come now to Millet, it is a grain, which being torrified aforehand for the purpoſe, ſtoppeth the lask, and diſpatcheth all collick pains and torments of the belly. Being fried and laied too hot in a bag, there is not a better thing for the griefe of the ſinews, or to alay any other pain: for, moſt ſoft it is, and lighteſt of all other, and nothing in the world retaineth heat ſo well. No maruell then if Millet be vſed ordinarily in thoſe caſes, where heat is to do good. To conclude, the meale or pouder thereof incorporat with tar, is a ſingular plaiſter to be laid vpon ſores, occaſioned by the ſting of Serpents or the prick of the vermine named Multipeda.

F As for the Panick, *Diocles* the Phyſitian called it Mel-frugum. The ſame operations and effects it hath that Millet. Being taken in wine, it is good for the dyſentery or bloudy flix: to ſuch tumors as need to euaporat and be reſolued, it is ſingular good for to be applied hot, by way of fomentation. Sodden in Goats milk, and giuen twice a day to drink, it bindeth the belly, & ſtaieth flux: and in that manner it aſſuageth the torments and wrings in the collicke.

Seſama

Seſama ſtamped or beaten into pouder,and ſo taken in wine,reſtraineth immoderat vomits. G
Reduced into a liniment,and ſo applied,it doth mitigat the inflammation of the ears,& cureth any burne or ſcalt place of the body. The ſame effects it hath when it is green & growethin the field. Ouer and beſides,a cataplaſme made thereof, being boiled in wine, is good for ſore eyes. To be eaten,it is no wholſome meat for the ſtomack: and more than that, it cauſeth a ſtinking breath. Howbeit,they hold it excellent to withſtand the venomous ſting of the Stellions, and the dangers that it may inferre: as alſo to heale the old cancerous and maligne vlcers, named Cacoethe,*i.* Morimals. There is an oile made thereof, which as I haue before ſhewed, is good for the eares.

Touching Seſamoeides,which taketh that name of the reſemblance that it hath to Seſama, but that the graine thereof is bitter,and the leafe leſſe,and it groweth in grauelly grounds: the H
ſame being taken to drink in water,purgeth chollerick humors. A liniment made of the ſeed, doth aſſuage the heat of S. *Anthonies* fire,and doth diſcuſſe and reſolue biles. And yet there is another Seſamoeides growing in Anticyra,which thereupon ſome do cal Anticyricon: otherwiſe much like it is to the herb Groundſwell, whereof I will ſpeake in place conuenient. The graine or ſeed of this Seſamoeides is giuen in ſweet wine,as a purgatiue of chollerick and flegmatick humors;to the quantity of as much as may be contained with three fingers:but to quicken the ſame,the Phyſitians vſe to put one Obole and an halfe of the white Ellebore-root or Neeſewort:which purgation they vſe in caſe of madneſſe,the melancholicke diſeaſe,the falling ſickneſſe,and the gout. By it ſelfe alone,the weight of one dram is a ſufficient laxatiue,& doth euacuat the belly.

The beſt Barley is that which is whiteſt. The iuice of Barley boiled in rain water,is made vp I
into certain troſches,which is ſingular good to be either conueied into the guts by way of clyſter,for the exulceration thereof;or els injected into the Matrice by the metrenchyte, for the vlcers therein. The aſhes of Barly burnt, are good in a liniment for Burnes,for places where the fleſh is gone from the bones,for wheales,and ſmall pocks,and for the biting of the Hardiſhrew mouſe. The ſame with a little ſprinckling of ſalt, and ſome honey amongſt, is counted a good dentifrice,to make the teeth look white,and the breath to ſmel ſweet. There is an opinion commonly receiued,That whoſoeuer vſe to eat Barly bread,ſhall not be troubled with the gout of the feet. And they ſay,that if a man take nine barly corns,& with euery one of them draw three imaginary circles about a felon with his left hand:and when he hath ſo done,throw them all into the fire;preſently it ſhall be cured. There is an herb which the Greeks cal Phœnicea,and our countrymen in Latine Hordeum * Murinum. This herb or weed being beaten to pouder,& taken in wine,is ſingular to bring down the courſe of womens fleurs. K

Hippocrates the famous Phyſitian,hath made one * intire book in the praiſe of Ptiſana,which is a groat made of Barly: but all the vertues and properties thereof are now attributed vnto our Frumenty Alica, and that goeth away with all the commendation. * And yet a man may ſee how much more harmleſſe it is than Alica. *Hippocrates* commended it only for a ſupping,as being ſlippery & eaſie to be taken,good to put away thirſt,not ſwelling in the belly,paſſing quickly and eaſily through the body,and ſuch a kinde of meat as might alone of all others be giuen twice a day in a feuer to thoſe who were vſed to it: ſo farre was hee in opinion from them who L
would famiſh all diſeaſes,& cure them by *faſting & vtter hunger. Howbeit,he forbad to giue it whole in ſubſtance to be ſupped off, & allowed nothing but the very ſimple juice and broth of Ptiſane or husked Barly: neither allowed he it in the beginning of an ague fit, ſo long as the feet continued cold,for during that time he would not admit ſo much as a thin potion therof. Now beſides the Alica or frumenty made of Zea,there is another which commeth of the common wheat,more glutinous and better indeed for the exulceration of the wind pipes.

As touching Amylum or ſtarch pouder,it dimmeth the eyeſight,& is hurtful to the throat, and is nothing good to be eaten,contrary to the common receiued opinion. It ſtaieth the inordinat flux of the belly,repreſſeth the rheum into the eies, it healeth vlcers, and cureth puſhes, wheals,and blains,and reſtraineth fluxes of bloud. It mollifieth the hardneſſe growing in the M
eye-lids. To ſuch as caſt vp bloud,it is vſually giuen in an egge. In pain of the bladder, halfe an ounce of Amylum made hot ouer the fire vntill it ſiuer,with one egge and as much cuit as will go into three eg-ſhels,taken immediatly after the bath or hot houſe,is a ſingular remedy:moreouer,oatmeale ſodden in vineger,taketh away moles and freckles of the skin.

The

*It groweth indeed commonly vpon new wals,although the name ſeemeth to come from *Mures*, *i.* Mice and Rats: rather than *Muri*, *i.* Wals.

* This booke goeth now vnder this title, *De ratione victus in morbis acutis.*

* *Contra, quanto innocentior eſt alica.*

* He glanceth at *Diatritos*, *i.* faſting three daies together

A The very ordinary bread, which is our daily food, hath an infinit number of medicinable faculties. Bread crums being applied with water and common oile, or els with oile of Roſes, doth mollifie impoſtumes: & with honied water aſſuageth any hardnes, wonderfully. Giuen in wine, it is good to diſcuſſe and reſolue. It is of force alſo to bind and knit where need is, and ſo much the rather, if it be giuen with vineger. Alſo it is ſingular againſt the ſharp & eager flux of fleam, which the Greeks cal Rheumes: likewiſe for bruiſed places vpon ſtripes or blows; yea, and for diſlocations. And in very deed, for all theſe purpoſes, leauened bread, called of the Greeks Autopyros, *i.* downright made, is better than any other. Moreouer, a liniment thereof applied with vineger, is good for whitflaws and the calloſities of the feet. Moreouer, ſtale bread and bisket, ſuch as ſea-faring men do eat, being ſtamped & ſod again, is good to bind the belly: for ſinging
B men and choriſters who are deſirous to haue a cleare voice, for ſuch alſo as be ſubject to rheums falling from the head, it is the wholſomeſt thing in the world, to eat dry bread in the beginning of meals. The Sitanian bread, *i.* that which is made of three months corn, being incorporat with hony, is a faire medicine to cure either the black prints remaining after ſtrokes, or the ſcailing and pilling of the face. White bread crums ſoked either in hot or cold water, yeeld vnto ſicke men a meat of light digeſtion. The ſame being applied with wine, cureth ſwelled eies. And ſo it healeth the breaking out in the head, eſpecially if dry Myrtles be put thereto. It is an ordinary thing to preſcribe vnto them that are giuen to ſhaking, for to eat faſting bread ſoked in wa-
C ter, preſently after they come forth of the bath. The perfume of bread burnt, taketh away all other euill ſmels that may be in a bed chamber: & being put into thoſe Hippocras bags through which wines be ſtrained, it altereth the naughty taſt which they haue.

Furthermore, euen Beanes haue their properties which ſerue in Phyſicke: for being fried all whole as they be, and ſo caſt piping hot into ſharp vineger, they help the collicke and pangs of the belly. Bruiſed and ſo eaten, or ſodden with Garlick, they be excellent good againſt coughes that were thought paſt cure and remedileſſe; yea, and impoſthumes in the breſt grown to ſuppuration; but the patient ought to feed thereof continually euery day. Alſo if one chew them faſting, and ſo apply them to a fellon, they are thought paſſing good either to ripen or to diſcuſſe the ſame. Boiled in wine, and ſo laid too, they aſſuage the ſwellings of the cods and priuy parts ſeruing to generation Bean floure ſodden in vineger, doth ripen and breake all tumors: in like manner it diſſolueth black bruiſed bloud lying vnder the skin, and healeth burns. *M. Varro* is of
D opinion, that it is good for the voice. Bean ſtalks and bean cods burnt to aſhes, and ſo incorporat with old Swines ſeam, is good for the Sciatica and all inueterat pains of the ſinews. The very husks of beans alone ſodden to the thirds, do ſtop the lask and running out of the belly.

The beſt Lentils be they that are moſt tender, and ask leaſt ſeething: alſo ſuch as drink much water. Lentils verily do dim the eie-ſight, and breed ventoſities in the ſtomacke: but taken in meat they ſtay the flux of the guts, and the rather if they be throughly ſodden in rain water: but in caſe they be not fully boiled, they do open the belly and make the body laxatiue: the eſcares or roofs remaining vpon cauterized or bliſtered ſores, they break and make to fall off: & thoſe vlcers which are within the mouth, they mundifie and clenſe. Applied outwardly, they appeaſe the pains of all impoſthumes, eſpecially if they be exulcerat and ful of chaps: and reduced into
E a cataplaſm with melilote or a quince, they are ſingular for to repreſſe the flux of humors to the eyes: but for to keep impoſtumes and tumors from ſuppuration, they are laied too with Barley groats, or the groſſe meale thereof torrified. The juice of Lentils after they be ſodden, is good for the exulcerations of the mouth, and the genitors: likewiſe with an addition of oile Roſat or Quince, for the inflammation of the ſeat or fundament. But if the parts affected and exulcerat do require ſtronger and ſharper remedies, the ſame would be applied with the rind of a pomgranat, and a little hony put thereto. And to the end that the ſaid cataplaſme ſhal not dry quickly, they vſe to put thereto Beet leaues. Lentils ſodden throughly in vineger, ſerue for a cataplaſm to be laid vpon the ſwelling kernels called the Kings euill, and other fell biles, whether they be ripe or in the way only of maturation. Applied with honied water, they be very good for any
F clifts and chaps: but with the pill or rinde of a pomgranat, for Gangrenes. In like manner, with barly groats they be appropriat for the gout, the kidnies, the naturall parts of women, for kibes, and ſuch vlcers as be hardly brought to cicatrice. Thirty grains of Lentils ſwallowed down by way of Bole, are ſingular for the feebleneſſe and diſſolution of the ſtomacke. In dyſenteries or bloudy flixes, in the violent rage of cholerick humors which cauſe euacuations both vpward & downe-

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downward, Lentils do effectuat their operation much more, if they be ſodden in three waters. G
For which purpoſe alſo better it is to torrifie them firſt, and then to pound or beat them ſmall,
that they may be giuen to the patient as fine as may be, either by themſelues alone, or els with
a Quince, with Pears, Myrtle berries, wild Cichory, black Beets or Plantain. Howbeit, note thus
much, That Lentils are nought for the Lungs, for head-ache, for all neruous parts, and the gall;
and this ill property they haue beſides, to keep the patient from ſleep. Being ſodden in ſea-wa-
ter, they are good for puſhes and angry wheales, for S. *Anthonies* fire, and the accidents that be-
fall womens breaſts: but if they be boiled in vineger, they diſcuſſe all hard tumors, & the kings
euil. They that haue but weak and bad ſtomacks, vſe verily to put Lentils to thicken their pot-
tage and gruels, inſtead of Barly groats, and find thereby much eaſe. If they be halfe ſodden in H
water, afterwards braied or ſtamped, & then let paſſe through a tamiſe, that the brans might be
ſeparat from the reſt, they are thought very good for burns: but then, within a while as the cure
goeth forward, they muſt be applied with honey alſo put thereto. Finally, if they be ſodden in
Oxycrat or water and vineger together, they help the ſwelling bunch of the throat called Bron-
chocele.

There is a kind of mariſh or moory Lentils [called Ducks meat] growing of it ſelfe in ſtan-
ding waters. This herb is by nature refrigeratiue: in which regard, it ſerueth to make a liniment
vſed for inflammations and hot impoſthumes: but principally for all manner of gouts, either
alone or mingled with Barly groats. The ſame hath vertue to knit & conſolidat ruptures, when
the bowels are fallen downe.

Moreouer, there be wild Lentils, called by the Greeks Elelisphacos, by others, Phacos. Theſe I
be lighter than the tame Lentils which are ſowed, bearing a ſmaller leafe, drier alſo, & more o-
doriferous than the other. Of which wild Lentils, there is a ſecond ſort, carying a ſtrong ſmel: in
ſomuch as the former kind is counted the milder. Theſe Lentils haue leaues formed to the fa-
ſhion of quince leaues, but that they be leſſe and white, and commonly they are ſodden branch
and all together. Their medicinable vertues be, to bring down the monthly ſickneſſe of women,
to prouoke vrines, and to heale the wounds occaſioned by the venomous prick of the ſea puffin
or fork-fiſh. Now the nature of this fiſh is to benum and mortifie the place which is ſtrucken.
Of theſe Lentils and Wormwood, there is a drink made, good for the dyſentery, or bloudy-flix.
The ſame taken with wine, draweth down womens fleurs that ſtay vpon them: but if their bare
decoction be drunk, it wil ſtay them when they flow immoderatly. The herb alone applied out- K
wardly, repreſſeth the ouermuch bleeding of freſh wounds: it cureth the ſores occaſioned by
the ſtinging of ſerpents. The decoction thereof in wine, doth mitigate the itching of the cods,
if they be bathed and fomented therewith.

Our moderne Herbariſts in theſe daies, doe call that in Latine Saluia, (*i.*) Sange, which the
Greeks name Elelisphacos. An herb it is much reſembling Mints, of a gray and hoary colour,
and withall odoriferous. Beeing applied to the naturall parts of women, it fetcheth away the
dead infant within the womb: it riddeth the ears alſo and feſtered vlcers of thoſe wormes and
vermin which breed therein.

Moreouer, there is a kind of wild Cich-peaſe bearing leaues like to the other of the garden,
and which be ſowed, ſaue that their ſmell is ſtrong & vnpleaſant. If a man feed largely of them, L
they ſtir the belly and moue to the ſiege, they breed ventoſities, cauſe the collick and wringing
of the guts. Howbeit, if they be parched or torrified they are reputed the wholſomer.

The Cichling or pety Cich-peaſe, is thought to be better and more wholſome to the belly
than the other: but the meale as wel of the one as the other, doth heale the running ſores & ſcales
of the head: howbeit, the wild better than the reſt. Moreouer, theſe ciches are taken to be good
for the falling ſickneſſe, the ſwellings of the liuer, and the ſting of Serpents. They procure wo-
mens termes, and prouoke vrine, and eſpecially the grain it ſelfe rather than the leafe. The ſame
are ſingular for tettars and ring-worms, for inflammations of the cods, for the jaundiſe & drop-
ſie. But all the ſort of them be hurtfull to the bladder and kidnies, eſpecially if they be exulce-
rat. For gangrenes and thoſe morimall vlcers called Cacoethe, they be better, in caſe they bee M
tempered with honey. Some there be, who for to be ridde of all kinde of Warts, take as many
Cich-peaſe as there be warts, and with euery one of them touch a wart, and that, vpon the firſt
day after the change of the Moon: which done, they tie the foreſaid Peaſe or Ciches in a little
linnen bag, and fling them away backward behind them: and they are perſuaded that the warts

will

A will be gone by this means. But our Latine Phyſitians are of opinion, That the blacke ciches which be called Ram-ciches, ſhould be well and throughly ſodden in water and ſalt: of which decoction they preſcribe vnto the patient for to drinke two cyaths, in difficulty of making water, for to expell the ſtone, and rid away the jaundiſe. Their leaues and ſtalks of ſtraw being ſodden in water ouer a good fire, yeeld a decoction, which beeing vſed as hot as may be ſuffered, doth mollifie the calloſities & hardneſſe growing about the feet: ſo doth a liniment alſo made of the very ſubſtance it ſelfe, ſtamped and applied hot.

The Columbine ciches ſodden in water, are thought to leſſen and ſhorten the ſhaking fits in tertian and quartan agues. The black cich-peaſe being beaten to pouder with halfe the quantity of gall-nuts, and incorporat with ſweet wine cuit, called Paſſum, and ſo applied, cureth the
B vlcers of the eyes.

As touching Eruile, ſomewhat I haue ſaid already touching the properties thereof, when I made mention of it among other kinds of pulſe. And indeed the old writers haue attributed as great power & vertue vnto it as to the Colewort. Being laid to with vineger, it cureth the hurts that come by the ſting of ſerpents, or the teeth of man & crocodile. There be writers of approued authority, who affirm for certain, That if a man doe eat Eruile faſting euery day, it will diminiſh and waſt the ſwelling of the ſpleen. The meale of Eruile (as *Varro* reporteth) taketh away the ſpots and moles of any part of the body. And in truth, this pulſe is ſingular to repreſſe corroſiue and eating vlcers: but aboue all, it is moſt effectuall in the ſores of womens breſts: applied with wine, it breaketh carbuncles. Being torrified and incorporat with hony, and reduced
C into an electuarie or bole, and ſo taken as much as an hazell nut, it amendeth the ſuppreſſion or difficulty of voiding vrine, diſſolueth ventoſities, openeth obſtructions, and helpeth other accidents of the liuer, the prouocations and proffers to the ſtoole without doing any thing: reuiueth thoſe parts that miſlike and feele no benefit or nutriment of meat, which they cal in Greek Atropha. In like manner it cureth ſhingles, ring-worms, and tettars, if it be firſt ſodden in vineger ſo applied, and not remoued vntil the fourth day. If it be laid too with hony, it keepeth biles from ſuppuration. A fomentation made with the decoction thereof in water, helps kibed heels, & the itch. And it is generally thought, That if a man drink it euery day next his heart vpon an empty ſtomack, it will make the whole body looke with a better and more liuely colour. Contrariwiſe, the common opinion is, That it is not good to be eaten ordinarily as meat; for it mo-
D ueth to vomit, troubleth the belly, lieth heauy vpon the ſtomack, and fumeth vp into the head: it breedeth ache and heauineſſe in the knees. But if it haue lien many daies in ſteepe, after that imbibition of water, it becommeth more mild, and is a moſt wholſom prouender for horſe and oxen. The green cods of Eruile before they waxe hard, if they be ſtamped with their ſtalkes and leaues together, do colour and die the haires of the head *blacke.

As touching wild Lupines, they be inferior to thoſe which come of ſeed, in all reſpects, but only in biterneſſe. And verily there is not a thing more commendable, wholſome, and light of digeſtion than white Lupines, if they be eaten dry. They are brought to be ſweet and pleaſant by hot aſhes or ſcalding water. Beeing eaten at meales vſually, they make a freſh colour and chearfull countenance. Bitter Lupines are very good againſt the ſting of the Aſpides. Dry Lu-
E pins husked & clenſed from their skins & applied to black & mortified vlcers, ful of dead fleſh, with a linnen cloth between, reduce them to a liuely colour, and to quick fleſh again. The ſame ſodden in vineger, diſcuſſe the kings euill, and the ſwelling kernels & impoſtumations behind the ears. The broth or collature of them being ſodden with Rue and Pepper, may be giuen ſafely, although it were in an ague, to thoſe that bee vnder thirty yeares of age, for to expell the wormes in the belly. As for young children who haue the wormes, it is good to lay Lupines to their bellie whiles they be faſting. All others are to take them torrified, either by way of drink in a kind of wine cuit, or els in electuary after the maner of a lohoch. The ſame do giue an edge to the ſtomacke, and quicken the appetite to meat. The meale or pouder of Lupines wrought with vineger into a dough or paſte, and ſo reduced into a liniment, and vſed in a bain or ſtouve,
F repreſſeth and keepeth down all wheales and itching pimples which are ready to breake forth: and of it ſelfe is ſufficient to drie vp vlcers. It bringeth to the natiue and liuely colour al places blacke and blew with ſtripes. Medled with Barly groats, it aſſuageth all inflammations. For the weakneſſe of the huckle bone, the haunch, and loins, the wilde Lupines are counted more effectual than the other. A fomentation with the decoction of theſe wild Lupins, maketh the skin more

* For that color in old time was beſt eſteemed, and thereby chaſte Matrons were knowne from wanton harlots, who affected yellow haire. *Alex. ab Alex.* 6.18.l.5.

20030 copy 1

more ſmooth and beautifull, taking away all ſpots and freckles. But if the ſame or garden Lupines be boiled to the height and conſiſtence of hony, they do clenſe the skin from black morphew and the leproſie. Theſe alſo if they be applied as a cataplaſme, do break carbuncles, bring down, or els ripen the ſwelling kernels named the kings euil, and other biles and botches, which of their nature be long ere they gather to head. Boiled in vineger, they reduce places cicatrized, to their naturall colour, and make them look faire & white again. But if they be throughly ſodden in rain water, of the collature that paſſeth from them, there is made an abſterſiue and ſcouring lie in manner of ſope, moſt excellent for to foment, gangrenes, ſmall pocks, & running vlcers. A drink made thereof, is ſingular for the ſpleene: and if hony be put thereto, it prouokes womens fleurs, which make no haſt downward. Take raw Lupines, ſtamp them with drie figges and vineger into a cataplaſme, and apply them to the ſpleen, it is an excellent remedy. The root alſo ſodden in water, prouoketh vrine forcibly. Lupines boiled in water with the herb Chamæleon, do cure the diſeaſes incident to ſheep and other ſuch ſmal cattell, if they do but thinke of this decoction. Let them be ſodden in the mother or lees of wine, or mingle both their decoctions therewith: they do heale the farſins, ſcab, and mange of all other foure-footed beaſts what ſoeuer. The fume of them as they burne, killeth gnats. G H

Concerning Irio, I ſaid before in the treatiſe of corne and pulſe, that it was like Seſama, and named by the Greeks Eryſimon, whereas the Gaules do call it Velarum. This plant brancheth very much, and beareth leaues like to Rocquet, but that they be ſomewhat narrower, and brings forth ſeed reſembling that of Creſſes. This Irio taken with hony in form of a lohoch, is excellent good for the cough, and thoſe who reach out filthy matter from their cheſt. Giuen it is for the jaundiſe, the diſeaſes of the loins, for the pleuriſie, the torments and wrings of the collicke, and the fluxes occaſioned by the debility and weakneſſe of the ſtomacke. Applied in form of a liniment, it is ſingular good for the inflammations behind the ears, for the cancerous vlcers alſo, and the ſymptoms thereto belonging. Laid to the cods with water, and otherwhiles with hony, it altereth their diſtemperature of heat, and the inflammations whereto they are ſubject. And ſoueraigne it is for infants. Likewiſe a cataplaſme made of it, with figs and hony, is ſingular for the accidents and griefes of the fundament, as alſo for the gout and pains of the joints. Taken in drink, it is an effectuall counterpoiſon. It cureth thoſe who are ſhort winded. Applied outwardly with old hogs-greaſe, it helpeth fiſtulous ſores, ſo there be care had that none of it go into the vlcers. I K

As for the graine Horminum, it hath a ſeed reſembling Cumin, as I haue ſaid before: otherwiſe it is like to * Porret: and groweth to the height of a ſpan or nine inches. Two kindes there be of it: whereof the one hath a blacker ſeed than the other, and ſomewhat long. * This hath power to prouoke luſt, and is much vſed for the pin and web, for the perle alſo in the eye: the other hath a whiter ſeed and rounder. Both the one and the other if they be ſtamped, draw forth pricks and thornes out of the body, if a liniment be made of them alone, and applied with water. But a cataplaſme of the leaues with vineger, or alone by themſelues, or elſe with honey, diſcuſſe and reſolue biles without ſuppuration. In like manner they diſpatch fellons, if they be taken before they grow to any head, and generally all tumors proceeding from ſharp and hot humors. And thus much of grain. L

* μέγιον for μάραβον, i. Horehound.

* He confoundeth (as it ſhould ſeeme) the vertues of Horminum, i. Clarie the hearbe, with the graine called alſo Horminum.

A ſtrange thing that Nature hath ſo ordained, That the very peſtilent weeds which plague corne, ſhould haue their vſe in Phyſicke. For firſt and formoſt there is Darnel, which albeit *Virgill* termeth Infœlix, *i.* vnhappy, yet if it be ground and ſodden in vineger, and ſo applied, it cureth tettars and dry ſcabs joined with a great itch: and the ſooner doth it the deed, the oftner it is remoued and changed. Darnell floure laid too, with Oxymell, cureth the gout & other pains. And to ſay a truth, the manner of this cure differeth from the reſt. For the preparing of which medicine, the ſaid floure muſt be ordered in this manner, & after this proportion: for euery ſextar of vineger, it ſufficeth to diſſolue therein two ounces of hony; take then three ſextars of this mixtion, and put thereto two ſextars of Darnell meale, ſodden to a thicke conſiſtence: which done, temper all together, and apply this cataplaſme to the grieued and pained members. The ſame meale draweth forth ſpils of broken and ſhiuered bones. M

A weed there is, called Miliaria, for that it killeth the grain Millet. Beat this to pouder, and mingle it with wine, then poure this drench with an horne downe the throat of laboring jades: they ſay it will cure their gouts.

As

A As for Bromos [*i.* wild Otes] which the Greeks take for the ſeed of a certain ſpiked or eared weed, counted it is for one of the imperfections growing among corne, and may be ranged with the kinds of Otes: for blade and ſtalk, it commeth neere to wheat; it beareth in the haw or head certain grains hanging down, which reſemble ſmall locuſts; the ſeed is good to be vſed in t.. e cataplaſms, into which barley and ſuch like do enter; the iuice or liquor made of it, is ſingular for the cough. A weed there is which we named Orobanche, for that it choketh Eruile and other pulſe: ſome call it Cynomorion, for the reſemblance that it hath to the cullions and pizle or genitall member of a dog. It riſeth vp in a ſmall ſtem without any leaues or blade: fatty it is and red: ſometimes it is eaten alone; otherwhiles it is ſerued vp tender ſodden, between two diſhes, with other viands. Moreouer, there do ingender in pulſe, certain little venomous vermins,
B who will pricke and ſting their hands who are imploied in the plucking, yea and put them in danger of their life: a kind they are of theſe Solifugæ or Solpugæ. The remedies for all theſe, be the ſame which are ſet downe againſt Spiders, and Phalangia.

Thus much as touching all kinds of graine, as far forth as they concerne Phyſick. But this moreouer is to be noted, that of corn there be certain drinks made; as namely, Zythus in Egypt; Cœlia and Ceria in Spaine; Ale and Beere and many more ſorts, in Gaule and other prouinces. Now the froth or barme that riſeth from theſe Ales or Beers, haue a property to keepe the skin faire and cleare in womens faces. But for the operation that Ale and Beere hath in them who drink thereof, I mean to paſſe them ouer here; for I thinke it better to proceed to the treatiſe of wine: but firſt I will diſcipher the medicinable vertues of trees, and begin with the vine
C

THE TVVENTY THIRD BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proeme.

THus far forth haue we gone ouer the vpper face of the earth, and ſhewed what medicinable vertues there be in all kinds of graine, as well corne as pulſe: as alſo what Phyſicke may be found in woorts and pot-hearbs: yea and in thoſe garden plants, which by reaſon of their faire floures and ſweet odours, ſerue mans turne for garlands and chaplets. It remaineth now to ſpeak of lady Pomona *and her gifts, who certes commeth not behind dame* Ceres *with all her riches. And verily this Nymph and goddeſſe* Pomona, *not content thus to protect, maintaine, and nouriſh vnder the ſhade of her trees, thoſe fruits of the earth aboue named; but diſpleaſed rather and taking ſcorne, that ſuch plants which grow farther from the Cope of Heauen, and began long after trees to come vp and ſhew themſelues, ſhould ſeeme to haue ſo many vertues: hath likewiſe furniſhed the fruits hanging vpon her trees, with their properties, and thoſe of no ſmall operation and effect in Phyſicke. And in truth, if we conſider and weigh the cauſe aright, ſhe it was that affoorded to mankinde the firſt food from thoſe her trees; inducing vs thereby to lift vp our eies and looke to Heauen-ward: yea and ſhe giueth the world to vnderſtand, that if* Ceres *and* Flora *both ſhould faile, ſhe with her goods only were able euen ſtill to ſuſtaine and feed vs ſufficiently. And to beginne with the Vine, which ought by right to be ranged in the higheſt ranke of all thoſe plants that beare the name of Trees: This bountifull Ladie not ſatisfied herein, that ſhee had done pleaſure vnto man in furniſhing him with noble perfumes, odours, and delicate Ointments, by meanes of the grape ver-*

20030 copy 1

juice, the Vine-floure Oenanthe, and namely the wilde Vine Massaris in Africke (according as I haue discoursed more at large heretofore;) hath therefore bestowed vpon Vines those medicinable vertues in greatest measure, and withall vsed these remonstrances vnto men in this manner: Call to minde (quoth shee) how many benifits and pleasures thou receiuest at my hands; Who is it but I, that haue brought forth Wine, that sweet juice of the Grape? Who but I, haue giuen thee Oyle, that daintie liquour of the Oliue? From mee, come Dates and Apples: from mee thou haste all Fruits of such varictie, that vnpossible it is to number them. Neither doe I dealc by thee as dame * Tellus doth, who bestoweth nothing vpon thee without labour and sweat of thy browes; nothing (I say) but before it doth thee any good, requireth tillage by Oxe and Plough, thrashing with flaile vpon the floore, or trampling of beasts feet vpon the mow, and then the Mil-stones to grinde it: Such adoe there is, and so long a time first, before thou canst enioy the benifit thereof for thy food. But contrariwise, whatsoeuer commeth from mee, is ready at hand; there needes no intreating of the Plough, nor any great labour and industrie to haue and inioy my fruits; for they offer themselues of their owne accord: yea, and if thou thinke much of thy paines to climbe, or to put vp thy hand and gather them, loe they are readie to droppe downe and fall into thy mouth, or else to lie vnder thy feet. See how good and gracious Nature hath beeue vnto vs herein, and how shee hath strouen with her selfe, Whether she should profit, or pleasure, man more! & yet I take it, that she affected Commoditie rather than Delight.

* The Earth.

G

H

For to come vnto the vertues and properties of the vine, The very leaues and tender burgeons thereof, applied with barley groats, do mitigate the paine of the head, and reduce all inflammations of the bodie vnto the due temperature. The leaues alone of the vine, laid vnto the stomack with cold water, allay the vnkinde heats thereof: and with barley meale, are singular for all gouts and diseases of the ioints. The tendrils or young branches of the vine being stamped and applied accordingly, drie vp any tumors or swellings whatsoeuer. Their iuice iniected or poured into the guts by a clysire, cureth the bloudy flix. The liquour concreat (which is in manner of a gumme issuing from the vine) healeth the leprie and all foule tettars, scabs and manges, in case the parts affected were prepared and rubbed before with salniter. The same liquor or gumme is likewise depilatorie: for if the haires be often annointed with it and oyle together, they will fall of: but the water especially that sweateth out of greene vine branches as they burne, hath a mightie operation that way, insomuch, as it will fetch off Warts also. The drinke wherein young vine tendrils haue lien infused, is good for those who reach vp and spit bloud; as also for women who beeing newly conceiued and breeding childe, haue many swawmes come ouer their heart, and be eftsoones subiect with faintings. The vine barke or rinde, likewise the dried leaues stanch the bleeding in a wound, yea and doe consolidate and heale vp the wound it selfe. The iuice drawne out of the white-Vine beeing stamped greene, and Frankincense together, take away shingles, ring-wormes, and such like wilde-fires, if it bee applied thereto. The ashes of the vine-stocke, vine-cuttings, and of the kernels and skinnes of grapes after they be pressed, applied with vineger vnto the seat or fundament, cure the piles, swellings, fissures, chappes, and other infirmities incident to that part: but incorporate with oile-Rosat, Rue, and vineger, they helpe dislocations, burnes, and swellings of the spleene. The same ashes strewed with some aspersion or sprinckling of wine, vpon S. Anthonies fire, without any oyle, doe cure the same: as also all frets and galls betweene the legges, and besides eat away the haire of any place. The ashes of vine-cuttings, besprinckled with vineger, are giuen to drinke for the diseases of the spleene; so as the Patient take two cyaths thereof in warme water, and when hee hath drunke it, lie vpon the spleene side. The very small tendrils of the vine whereby it climbeth, catcheth, and claspeth about any thing, being punned and taken in water, staieth and represseth vomiting in those, whose stomacks vse ordinarily to be keckliish and soone to ouerturne. The ashes of vines tempered with old hogges grease, is singular to abate swellings, to cleanse fistulous vlcers first, and soone after to heale them vp cleane: likewise for the paine of sinewes proceeding of cold, and for contraction and shrinking of the nerues: also for bruises, being applied with oyle. Moreouer, they eat away all excrescence of proud flesh about the bones, beeing tempered with vineger and niter: and last of all, mixed with oile, they heale the wounds made by scorpions or dogs. The ashes of the vine-barke alone, cause the haire to come againe in a burnt place.

I

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How grape veriuice should be made, when the grapes are young and nothing ripe, I haue shewed in the Treatise of Perfumes and Ointments. It remaineth now to discourse of the medicinable vertues thereof: and first to begin withall, It healeth all vlcers that happen in moist parts, and namely those of the mouth, Tonsils or Almond-kernels on either side of the throat, and of the priuie members: the same is soueraigne for to clarifie the eie-sight: it cureth the asperitie and roughneße of the eie-lids, the fistulous vlcers in the corners of the eies, the clowdes or filmes that shadow and couer the sight, the running sores

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in

A *in any part of the body whatſoeuer: the corrupt and withered cicatrices or ſcars, and the bones charged with purulent and skinny matter. Now if this veriuice bee too tart and eager, it may be delaied with honey or wine-cuit: and ſo it is good for bloudy flixes, and the exulceration of the guts, for thoſe who reiect and reach vp bloud, and for the Squinance.*

Next after the wine verjuice Omphacium, I cannot chuſe but write of Oenanthe, which is the floure that wild vines do beare, whereof I haue already made mention in my diſcourſe of ointments. The beſt Oenanthe is that of Syria, eſpecially along the coaſts and mountaines of Antiochia and Laodicea. That which groweth vpon the white vine, is refrigeratiue and aſtringent: being powdered and ſtrewed vpon wounds, it doth very much good: applied as a liniment to the ſtomack, it is exceeding comfortable. A proper medicine it is for the ſuppreſſion of vrine, the infirmities and diſeaſes of the liuer, the head-ache, the bloudie

B *flix, the imbecility of the ſtomack, and the looſeneſſe proceeding from it: alſo for the violent motion of cholerick humours proceeding vpward and downeward. The weight of one obolus thereof taken with vineger, helpeth the loathing that the ſtomacke hath to meat, and procureth appetite. It drieth vp the running ſcales breaking out in the head: and moſt effectuall it is to heale all vlcers in moiſt parts, and therefore cureth ſores in the mouth, priuie members, and the ſeat or fundament. Taken with hony and ſaffron, it knitteth the belly. The ſcurfe and roughneſſe of the eie-lids it doth cleanſe and make them ſmooth: it repreſſeth rheume in watrie eies. Giuen in wine to drink, it comforteth and confirmeth feeble ſtomackes; but in cold water, it ſtaies the caſting and reaching vp of bloud. The aſhes thereof is much commended in collyries & eie-ſalues;*

C *alſo for to mundifie filthy and vlcerous ſores; to heale likewiſe whit flawes riſing at the naile roots, and either the going away of the fleſh from them, or the excreſcence thereof remaining about them. For to bring it into aſhes, it muſt be torrified in an Ouen, and ſo continue vntill the bread be baked and readie for to bee drawne.*

As for Maſſaris, or the Oenanthe in Africke, it is imploied onely about ſweet odours and pomanders: and both it, as alſo other floures, men haue brought into ſo great name, by making haſte to gather them before they could knit to any fruit: ſo inuentiue is mans wit, and ſo greedy to hunt after nouelties and ſtrange deuiſes.

Chap. I.

D ¶ *The medicines which grapes freſh and new gathered do yeeld. Of Vine branches and cuttings: of grape kernels, and the cake remaining after the preſſe. Of the grape Theriace. Of dried grapes or Raiſins. Of Aſtaphis: of Staphis-acre, otherwiſe called Pituitaria. Of the wild vine Labruſca: of the wild vine both white and blacke. Of Muſts or new wines. Of ſundry kinds of Wine, and of Vineger.*

E OF Grapes that grow to their ripeneſſe and maturitie, the blacke are more vehement in their operation than the white: and therefore the wine made of them is nothing ſo pleaſant: for in very truth the white grapes be ſweeter far, by reaſon they are more tranſparent and cleare, and therefore receiue the aire into them more eaſily. Grapes new gathered do puffe vp the ſtomacke and fill it with winde; they trouble alſo the belly, which is the cauſe that men are forbidden to eat them in feuers, eſpecially in great quantity; for they breed heauineſſe in the head, and induce the Patient to ſleepe ouermuch, vntill hee grow into a lethargie. Leſſe harme doe thoſe grapes, which after they be gathered hang a long time: by which means they take the impreſſion of wind and aire, and ſo become wholſome to the ſtomacke and to any ſicke perſon; for they doe gently coole and bring the Patient to a ſtomacke againe. Such grapes as haue bin condite and preſerued in ſome ſweet wine, are offenſiue to the head and fume vp into the brains. Next in requeſt to thoſe

F aboueſaid, which haue hanged a long time, be ſuch as haue bin kept in chaffe: for as many as haue lien among wine-marc, or the refuſe of kernels & skins remaining after the preſſe, are hurtfull to the head, the bladder and the ſtomacke: howbeit they doe ſtop a laske, and nothing is there better in the world for thoſe that doe caſt and reach vp bloud: and yet thoſe grapes that haue bin kept in muſt or new wine, are much worſe than ſuch as haue lien in the marc aforeſaid.

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Moreouer, wine cuit, if they haue come into it, maketh them hurtfull and offensiue to the stomack. But if they must needs be preserued in some liquor, the Physitians hold them most wholsome which haue bin kept in rain water, although they be least toothsome: for they do the stomack a great pleasure in the hot distemperature thereof; they be comfortable when the mouth is bitter, by occasion of the regurgitation of choler from the liuer and the burse of the gal; they giue great contentment also in bitter vomits; in the violent and inordinat motion of cholerick humors raging vpward and downward; as also in case of dropsie, & to those that lie sick of burning feuers. As touching grapes preserued in earthen pots, they refresh and season the mouth which was out of tast: they open the stomack, and stir vp the appetite to meat: howbeit this inconuenience they bring with them, That they are thought to lie more heauy in the stomacke, by reason of the breath and vapor which exhaleth from their kernels. If hens, capons, cocks, and such like pullen, be serued among their meat with the floures of grapes, so as they once tast and eat thereof, they wil not afterwards peck or touch any grapes hanging by clusters vpon the vine. G H

The naked branches and bunches wherupon there were grapes, haue an astrictiue vertue; and indeed more effectual that way be such as come out of the pots abouesaid. The kernels or stone within the grapes, haue the same operation: and in very truth, these be they and nothing els, whereby wine causeth head-ach. Being torrified & beaten to pouder, and so taken, they be good for the stomack. Their pouder is vsually put into the pot in manner of barly groats for to thicken broth and suppings, which are ordained for them who haue the bloudy flix, who are troubled with a continual loosnesse following them by occasion of the imbecillity of the stomack; and for such as are ready to keck and heaue at euery little thing. Their decoction serueth very wel, to foment those parts which are broken out and giuen to bleach and itch. The stones themselues are lesse hurtful to the head or bladder, than the little kernels within. The same beeing driuen into pouder, and applied with salt, are good for inflammations of womens brests: the decoction thereof, whether it be taken inwardly, or vsed by way of fomentation, helpeth as well those who haue gone a long time with a dysentery, or bloudy flix, as them who through imbecility of stomack, do scoure and purge downward continually. I

The grape Theriace, whereof we haue written in due place, is good to be taken as a counterpoison against the sting of serpents: & it is a common receiued opinion, that the burgeons and branches of that vine, should likewise be taken inwardly as meat, & applied outwardly for the same purpose: as also that both wine and vineger which is made of them, is of singular operation to the same effect. K

The dried grape or raisin, which they call Astaphis, would trouble the stomack, belly, and intrails, but for the kernels that are within the stones, which serue as a remedy to preuent and cure those inconueniences; which being taken forth, raisins be thought good for the bladder: but particularly for the cough, those of the white grapes be the better. Soueraigne are they also for the wind-pipe and the reins: like as the sweet cuit which is made thereof hath a speciall power and vertue against the Hæmorrhois alone, of all other serpents. A cataplasme made of them, together with the pouder of Cumin or Coriander seed, applied to the cods, cureth their inflammation. Likewise, if they be stamped without their stones or kernels, together with Rue, they are singular good for carbuncles and gouts: but before this cataplasm be laid to any vlcers, they ought before hand to be bathed and fomented with wine. Applied with their stones, they heale chilblanes and bloudy falls, yea and ease the paines and wrings which accompany the bloudy flix. Of them boiled in oile, there is a liniment made, which being applied with the outward rind of a radish root and hony, helpeth gangrenes: but if there be Panace or Loue-ach added therto, the liniment cureth the gout, and confirmeth nails which be loose. Being chewed alone with some pepper, they purge the head and the mouth. L

Astaphis agria, or Staphis, which some (though vntruly) call Vva Taminia (for this is a seuerall kind by it selfe, growing vp with straight black stalks, and carying leaues like to the wilde vine Labrusca) beareth bladders or little cods more like than grapes, of a green color, & resembling cich-pease, within which is to be seen a three-cornered kernel: it waxeth ripe and beginneth to change colour and looke black, at vintage time: whereas we know that the grapes of the Taminian vine be red: also we are assured, that Staphis-acre loueth to grow in Sun-shine places, but the Taminian grape no where but in the shade. The said kernels I would not aduise to be vsed for a purgation, considering the doubtfull euent and danger that may insue of choking M

and

A and ſtrangulation: neither for to draw downe fleame and wateriſh humors into the mouth, for ſurely they be enemies to the throat and weaſin pipe. The ſame, if they be done into pouder, rid lice out of the head & al parts of the body beſides: which they do the better & with more eaſe, in caſe there be Sadaracha or Orpiment among. In like manner, they kill the itch and the ſcabs. For the tooth-ache, they vſe to be ſodden in vineger; for the diſeaſes alſo of the ears, for rheums and eating cankers of the mouth. The floure beaten into pouder and ſo taken in wine, is ſingular for the biting and ſting of ſerpents: for I would not giue counſell to vſe the ſeed, ſo exceeding hot it is and of ſo fiery a nature. Some call this herb Pituitaria, and apply it as a liniment to the ſores occaſioned by the biting of ſerpents.

As for the wild vine Labruſca, it carieth alſo a floure named in Greeke Oenanthe, whereof I
B haue written enough before. The wild vine which the Greeks name Ampelos Agria, hath thick leaues, and thoſe inclining to a white colour: the ſtalkes or branches be diuided by ioints and knots, & the bark or rind is all ouer ful of chinks & creuiſes: it beareth certain red grapes much like vnto the berries wherewith they colour ſcarlet; which being ſtamped with the leaues of the ſame plant, and applied with juice of the own, are good to cleanſe and beautifie the skin in womens faces; and beſides, do help the accidents and griefs that may befall to the haunch, huckle-bone, and the loins. The root boiled in water, and ſo taken in two cyaths of the * wine of the I- * Much like to our Malvaſey.
ſland Coos, doth euacuat watery humors gathered in the belly, and by conſequence is thought to be an excellent drink for them who are in a dropſie. And this is the plant, which in my iudgement ſhould be that vine which commonly is called in Latine Vva Taminia, rather than any
C other. Vſed much it is for a counter-charme againſt all witchcrafts: and giuen it is to gargariſe only with ſalt, thyme, and honied vineger or oxymell, to them that ſpit and caſt vp bloud, with this caueat, To let none of it go down the throat: and therefore men feare to purge therewith, ſo dangerous it is thought to be. Another plant there is much like to this, called in Latine Salicaſtrum, for that it groweth in willow rews: and albeit theſe two carry diuers and diſtinct names, yet they be of the ſame nature and property, and be vſed to the like purpoſes. Howbeit this Salicaſtrum is taken to be more effectuall of the twain for to kill the ſcab, ſcurfe, and itch, as well in men as in four-footed beaſts, if it be bruiſed and applied with honied vineger.

There is a certain wild white vine, which the Greekes call * Ampeloleuce, ſome Ophioſta- * Some take it for Bryonie.
phylon, others Melothron or Pſilothrum; ſome Archezoſtis or Cedroſtis, others Madon. This
D plant putteth forth long and ſlender twigs, parted and diuided by certaine joints or knots, and theſe climb vp and claſp whatſoeuer they meet withall. The leaues grow thick and full of tendrils or yong burgeons, as big as Iuy leaues, diuided & jagged in maner of other vine leaues: the root is white & big, like at the firſt to a radiſh; from which there ſpring certain ſhoots or ſions reſembling the buds of Aſparagus: theſe yong ſprouts ſodden & eaten with meat, purge both by ſiege and vrine: the leaues and branches be exulceratiue, and wil raiſe bliſters vpon the body; and therfore applied with ſalt as a liniment, they be good for corroſiue vlcers, gangrens, wolues, and the old morimall ſores in the legs. The ſeed or graine thereof is contained within certaine berries hanging down thin here and there in ſmall cluſters, which yeeld a certain red juice or liquor at the firſt, but afterwards it turneth to a yellow ſafron colour: this know the curriors well
E who dreſſe skins, for they vſe it much. There is an ordinary liniment made therewith, for ſcabs, mange, and leproſie. The ſeed being boiled with wheat, and ſo taken in drink, cauſeth nurces to haue good ſtore of milk. The root of this wild vine is very ſoueraigne, and ſerueth in right good ſtead for a number of purpoſes: firſt if it be powdered to the weight of two drams and giuen in drink, it is ſingular againſt the ſting of ſerpents: it is excellent to ſcoure the skin of the face, to take away all ſpots and ſpeckles, flecks and freckles, in any part of the body; the black and blew tokens of ſtripes, by reaſon of bruſed bloud lying vnder the skin; foul & vnſeemly ſwert skars, it reduceth to the freſh & natural colour: theſe operations it hath, being boiled in oile: the decoction alſo is vſually giuen in drink to thoſe who be ſubiect to the falling euill: likewiſe to ſuch as be troubled in mind & beſide themſelues: to as many as are giuen to dizzines & giddines of
F the brain, and do weene that euery thing turnes round; but they muſt take the poiſe of one dram euery day throughout the yeare. The ſame root if it be taken in any great quantity, * purgeth * Purgat, rather ruſheth out of Diaſcorides, throughout the ſences. But the principall and moſt excellent vertue that it hath, is this, That if it be ſtamped with water, and ſo applied, it draweth forth ſpels of broken and ſhiuered bones as well and effectually as the verie true Bryonie, which is the cauſe that ſome doe call it White Bryonie:

for there is another which is black,and of greater efficacie to the ſame purpoſe, if it be applied with hony & Frankincenſe.It is very good to reſolue impoſtumes and biles which are in growing, and not yet come to ſuppuration; but if they haue continued and gather to an head, it bringeth them ſoone to maturation,and afterwards clenſeth them. It bringeth downe womens monthly ſickneſſe,and prouoketh vrine. An electuary or lohoch made therof, to licke,and ſuffered gently to melt vnder the tongue and go downe leiſurely,is ſingular good for ſuch as bee ſhort-winded and labour for breath: alſo for pleuriſies or pains of the ſide, for convulſions and inward ruptures.If one drink the weight of three oboli 30 daies together, it will waſt and conſume the ſwelled ſplene. The ſame ſerueth in a liniment to be applied with figs to the excreſcences or riſings of the fleſh ouer the naile,called Pterygia.Being laid too as a cataplaſm with wine,it fetcheth away the after-birth in women: and taken to the weight of a dram, in honied water,it purgeth flegmatick humors. The juice of the root muſt be drawne before the fruit or ſeed be ripe:this juice either alone,or incorporat with Eruile meale, if the body be annointed therewith doth illuſtrat the colour,make the skin ſoft and tender;and in one word it is ſuch an embeliſhment,that it maketh any perſon better for the ſale: [* where by the way note, that it chaſeth ſerpents away.]Moreouer,the very ſubſtance of the root, if it be ſtamped with fat figs, doth lay the riuels and wrinckles of the skin plain and euen, if it be rubbed or annointed therewith:but then the party muſt walk immediatly vpon it,a good quarter of a mile; for otherwiſe it will fret and burne the skin, vnleſſe preſently it be waſhed off with cold water. Howbeit the black wild vine doth this feat more gently and with greater eaſe,for ſurely the white ſetteth an itch vpon the skin. There is therfore a black wild vine,which properly they call Bryonia, ſome Chironia,others Cynecanthe or Apronia, like in all reſpects to the former, but only in the colour[of the root grape or berry]for it is black,as I haue before ſaid. The tender ſprouts & ſions that ſpring from the root,*Diocles* preferred to be eaten in a ſallad or otherwiſe, before the very crops and tender ſhoots of the true garden Sperage; and indeed they prouoke vrine and diminiſh the ſpleen far better:it groweth commonly in hedges among buſhes and ſhrubs, and moſt of all in reed-plots. The root without-forth is blacke,but within of a pale yellow box colour; and this is of much more efficacie to draw out broken bones than the aboue-named white Briony. Moreouer,this peculiar property it hath beſides,To cure the farcines or ſores in horſe necks and for this,it is thought to be the only thing in the world. Said commonly it is, that if a man do ſet an hedge or hay thereof round about a grange or ferm houſe in the country,there will no kites nor hawks,nor any ſuch rauening birds of prey,come neere;ſo as the pullen and other foul kept about the ſaid ferme,ſhall be ſecure from their claws or tallons.If it be tied about the ankles of a man,or the paſterns of laboring horſes,vnto which there is a fall either of Phlegmatick humors,or of a bloud,cauſing the gout in the one and the pains in the other,it cureth the ſame. Thus much concerning the ſundrie ſorts of Vines, and their properties reſpectiue to Phyſicke.

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* I ſee no reaſon of this clauſe here, but thinke it ſuperfluous, according to ſome manuſcript copies.

As touching Muſts or new wines,the firſt and principall difference of them lieth in this,that ſome by nature are white,others blacke,and others again of a mixt colour between them both. Secondly,ſome Muſts there be,whereof wine is made;and others,which ſerue only for cuit:but if we regard the artificiall deuiſes and the carefull induſtry of man about them, there be an infinit number of muſts all diſtinct and different one from the other. Thus much may ſuffice to deliuer fully in generall terms concerning muſts or new wines. As for their properties,There is no muſt or new wine,but it is hurtfull to the ſtomack, though otherwiſe pleaſant to the veines and paſſages. Certes, if a man poure downe new wine haſtily, without breathing or taking the wind between,preſently as he commeth out of the bain or hot-houſe, hee doth enough to kill himſelfe. Howbeit,of a contrary nature it is to the Cantharides,& ſaueth thoſe that are in danger by drinking them. A ſingular counterpoiſon is new wine in the lees,againſt al ſerpents,but principally the Hæmorrhoids and the Salamanders. It cauſeth head-ache, and is an enemy to the throat and windpipes:wholſome it is for the kidnies, the liuer,and the inward parts of the bladder,for it eaſeth them all of pain. But a ſingular vertue it hath againſt the venomous worm or flie Bupreſtis,aboue the reſt: if one drink it with oile,and caſt it vp againe by vomit, it is an excellent remedy for thoſe who haue taken too much Opium: it helpeth thoſe who are in danger of crudled milk within the body:ſuch alſo as are poiſoned with hemlock, envenomed with the poiſon Toxica & Dorycnium. In ſum,white new wine is not ſo powerful in operation as o-

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thers.

A thers. Likewiſe, the Muſt, wherof cuit is made, is pleaſanter than the reſt, & cauſes leſſe headach.

As touching the ſundrie kinds of wine, which are exceeding many as alſo the vertues, and properties of euery ſeueral ſort in manner by it ſelfe, I haue ſufficiently diſcourſed in a former Treatiſe. Neither is there any point more difficult to be handled, or that affourdeth greater variety of matter. And a man canot readily ſay, Whether wine be more hurtfull or wholſome for our bodies? conſidering the doubtful euent and iſſue preſently on the drinking therof, for that ſomtime it is a remedy and a helpe, otherwhiles it proueth to be a miſchiefe and a very poiſon. For mine owne part, according to my firſt deſſign and purpoſe, I am to treat only of ſuch things as Nature hath brought forth for the health and preſeruation of man. Wel I wote, that *Aſclepiades* hath made one entire volume expreſſely, of the manner how to giue wine in drinke. Vpon
B which treatiſe or book of his, an infinit number there were who haue written their Commentaries. As for me, according to that grauity which beſeemeth Romanes, and to ſhew affection and loue to all liberall Sciences, I will not diſcourſe thereof as a Phyſician, but with great care and diligence write ſo diſtinctly, as a deputed judge or arbiter delegat to determin of mans health, and the preſeruation thereof. To diſpute and reaſon of euery ſeuerall kind, were a endles peece of work, and ſo intricat, as I wot not how a man ſhould rid himſelfe out of it, if he were once entred; ſo repugnant and contrarie are the Phyſicians one to another in that argument.

To begin firſt with the wine of Surrentum, our ancients haue held it ſimply for the beſt aboue all others. But our later and more moderne writers, haue made greater account of the Albane and Falerne wines. In ſumme, euery one hath iudged of the goodneſſe of wine, according to his
C owne conceit and fantaſie: a moſt vnequall courſe of proceeding, without all reaſon and congruitie, to pronounce definitiuely vnto al others that for beſt, that pleaſed and contented his owne taſt moſt. And yet ſet the caſe and ſay, they were all agreed and of one opinion as touching the moſt excellent wines; How is it poſſible, that the whole world ſhould enioy the benefit thereof, ſince that great lords and princes themſelues haue much adoe to meet with pure and perfect wines, without one ſophiſtication or other? In good faith, the world is grown to this abuſe, that wines be bought and ſold now at an higher or lower price, acording to the name and bruit that goeth onely of the cellars from whence they come: whereas in truth, the wines were marred and corrupted at the firſt in the very preſſe or vatt, preſently after the vintage and grape-gathering. And therefore it is, that now adaies (a wonderfull thing to be ſpoken) the ſmalleſt and baſeſt
D wines are of all others leaſt ſophiſticate and moſt harmeleſſe. Well, how ſoeuer it be, and admit the nobleſt kinds of wine are moſt ſubject to thoſe bruings and ſophiſtication, which make indeed the ods that is; yet thoſe wines beforenamed, to wit, the Falern, Albane, and Surrentine, do ſtill import and carrie away the victory and priſe from all the reſt, by the generall voice & conſtant ſentence of al writers. As touching the Falerne wine, it is not wholeſome for the body, either very new, or ouer old; a middle age is beſt, and that begins when it is fifteen yeres old, and not before. This wine is not hurtfull to a cold ſtomacke: but I cannot ſay of a hot ſtomack. If it be taken alone and pure of it ſelfe in a morning, and drunke faſting, it doth much good to them who haue bin troubled with a long cough, or vexed with a quartan ague. And verily, there is not a wine that ſtirreth the bloud and filleth the veines ſo much as this. It ſtaieth the laske, &
E riſheth the body. Howbeit generally receiued and beleeued it is, That this wine dimmeth the eye ſight, and doth no good to the bladder and neruous parts. And indeed, the Albane wines agree better with the ſinews. And yet the ſweet wines that come from the vineyards of the ſame tract are not ſo wholeſome to the ſtomack: but the harſh and hard auſtere wines of this kind, be in that regard better than the Falerne wines aboueſaid. And in one word, theſe Albane wines help digeſtion but little, and in ſome ſort ſtuffe and fil the ſtomacke. But the Surrentine wines charge not the ſtomacke any jot, nor yet fume vp in the head: nay, they reſtrain and repreſſe the rheumaticke fluxions both of ſtomacke and guts. As for the wines of Cæcubum, they bee now paſt date, and none of them are made any more. But thoſe of Setinum, that remaine ſtill and be in ſome requeſt, doe mightily aid concoction, and cauſe the meat for to digeſt. In a word, Sur-
F rentine wines haue moſt ſtrength, the Albane drink harder, and the Falerne be more mild and nothing ſo piercing as the reſt.

The Statane wines come not far behinde theſe abouenamed. As for the Signine wine, out of all queſtion it is ſimply the beſt to bind the body, & ſtop a vehement flux: thus much for wines and their properties in particular. It remaineth now to ſpeake of their vertues in generall.

First

Firſt and foremoſt, wine maintaineth and fortifieth the ſtrength of man, engendreth good G
bloud,and cauſeth a freſh and liuely colour. And herein verily conſiſteth the principall diffe-
rence betweene our temperat climat within the heart (as it were) and middle part of the world,
from thoſe intemperat Zones on either hand. And looke how much the diſtemperature of the
two Poles,worketh in the inhabitants of thoſe parts, and hardneth them to endure and ſupport
all kind of trauell: ſo much doth this ſweet and pleaſant liquor of the grape enable vs to abide
and ſuffer the like labour. And becauſe we are entred into this theame, note thus much moreo-
ner, That the drinking of milke nouriſheth the bones: of beere and ale, and ſuch like, made with
corne; feedeth the ſinewes and neruous parts: but of water, maintaineth the fleſh and brawnie
muſcles onely. Which is the cauſe, that ſuch nations as drinke either milke, ale, beere, &c. or
ſheere water, are nothing ſo ruddie of colour, nor ſo ſtrong and firme to vndergoe painefull tra-
uell, as thoſe, whoſe ordinarie & familiar drink is wine. And in truth, as the moderat vſe of wine
comforteth the ſinews & helpeth the eyeſight; ſo the ouer-liberal taking thereof offendeth the H
one, and enfeebleth the other. Wine recreateth & refreſheth the ſtomack: wine ſtirreth vp the
appetite to meat: wine allaieth ſorrow, care, and heauineſſe: wine prouoketh vrin, and chaſeth a-
way all chilling cold out of the body. Finally, wine induceth ſleep and quiet repoſe. Moreouer,
this good property hath wine, To ſtay the ſtomack & repreſſe vomits, taken into the body: and
without-forth applied with wooll embrued and bathed therein, to diſſipat and reſolue all ſwel-
ling apoſtumes. *Aſclepiades* was ſo addicted to the praiſe of wine, that he baſhed not to make
compariſons & pronounce, that the power and puiſſance of the gods was hardly able to match
and counteruaile the might and force of wine. Moreouer, this is to be noted, that old wine will I
beare a greater proportion of water than new, and prouoketh vrine more: although it withſtand
and allay thirſt leſſe. Sweet wines do not ſo much inebriate and ouerturne the brain, as others;
but they flote aloft in the ſtomacke: whereas auſtere and hard wines be lighter of digeſtion and
ſooner concocted. The lighteſt and ſmalleſt wine is that which ſooneſt commeth to his age,
and ſheweth it moſt quickely. The wines which by age and long keeping, lay downe their ver-
dure and become ſweet, are leſſe hurtful to the ſinews than others. The groſſe, fattie, and blacke
wines, are not ſo good for the ſtomack; howbeit, they be moſt nutritive: for the thin and bruske
harſh wine nouriſheth the body leſſe; but yet more agreeable and nutritiue it is to the ſtomack.
It paſſeth more ſpeedily away by vrine, but fumeth vp ſo much the rather into the head. And K
take this for a generall rule once for all, not only in wines, but in any other liquors whatſoeuer,
that be penetratiue, ſubtile, and piercing, That they be alwaies offenſiue to the head, howſoeuer
otherwiſe they be piercing and paſſe ſoone away. Furthermore, wines that are laid vp in ſmokie
places, therby ſooner to ſeeme refined and old, are of all others moſt vnwholſome. But this and
ſuch caſts were deuiſed by huckſters, vintners, & tauerners, after the wines were laid vp in their
cellars. And now adaies good houſekeepers alſo haue inuented means to renue their wines, and
make them ſeem freſh and new, after they haue by long lying gotten a fuſty rotten taſt, and ga-
thered a mouldy mother of themſelues, which is called Caries in Latin. And verily, our aunci-
tors by vſing this tearme, in wines ouerſtale and kept ouer their due age, haue giuen vs counſell
and taught vs ſufficiently, how to take away this vnpleaſant taſt of wine, (*i.*) by ſmoake: for like
as ſmoake eateth away and conſumeth the moiſture and mouldineſſe in timber, which cauſeth L
rottenneſſe, ſo it doth in wines. But we forſooth, contrariwiſe are perſuaded, that the bitterneſſe
of ſmoke, when it hath caught the wine, maketh it to appeare ſtale & old. Such wines as be very
pale and whitiſh, proue the better and more wholeſome by age and long lying: the more excel-
lent that the wine is and of the kindlier grape, the thicker and groſſer it waxeth by age; and in
this gathering turneth to a kind of bitterneſſe, which is hurtful to mans body. Alſo, as vnwhol-
ſome it is to mix, ſeaſon, and confect therewith ſome other wine, that is not ſo old, & ſo to keep
or drinke them together. Each wine agreeth beſt with the ſtomack, and doth leaſt harme, when
it hath no other liquor nor taſt, but the owne, and euery wine is moſt pleaſant and delightſome
when it is taken in due time, that is to ſay, neither old nor new, but of a middle age, which is the
very floure. Such perſons as would feed, and deſire to be corpulent, or to keep their bodies ſolu- M
ble, and haue the riddance of their bellie at commaund, ſhall do well to drinke often at their re-
paſt: Contrariwiſe, they who feed ouermuch, and deſire to be gant and ſlender, and withall, to be
coſtiue, ought to forbear drinking at meales, ſo long as they eat, but after meat they may drink
moderatly. To drinke wine vpon an emptie ſtomacke faſting, is a new found deuiſe lately come

vp,

A vp,and it is moſt vnwholeſome for the body, and namely for thoſe who are to goe into the field for to fight a battell: for it hindereth the forecaſt of the mind, and dulleth the vigor and quickneſſe of the ſpirit:fitter indeed to bring and lull men aſleep in the bed of ſecuritie:certes,it was a practiſe long agoe among ſuch as deſired reſt and peace, and who loued to ſleepe in a whole skin,for to drinke wine faſting: for ſo we read in *Homer*,how *Helena* that faire ladie, preſented a cup of wine before meat. And hereupon came the prouerbe, That wine doth ouerſhadow and darken the light of wiſdome & vnderſtanding:verily we that are men haue this property aboue all other liuing creatures,and we may thanke wine for it,That we drinke many times when wee be not dry nor a thirſt. And therfore paſſing good it is to drink fair water otherwhiles between. In like manner ſuch as vſe ordinarily to be drunk,& are lightly neuer ſober, ſhall not do amiſſe
B to take a good draught of cold water preſently vpon their liberall pouring in of wine,for it will forthwith diſpatch and diſcuſſe thoſe fumes which cauſe drunkennes. *Heſiodus* giueth counſell to drinke wine ſomewhat delaied with water, for 20 daies before the riſing of the Dog ſtar,and as many after. True it is indeed,that Mere* wine not delaied,is a remedy againſt hemlock; Coriander,the poyſon Aconite or Libard-baine,the venomous gum of the plant Chamæleon,called Ixia,Opium,or the juice of Poppie,and Quickeſiluer:alſo, for ſuch as haue been ſtung with Bees Waſpes,and Hornets,the venomous ſpiders Phalangia,Serpents,and Scorpions,and generally,againſt all thoſe poyſons,which by reaſon of a cold quality moritifie naturall heat. But particularly it is a ſpecial countrepoiſon againſt the venomous worms called Hemorrhoids & Preſters,as alſo the deadly Muſhroms. Ouer and beſides,ſingular good is wine againſt ventoſi-
C ties, gripings, and gnawings about the midriffe and precordiall parts about the heart: alſo for thoſe,whoſe ſtomacks are ready euery while to ouerturne & caſt:and where the belly or entrails be troubled with rheumatick fluxes. Semblably,wine a little delaied,is ſingular for the bloudy flix:for ſuch as be giuen to faint ſweates,old coughs,and any violent fluxes either into the eyes or other inferiour parts. But a fomentation of meere wine may be applied with a ſpunge to the left pap in the caſe of the Cardiacke paſſion,which is a feebleneſſe and trembling of the heart. And in theſe caſes white wine is better than any other,ſo it be of ſom reaſonable age. Alſo it is found by experience,That horſes and ſuch beaſts,either for the ſaddle and pack or draught, become very luſty,if their ſtones or genetors be bathed with wine hot:& when they be tired out, there is nothing (by report) better to refreſh their courage, than to poure wine into them with
D an horne. Apes and Marmoſets,and other four-footed beaſts,whoſe feet are diuided into claws or toes,will not grow (men ſay) if they be vſed to drinke pure wine. But it is my purpoſe now to treat of the properties of wine,touching Phyſick and the cure of maladies. For gentlemen,well born and bred,who haue wherwith,and may haue what they wil,the wines of Campain I count wholſomeſt,ſo they make choiſe of the ſmalleſt and the thinneſt. But the common ſort may be Phyſicians to themſelues, and drinke euery man what wine he liketh moſt, and findeth beſt to agree with him. Howbeit to ſpeake generally, the wholeſomeſt wines both of the one ſort and the other,and for all perſons, be ſuch as haue run through a ſtrainer or Ipocras bag,and thereby loſt ſome part of their ſtrength. But this we muſt remember euery one of vs,That the liquor of wine gets all the force and ſtrength that it hath by working, ſpurging,and ſeething(as it were)
E in the lees while it is Muſt. To mingle ſundry kinds of wine together,can be good for none,either rich nor poore. Contrariwiſe, that wine is held moſt healthfull, that is of it ſelfe,and had nothing put thereto in the firſt vatt or veſſell when it was new and meere Muſt of the grape,and the better will it bee, if there come no pitch into the barrells or veſſells wherein it is tunned or filled. For as touching thoſe wines, that are medicined with marble,plaſtre,and quickelime, what a man is he(were he neuer ſo healthy & ſtrong)but he may be afraid well ynough to drink thereof? wel then,wines either tunned vp or delaied with ſea water,be hurtfull to the ſtomack, ſinewes,and bladder,as much as any other. As for the wines dreſſed and confected with Parrozine,they are thought to be wholſom for cold ſtomacks:but contrariwiſe,good they are not for ſuch as are prone to vomit,no more than Muſt it ſelf,or cuit,whether it be ſapa or paſſum:wine,
F wherin roſin hath bin newly put, is not for any man to drink;for it cauſeth headach,ſwimmings and dizzineſſe in the brain:and no maruel if this mixture be called Crapula,for it intoxicateth the braine. Howbeit,theſe wines thus brued and dreſſed with roſin,are good for the cough and all rheumes;likewiſe, for feeble ſtomacks and the flux thereof enſuing;as alſo in dyſenteries or exulcerations of the guts,and their bloudy flix;and laſt of all,for womens termes. In theſe kind

of

* *Merum*;

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of wines thus mixed and ſophiſticated, the claret or deep red are more aſtringent and hot than G
all others. Leſſe harme yet commeth of thoſe wines which bee prepared with pitch alone, and
nothing elſe. Neuertheleſſe, we muſt not forget, that pitch is nothing elſe but the liquor that
runneth from burnt Parrozin. And in truth, theſe wines that ſtand vpon pitch, doe heat the ſto-
macke, helpe concoction, and purge offenſiue humours: they be good for breaſt and belly: alſo,
comfortable to the matrice, for they doe allay the paines thereof, if the women haue no feaue-
rous diſpoſition; and doe cure Rheumes and Catarrhes, which haue continued their courſe a
long time: they heale inward vlcers, ruptures, ſpaſms, and convulſions; impoſtumes bred within
the interiour parts, feebleneſſe of the ſinewes, ventoſities, coughs, purſiueneſſe, wheezing, and
ſhortneſſe of breath; and finally, helpe diſlocations, beeing applied with vnwaſhed and greaſie
wooll, as it grew in the fleece. But note, that for all theſe infirmities abouenamed, the wine is H
more effectual, which naturally hath the taſt of pitch, and therupon is called Picatum, than any
other, that by artificiall meanes is dreſſed and prepared with pitch. And yet the wines made of
the Heluenake grapes, if a man drink ouer-liberally of them, are wel known to trouble the head,
notwithſtanding they taſt of pitch naturally. To come now vnto the diſeaſe, which we call the
feuer or ague, this is certaine, That wine ought not to be giuen in that ſickneſſe, vnleſſe the pa-
tient be well ſtept in yeres and aged, the diſeaſe chronicke and of long continuance, or that the
ſickneſſe begin to decline and weare away: for in hot, quick and ſharpe feauers, which common-
ly be very dangerous, the ſicke perſons, be they young or old, ought to be reſtrained altogether
from wine; except a man may euidently perceiue ſome remiſſion or alleuiation of the diſeaſe:
and the ſame rather in the night, than by day time; for certainly, the daunger is leſſe by the one I
halfe, if they drinke wine toward night, and in hope to procure ſleepe. Moreouer, women newly
deliuered & brought to bed (whether they went the full time, or ſlipt an abortiue fruit vntime-
ly) are not allowed in any caſe to drink wine: neither thoſe perſons who haue weakned their bo-
dies with the immoderat vſe of women, and thereupon fallen ſicke: ne yet ſuch as be ſubject to
the headach: no more than thoſe, who during the fits of agues, feele their legges and other ex-
treame parts to be cold: or haue a cough ioined with their feauer. Moreouer, wine is an enemie
to all thoſe who haue a ſhaking and trembling of their joints, or be pained either in their ſi-
newes or throat. Furthermore, in caſe the force of the diſeaſe be knowne to lie much about the
*Circa ſſia. * ſmall guts and hypocondriall parts, the patient muſt altogether forbeare to drink wine. They
are to abſtaine likewiſe when there is any hardneſſe felt in the midriffe and precordiall parts: K
and when the pulſes beat mightily, and goe faſter than ordinarie. Semblably, in caſe the cramp
doe draw the necke farre backe with a cricke, ſo as the head cannot ſtirre forward: or take the
whole bodie ſo, as it is not able for to turne any way, but ſeeme as ſtiffe as if it were all of one
peece; no wine muſt be giuen vnto ſuch a patient. In like ſort, thoſe are forbidden to drinke
* Eſpecially if it proceed fró ſome hot or ſharpe humor. wine, who are giuen to * yexing: and much more they, who in an ague labor for breath, and
draw their wind hardly. But moſt of all muſt the ſicke be kept from wine when their eies be ſet
in their head, and their eye-lids ſtand ſtiffe and ſtarke, with their eyes broad open: or bee ſhut,
by reaſon that they are weake and heauie. Alſo, they muſt auoid wine (if they bee wiſe) who in
their ſickneſſe, as they winke or twinckle with their eyes, doe imagine that they ſparkle & glit-
ter againe: like as thoſe who cannot lay their eyes together and cloſe their lids, but ſleepe open L
eyed. And euen ſo they ought to flie from drinking of wine whoſe eyes be red and bloud-ſhot-
ten, or otherwiſe giuen to bee full of viſcous and gummie matter. Neither are they permitted
to drinke any wine, who eftſoones ſtut and cannot pronounce their words perfectly, whether it
bee, that their tongue bee ouer-light and ſpongeous, or otherwiſe dull and heauie: no more
than thoſe, who hardly and with much difficultie, make water: who are affright ſodainly at eue-
ry little thing that they heare or ſee: who are giuen to crampes and crickes: ſuch alſo as other-
whiles lie benummed, as if they were dead aſleepe. And laſt of all, as many as ſhed their ſperme
involuntarily in their ſleepe. True it is, and no man maketh any doubt, That the onely hope
and right way to cure them, who in the Cardiake diſeaſe, for very faintneſſe are troubled with
the trembling and ſhaking of the heart and giuen vnto diaphoreticall ſweats, conſiſteth in M
the drinking of wine. And yet in the manner thereof, Phyſicians are not agreed: For ſome
are of aduiſe, not to giue it but in the very fit and extremitie of the diſeaſe: others againe pre-
ſcribe it at no time elſe, but when the violence of the fit is paſt, and the patient at ſome eaſe.
They who are of the former opinion, haue a regard to their ſweat, for to repreſſe it: but theſe

haue

A haue an ey to the danger of the patient,being of this mind,that it is a more ſafer courſe to giue wine when the violence of the ſickneſſe abateth. And indeed of this judgement I ſee that moſt Phyſicians are. As touching the time to drinke wine,this is certaine,that good it is not but at meat:neithe r preſently after ſleepe,nor immediatly vpon any other drinke,which is as much to ſay,as neuer but when a man is drie and thirſty. Neither muſt a ſicke man be allowed it, but in caſe of neceſſity or deſperat extremity.In ſumme,we graunt it to men rather than to women:to aged perſons ſooner than to young folke:and yet to a luſtie young man,before a child:in Winter oftner than in Summer, and to conclude, to ſuch as bee accuſtomed thereto more than to thoſe who haue not drunke thereof beforetime. A meaſure alſo and mean would be kept,in the allowance of wine,according to the ſtrength thereof,and the proportion of water mixed there-
B with:and the common opinion importeth thus much, That to one cyath of wine it is ſufficient to put two cyaths of water ordinarily. But in caſe the ſtomack be weak & feeble,ſo as the meat digeſt not nor paſſeth away downeward, meer wine is to be giuen to the patient,or at leaſtwiſe in greater proportion to the water.

But to retuin again to thoſe artificial and made wines,I haue heretofore ſhewed many ſorts therof:the making of them is at this day giuen ouer,as I ſuppoſe,and their vſe needleſſe and ſuperfluous,conſidering that now we giue counſel & preſcribe,to vſe the very ſimples themſelues in their owne nature,which go to their compoſition. Certes,beforetime the Phyſicians vpon a vain oſtentation, becauſe they would ſeem to haue their apothecary ſhops furniſhed with ſuch variety, exceeded all meaſure in this behalfe:inſomuch,as they were prouided of a wine,made
C forſooth of Nauewes,bearing the world in hand,that it was ſingular good for militarie men, if they found themſelues ouerwearied either with the practiſe or the bearing of arms,or in riding their horſes:yea,and to ſay nothing of all the reſt,they had the wine alſo of Iuniper:but is there any man ſo fooliſh,as to think and maintain, That Wormwood wine ſhould be more profitable to our bodies,than Wormewood the hearb it ſelfe ? What ſhould I ſtand vpon the wine of dates;among others of this range,conſidering that it cauſeth head-ach,and is good for nothing els but * to eaſe the coſtiueneſſe of the body,& for ſuch as reach vp bloud ? As for that which we called* Bion,I canot ſee or ſay,that it is an artificiall wine:for ſurely,al the art and cunning that goeth to the making of it,lieth in this only, That it is made and huddled vp in haſt:& yet profitable it is for a weake ſtomack readie to ouerturn,or that is not able to concoct and digeſt
D the meat within it, wholeſom for * women with child:comfortable to thoſe who be feeble and faint:good for the palſie,the ſhaking of the lims, the ſwimming and giddines of the head, the wrings and torments of the belly.and the gout Sciatica:moreouer it hath the name for to haue a ſingular vertue to helpe in time of plague,and to ſtand them in great ſtead who are pilgrimes and trauellers into far and ſtraunge countries.Thus much may ſuffice for Wines.

* Contrarie to *Dioſcorides*, who giueth it *Cœliacis & dyſentericis*.
* or *Biæon*.
* Troubled with *κυρσὰ* and *μαγμώδη*, a corrupt and deprauate appetite, longing after this and that, and not alwaies the beſt things.

Moreouer,ſay that wine be turned,corrupted,and changed from the own nature,yet it leaueth not to retain certaine vertues and properties requiſit in Phyſicke:for vinegre alſo is medicinable. Exceeding refrigeratiue it is,& cooleth mightily:howbeit,no leſſe vertue and force it hath to diſcuſſe and reſolue:an euident proofe wherof we may ſee in this, That if it be poured on the ground,it will fome and caſt a froth. Concerning the manifold operations that it hath in com-
E poſition with other things,I haue written oftentimes alreadie,& wil write ſtil as occaſion ſhall ſerue.But vinegre, euen taken alone by it ſelfe,fetcheth the ſtomack & appetite again to meat, and ſtaieth the yex or hocquet:and if it be ſmelled vnto,it ſtinteth immoderat ſneeſing. Being held in the mouth,it preſerues folk from fainting with extreme heat,while they are in the bain or hot houſe.Of it and water together there is made Oxycrat, which is a drink more mild than vinegre alone. And the ſame with water is comfortable to thoſe who vpon the Suns heat haue gotten the headach or a day-feuer and be newly recouered:being vſed alſo in the ſame ſort with water,it is counted moſt wholeſom for the inflammation or rheum of the eies. A fomentation with oxycrat or water and vinegre,is ſingular good vpon * burns,ſcaldidgs,or riſing of the pim-
F ples.In like maner it cureth the leproſie,ſcurfe,and dandruffe,running vlcers and ſcals,bitings of dogs,ſtinging with ſcorpions,ſcolopendres,and hardiſhrews;and generaly,it is good againſt all prickes of venomous beaſts,or pointed darts,and any itch whatſoeuer. Likewiſe againſt the biting or prick of the* Cheeſlip or Many-foot worme.Applied hot with a ſpunge to the ſeat,it is ſingular for the infirmities of the fundament. But for this purpoſe there muſt be a decoction or fomentation made, with three ſextars of vinegre, whereunto there ſhould be put of Sulphur

* *Poſt vredines*, Some read *hirudines*, i. after the ſucking of Horſe leeches.
* *Multipeda*, called otherwiſe *Sepa*.

or

or Brimſtone two ounces,or a bunch of Hyſſop, and then ſet ouer the fire for to boile together. G
In caſe of much effuſion and loſſe of bloud,which enſueth and followeth thoſe who are cut for the ſtone,or any thing els taken out of the body;ther is nothing better than to foment the place without-forth,with the ſtrongeſt vinegre that may be had,in a ſpunge,and then to take inwardly in drinke 2 cyaths of the ſame:for ſurely it cutteth and diſſolueth the cluttered bloud lying within-forth. Vinegre taken inwardly & applied outwardly,cureth the filthy tettars called Lichenes. Being miniſtred by way of clyſter,it knitteth the belly,and ſtaieth al rheumatick fluxes that haue taken a courſe by the guts and entrails. And the ſame helpeth as well the fall and ſlipping downe of the Longeon or fundament, as the laxitie and hanging forth of the Matrice.
*For it ſtirreth the cough at the beginning. *Dioſcorides.* An * old cough it reſtraineth: the rheumes alſo and catarrhes it repreſſeth, which light on the throat and windpipe:it openeth the paſſages in them who labor for breath, & canot take their H
wind but ſitting vpright:it confirmeth alſo the teeth looſe in the head:mary it hurteth the bladder,and doth harme in all infirmities of the ſinewes. The Phyſicians were ignorant heretofore of the ſoueraign vertue that vinegre had againſt the ſting of the ſerpent called Aſpis, vntil by a meere chaunce they came to the knowledge hereof. And thus ſtood the caſe: It fortuned that a certaine fellow carying about him a bottle of vinegre,trode vpon the ſaid adder or ſerpent,that turned vpon him againe and ſtung him:howbeit he felt no harme at all ſo long as he carried the vinegre: but ſo often as he ſet the bottle downe out of his hands, the ſting put him to ſenſible paine. By which experiment it was found and knowne,that vinegre was the only remedy,and ſo with a draught therof he had help out of hand,and was cured. But behold another proofe and triall thereof. They that vſe to ſuck out the poyſon of venomed wounds giuen by ſerpents and I
ſuch like,vſe no other collution to waſh their mouths withal, but only vinegre:certes,the force of vinegre is ſuch,that it conquereth not only the ſtrength of our viands & meats, but alſo many other things:for the very hard rocks,which otherwiſe it was vnpoſſible to cleaue before with the violence of fire,ſoone breake and giue way,when vinegre is poured aloft. This ſingular gift moreouer it hath, that no liquor in the world giueth a better taſt to our meats and ſauces, or quickneth them more than vinegre doth:for which purpoſe, if it be ouerſharp and ſtrong,there is a means to mitigat and dull the force thereof,either with a toſt of bread,or ſome wine:again, if it be too weake and apalled,the way to reuiue it againe,is with Pepper or the ſpice Laſer:but nothing moderateth it better than ſalt. And to knit vp and cloſe this diſcourſe of vinegre, I cannot forget nor ouerpaſſe one rare and ſingular accident that befell of late:*M. Agrippa* in his K
later days was much troubled and afflicted with a grieuous gout of his feet;and being not able to endure the intollerable paines therof, took counſell of a certaine leaud leech,ſome bold and venterous Emperick,who made great boaſt of his deep skill and admirable knowledge(for the Emperour *Auguſtus Cæſar*,whoſe daughter he had eſpouſed, he made not acquainted with the matter;) who gaue him counſell to bath his legs with hot vinegre, and to ſit therein aboue his knees,at what time as his diſeaſe tormented him moſt:true it is indeed,that he was eaſed of his paine by this means,for he loſt the very feeling of his feet. Howbeit, *Agrippa* choſe rather to be paralyticke in ſome ſort, and to want both vſe and ſence of his legges, than to abide the extremitie of his gout.

L

Chap. II.

¶ *Of vinegre Scylliticke. Of Oxymel. Of the double cuit wine Sapa. The lees of wine: dregs of vinegre: and of the foreſaid cuit.*

THe vinegre of Squilla or ſea-Onions,called Scillinum, the elder it is and longer kept, the more is it eſteemed. This vinegre, ouer and aboue the other vertues of common vinegre before rehearſed,hath this property, To helpe the ſtomacke,in caſe the meats lie ſouring and corrupting therein:for no ſooner doth a man taſt thereof,but it diſpatcheth and riddeth away the foreſaid inconuenience:moreouer, it is good for them that are giuen to vomit,faſting, M
in a morning:for it hardeneth the throat & the mouth of the ſtomacke which is ouerſenſible,& knitteth the ſame. It cauſeth a ſweet breath,confirmeth the fleſh about the gums,faſteneth the teeth which are looſe,and maketh a bodie look with a freſh and liuely color. Being gargarized, it draweth away and doth euacuat thoſe groſſe humors which cauſed hardneſſe of hearing, and openeth

A openeth the auditory paſſages of the ears;and ſo by conſequence clarifies the ſight of the eies. Soueraigne it is beſides for thoſe who haue the falling ſickneſſe,and who are troubled in mind by occaſion of melancholy. It cureth the turning and dizzineſſe of the braine,the ſuffocation or riſing of the mother. It helpeth ſuch as be ſore and bruiſed with dry blowes,ſuch as are falne headlong from high places,and thereby haue cluttered bloud gathered within their bodies:as many alſo as haue the infirmity or weakneſſe of ſinews,or otherwiſe be diſeaſed in the kidnies: howbeit offenſiue it is to thoſe that haue any vlcer either within or without.

Touching the ſyrrup Oxymel, *Dieuches* ſaith, That the auncients in old time prepared and tempered it in this manner. They tooke of honey ten pounds, of old vinegre fiue hemines, of bay ſalt one pound,of Sauerie three ounces, of ſea water fiue ſextars:Theſe together in a kettle
B they did ſet to boile,and let them haue tenne walms ouer the fire:then they lifted the pan from the fire, poured this liquor out of one veſſell into another,& ſo kept it for their vſe:but *Aſclepiades* comes after,diſproueth all the maner of this compoſition, and withall condemneth the vſe thereof:for the phyſicians before his time,feared not to preſcribe it to be drunk euen in feuers; and yet both he and all,do confeſſe and agree,that this was a good drink againſt the venomous ſerpent called Seps: alſo for them who were poyſoned with Opium, [*i.*the juice of Poppey]or with the gum Ixia,which commeth from the hearb Chamæleon. Moreouer,they all commend it to be gargled hot for the ſquinancy, for the paine and deafneſſe of ears,for the accidents and infirmities of the mouth and throat:like as at this day we vſe in all theſe caſes,the ſharpe brine or pickle called Oxalme;which if it be made of ſalt and new vinegre that is freſh and quick, it
C is better in operation.

As for the cuit named in Latine Sapa, it commeth neere to the nature of wine,and in truth nothing els it is,but Muſt or new wine boiled til one third part and no more do remain:& this cuit,if it be made of white Muſt is counted the better. Vſe there is of it againſt the flies Cantharides and Bupreſtes:againſt the worms breeding in Pine trees,named thereupon Pityocampæ,againſt Salamanders, and generally all thoſe beaſts whoſe ſting or tooth is venomous. If a woman drink thereof,together with ſcallions or ſuch bulbs,it ſendeth downe the after-burden, and expelleth the dead infant out of the womb. And yet *Fabianus* mine author ſaith, That it is no better than a very poiſon, if a man drink it faſting preſently after he is come out of the bain.

A conſequent and appendant to theſe foreſaid things,is the lees of wine;that is to be conſi-
D dered according to the wine from whence it commeth:and verily the lees of wine are ſo ſtrong, that oftentimes it ouercommeth and killeth thoſe,who go downe into the vats & veſſels wherein the wine is made. But to know and preuent the daunger thereof, this experiment is fonnd; namely,to let down a candle into the ſaid vat:for ſo long as it will not abide light, but goe out ſtill,daungerous it is for a man to enter into thoſe veſſels. And yet wine lees without any waihing at all,goe into the compoſition of many medicines. Take wine lees a certaine quantity,and of the floure-de-lis or Ireos root a like weight, concorporat them together into a liniment:ſingular it is to annoint the ſmall pocks and ſuch like cutanean eruptions. The ſame either drie or wet, may be applied with very good ſucceſſe to the places ſtinged with the venomous ſpiders called Phalangia;to the inflammations alſo of the genetoirs or priuy members; to the paps,or
E any other part of the body whatſoeuer. Now for the better preparing therof,it ought to be ſodden in wine,together with barley meale and the pouder of frankincenſe;which done,to be burned and ſo dried. And to know whether it be ſufficiently ſodden or no,make this triall: If you touch it neuer ſo little at your tongues end and ſo taſt therof,when it is throughly cold,it will ſeeme to bite and burne it, if it haue had ſufficient boiling as it ought: but it ſoone loſeth the heart and force, if it be not kept in a place well encloſed: by the ſaid burning,it commeth to be much more ſtronger in operation. Sodden with figgs,it yeeldeth an excellent decoction to repreſs tettars,ſhingles,and ſuch like wildfires;to ſcoure away alſo ſcurfe and dandruffe:& in that ſort either applied as a cataplaſme or fomentation,it cureth the leprie and running ſkals of the
F head. Being taken in drinke,eſpecially raw,it is a ſoueraign countrepoiſon for ſuch as haue eaten venomous muſhromes. Boiled and waſhed,it is mingled with collyries which ſerue for the eyes. A liniment thereof,cureth the accidents that befall to the cods and genetoirs. Taken in wine,it helpeth the ſtrangury,and giueth them eaſe who otherwiſe could not piſſe but by dropmeale. Les of wine, after it hath loſt the cauſtick operation and life that it had,wil ſerue very wel for a good lie or water to cleanſe the skin of our bodies, and to waſh or ſcoure clothes: and

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then verily, it hath the aſtrictiue power of Acacia, and ſerueth for the ſame vſe. G

The dregs of vinegre, muſt of neceſſitie be much more ſharpe, biting, and vlceratiue, than wine lees, in regard of the matter whereof it commeth: it driueth backe impoſtumes or biles, and keepeth them from ſuppuration. A liniment of it, helpeth the ſtomack, belly, and entrails: it ſtaieth the flux of thoſe parts, and the ouerflow of womens months: it diſcuſſeth puſhes and ſmall biles, and ſquinances, if they be taken betimes before they feſter and impoſtumat: and a cerot made with it and wax together, is good againſt S. *Anthonies* fire. The ſame drieth vp the milke in womens breaſt, who would not be nources, or bee troubled with ouermuch milke. It taketh away with eaſe the ilfauoured rugged nails, and giueth roum for new to come vp in their place. Applied with groſſe barley meale or groats, it is ſingular and moſt effectuall againſt the venome of the horned ſerpents, called in Greeke Ceraſtæ: and with Gith or Nigella Romana, it H is vſed for the biting both of crocodile and mad dog. The burning alſo of theſe dregs, quickeneth & fortifieth the ſtrength therof, & being thus burnt and incorporat with the oile of Lentiske, * it coloureth the haires of the head in one night red, if they bee annointed withall: The ſame lapped in a fine linnen cloth, and put vp in forme of a peſſarie, cleanſeth and mundifieth the ſecret parts of women.

* *Serenus Samonitus* calleth this ointment *Vnguentum Cineris*, alledging *Plenie* for his author.

To conclude with the grounds or lees of the cuit Sapa; vinegre dregs are knowne to be very good for to heale burnes; and the cure proceedeth better, in caſe they be mixed with the furry cotton or downe of reeds: the ſame being ſodden, and the decoction thereof taken as drinke, cureth inueterat coughs. Saſt of all, they vſe to ſeeth or ſtew it betweene two platters with ſalt and greaſe, wherwith they make a liniment or ointment to take down the ſwelling of the chaws I and the nape of the necke.

Chap. III.

¶ *Of Oliue trees: of the leaues of Oliues: their floures and their aſhes. Of the white and blacke Oliue berries: and of the mother or lees of Oile-oliue.*

NExt after the Vine, there is not a tree bearing fruit, of ſo great authority and account as the Oliue. The oliue leaues, are exceeding reſtringent, good to cleanſe, good alſo to reſtraine or ſtop any flux: being chewed and applied to vlcers, they heale them: and reduced with oile into a liniment, they aſſuage the pain of the head. A decoction of their leaues, together with honey, is ſingular to bath and foment the parts cauterized by the Chirurgian, according to the direction of the learned Phyſician: the ſame vſed by way of a collution, cureth the inflammation of the gumbs, whitflaws, and excreſcenſes of ranke fleſh in filthy vlcers: with honey alſo it ſtaunceth the flux of bloud, proceeding from any neruous parts. The juice of oliue leaues is ſingular for the little vlcers in manner of carbuncles, with a cruſt or rouſe vpon them, riſing about the eies; and all other ſmall wheals or bliſters: as alſo in caſe the bal or apple of the eye be readie to ſtart forth; and therefore it is vſed in collyries or eye-ſalues: for it healeth weeping eies that haue run with water a long time, and the excoriations or frettings of the eie-lids. Now this juice is drawn out of the leaues, firſt ſtamped, and then well ſprinckled and wet with wine & rain water, & ſo preſſed forth; which being afterwards dried, is reduced into trochiſkes, L The ſame rolled in wooll or bombaſt to the forme of a peſſarie, and ſo put vp into the naturall parts of women, ſtaies the immoderat flux of their fleurs. Good it is alſo for thoſe, who rid corrupt bloud by the inferiour parts. Moreouer, it eaſeth the ſwelling piles or bigs ſticking out in the fundament; killeth the cholerique exulcerations called S. *Anthonies* fire; healeth corroſiue and eating ſores, and allaieth the paine of night-foes or childblanes, called by the Greeks Epinyctides. The ſame effects haue their floures. The tendrons or young twigs of Oliues being in floure, if they be burnt, yeeld a kind of aſhes that may ſerue as a ſuccedan in ſtead of Spodium: but the ſame muſt be burnt a ſecond time, after they haue beene well drenched and ſoked with wine. Theſe aſhes applied as a liniment, or the very leaues only ſtamped and tempred with honey, are good for impoſtumes growne to ſuppuration, and for the puſhes or biles named Pani: M but if they be mixed with groſſe barly meal or groats, they are in a liniment comfortable to the eyes. Take the green branches of an Oliue and burne them, there will deſtill and drop from the wood a certaine juice or liquor, which healeth ringwormes, tettars, and ſhingles, ſcoureth away the skales of the skin and dandruffe, and cureth the running skalls of the head.

Touching

A Touching the gum that iſſueth from the oliue tree it ſelf, and namely that wild oliue which is called Æthiopica; I cannot wonder enough at ſome, who giue counſell therwith to annoint the teeth which ake, conſidering that they themſelues giue out, That it is a poiſon, and to be found as wel in wild oliues as others. The rind or bark pared from the root of a moſt tender and yong oliue, reduced into an electuary, and often licked and let downe by leiſure into the throat after the manner of a lohoch, cureth thoſe who reach vp bloud, and cough out filthy and rotten matter. The aſhes of the very oliue it ſelf, mixed with ſwines greaſe, cure all tumors; draw forth corruption of fiſtulous vlcers; and when they are thus mundified, heale them vp cleane. White oliues agree very well with the ſtomack, but they are not ſo good for the belly. A ſingular commoditie they yeeld before they be put vp in their compoſt or pickle, for to be eaten greene by
B themſelues as meat: for they ſcoure away grauel with vrine; & good they are for the teeth, whether they be worne, rotten, worme-eaten, or looſe in the head. Contrariwiſe, the blacke oliue is not ſo friendly to the ſtomacke; better for the belly; but offenſiue both to the head and the eies. Both the one and the other, as well the white as the black, being punned and applied to burned or skalded places, do cure them: but the black haue this propertie, That if they be chewed, and preſently as they be taken out of the mouth, laid to the burne or ſcald, they will keep the place from bliſtering. Oliues in pickle are good to clenſe foule and filthie vlcers, but hurtful to thoſe who piſſe with difficultie.

As touching the mother or lees of oile oliue, I might be thought to haue written ſufficiently, following the ſteps of *Cato*, who deliuered no more in writing: but I muſt ſet down alſo the me-
C dicinable vertues obſerued therein: Firſt and foremoſt therefore, it helpeth the ſorenеſſe of the gumbs, cureth the cankers & vlcers of the mouth; and of all other medicins it is moſt effectuall to faſten the teeth in the head. If it be dropped or poured vpon S. *Anthonies* fire, and ſuch other corroſiue and fretting vlcers, it is of ſingular operation to heale them: but for kibed heeles, the grounds or dregs of the black oile-oliue is the better; as alſo therewith to foment ſmal children. As for that of the white oliues, women vſe to apply it with wooll to their ſecret parts, for ſome accidents thereto belonging. Be it the one or the other, generally it is more effectuall ſodden than otherwiſe. Boiling it ought to be in a copper or braſſe veſſell, vntill it come to the conſiſtence of honey. Vſed it is with vineger, old wine, or with muſt according as the cauſe requireth, in curing the infirmities of the mouth, teeth, and eares; in healing running skalls; and finally, in
D the cure of the genetoirs or priuie members, & of the fiſſures or chaps in any part of the body. In wounds it is vſed with linnen cloth or lint; but in diſlocations, it is applied with wooll. And verily in theſe caſes and in this practiſe, it is much emploied, eſpecially if the medicine be old and long kept: for being ſuch, it healeth fiſtulous ſores. And being injected by a ſyring into the vlcers of the fundament & genetoirs, or otherwiſe by a metrenchyte into the ſecret ſores within the naturall parts of women, it cureth them all. Alſo a liniment thereof is ſingular for to be applied to the gout of the feet: alſo in the reſt, whether they be in the hands, knees, hucklebone, or any other joint, ſo they be not ſetled or inueterat, but taken at the firſt. But in caſe it be ſodden againe in the oile of green oliues, vntill it come to the conſiſtence of honey, and ſo applied, it cauſeth thoſe teeth to fall out of the head without paine, which a man would willingly be
E rid of. It is wonderfull to ſee how it healeth the farcines and manges of horſes, being vſed with the decoction of Lupines and the herbe Chamæleon. To conclude, there is no better thing than to foment the gout with theſe lees of oile, raw.

Chap. IIII.

¶ *Of the wild Oliue leaues. The oile of the floures of the wild vine Oenanthe. Of the oile Cicinum. Of Palma Chriſti. The oile of Almonds: of Bayes, of Myrtles, of * Ruſcus or Chamæmyrſine, of Cypreſſe, of Citrons, and of Nuts.*

* i. Butchers broome.

F THe leaues of the wild oliue haue the ſame nature that the leaues of the tame. As for Antiſpodium, or the aſhes made of the tender branches of the wild oliue, it is of greater force and operation in ſtaying and repreſſing of rheume, catarrhes, and fluxes, than that abouenamed in the former chapter. Ouer and beſides, it aſſuageth the inflammations of the eies, it mundifieth vlcers, it doth incarnat and fill vp the void places where the fleſh is gone, it gently

cateth away,and without mordication, the excreſcence of ranke and proud fleſh, drieth the G
ſores,healeth and skinneth them vp. In other caſes this oliue is vſed as the other oliues: & yet
one peculiar propertie hath the wild oliue, That a ſpoonefull of the decoction of their leaues
with hony,is giuen with good ſucceſſe to them that ſpit and reach vp bloud. Howbeit,the oile
made hereof is more ægre and ſharpe, yea and mightier in operation than that of the other O-
liues; and a collution thereof to waſh the mouth withall ſetleth the teeth that be looſe. The
leaues of the wild oliue reduced into a cataplaſm with wine,and ſo applied,do cure whitflawes
about the root of the nails;carbuncles,and generally al ſuch apoſtemations:with hony the ſaid
cataplaſme ſerueth well to clenſe and mundifie where need is. The decoction of the leaues,yea
and the juice of the wild oliue is put into many compoſitions and medicines appropriat to the
eies. To good purpoſe alſo the ſame is dropped into the ears with hony,yea although they ran H
filthy atter. A liniment made with the floures of the wilde Oliue, is ſingular for the ſwelling
piles and the chilblanes that be angry in the night: and the ſame applied with barley meale to
the belly,or with oile to the head for the ache thereof,occaſioned by ſome rheume,is known to
do very much good. The young tendrils or ſprings of the wild oliue, being boiled and laid to
with hony,do re-ioyn and re-vnite the skin of the head which was departed from the bones of
the skull. The ſame tendrils pulled ripe from the wild oliue,and eaten with meat, do knit the
belly,and ſtay lasks: but torrified,and ſo beaten to pouder and incorporat with honey, they do
mundifie the corroſiue and eating vlcers: they breake alſo carbuncles.

As touching oile of oliues,the natute and manner of making it I haue already treated of at
large. But foraſmuch as there are many kindes thereof, I purpoſe to ſet down in this place ſuch I
as ſerue for phyſick only. And firſt to begin with the oile made of vnripe oliues,called in Latin
Omphacinum,and which commeth neere to a green colour,it is thought of all others moſt me-
dicinable: moreouer,the ſame is beſt when it is freſh and new (vnleſſe it be in ſome caſe when
it were requiſit to haue the oldeſt that may be found) thin and ſubtil,odoriferous,and nothing
at all biting;which be qualities al of them contrarie to that oile which we vſe with our meats.
This greene or vnripe oile (I ſay) is good for the ſores of the gumbes: and if it be held in the
mouth,there is no one thing preſerueth the whiteneſſe of the teeth better:it repreſſeth alſo im-
moderat and diaphoretical ſweats.

The oile Oenanthemum, made of the floures of the wild vine Oenanthe,hath the ſame ope-
rations that oile roſat hath. (But note by the way,that any oile,howſoeuer it doth mollifie the K
body,yet it bringeth vigor and addeth ſtrength thereto.) Contrary it is to the ſtomacke,it en-
creaſeth filthineſſe in vlcers,doth exaſperat the throat,and dul the ſtrength of all poiſons,eſpe-
cially of ceruſe or white lead,and plaſtre;namely if it be drunk with honied water or the broth
of dried figs: but it is taken againſt Meconium or Opium, with water: againſt the Canthari-
des,Bupreſtis,Salamanders,& the worms Pityocampæ, if it be drunk alone without any thing
els: but if it be vomited and caſt vp againe out of the gorge, it hath no fellow in all thoſe caſes
aboue named. Moreouer,in laſſitudes and extreme colds,oile is a preſent refreſhing & remedy.
Taken hot to the quantity of ſix cyaths,it mitigateth all wrings and torments of the belly, the
rather if rue be ſodden with it,and in that maner it expelleth wormes out of the guts. Drink it
to the meaſure of one hemina with wine and hot water,or els with the juice of husked barly, it L
looſeth the belly. It ſerueth in good ſtead for vulnerarie ſalues and plaſtres:it ſcoureth & clen-
ſeth the skin of the face. Conueyed vp into the head of kine and oxen, vntill they belch & de-
liuer it again,it doth allay & reſolue all their ventoſities:but old oile doth heat more,and is of
greater force to reſolue a body into ſweats than the new; as alſo to diſſipat all hard tumors and
ſwellings. More healthfull alſo it is to thoſe who lie of the lethargie,and eſpecially when the
diſeaſe is in declining and wearing away. Somwhat it is thought to clarifie the eies,namely if
it be applied with an equal quantitie of hony that neuer came neere ſmoke. A proper remedie
it is for the head-ache: likewiſe in ardent feuers it is very good with water,to allay their heat;
and if there cannot any old be gotten,it ought to be well ſodden, that thereby it may ſeeme to
haue age ſufficient.

The oile of Ricinus or Tickſeed,called Cicinum, taken as a drink with the like quantitie of M
hot water,is ſingular to purge & euacuat the belly:& it is ſaid to haue a ſpecial vertue to clenſe
the midriffe and thoſe precordial parts neere the heart. Soueraigne it is for all gouts,hard tu-
mors,the infirmities of the matrice,of the ears,and for all burns or ſcaldings. And if it be med-

led

A led with the aſhes of ſhell-fiſhes called Burrets, it cureth the inflammation of the fundament, and any ſcab or mange whatſoeuer. It giueth a freſh color to the skin of the viſage, and cauſes the haire to grow plentifully where it is applied. The ſeed wherof it is made, there is no liuing creature will touch. Of the grapes which this Palma Chriſti or Ricinus carieth, there be made excellent weiks or matches for lamps and candles, which will caſt a moſt cleer light, & yet the oile that is drawne out of the ſeed, giueth but a dim blaze or obſcure flame, by reaſon of the exceeding groſſeneſſe & fatnes thereof. Of the leaues tempered with vinegre, there is a liniment made, which is good for S. *Anthonies* fire: and of themſelues alone being freſh and greene, they be applied with good ſucceſſe to the paps, and any violent fluxion whatſoeuer: the ſame, boiled in wine, and laid too, with groſſe barly meale or groats and ſaffron, are ſingular for al inflamma-
B tions: and if they be applied by themſelues without any other thing, to the viſage, they do embeliſh and poliſh the skin paſſing wel within 3 daies. Oile of Almonds is laxatiue: it ſerueth to ſoften the body and make it tender; the skin which was riueled, it cauſeth to look neat, ſmooth, and cleare: and being applied with hony, it taketh away freckles and ſpots out of the face. Boiled with oile roſat, hony, the * rind of pomegranats, it is comfortable to the eares, it killeth the * *Tegmine.*
worms therein, reſolueth thoſe groſſe humors that were the cauſe of hard hearing, of the thumping, tinging, and other inordinat ſounds within the eares; and withall, eaſeth the head-ach and cureth the dimnes of the eies. Reduced into a cerot with wax, it healeth felons, and cleereth the
C skin of thoſe who be tanned and ſun-burnt: waſh the head with it and wine together, it kils the running skall, and riddeth away the dandruffe: applied with Melilot, it diſcuſſeth the ſwelling piles and bigges in the fundament: if the head be annointed with it alone, it procureth ſleepe. Oile-de-baies, the newer that it is and greener of colour, the better it is thought to be: hot it is of nature, and therefore good in a palſie, crampe, ſciatica, and for bruiſed places looking blacke and blew vpon ſtripes: and being heat in the rind or coat of a pomgranat, and ſo applied as a cataplaſme, it helpeth the head-ach, old rheumes, and infirmities of the eares. Oile of Myrtles is made after the ſame manner: aſtringent it is, and ſerueth to harden any part of the body: it knitteth the flaggie gumbs, helpeth the tooth-ach and bloudy flix; it cures the exulceration of the matrice and bladder; healeth all old vlcers which run and yeeld filthy matter, if it be brought into a cerot with the skales of braſſe, and wax. Alſo it cureth the meazles, and angry wheales: &
D ſo it doth all burns and skalds. It healeth and skinneth any gall and raw place, it skoureth dandruffe, and repreſſeth the breeding thereof: it cureth clifts and chaps: piles and ſwelling bigs in the fundament, it bringeth down and reſolueth, it knitteth diſlocations of joints, and taketh away the ſtrong and rank ſauor of the bodie. A countrepoyſon it is againſt the Cantharides and the Bupreſtis: as alſo againſt all other venome which is corroſiue and hurteth by exulceration. Touching the ground-Myrtle Chamæmyrſine, or Oxymyrſine, it hath the ſame nature that the other Myrtle hath; and the oiles be of ſemblable vertues. The oile of Cypreſſe alſo & likewiſe of Citrons, be not vnlike to the oile of Myrtles in operation, but the oile drawne from the walnut kernels (which we called Caryinum) is ſingular to bring haire againe, where it is faln away by ſome infirmitie: and inſtilled into the eares, it helpeth the hardneſſe of hearing: if the forehead be annointed therewith, it cureth the head-ach. Otherwiſe, it is but dull in operation, and
E yet a ſtinking ſmel it hath with it. If but one nut kernel be corrupt and rotten, it marreth all the oile that is made of the reſt, were there a pecke of them. The oile which is made of the graine or ſeed of the plant Thymelæa, is of the ſame vertue that the oile of Palma Chriſti, or Tickſeed aboue-named. The oile of the Lentiske is paſſing good to make an ointment of, againſt laſſitude and wearineſſe: and verily it were æquiualent euery way to oile-roſat, but that it is found to be more aſtringent: it is vſed much in repreſſing of immoderat ſweats, and thoſe angrie pimples which riſe after much ſweat. Nothing is there ſo effectuall to heale the farcines or skab in horſes, and ſuch like beaſts. The oile of Ben, mundifieth freckles, cureth felons and biles, take away ſpots and mols, and healeth the apoſtemations in the gumbs.

As for Cypiros, what a plant it is, and how there is an oile made therof, I haue ſhewed alrea-
F die. By nature it is hot, and ſoftneth ſinews which be ſtiffe and ſtark. The leaues ſerue to make a good liniment for to annoint the pitch of the ſtomacke: and their juice applied in manner of a peſſarie, ſetleth the mother when it rolleth euery way and is out of her place. The greene leaues chewed and applied, cure the running skalls in the head, the cankers and ſores in the mouth, all riſings and apoſtemations, and likewiſe the piles. A decoction of the ſaid leaues, is ſingular for

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burns and skals, likewiſe for lims out of joynt, if they be bathed therin. The very leaues in ſubſtance ſtamped and incorporat with the juice of a peare-quince into an ointment, ſet a reddiſh yellow colour vpon the haire of the head. The floures brought into a liniment with vinegre aſſuage the paine of the head: the ſame calcined and burnt into aſhes within a pot of vnbaked or raw earth, either alone or with hony, healeth corroſiue ſores and putrified vlcers. Theſe floures haue a certaine ſauor with them, which procureth ſleep. The oile called * Gleucinum is aſtringent; and yet it cooleth after the ſame ſort that the oile Oenanthium. The Balſame oile, called Balm, is of all others moſt pretious (as hertofore I haue ſaid in my treatiſe of odoriferous ointments) and of great efficacie againſt the venome of al ſerpents. It clarifieth the eie-ſight mightily, and diſpatcheth miſts and clouds which dimmed the ſame: it eaſeth all thoſe who draw their breath with difficultie: it aſſuageth impoſtumations and hard ſwellings: it keepeth bloud from cluttering, and is excellent to mundifie foule vlcers: ſingular comfortable to the eares in caſe of paine, hardneſſe of hearing, & ſinging within: to the head alſo for to aſſuage the ach: for the nerues, againſt ſhaking, trembling, and convulſions; & withal, a proper remedy for ruptures. It danteth and mortifieth the poiſon of Aconitum, if it be taken with milk. If the patient lying ſicke of an ague, be annointed all ouer therewith, it mitigateth the fits comming with ſhaking and ſhiuering. Howbeit, folke muſt be warie and vſe it with moderation; for being hot in the higheſt degree, it is cauſtick, and ſo doth enflame and burne: and therfore if a mean be not kept it bringeth a miſchiefe for a remedie, and doth more harme than good.

* Some read *Melinum.*

G

H

Concerning Malobathrum, the nature and ſundrie kinds thereof, I haue diſcourſed heretofore. Now for the vertues which it hath in Phyſicke; firſt, it prouoketh vrine: being ſtamped, the juice drawne out of it with wine by way of expreſſion, is excellent to be applied vnto the eyes, for to ſtay their continuall watering: the ſame laid to the forehead as a frontall, procureth ſleep to them that would gladly take their repoſe. And more effectually it worketh, in caſe the noſethrils alſo be annointed therewith, or if it be drunke with water. The leafe of * Malabathrum, if it be but held vnder the tongue, cauſeth the mouth and the breath to ſmell ſweet: like as, if it lie among apparell, it giueth them a pleaſant ſauour. The oile of Henbane is emollitiue, howbeit an enemie to the ſinewes: certes, if it be taken in drinke, it troubleth the braine. The oile of Lupines, called Therminum, is likewiſe an emollitiue, and commeth neareſt of any to the operation and effects of oile-roſat.

* *Folium Indicum.*

I

Touching the oile of Daffodills, I haue ſpoken of it in the treatiſe of the floures thereof. Radiſh oile cureth the lowſie diſeaſe; and namely, when lice are engendred vpon ſome long and chronick diſeaſe: it clenſeth the skin of the face from all roughneſſe, and maketh it ſlicke and ſmooth. The oile of Seſama, cureth the paine of the eares, and healeth vlcers which eat as they ſpread, euen ſuch as be morimals and check the Chirurgians hand. Oile of Lillies, which wee haue named Lirinon, Phaſelinum, and Sirium, is moſt agreeable and wholſom for the kidnies: alſo to procure and maintaine ſweat, to mollifie the matrice and naturall parts in women, & to promote digeſtion inwardly. The oil or ointment Selgiticum (as we haue already ſaid) is comfortable to the ſinues: like as the * graſſe-green oile, which the Inguinians (dwelling vpon the cauſy or ſtreet-way Flamminia) vſe to ſel. * Elæomeli, an oil which (as I haue declared before) iſſueth from oliue trees in Syria, carrieth a certaine taſt of hony: howbeit their ſtomacks it maketh to riſe at it, who licke therof; and it is of power to ſoften the belly. It purgeth choler *Electiuè*, if two cyaths thereof be giuen to drink in one hemine of water: howbeit theſe ſymptomes or accidents do follow them who drinke thereof: They lie as it were in a dead ſleepe, and muſt eftſoons be awakened. Our luſtie drunkards who make profeſſion of carouſing, vſe to take one cyath thereof before they ſit down to drink one another vnder bourd. The oile of Pitch is vſed euery where, for to heale the skurfe, mange, and farcins in beaſts.

K

L

* *Herbaceum.*
* Called likewiſe *Oleum Syriacum.*

Next to vines and oliues, Date trees are to be raunged in the higheſt place, and doe cary the greateſt name. Dates, if they be freſh and new, doe inebriat and ouerturn the braine: and if they be not very wel dried, they do cauſe head-ach: neither are they (ſo far as I can ſee) any way good for the ſtomacke: againe, they do exaſperat the cough and make it worſe, yet they be great nouriſhers, and cauſe them to feed who eat of them. Our ancients in old time drew a certaine juice or liquor out of them when they were boiled, which they gaue vnto ſicke perſons in ſtead of an hydromell or honyed water to drinke; and that for to refreſh them, to reſtore their ſtrength, and to quench thirſt: and for this purpoſe, they preferred the Dates of Thebais in high Ægypt

M

before

A before all others. Being eaten as meat eſpecially at meals, they are good for them who reach vp bloud. The dates Caryotæ ſerue to make a liniment for the ſtomack, the bladder, belly & guts, with an addition of Quince among. Being incorporat with wax & ſafron, they reduce the black and blew marks remaining after ſtripes in the skin, to their naturall colour. Date ſtones with their kernels are burnt in a new earthen veſſel which was neuer occupied before, and being thus calcined, and their aſhes waſhed, they ſerue in ſtead of Spodium, and doe enter with other ingredients into collyries or eie-ſalues: and with ſome Nard among, they make ſukes to paint and imbeliſh the eye-browes. *Calliblepharæ.*

Chap. V.

B ¶ *Of the Myrabolan Date, and the Date Elate.*

THe beſt Palm or Date tree which beareth a fruit like to Myrabolanes, is that which groweth in Ægypt. Theſe Dates haue no ſtones, like to others. Being taken in vnripe and hard wine, they ſtop the flux of the belly, and ſtay the extraordinary courſe of womens fleures, and do conſolidat wounds.

As touching the Date-tree, called Elate or Spathe, it affoordeth for vſe in Phyſick, the yong buds, the leaues, and the barke. The leaues ſerue to be applied vnto the midriffe and precordial parts, the ſtomacke, liuer, and ſuch coroſiue vlcers, as hardly will be brought to heale and skinne vp. The tender rind thereof incorporat with wax and roſin, healeth all maner of ſcales, within 20
C daies. The ſame boiled and applied accordingly, cureth the accidents befalling to the cods and genetoirs. The very perfume thereof coloreth the haire of the head black: and the ſuffumigation fetcheth downe the dead infant out of the mothers belly. It is giuen inwardly in drinke for the infirmities of the kidnies, bladder, & precordial parts: howbeit, an enemy it is vnto the head and ſinews. A decoction or bathe thereof, if a woman ſit in it, ſtaieth the immoderat fluxe both of Matrice and belly. Likewiſe, the aſhes taken in white wine, are ſingular for the pains and torments of the collick: as alſo a collution therewith, is as effectuall to cure the fal of the * Vvula and other defects incident to that part.

**Vvularũ vitiys.* Some read *vulvarum*, i. of the matrice & naturall parts of women.

Chap. VI.

D ¶ *The medicinable vertues conſidered in the floures, leaues, fruit, boughes, branches, bark, wood, iuice, root, and aſhes of many trees of ſeuerall kinds.*

IT remaineth now to decipher the manifold medicines which apples & ſuch like fruits tender skinned, do affoord, according to the variety of trees which bring them forth. Of which, thus much in generall is to be noted, That all fruits which ripen in the Spring, while they be ſoure and harſh, be enemies to the ſtomack; they trouble the belly, diſquiet the guts and bladder, and withall, be offenſiue to the ſinews: but if they be ful ripe or ſodden, they are the better. But to grow vnto particulars. Quinces if they be boiled, baked, or roſted, are ſweeter and more pleaſant to the taſt, than raw. Yet being throughly ripe vpon the tree, although they be eaten raw, they
E are good for thoſe that ſpit and reach bloud, and are diſeaſed with the bloudy flix: ſuch alſo as vpon the violent motion of vnbridled cholerick humors void vpward and downward: as alſo for them who be ſubiect to continual looſneſſe of the belly, occaſioned by the feeblenes of the ſtomack. Being once boiled or baked, they are not of the ſame operation: for they loſe therby that aſtringent vertue which their iuice had. In hot and ſharp feuers they ſerue for to be applied to the breſt. And yet if they be ſodden in rain water, they will do well in thoſe caſes aboue recited: but for the pain of the ſtomack, it matters not whether they be raw, ſodden, or baked, ſo they be reduced into the form of a cerot, & laid too. Their down or moſſineſſe which they beare, if it be boiled in wine, and reduced into a liniment with wax, healeth carbuncles. And the ſame maketh the haire to grow again in bald places occaſioned by ſome diſeaſe. Raw Quinces, condited
F and preſerued in hony, do ſtir the belly, & moue to ſiege. They impart vnto the hony a pleaſant taſt, whereby it is more familiar and agreeable to the ſtomack. But ſuch as being parboiled before, are then kept and confited in honey, be thought good for the ſtomacke, in the opinion of ſome, who ordaine and preſcribe to ſtamp them firſt, and then to take them in manner of a meat or conſerue, being incorporat with Roſe leaues boyled, for the infirmities of the Stomacke.

The

The iuice of raw Quinces is a ſoueraigne remedy for the ſwoln ſpleen, the dropſie, and difficulty of taking breath, when the patient cannot draw his wind but vpright. The ſame is good for the accidents of the breaſts or paps, for the piles, and ſwelling veines. The floure or bloſſom of the Quince, as well green and freſh gathered, as drie, is held to be good for the inflammation of the eies, the reaching and ſpitting of bloud, and the immoderat flux of womens monthly terms. There is a mild iuice drawn alſo from theſe floures, ſtamped with ſweet wine, which is ſingular for the flux proceeding from the ſtomack, and for the infirmities of the liuer. Moreouer, the decoction of them is excellent to foment either the matrice when it beareth down out of the body, or the gut Longaon, in caſe it hang forth. Of Quinces alſo there is made a ſoueraigne oile, which is commonly called Melinum: but ſuch Quinces muſt not grow in any moiſt tract, but come from a ſound and dry ground: which is the reaſon, that the beſt Quinces for this purpoſe be thoſe that are brought out of Sicily. The ſmaller Pear Quinces called Struthia, are not ſo good, although they be of the race of Pome Quinces. The root of the Quince tree tied faſt vnto the Scrophules or Kings-euill, cureth the ſaid diſeaſe: but this ceremony muſt be firſt obſerued, That in the taking vp of the ſaid root, there be a circle made round about it vpon the earth with the left hand, and the party who gathereth it is to ſay, What root he is about to gather, and to name the Patient for whom he gathereth it: and then, as I ſaid, it doth the deed ſurely. G

The Pome-Paradiſe, or hony Apples called Melimela, and other fruits of like ſweetneſſe, do open the ſtomacke, and looſen the belly, they ſet the body in a heat, and cauſe thirſtineſſe, but offenſiue they be not to the ſinews.

* Orbiculata. The * round Apples bind the belly, ſtay vomits, and prouoke vrine. Wildings or Crabs are like in operation to the fruits that be eaten ſoure in the Spring, and they procure coſtiuneſſe. And verily for this purpoſe ſerue all fruits that be vnripe. I

As touching Citrons, either their ſubſtance, or their graines and ſeed within, taken in wine, are a counterpoiſon. A collution made either with the water of their decoction, or their iuice preſſed from them, is ſingular to waſh the mouth for a ſweet breath. Phyſitians giue counſell to women with child for to eat the ſeed of Citrons, namely, when their ſtomackes ſtand to coles, chalk, and ſuch like ſtuffe: but for the infirmity of the ſtomack, they preſcribe to take Citrons in ſubſtance: howbeit, hardly are they to be chewed but with vineger.

* Nouem, and yet heretofore hee named but fiue. * Dioſcorides affirmeth the contrary. As for Pomgranats, needleſſe altogether it were now to iterate and rehearſe the * nine kinds thereof. Sweet Pomgranats, all the ſort of them, which by another name we called Apyrena, are counted * hurtfull to the ſtomack: they ingender ventoſities, and be offenſiue to the teeth and gums. But ſuch as in pleaſant taſt are next vnto them, which we called Vinoſa, hauing ſmal kernels within, are taken and found by experience to be ſomwhat more wholſom: they do ſtay the belly, comfort and fortifie the ſtomack, ſo they be eaten moderatly, and neuer to ſatisfie the appetite to the full: & yet ſome there be who forbid ſick perſons once to taſt of theſe laſt named: yea, and in no hand wil allow any Pomgranats at all to be eaten in a feuer; foraſmuch as neither their iuice and liquor, nor the carnous pulp of their grains is good for the patient. In like maner they giue a charge and caueat not to vſe them in vomits, nor in the riſing of choler. Certes, Nature hath ſhewed her admirable worke in this fruit: for at the very firſt opening of the rind, ſhe preſently maketh ſhew of a perfect wine, without appearance of any grape at all, nor ſo much as of Muſt, which ordinarily is the rudiment of wine. All Pomgranats, as wel ſweet as tart, are clad with a very hard coat & rough rind. And verily the coat which the ſour kind hath, is much vſed and in great requeſt: and namely the Curriers know full well how to dreſſe their skins therwith: and this is the cauſe, that the Phyſitians name it in Latine *Malicorium. And they would bear vs in hand, That the ſame doth prouoke vrine: as alſo, that the decoction therof in vineger, with gal-nuts among, doth confirm and keep the teeth faſt, which do ſhake and are looſe in the head. Women with child, and giuen to longing after a ſtrange and vnreaſonable manner, finde much good and contentment hereby: for no ſooner taſt they of it, but the childe doth ſtir and ſprunt in their wombe. The Pomgranat diuided into quarters or parcels, and laid to ſteepe and infuſe in raine water, for three daies or thereabout, yeeldeth a good and wholſome drinke for them to take actually cold, who are troubled with looſeneſſe of the body, occaſioned by a flux from the ſtomacke; and with caſting and reaching vp bloud. Of the tart and ſoure Pomgranat, there is a ſingular compoſition, which the Greeks call Stomatice: for that it is a moſt ſoueraigne medicine for the infirmities incident to the mouth: and yet it is as wholſom for the accidents of the K L M

* For Corium ſignifies a skin or leather.

noſthrils

A noſthrils and eares,as alſo for the dimneſſe of the eies, for the troubleſome ouergrowing & turning vp of the skin and fleſh about the roots of the nailes, for the genitoirs or priuie members, for corroſiue vlcers which they cal Nomæ,and for the proud fleſh and all excreſcences in ſores. Againſt the poiſon or venom of the ſea-hare, there is an excellent compoſition made with Pomgranats in this manner:take the grains or kernels of Pomgranates,being deſpoiled and turned out of their outward rind or skin,ſtampe them well,and preſſe out their iuice and liquor from them: ſeeth the ſame vntil a third part be conſumed,together with Safron,Roch-allom,Myrrh, and the beſt Attick hony,of each halfe a pound. Others do compound and prepare a medicine after another ſort in this wiſe: they take and pun many ſoure Pomgranats,and draw out of them a juice,which they ſeeth in a new cauldron or pot of braſſe,neuer vſed before, to the thickneſſe
B of honey: this they vſe in all infirmities of the fundament and priuy parts;for al griefs and maladies which be cured with the medicinable juice Lycium: with this they clenſe eares that run with filthy matter; reſtraine all violent fluxes of humors newly begun, and eſpecially taking a courſe to the eies; and rid away the red pimples and ſpots that ariſe in any part of the body. Whoſoeuer carieth in his hand a branch of the Pomgranat tree,ſhall ſoone chaſe away any ſerpents. The pill or rind of a ſoure Pomgranate boiled in wine, and ſo applied,cureth kibes. A Pomgranat ſtamped and then ſodden in three Hemines of wine vntill one remain,is a ſingular remedy for the torments of the Collick,and driueth wormes out of the belly. A Pomgranate torrified in an ouen within a new earthen veſſell neuer occupied before, well ſtopped and couered with a lid;and ſo being calcined and drunk in wine, ſtaieth the flux of the belly, and aſſuageth the wrings in the guts. The firſt knitting of this fruit, when the tree * begins to floure, is
C called by the Greeks Cytinus. Of which there be obſerued ſtrange properties,approued by the experience of many men:for if any perſon,man or woman,vnbraced,vnlaced,vnpointed and vnbuttoned, with girdle looſe, hoſe vngartered, & ſhooes vnbuckled,and hauing not ſo much as a ring about any finger,come and gather one of theſe tender bnds or knots,with 3 fingers only,to wit,the thumb and the fourth ring-finger of the left hand; and after this ceremony performed proceed forward to another,namely,to touch lightly with the ſame bud the compas of the eies round about,as if the prieſt ſhould ſacre or hallow them;and withal,when this is don,coueigh the ſame into the mouth,and ſwallow it down whole,ſo as a tooth touch it not: there goeth an opinion,That he or ſhe for certain ſhal feele no impediment or infirmity of the eyes that year
D throughout. The ſame knots or yong Pomgranats,if they be dried and beaten to pouder, are very good to keepe downe all excreſcences of ranke fleſh,and be wholeſome for the gummes and teeth:moreouer,the very juice drawn out of them after they be ſodden,do faſten the teeth in the head,although they were looſe and ready to fall out before. The very * yong Pomgranats themſelues alone newly knit,and making ſhew vpon the tree, if they be ſtamped to the form of a liniment,are ſingular for any corroſiue vlcers,& ſuch as tend to putrifaction. Likewiſe,they be excellent good in that ſort prepared and applied,for the inflammation of the eies, & of the entrailes,and in manner for all thoſe occaſions wherein the outward rinds and pils do ſerue. And here before that I proceed any farther, I canot ſufficiently admire and wonder at the careful induſtry and diligence of our antients before time,which they imploied in the conſideration of
E Natures workes,ſearching as they did into euery ſecret,and left nothing behind them vnaſſaied and vntried: inſomuch,as they took regard of thoſe little pretty floures appearing vpon theſe knots or buds beforeſaid,ſuch I meane as break forth and ſpring, before the Pomgranat it ſelfe is formed,and maketh any appearance;which ſmal bloſſoms,as I ſaid before,* are called Balauſtia. For euen theſe,as little as they be,our anceſtors haue found by their experiments to be aduerſe vnto ſcorpions. And true it is,that being taken in drinke, they do reſtraine the extraordinary flux of womens fleurs: they heale the cankers and ſores in the mouth, the diſeaſes of the Tonſils or Amygdales,and of the Vvula:they do helpe the ſpitting and reaching vp of bloud: they cure the feebleneſſe both of belly and ſtomack,with the fluxes thereupon inſuing:they are ſingular beſides for the grieuances of the priuy members, and for all running vlcers ſpreading
F in any part of the body what ſoeuer. Moreouer,they made proofe of the ſaid floures dried, and this high magiſtery they found,That being beaten to pouder, they cured thoſe of the bloudie flix,who lay at the very point of death on that diſeaſe;as alſo that there was not a better thing in the world to ſtay any laſk or flux of the belly. Nay,they ſtaid not here(ſo inuentiue were our forefathers)nor thought much to make trial of the very kernels or ſtones,within their grains,to

ſee

* *Florere incipiantis*:rather *deſinentis*, according to *Galen*.for then the fruit is ſaid to knit,when a tree ſheddeth the bloſſome.

* *Ipſa corpuſcula*.Some reade *Vaſcula*,meaning the veſſels containing the graines.

* Here is *Pliny* out of the way

ſee if they could meet with any goodneſſe therein, for to deliuer vnto poſterity and the age following. And in good faith, they found, That euen thoſe as contemptible as they ſeem, beeing torrified and ſo pulverized, doe help and comfort the ſtomacke, if either the meat be ſtrewed or ſprinckled, or the cup ſpiced with the ſaid pouder. And in truth, if they be drunk with rain water, they bind the body: the root of the Pomgranat tree, if it be boiled, yeeldeth a liquor or iuice which being taken in drink to the weight of a Roman victoriat [*i.* halfe a denier, or half a dram] killeth the worms in the belly. The ſame throughly ſodden in water, is of the ſame operation that Lycium is for any purpoſe that it ſhall be put vnto. G

Finally, there is a wild Pomgranat, ſo called for the reſemblance that it hath to the planted Pomgranat: the roots are red without-forth, * which being taken to the poiſe of one denier or dram in wine, do procure ſleepe. The graines or ſeeds in drink, drie vp the watery humours that be gotten between the skin and the fleſh, in that dropſie which is called Intercus. To conclude, a perfume made with the rind or pill of a Pomgranat, chaſeth Gnats out of the place, where it burneth. H

* I doubt that *Plinie* miſtaketh here: and is caried away with the ſimilitude of two Greeke names to wit, *ροιας*, *i.* the red wandering Poppy, and *ροας* the Pomgranat. For ſurely the properties by him aſſigned to his wild Pomgranat, in ſome ſort accord with thoſe of *Papauer erraticum*, or Corn-Roſe.

Chap. VII.

¶ Of Peares, and the properties obſerued in them. Of tame Fig-trees, and their Figs. Of the wild Fig tree. Of Erineus, and other plants, with the medicines which they affoord.

ALL Peares whatſoeuer, are but a heauie meat, euen to them that are in good health. And ſick folke are debarred for eating them, as well as for drinking wine. And yet if the ſame be well boiled or baked, they are maruellous wholſome and pleaſant to the taſt, eſpecially thoſe of Cruſtuminum. There is no kind of Peare at all, but if it be ſodden or baked with hony, agreeth with the ſtomack. Of Peares there be vſually made certaine cataplaſmes, which are ſingular good to diſcuſſe all puſhes, riſings, and pimples vpon the body: and their decoction ſerueth wel to reſolue all hard tumors. Peares in ſubſtance be a good counterpoiſon againſt venomous Tadſtools and Muſhroms; for either they driue them down by their very weight and ponderoſity, or els chaſe them out of the ſtomacke, through a certain ſecret antipathy in Nature, that their juice hath. The wild choke Peares be very late ere they ripen. The manner is to cut them into certaine ſlices or roundles, and ſo to hang them vp a drying, for to ſtay the laske and knit the belly; which their decoction alſo will do ſufficiently, if the patient doe drinke it. The leaues likewiſe, together with the Peare, are vſed to be ſodden for the ſame purpoſes. The aſhes alſo of the Peare tree * wood, in caſe of peſtilent Muſhroms is of more efficacie than the Peare it ſelfe. Poor iades that carry Apples and Pears vpon their backs in paniers, are ſhrewdly loden: and wonderfull it is to ſee, how heauy they do weigh, and how a few of them wil make the poore beaſts to ſhrink vnder their burden: but what is the remedy? Let them eat ſome of thoſe Peares before, or do but ſhew them vnto them, they will vndergoe (as folke ſay) their load more willingly, and go away with it more roundly. I K

* *Pyrorũ ligni. Quære*, if he meane not the ſtonie kernels of ſome Pears, which he vſes otherwhiles to call *Lignum*.

The milke or white juice that the Fig-tree yeeldeth, is of the ſame nature that vineger: and therefore it wil cruddle milk as wel as rennet or rindles. The right ſeaſon of gathering this milky ſubſtance, is before that the figs be ripe vpon the tree, and then it muſt be dried in the ſhadow: thus prepared, it is good to breake impoſtumes, and keepe vlcers open: alſo to bring down the monthly termes of women, either applied with the yolk of an egge, or taken in drinke with * Amyl or * Starch pouder. If the ſame be tempered with the floure of Fœnigreek ſeed and vineger, and ſo applied in manner of a liniment, it helpeth the gout. Alſo it is depilatory, and fetcheth off haires: it taketh away the skurfe of the eie-lids. In like maner it killeth tettars, ringworms, & any wild ſcabs. It openeth the body, and makes it ſoluble. This fig-tree milk is naturally aduerſe vnto the venomous ſtings of Hornets, waſps, and ſuch like. But particularly to the prick of Scorpions. The ſame if it be incorporat with hogs greaſe, taketh away warts. Fig tree leaues & green figs vnripe, reduced into a liniment, do diſcuſſe and reſolue the Scrophules, called commonly the kings euil, yea, and all ſuch nodoſities as are to be mollified. The leaues alſo alone wil do as much. There is another vſe of them beſides, namely, to rub therewith tettars and bald places, which through ſome infirmity haue loſt haire: & generally all thoſe parts that had need to be bliſtered: the tender tops & twigs of fig-tree branches are ſingular to cure the biting M

* *Amylo. Dioſc.* hath *Amygdalis*, Almonds.

of

A of mad dogs,if they be applied to the skin where it is broken. The ſame brought to a liniment with honey,healeth the wens or impoſtumations which be called Ceria, yeelding forth an humor like to hony out of the comb. And if they be tempered with the leaues of the wild Poppy, they draw forth broken ſpils or ſhiuered bones. Fig-tree leaus ſtamped with vineger,do reſtrain the venom,occaſioned by the biting of mad dogs:the white tendrils or ſprigs of the blacke fig-tree made into a cerot with wax,and ſo applied,do cure felons and the biting of hardiſhrewes. The aſhes made of black fig-tree leaues,heale gangrenes,and conſume all excreſcence of dead or proud fleſh. Ripe figs prouoke vrine, make the belly ſoluble, mooue ſweat,and bring foorth ſmall pocks and meaſels:in regard of which operation thus to open the pores, they be vnwholſome to be eaten in Autumne or at the fall of the leafe: for when by their means our bodies be
B ſet into a ſweat,they are more ſubiect to take a through cold. Neither be they wholſome for the ſtomack:but the beſt is,their offence continueth but a while. Mary,they are well knowne to be enemies to the voice. The figs which be of a later breed (as it were) and come laſt,are wholeſomer than thoſe which ripen betimes: (whereas verily, if they be brought to their maturitie by medicining,*i.* by caprification,then they are neuer good:) and theſe figs increaſe the ſtrength of young folk: preſerue elder perſons in better health,and make them looke more yong and with fewer wrinckles. They do quench and allay thirſt,and coole vnkinde heat. And therefore ſuch muſt not be denied vnto the patient,in feuers proceeding from the conſtriction of the pores, which agues the Greeks call Stegnas. Dry figs offend the ſtomack: but for the throat and weaſant they are exceeding good. Theſe dried figs are by nature hot in operation, and therefore in-
C gender thirſt. They ſet the belly into a looſeneſſe: in which regard they are not good to be eaten in any flux or Catarrhs,taking a courſe either to it or the ſtomack: wholſome they be at all times for the bladder for ſuch alſo as be ſhort winded and purſie. Semblably,they open the obſtructions of liuer,kidnies,and ſpleen,and cure their infirmities. Nutritiue they be, and therefore much eating of them cauſeth a man to grow corpulent,and natheleſſe to be ſtrong and luſty withall: which is the cauſe,that profeſſed wreſtlers and champions were in times paſt fed with figs. For *Pythagoras*, a great maſter and warden of theſe exerciſes, was the firſt man who brought them to eat fleſh meat. Moreouer,figs be reſtoratiue,and the beſt thing that they can eat who are brought low by ſome long and languiſhing ſickneſſe, and now vpon the mending hand and in recouerie. In like manner they are ſingular for the falling euil and the dropſie. Figs
D applied as a cataplaſme, are excellent either to diſcuſſe or els bring to maturity any impoſthumes or ſwellings:but they doe the feat more effectually,if either quicke-lime or ſal-nitre be mixt therwith. Boiled with Hyſſop they clenſe the breſt,break and diſſolue the flegmatick humors either fallen to the lungs,or there ingendred;& ſo by conſequence rid away an old cough. Sodden in wine,& ſo applied as a liniment,they cure the infirmities incident to the ſeat or fundament, they mollifie and reſolue the ſwelling tumors of the paps, they diſcuſſe and heale fellons,puſhes,biles,& riſings behind the ears. A fomentation made with their decoction,is good for women. And the ſame being ſodden with Fæni-greek,are excellent for the pleuriſie & Peripneumony,*i.* the inflammation of the lungs. Boiled with Rue,they aſſuage the ventoſities or collicke in the guts. The ſame being incorporat with verdi-greaſe or the ruſt of braſſe,cureth
E the morimals of the legs:and with Pomgranats they heale the riſing & exulceration of the fleſh and skin about the naile roots. But made into a cerot with wax,they heale burnes,ſcaldings, & kibed heels. Seeth Figs in wine with wormwood and barley meale,and put nitre to them,they are paſſing wholeſome for thoſe who are in a dropſie. Chew them,they *binde the belly. Make a cataplaſme of Figs and ſalt together: the ſame is ſingular for the ſting of ſcorpions. Boyle them in wine,and ſo apply them,you haue an excellent remedy to draw forth carbuncles to the outward parts,and bring them to an head. Take the fatteſt & fulleſt Figs you can get,lay them vpon the vgly and ill-fauored tumor called Carcinoma,*i.* the Canker,ſo it be not yet exulcerat. I aſſure you it is a ſoueraigne remedy, and hardly can be matched againe: and ſo it is alſo for the feſtering and eating vlcer Phagedæna. There is not another tree againe growing vpon the
F face of the earth that yeeldeth better or ſharper aſhes than the wood of the Figge-tree doth,either to clenſe *vlcers,or to incarnat,conſolidat,and reſtrain flux of humors. It is taken in drink for to reſolue cluttered bloud within the body. Semblably,if it be giuen to drink with water & oile,of each one cyath,it ſerues wel for thoſe who are dry beaten & bruiſed,who are fallen from ſome high place:ſuch alſo as haue ſpaſms & inward ruptures. And thus they vſe to giue it in a l cramps,

**ἰσχνὰ*, rather *cient*, or *vtileſſunt*. ἀκίνδυνα. *Ex Dioſc.*

**Vlcera*, out of *Dioſcorides*, though ſome reade *aciem*, *i.* the ſight of the eie: which hath no warrant from the author, whom hee followeth and would ſeeme to tranſlate.

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cramps, and namely, in that vniuerſall convulſion, which holdeth the body ſo ſtiffe, that it can ſtir no way nor other, as if it were made of one intire piece without any ioint. Likewiſe, both taken in drink, and alſo infuſed or iniected by clyſtre, it helpeth the fluxe, occaſioned either by a feeble and rheumatick ſtomacke, or els by the vlcer of the guts. If a man rub the body all ouer with it and oile together, it ſetteth it into an heat, were it before benummed. A liniment made of it, and wrought with wax and oile Roſat together, skinneth a burnt or ſcalded place, moſt finely, leauing no skar at all to be ſeen. Temper it with oile, and therwith annoint their eies who are pore-blind, ſand blind, or otherwiſe ſhort-ſighted, it amends their eie-ſight: & to conclude, rub the teeth often therewith, it preſerueth them white, neat, and from rotting. Thus much of Fig-tree aſhes. G

Moreouer, it is commonly ſaid, That if one come to a Fig-tree, bend a bough or branch therof downward to the ground, and bearing vp his head without ſtooping, reach and catch hold of a knot or ioint with his teeth, and ſo bite it off, that no man ſee him when he is doing of it, and then lap the ſame within a piece of fine leather, tied faſt by a thred, and hang it about his necke, it will diſpatch the kings-euill and ſwelling kernels or inflammations behind the eares. H

The bark of the Fig-tree reduced into pouder, mixed with oile, and ſo applied, healeth the vlcers of the belly. Green Figs taken raw, ſtamped and incorporat with niter and meale, take away all warts, whether they be ſmooth or rough. The aſhes made of thoſe ſhoots that ſpring from the root, is a kind of Antiſpodium, and may go for Spodium indeed. If the ſame be twice calcined and burnt, and then mixed with ceruſſe or white lead, and ſo reduced into trochiskes, they make a good collyrie or eie-ſalue, to cure the roughneſſe and exulceration of the eies. I

As many vertues as the mild fig-tree hath, yet the wild is much more effectuall in operation: how ſoeuer ſhe yeeldeth leſſe milke or white juice than the other doth. For a branch onely of it, is as good as rennet or rindles to make milk turn and run to a cheeſe curd. Howbeit, that milky liquor which it hath, if it be gathered and kept vntill it be dry and wax hard, ſerueth to ſeaſon our fleſh meats, and giue them a good taſt. For which purpoſe it is wont to be mixed and diſſolued in vineger, & then the fleſh muſt be well rubbed and poudred therwith. The ſame is vſually mingled with cauſtick and corroſiue medicines, when there is an intention to raiſe bliſters, and make an iſſue. It cauſeth the belly to be laxatiue, and openeth the matrice, if it be vſed with Amyl pouder. Being taken in drink with the yolk of an egg, it prouoketh womens fleurs. Applied in a liniment with the floure of Feni-greeke, it eaſeth the pains of the gout: it clenſeth the leproſie, and foul wild ſcab: it killeth ring-worms and fell tettars: it ſcoureth away freckles and ſuch flecks as disfauor the face: likewiſe it cureth the parts ſtung with venomous ſerpents, or bitten with mad dogs. Moreouer, this juice of the wild Fig-tree, applied vnto the teeth with a lock of wooll, allaieth their ach: ſo it doth alſo if it be put into them that be worme-eaten and hollow. The tender yong branches, together with the leaues, if they be mingled with Eruile, are good againſt the poiſon of venomous ſea-fiſhes. But then, according to ſome Phyſitians, there muſt be wine added to this receit. The ſaid tender branches being put into the pot with Bœuf, and ſo boiled together, ſaue much fewell, for leſſe fire by far will ſerue to ſeeth the meat. The green figs of this wild fig-tree brought into a liniment, do mollifie and diſcuſſe the kings euil, and all other tumors and apoſtemes. And in ſome meaſure the leaues alſo haue the ſame operation: Chuſe the ſofteſt and tendereſt of them, let them be ſtamped and mixed with vineger, they will cure running ſcails and ſores, eaſe bloudy fals and chilblanes, yea, and ſcoure away filthy ſcurfe or dandruffe. The ſaid green figs, together with the leaues, incorporat with hony, doe cure the wens or exulcerat bunches, which yeeld matter out of them reſembling hony: likewiſe they heale the biting of mad dogs. The greene and freſh figs newly gathered, if they be laied too with wine, doe heale filthie eating vlcers: and mixed with Poppie leaues, they draw and fetch away broken bones out of the body. The greene Figs of the wild Fig-tree, doe ſcatter and diſcuſſe inflammations, onely by their perfume, if they be burnt. They are a counterpoiſon, in caſe one haue drunk Buls bloud, or ceruſſe: the ſame alſo put away the danger of milk crudled within the ſtomacke, if they be taken in drinke. Likewiſe, ſodden in water, and reduced into a liniment, they cure the riſings & tumors behind the ears. The tender branches & the leaſt green Figs of this wild Fig-tree, being taken in wine, are very good for the ſting of Scorpions: with this charge, that the milky iuice thereof be inſtilled into the wound, and the leaues laied aloft. The ſame alſo ſerueth for the hardi-ſhrew. The aſhes of the ſmall tendrons beeing burnt, duely K

applied, I. M

A applied, bring the Vvula againe into the right place, and aſſuage the paine therof. The aſhes of the very tree it ſelfe, being incorporat with honey, do cure the rhagadies, fiſſures, and chaps in the feet, or elſwhere. The root boiled in wine, eaſeth the tooth-ache. The winter wild fig-tree, (which beareth fruit late in the yere) if it be ſodden in vineger, and ſo ſtamped and brought into a liniment, is ſingular to kill tettars and wild ſcals. But to prepare this medicine, the wood & boughs of the tree muſt be deſpoiled of the barke, and then ſhauen or ſcraped ſo fine as any pouder or ſaw duſt, that they may be reduced into an ointment. Yet there is one medicine more belonging to the wild-fig-tree, which is admirable, and may make a man to wonder at it: if a yong boy not yet vndergrowne nor 14. yeares of age, break a branch or bough of the wild fig-tree, and with his teeth do pill the ſaid branch, and fetch off the rind before it haue gathered any downe
B or moſſe about it; then the marrow or pith within the ſaid branch, if it be taken forth and tied faſt about one that hath the kings euill (ſo that all this be done in a morning before the Sun-riſing) doth repercuſſe and ſmite back the ſaid diſeaſe, ſo that it ſhall not ariſe and grow. Moreouer, this wild fig-tree hath one ſingular property beſides, That if a collar made of the branches thereof be but about a buls neck, it wil make him perforce to ſtand ſtil and not to ſtir, how fell and fierce ſoeuer he be otherwiſe; ſuch a wonderfull vertue it hath to bridle and keep vnder his courage.

Moreouer, ſince that the Greeks do terme this wild fig-tree in their language Erineos, which putteth me in mind of a certain herb called Erineos alſo in their tongue, I cannot wil nor chuſe but for affinity and neighbor-hood ſake, deſcribe the ſame in this place, and ſet downe the pro-
C perties and vertues thereof. An herb it is, one good handful high, riſing vp commonly with fiue or ſix little ſtalks or branches, much like vnto Baſil; bearing a white floure, a black ſeed, and the ſame ſmall: which ſeed beaten to powder and medled with the beſt Atticke honey, cureth the rheume which falleth into the eies and cauſeth them to weep and water continually: as touching the herb it ſelfe, if it be applied or vſed accordingly, with a little ſal-nitre put thereto, it is a paſſing good remedy for the pain of the ears. The leaues are a counterpoiſon.

To come now to the Plum tree: the leaues thereof boiled in wine, are good for the infirmities incident to the amigdales, the gums, and the Vvula, in caſe the mouth be oftentimes waſhed with a collution made of their decoction. Plums themſelues make the body ſoluble, & very commodious they are to the ſtomack; but this benefit continueth but a ſmall while.

D Peaches are much better than Plums; and ſo is their iuice, principally if it be drawn in wine or vineger: and verily for a fruit, there is not in the world any more harmleſſe than it. You ſhall not ſee a fruit againe, to haue leſſe ſmell, & more juice within than the Peach; and yet as liquid as it is, it cauſeth them to be dry and thirſty who eat therof. The leaues of the Peach-tree, punned and applied, do ſtanch bleeding. The kernels of Peaches, incorporat in vineger and oile to a liniment, and laied too as a frontall, allay the head-ache.

Bulleis, Skegs, and Slone (which are the berries, as it were, or fruit of the wild Plum tree) or the very barke and rind growing to the root, boiled in one hemine or ſmal pint of ſome hard and crabbed wine, vntill a third part only remaine, do veeld a decoction effectuall to allay the pains of the cholick, and to ſtop the flux of the belly: of this liquor, a cyath is a ſufficient draught to
E be taken at a time. As well in this wild kind as in planted Plum trees of the hortyard, there is to be found a certain skinny gum, in Greek called Lichen, which hath a wonderfull operation to cure the rhagadies or chaps, yea, and the ſwelling piles or knobs that appeare in the fundament.

In Egypt and Cypres both, there groweth the Sycomore, which is a kind by it ſelfe between a fig tree and a mulberry tree, as I haue before ſaid; the fruit or berries whereof be full of liquor, which ſo ſoon as the vppermoſt rind or pill only is pared away, appeareth in great abundance: cut and gaſh them deeper in, they ſeeme drie, after a wonderfull and incredible manner. This juice iſſuing out of them, is a ſingular defenſatiue againſt the poiſon of Serpents: a wholeſome medicine for the bloudy flix; and * a notable carminatiue to diſcuſſe and reſolue puſhes, biles, and al impoſtumations. It ſoudereth and healeth vp wounds, it allaieth head-ach, and aſſuageth
F the wens or pains of the ears. Such alſo as be ſpleniticke or diſeaſed in the ſplcene, finde much eaſe and comfort by drinking thereof. Moreouer, a liniment made therewith, is good to chauſe and heat thoſe, who chill and quake for extremity of cold: howbeit, laſt it will not, but breed worms very quickly. Certes, the juice of our mulberries which we haue, is of no leſſe operation and effect; for if it be taken in wine, it is a ſingular counterpoiſon for them who haue drunke ei-

* The like is *Emplaſtrum Diamoreon*: commended by *Galen*, and deſcribed by *Ægineta*.

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ther the iuice of Aconit,[*i.*Libard-bane] or ſwallowed a venomous ſpider. The ſame doth looſen the belly,euacuat ſlimy and roping fleame,and expelleth the broad wormes and other ſuch vermin ingendred in the belly. Of the like efficacy is the bark, if it be pulueriſed and ſo taken in drink. The leaues boiled in rain water,together with the barke of the blacke fig-tree and the vine,do make a lauature or water to * colour the haire [blacke.] The iuice of mulberries doth work ſpeedily,and prouoke to the ſiege:and the very fruit or mulberry it ſelfe,for the preſent is comfortable to the ſtomacke; it cooleth for the time, but bringeth thirſt with it. If a man eat them alone,or laſt,and lay no other meat vpon them,they ſwell in the ſtomack and be very flatuous. The iuice drawn out of vnripe mulberries,are of vertue to bind the belly. In ſum,there be ſtrange and wonderfull properties worthy to be obſerued in this tree, which ſeemeth to haue ſome ſenſe and vnderſtanding,as if it were a liuing and ſenſible creature,whereof I haue already * written more at large in the deſcription of it,and the nature thereof. There is a notable * compoſition made of mulberries,reſpectiue to the mouth and throat,called thereupon Panchreſtos Stomatice,and by another name, Arteriace:the receit and making whereof, is in this manner; *Recipe*,of the iuice drawne out of Mulberries,three ſextars,ſeeth it ouer a gentle and ſoft fire[or rather let it ſtew in balneo Mariæ]vntil it be reduced to the conſiſtence of hony:afterwards put thereto of veriuice made of dried grapes,the weight of two * deniers or drams; of myrrhe,the poiſe of one denier;of ſaffron likewiſe,one dram or denier. Let theſe ingredients (I ſay) be firſt beaten to pouder(ſuch I mean as need pulveriſing) and ſo mingle them together with the foreſaid decoction,and put it vp for your vſe. A better and more pleaſant medicine there is not,for the mouth,the windpipe,the uvula and the ſtomack. There is another way of making it in this ſort, Take of the iuice aforeſaid,the quantity of * two meaſures called ſextars,of Atticke hony one ſextar,ſeeth them together as before. Many maruels beſides are reported of this tree, of which I will giue you a little taſt:Spie where the little mulberries that ſhall be are newly knit, to wit,when the tree firſt buddeth and before the leaues be fully out;gather their yong knots of the fruit toward,which the Greeks call Ricinos,but in any caſe with the left hand;take heed alſo that they touch not the ground,howſoeuer you do:and if when you haue obſerued theſe circumſtances, you weare them about your wreſts, hang them about your necke, or otherwiſe tie them about you,be ſure they will ſtanch bloud,whether it guſh downe from your noſthrils,flow out of a wound,run out of the mouth,or iſſue by the hæmorrhoid veins. And in truth, folke vſe to keepe theſe little buds or knots very carefully for this purpoſe. The ſame vertue and operation the branches haue(as they ſay)but then they muſt be broken from the tree at the full of the moon,when they begin to knit & giue ſome hope of fruit:& if the ſame touch not the ground, then they haue a ſpeciall property reſpectiue vnto women,for to reſtrain the immoderat flux of their monthly terms,being tied or faſtened to their arms. And it is thought, that they work this effect,if the woman her ſelfe do gather them at any time whenſoeuer:prouided alwaies,that the branch in any wiſe touch not the ground, and that ſhee weare it faſt about her in manner aforeſaid. The leaues of the mulberry tree ſtamped greene, or beeing dry and boiled, ſerue in a cataplaſme to be applied vnto thoſe places which are ſtung by ſerpents: the ſame good they do alſo,if they be taken in drink. The iuice of the bark which grew to the root,if it be drunk either in wine or oxycrat[*i.*vineger and water together] is ſingular againſt the pricke of ſcorpions. But here I muſt ſet downe the compoſitions that our antients deuiſed and made of mulberries: firſt and formoſt,they tooke a quantity of the iuice preſſed out of mulberries,as well ripe as vnripe, which they ſod in a braſſe pan,vnto the conſiſtence or thickneſſe of honey. Some vſed to put thereunto,myrrh and Cypreſſe,ſetting all to frie and take their fermentation in the ſun,vntil it grew to hardneſſe in the foreſaid veſſell,ſtirring it thrice a day with a ſpatule:This was the ſtomaticall medicine of the antients,which they vſed alſo in healing & skinning vp wounds. And yet there was another kind made after this ſort: they preſſed forth the iuice of the vnripe mulberries,but firſt they let the ſaid fruit to be very wel dried, & this ſerued them in lieu of ſauce, which gaue an excellent taſt to their other meats. In phyſick alſo,they imploied it much,namely,about corroſiue and eating vlcers,and for to euacuat tough fleame out of the breſt: they vſed it alſo as need required,as an aſtrictiue,to corroborat the noble and principall parts within the body, It ſtood them alſo in good ſtead for collutions, to waſh the teeth withall. Moreouer,a third kind of iuice they had,which they drew from the leaues and roots after they were wel boiled:and with this iuice & oile together,they were woont to annoint any burnt or ſcalded place

of

* *Tingunt capillum*: for the black colour was in moſt requeſt in thoſe daies.

* *Lib.*16.*ca.*25.

* *Diamorum*,or the compound ſyrrup of mulberries.

* *Pondus X duorum.*

* Somewhat vnder two wine quarts with vs.

A of the body: for which purpoſe, the leaues alſo they applied alone without more ado. As touching the root of the Mulberry tree, it yeeldeth in harueſt time (by way of inciſion) an excellent juice for the tooth-ach, for biles, and impoſtumes, eſpecially ſuch as are growne to ſuppuration and be at hand to break: the ſame purgeth the belly. The leaues of the Mulberry tree infuſed & ſoked in vrine, fetch off the haire from thoſe skins which are to be courried and dreſſed.

Cherries looſen the belly, and be hurtfull to the ſtomack; yet, if they be hanged vp and dried, they do bind the belly, and prouoke vrine. I find a notable experiment in ſome authors, That if a man eat Chery-ſtones and all in a morning, new gathered from the tree with the dew vpon them, they will purge ſo effectually, that he ſhall find himſelfe cleane rid from the gout of the feet, if he were diſeaſed that way.

B Medlars, all of them, except thoſe great ones called Setania (which indeed are more like to Apples) do cloſe vp the ſtomack, and bind the belly. In like manner Sorueiſes, if they be dried; for being freſh and new gathered, they be good to ſcoure and ſend excrements ſpeedily out of the ſtomacke and belly both.

Chap. XVIII.

¶ Of Pine-nut s, or Pine-apples: of Almonds, Filberds, and Hazell-nuts: of Wal-nuts, Fiſticks, Cheſtnuts, Carobs, and Cornoils. Of the fruit of the Arbut or Strawberry tree, and the Bay.

C THe Pine apples or nuts, which haue roſin in them, if they be lightly bruiſed, and then ſodden to the half in water, with this proportion, to wit, one ſextar of water to euery ſuch apple, do yeeld a decoction ſingular good for ſuch as reach and ſpit vp bloud; ſo that the patient drink two cyaths thereof at one time. The decoction likewiſe of the Pine-tree barke boiled in wine, is giuen to drink for the pains and torments in the belly. The kernels of the Pine-nuts quench thirſt; they pacifie and ſtil the frettings and gnawings of the ſtomack: they rectifie the corrupt and putrified humors there ſetled and bedded: they ſtrengthen weak bodies in manner of a reſtoratiue, and are right good & agreeable to the reins and bladder: howbeit they ſeem to exaſperat the throat, & to encreaſe a cough. Being taken inwardly, either in water, wine, ſweet cuit, or the decoction of * dates or tamarinds, they purge cholerick humors: when the gnawing *Balanorum decoctio.*
D gripes within the ſtomack be exceeding violent and painfull, it is good to mix therewith Cucumber ſeed and the juice of Pourcellane: likewiſe in caſe either bladder or kidnies be exulcerat: for diureticall they be alſo, and prouoke vrine.

Touching the bitter Almond tree, the decoction of the roots thereof, doth ſupple the skin and lay it euen and ſmooth without wrinckles; it imbeliſheth the viſage with a freſh, liuely, and cheerfull colour. The bitter Almonds themſelues bring folk to ſleep, and get them appetite to their meat: they moue vrine, and ſtir the ordinary courſe of womens monethly fleurs: they ſerue in a liniment for the head-ach, eſpecially in feuers; but if the ſaid head-ach come by occaſion of drunkenneſſe or a ſurfet of wine, they would be applied with vineger, oile roſat, and a ſextar of water. They haue a property to ſtanch bleeding, mixed with Amylfloure and mints. They are
E good in a lethargy, and the falling ſickneſſe, if the head be therewith annointed all ouer. They cure the angry night-foes, called chilblanes and bloudy-falls: applied with cold wine, they cure vlcers which grow to putrifaction; and with hony, the bitings of mad dogs: they take away the ſcales and dandruffe about the face, if ſo be there haue bin vſed before, ſome conuenient fomentation to prepare the skin for this medicine. An Almond milk drawn with water, and taken as a drinke, eaſeth the pains of the liuer and kidnies. Bitter Almonds reduced into a loch with Terpentine, worke the ſame effect, ſo that the Patient be often licking thereof. For thoſe who be troubled with the ſtone and grauell, with difficultie alſo of piſſing, they be very effectuall if they be taken with ſweet wine cuit: alſo beaten with honied water, they be ſingular to cleanſe the skin, and make it look neat and faire. Reduced into the form of a loch with hony, they be whol-
F ſome for the liuer, good to ripen and diſpatch a cough, & excellent for to mitigat the paines of the cholique: and this electuarie muſt bee taken, to the quantity of one hazell nut at a time, with a little ſauge put thereto. It is ſaid, that our luſty toſſe-pots and ſwil-bols, if they eat foure or fiue bitter almonds before they ſit them down to drink, ſhall beare their liquor well, and neuer be drunke, quaffe they and poure they downe as much as they wil: alſo, that if foxes chance

to eat of them, and cannot come by water neere at hand to lap, they wil die thereof. Sweet almonds are not ſo medicinable as the bitter, and yet they be purgatiue, abſterſiue, and diureticall. If they be new and freſh, they charge and ſtuffe the ſtomacke. G

Hazel-nuts and Filbirds, otherwiſe called the Greekiſh nuts, beeing taken in vineger with wormwood ſeed, cure the yellow jauniſe, as it is commonly ſaid: & a liniment made with them doth help the diſeaſes incident to the ſeat, and particularly the piles and ſwelling bigs there appearing. The ſame medicine is good for the cough, and ſuch as ſpit and caſt vp bloud.

κάρυον, of κάρη, i. the head: like as in Latin, *Nux, a nocendo, vel necendo*

As for Walnuts, the Greeks haue giuen them a * name importing as much as the heauines of head, and not without good cauſe, for the very ſhade of the tree and the ſent of the leaues, do pierce and enter into the head: ſo do the kernels alſo in leſſe while, if they be eaten: now the newer they be, the more pleaſant taſt they haue: the drie are more oily and vnctious, hurtfull to the ſtomack, hard of digeſtion, cauſing head-ach, naught for them who haue a cough, and for ſuch as would vomit in a morning faſting: good only in that troubleſom running to the ſtoole and ſtraining for nought, by reaſon of their property to euacuat fleam. The ſame being eaten before meat, do dull the force of any poiſons: they help the ſquinancy alſo, applied with Rue and oil. Aduerſe & contrary they are to the nature of onions, & do keep down & repreſſe their ſtrong ſmell which riſeth from them, after a man hath eaten them. Applied with a little hony, they are thought to be very good for the inflammation of the eares; & with Rue, for the breſts and paps; as alſo for diſlocations and parts out of ioint. But if they be vſed with onions, ſalt, and hony, they are ſingular for the biting both of dog & man. The ſhel of a wal-nut, is thought to be of a cauſtick quality, and good to burn or ſeare an hollow tooth: the ſame being burnt, pulverized, and incorporat with oile or wine, ſerueth to annoint the heads of yong babes for to make the hair grow thick: & in that maner it is vſed to bring the haire again of elder folk, when through ſome infirmity it is ſhed. The more Walnuts that one eateth, with more eaſe ſhal he driue worms out of the belly. VVal-nuts that haue bin very long kept, do cure carbuncles, gangrenes tending to mortification, and reduce the black and blew ſpots (remaining after ſtripes) to their own color. The bark of the wal-nut tree, is a ſoueraign remedy for the bloudy flix, and the foule tettars or ringworms. The leaues bruiſed & ſtamped with vineger, & ſo applied, put away the pain of the ears. After that *Mithridates* (that moſt mighty and puiſſant king) was vanquiſhed, *Cneus Pompeius* found in his ſecret cloſet or cabinet, among other precious jewels, the receit of a certain antidote or preſeruatiue againſt poiſon, ſet down vnder the hand of the ſayd prince, in a priuat note-book of remembrances, in this maner following: Take 2 dry walnut kernels, as many figs, of rue, 20 leaues: ſtamp al theſe together into one maſſe, with a graine or corn of ſalt among. Vnder which receit, was thus much ſubſcribed, VVhoſoeuer vſe to eat of this confection in a morning next his heart, there ſhall no poiſon hurt him that day. It is ſaid moreouer, that the kernels of walnuts chewed by a man or woman faſting, doe cure the biting of a mad dog, ſo that the place be annointed and dreſſed therewith. H I K

But to return again to Hazle-nuts and filberds, they do cauſe head-ach, they breed winde in the ſtomack: and a man would not think nor beleeue, how ſoon they wil make one fat, but that experience approueth it. If they be roſted or torrified, they cure a rheume: and if they be beaten to pouder, and giuen to drink in honied water, they rid away an old cough that hath ſtucke to one a long time: ſome put thereto certain pepper cornes, and others drinke them in wine cuit that is ſweet. Fiſticks are vſed in the ſame ſort, and haue the ſame operation and effects as the Pine-nut kernels haue: ouer and aboue, they are ſoueraigne for the ſting of ſerpents, whether they be eaten or taken in drinke. L

Cheſtnuts be exceeding aſtringent, and mightily ſtay all fluxes both of the ſtomack and the belly: for ſuch as ſcour ouermuch and haue *a great lask vpon them: alſo for them who reach vp bloud, they be paſſing wholeſome; and withall, nutritiue and breeding good faſt fleſh.

* *Aluo citæ, & non aluũ cient.*

Carobs, which be freſh and greene, are hurtfull to the ſtomacke, and doe looſe the belly; yet the ſame, if they be dried, do bind, and are more wholſome for the ſtomacke: diureticall they be alſo, and prouoke vrine. As for thoſe Carobs or Cods of Syria, ſome vſe to ſeeth three of them in a ſextar of water vntill halfe be conſumed, and drink that iuice or liquor thereof for the paine of the ſtomack. If a man take the green twigs of a Corneil tree, there will (by the meanes of a red hot plate or ſlice of yron ſet vnto them) ſweat or fry out a certain liquid humor, which muſt be receiued ſo, as no wood touch it: the ruſt of yron beſmeared with this liquor, cureth foul tettars M

A tars and ringwormes called Lichnes,if they be taken at the firſt before they haue run far. The Arbut or Strawberry tree,otherwiſe named Vnedo,beareth a fruit hard of digeſtion,and offenſiue to the ſtomack. The Lawrell,both leafe,bark,and berry,is by nature hot;and therefore it is agreed among all writers,That their decoction, eſpecially of the leaues, is comfortable to the bladder and natural parts of women:the ſame being applied as a liniment,be ſingular good for the prick or ſting of waſps,hornets,and bees;and likewiſe againſt the poiſons of ſerpents, eſpecially of the viper,and Seps otherwiſe called Dipſas.Boiled with oile, they are good to bring down womens fleurs. The tender leaues of the Bay ſtamped,and mixed with groſſe barly meale or groats,cure the inflammations of the eies:with Rue,they help the hot tumors and ſwellings of the cods:but incorporat with oile Roſat,or with oile of Ireos or floure-de-lys, they aſſuage
B the head-ach. Whoſoeuer doth chew and ſwallow downe three bay leaues, for three daies together,ſhall be deliuered by that means from the cough. The ſame, if they beaten to pouder & reduced into an electuary or loch with hony,are good for ſuch as be purſie and labor for wind. The bark or rind growing to the root, is dangerous for women great with child,and ſuch muſt take heed how they meddle with it. The very root it ſelfe,breaketh or diſſolueth the ſtone, and is wholſom for the liuer, if it be taken to the weight of three oboli in odoriferous wine. Bay leaues giuen to drink,do prouoke vomit. Bay berries bruiſed and ſo applied, or otherwiſe pulverized and taken in drink,draw down the iſſue of womens terms. Take two Bay Berries, rid or cleanſe them from their huske and drinke them in wine, it is a ſingular medicine for inueterate coughs,& the difficulty or ſtraitneſſe of breath,when a man is forced to ſit vpright for to fetch
C and deliuer his wind:howbeit, if the Patient be in a feuer,it is better to take theſe berries in water;or els by way of a loch or electuary,after they haue bin ſodden in honied water or ſweet cuit. And in this manner they be good in a phthiſick or conſumption of the lungs, & all catarrhs which fall to the pectorall parts;for they ripen fleam,and ſend it out of the cheſt. Foure Bay berries drunk with wine,are a good remedy for the ſting of ſcorpions. The ſame being brought to pouder and reduced into a liniment with oile,& ſo applied, do heale the bloudy-fals called Epinyctides;rid away freckles and pimples;cure running ſcalls and vlcers,cankers and ſores in the mouth;and clenſe the body of ſcurfe,ſcals,and dandruffe. The juice drawn out of Bay berries,killeth an itch that fretteth the skin,& beſides, the lice that crawle and ſwarm all ouer the body. The ſame,mingled with old wine and oile roſat,and ſo dropped into the ears,cureth their
D pain and deafneſſe: and whoſoeuer be annointed all ouer therewith, need feare no venomous things,for they will flie from them. The ſame iuice,eſpecially if it be drawn from the beries of that Lawrel which hath the ſmaller and thinner leaues,may be taken in drink, and ſo it is effectuall againſt all ſtings. The berries drunk in wine,withſtand the venom of ſerpents,ſcorpions, and ſpiders. Brought into a liniment with oile and vineger,and ſo applied,they help the ſpleen and liuer;but with hony,they heale gangrens. Such as be wearied with trauel,or otherwiſe ſtiffe and benummed with cold,find much good by being annointed with the ſaid liniment or iuice, if ſome ſal-nitre be put thereto. Some are of opinion,That if a woman in labor drink the quantity of one acetable of the Lawrell root in water,ſhee ſhall haue the more ſpeedy deliuerance: and for this purpoſe(they ſay)that a freſh and green root is better than a dry. Others preſcribe,
E to giue in drink ten bay berries againſt the prick of ſcorpions. Alſo when the Vvula is falne, ſome giue counſell to take three ounces of the leaues and berries, and ſeeth them in three ſextars of water to the thirds,& to gargarize with this decoction hot:alſo for the head-ach,to take ſome odde number of bay berries,and ſtamp them with oile into a liniment, & therwith to annoint the fore-head & temples,as hot as the patient can well abide it. The leaues of the Delphick Lawrel beaten to pouder,and held to the noſe and ſmelled vnto euer and anon,ſerue for a good preſeruatiue in time of the contagious peſtilence;and the rather, if they be burnt, their perfume doth rectifie the infection of the aire. The oile of the ſaid baies of the Iſle Delphos,is good for to make thoſe cerots which put away laſſitude & wearineſſe,to diſcuſſe & reſolue the cold humors which cauſe quiuering and quaking,to mollifie and ſtretch the ſinews,to allay the
F pain of the ſides in a pleuriſie,and laſt of all, to driue away the cold fits of agues. Semblably,if the ſame be warmed in the rind of a Pomgranat,& inſtilled into the ears,it eaſes their pain:the leaues boiled in water to the conſumption of a third part,keepe vp the Vvula, vſed by way of a gargariſme:but the ſaid decoction taken inwardly,allaieth the pains of belly and guts; the tendreſt leaues that may be had,ſtampt with wine into a liniment,do repreſſe & keep down wheals

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and itching, if the body be annointed therwith euery night. Next vnto this, the other kinds are G
to be ranged according to the validitie of their operation. As for the Lawrell Alexandrica or Idæa, if a woman in trauell of child-birth take three deniers weight of the root, and drinke the ſame in three cyaths of ſweet wine, ſhe ſhall be quickly deliuered and brought to bed: the ſame drink ſendeth forth the after-birth, and prouoketh womens monthly terms.

Daphnoides, or the wild Lawrell (or call it by any other of thoſe names before rehearſed) hath many good vertues: it purgeth the belly, if you take the leaſe either green or drie, to the weight of three drams with ſalt, in hydromel or honyed water: being chewed, it draweth downe flegmatick and watery humors. The leaf alſo moueth to vomit, and is offenſiue to the ſtomack. The berries likewiſe be purgatiue, if a man take fiue or ten of them at once.

H

Chap. IX.

¶ *Of the tame or gentle Myrtle tree planted. Of Myrtidanum, and the wilde Myrtle.*

OF garden Myrtles, the white is not ſo medicinable as the black: the fruit or berries of the Myrtle, help thoſe that reach vp bloud: taken with wine, they put by the danger of venomous muſhrums: chew them in your mouth, your breath will be the ſweeter for it two daies after. It appeareth by the Poet *Menander*, that the good-fellows Synariſteuſæ were wont to eat Myrtle berries: the weight of one denier in wine, is good for the bloudy flix. If they haue a little ſiuering or waulm ouer the fire in wine, they make a good water or liquor to cure vntoward vlcers to heale, eſpecially ſuch as be in the extreame parts of the body. Of them and barley I
groats, there is made a cataplaſme for bleered eies: for the fainting alſo and trembling of the heart, being applied to the left pap or breaſt. In like manner, the ſame being vſed with pure vndelaied wine, is ſingular for the prick of ſcorpions: for the infirmities of the bladder, the headach, and the apoſtemations betweene the angle of the eies and the noſe, if they be taken before they yeeld filthy matter: and ſo they cure other tumors or ſwellings: and if their pepins or kernels be taken forth, and then incorporat with old wine, they be ſingular for the ſmall pocks and meazles. The juice of Myrtle berries bindeth the belly, but prouoketh vrine. A liniment alſo is made thereof with wax, for the ſaid pox and meazles: alſo againſt the ſting of the venomous ſpiders Phalangia. The ſaid juice doth colour the haire blacke. Of the ſame Myrtle there is an oile made, more lenitiue and mild than the iuice or liquor aboue-named: & yet there is a wine K
of Myrtles more kind & gentle than it, which wil neuer ouerturn the brain or make one drunk. The ſame, if it haue lien and be ſtale, bindeth the belly and ſtaieth a laske: it ſtrengtheneth the ſtomack alſo, and repreſſeth vomits: it aſſuageth the griping pains in the guts, and reſtoreth appetite to meat: the pouder of drie Myrtle leaues, reſtraineth ſweats, if the body be ſtrewed therwith, though it were in a feuer. The ſame pouder is good for the feebleneſſe of the ſtomack, and the flux from thence proceeding: it reduceth the matrice into the right place, when it beareth down out of the body: it cureth the infirmities of the ſeat; healeth running ſcalls and vlcers; wariſheth S. *Anthonies* fire, and the ſhingles, being vſed thereto in ſome fomentation; retaineth and ſtaieth the haires ready to ſhed; ſcoureth away dandruffe; drieth vp wheals, pocks, and meazles; and laſt of all skinneth burnes and ſcaldings. The pouder entreth into thoſe vnguinous or L
oleous plaſters which the Greeks call Liparas. And ſuch a kind of plaſter in like manner as the oyle of theſe Myrtle berries, is moſt effectuall in thoſe ſores which light vpon moiſt parts, as for example the mouth and the matrice. The leaues in ſubſtance, beaten to pouder and tempered with wine, are a counterpoiſon againſt venomous muſhrums; but incorporat with wax into a liniment, they do eaſe the gout of any joints, and driue back riſings and impoſtumations. The ſame leaues boiled in wine, are giuen to drink for the bloudy flix, and the dropſie. VVhen they be dried and brought into pouder, they ſerue to caſt and ſtrew vpon vlcers; alſo to reſtraine any bleeding. They ſcoure away freckles, and ſuch like ſpots of the skin: they heale the riſing, ouergrowing, and parting of the skin about the naile roots; alſo whitflaws, chilblanes, piles, & ſwelling bigs in the fundament; the accidents befalling to the cods; filthy maligne and morimall vlcers; and laſt of all, burns (applied in manner of a cerot.) For the ears running with filthy mat- M
ter, there is good vſe of the leaues burnt; alſo of their juice and decoction. The ſame are likewiſe burned, to ſerue for certain antidots or counterpoiſons. In like manner, to the ſaid purpoſe the tender ſprigs of the Myrtle with the floure vpon them, are gathered and calcined within an

ouen,

A ouen, in a new earthen pot, well couered and cloſe luted: after which they be reduced into pouder, and mixed with wine. The aſhes of the leaues burnt, healeth burnes. To keepe the ſhare or groine from ſwelling, although there be an vlcer there, it is ſufficient, if the party haue about him a ſhoot or branch only of the Myrtle; prouided alwaies, that it touched neither yron nor the earth.

As touching Myrtidarum, how it is made I haue ſhewed already. Applied vnto the matrice or natural parts of a woman either by way of fomentation or liniment, it doth much good. And much better, if it be made with the bark, leafe, and berry of the Myrtle. Moreouer, of the ſofteſt leaues braied and ſtamped in a mortar, there is a juice preſſed forth, by pouring green wine by little and little among, and otherwhiles raine water: which is vſed much for the vlcers and ſores
B of mouth, ſeat, matrice, and belly: to dye the haire black: to waſh and *bath the arm-holes with: to ſcoure away ſpots and freckles: and in one word, when and whereſoeuer there is need of aſtriction. * *Alarum perfuſiones.*

The wilde Myrtle or Oxymyrſine, called alſo Chamæmyrſine, differeth from the ciuill and gentle Myrtle, in the redneſſe of the berries, and the ſmal growth. The root is highly eſteemed: for boiled in wine, and ſo taken in drink, it cureth the paine in the raines, the difficulty of vrine, eſpecially when it is thick, and of a ſtrong ſauor. The jaundiſe alſo it helpeth, and cleanſeth the matrice, if it be brought into pouder, and mixed with wine. The yong and tender buds eaten after the manner of Sperage crops with meat, firſt roſted in the embers; the ſeed likewiſe taken in wine, oile, or vineger, break the ſtone. The ſame ſeed ſtamped and drawne with vineger and oyle
C roſat, allaieth the head-ach; but in drink it cureth the jaundiſe. *Caſtor* called Oxymyrſine (with the ſharp prickie leaues like the Myrtle, and wherewith beeſomes be made) by the name of Ruſcus, and ſaith it hath the ſame properties. Thus much for planted trees, and their medicinable vertues: proceed we now forward to the wild.

D

THE TVVENTY FOVRTH BOOK OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

E

The Proeme.

CHAP. I.

¶ *Medicinable vertues obſerued in wild trees.*

F NAture, that ſacred and bleſſed mother of all things, willing and deſirous that man, whom ſhe loueth ſo well, ſhould find euery place ſtored with proper and conuenient remedies for all maladies incident vnto him; hath ſo diſpoſed of her workes, and taken that order, that the rough woods and forreſts, euen the moſt hideous parts of the earth, and fearfull to ſee vnto, bee not without their plants medicinable. Nay, the very wilds and deſarts are enriched and furniſhed therewith: inſomuch, as in euerie coaſt and corner of the world there may be obſerued both ſympathies and antipathies (I meane thoſe naturall combinations and contrarieties in thoſe her creatures.) From whence proceed the greateſt miracles which are to bee ſeene in this round Fabricke and admirable frame.

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frame. For firſt and formoſt, the Oke and the oliue tree beare ſuch mutual rancor and malice (as it were) and are ſo ſtiffely bent to war one with another, that if a man replant one of theſe trees in the trench or hole from whence the other was taken vp, it wil ſurely die. Alſo, if an Oke be ſet neare vnto a walnut-tree, it wil not liue. The Colewort and the Vine hate one another to the very death; in ſuch ſort, that if a Vine ſtand neare vnto it, a man ſhall ſenſibly perceiue the ſame to ſhrinke away and recule backward from it: and yet this wort, which maketh the Vine thus to retire and flie, if it chance to grow ouer-againſt Origan or Cyclamine, will ſoone wither and die. Moreouer, it is commonly ſaid, That trees in the forreſt fully grown, which haue ſtood many a yeare, and namely ſuch as are ready to be fallen and laid along for timber, proue harder to be hewed, and ſooner wax dry, if a man touch them with his hand before hee ſet the edge of the axe to their butt. And ſome ſay, that pack-horſes, aſſes, and other labouring beaſts which haue Apples and ſuch like fruit aload, wil quickly ſhrinke and complaine vnder their burden, yea, & preſently run all to ſweat (carry they but a very few to ſpeak of) vnleſſe the ſaid fruit, wherewith they are to be charged, be firſt ſhewed vnto them. Aſſes finde great contentment and good by feeding vpon Fenel-geant or Ferula plants: and yet to horſes, garrons, & other beaſts of cariage and draught, they are preſent poiſon, if they eat them: which is the cauſe that the Aſſe is a beaſt conſecrated vnto the god *Bacchus*, as well as the foreſaid plant Ferula. Ouer and beſides (ſee the admirable operation in Nature) the very inſenſible and liueleſſe creatures, yea, the leaſt that be, meet euery one of them with ſome contrary thing or other, which is their bane and poiſon: for as our cooks know well enough, the inner bark of the Linden tree ſliued thin into broad flakes and fine boulted floure together, doe drink and ſuck vp the ſalt of viands, ouermuch poudered, and make it freſh again. Likewiſe, ſalt giueth a good relliſh to any meat that is ouer ſweet, and tempereth thoſe that haue a luſhious and wallowiſh taſt. If water be nitrous, brackiſh, & bitter, put ſome fried barly meale into it, within two houres and leſſe it will be ſo well amended and ſweet, that a man may drink thereof: and this is the reaſon that the ſaid Barly meale is put ordinarily in thoſe ſtrainers and bags through which wines do paſſe, that thereby they may be refined and drawn the ſooner. Of the ſame operation alſo and effect there is a kind of chalke in the Iſland of Rhodes: and our clay here in Italy will do as much. Thus you ſee what enmity & diſcord there is in ſome things. Contrariwiſe, we may obſerue in others, how wonderfully they accord and agree together: for pitch will diſſolue, ſpread, and be drawne out with oile, being both as they are of a fatty nature; oile alone will incorporat and mingle well with lime; & they hate water, the one as well as the other. Gums are ſooner diſſolued and more eaſily tempered with vineger than with any thing els; & ink with water: beſides an infinit number of other ſuch, that I ſhall haue occaſion to write of continually in their due places. And indeed, this is the very ground and foundation of all our Phyſick. For (to ſay a truth) Nature ordained at the firſt ſuch things and none but ſuch, for to be the remedies of our diſeaſes, which we feed & liue daily vpon; euen thoſe which are ſoon found and as ſoon prepared, which be ready at hand, common euery where, and coſt vs little or nothing at all. But afterwards the world grew to be ſo full of deceit and couſenage, that ſome fine wits and nimble heads deuiſed to ſet vp Apothecary ſhops, promiſing and bearing vs in hand, that euery man might buy his life and health there for mony. Then anon a ſort of compoſitions, mixtures, and confections were ſet on foot; then there was no talk but of ſtrange and intricat receits, and theſe were bruited abroad for the only medicines, of wonderfull and vnſpeakable operations. So that now adaies wee vſe no other drugs but thoſe that come from Arabia and India. And if a man aile neuer ſo little, or haue the leaſt puſh or wheale about him, he muſt haue ſome coſtly Phyſick forſooth for it: & a plaſter that came from as far as the red ſea: whereas in truth, the right remedies appropriat for euery maladie, be no other than ſuch as the pooreſt man that is feedeth vpon euerie night ordinarily at his ſupper. But if we went no farther than to the garden for medicines, and ſought after herbs, ſhrubs, and plants only, for to cure our ſickneſſe, or maintain our health, certes there were not a baſer occupation in the world than the profeſſion of Phyſick, and Phyſitians would be nought ſet by: but will you haue the truth? To this paſſe are we come, the old world we haue bidden farewell vnto: the antient manners and rites of Rome citie are dead and gone: our ſtate is growne ſo much in greatneſſe, as there is no goodneſſe left. Our victories and conqueſts be theſe, and nothing elſe, which haue vanquiſhed & ſubdued vs: for ſubiect we muſt acknowledge our ſelues to ſtrangers and forraine Nations, ſolong as Phyſicke (one of their Arts) is able to command our commanders,

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A ders, and ouerrule our Emperors. But the diſcourſe of this matter in more ample manner, I will reſerue to ſome other time and place.

Chap. II.

¶ *Of Lotos.*

AS touching the herbe * Lotos, the Ægyptian plant likewiſe of that name: as alſo, of ano- * Called otherwiſe *Colocaſia*, and the Egyptian Beane.
ther tree about the Syrtes ſo called, I haue written ſufficiently in their due places: as for this Lotos, which our countrymen call in Latine the Greekiſh Bean, hath a property for to bind and knit the flux of the belly, with the fruit or berries which it beareth. The ſhauings
B or ſcrapings of the wood therof, boiled in wine, and ſo taken inwardly, cure the bloudy flix and exulceration of the guts; repreſſe the immoderat flowing of womens moneths; help the dizzineſſe and ſwimming of the braine; and thoſe who be ſubiect to the falling ſickneſs: the ſame decoction alſo * keepeth the haires from ſhedding, if the place be bathed therewith. But won- * *cohibent capillum. Dioſc.* hath *ἐυθρίξους*, *i. Rufant, i.* coloureth them yellow.
derfull it is, that theſe ſmall ſhauings ſhould be ſo bitter, as nothing more, when the fruit it ſelf is as ſweet as any other. Moreouer, of the fine duſt ſawed or filed from this wood, ſodden in Myrtle water, then kneaded or wrought into paſt, & ſo reduced into ſeuerall trochisks, there is a ſoueraigne medicine made for the bloudy flix: if the patient drinke the weight of one Victoriat or halfe dram of theſe troſches in three cyaths of water.

C

Chap. III.

¶ *Of Maſt.*

ACornes or Maſt of the Oke, beaten to pouder, & incorporat with Hogs lard ſalted, heale all thoſe hard and ſwelling cankerous vlcers, which they call in Greeke Cacoethe. In all theſe trees bearing Maſt, the very ſubſtance of the wood is more forcible than the fruit; the outward bark more than the wood; and the inner rind or tunicle vnder it, more than the bark or all the reſt. This membrane or pellicle if it be boiled, is ſingular for the flux of the ſtomack, proceeding of weakneſſe. The very Maſt or Acorne it ſelfe reduced into a liniment and applied, ſtaieth the bloudy flix: and the ſame reſiſteth the venom of ſerpents ſtings, reſtraineth
D rheums, and catarrhs, and namely, that flux of humors which cauſeth apoſtemations. As well the leaues, the maſt or beries of this tree, as the bark or juice drawn from it, after boiling, are excellent againſt the poiſons called in Greek Toxica. The barke ſodden and brought into a liniment with Cow-milk, is very good to be applied vnto the place where ſerpents haue bitten or ſtung; it is giuen alſo in wine for the bloudy flix: of the ſame vertue & efficacy is the holm-oke

Chap. IIII.

¶ *Of the [Scarlet] graine of Holme-oke: of Galls and Miſſelto: of certaine little balls growing vpon the Oke: of Maſt: of the root of * Cerrus: and of Corke.*

* The great Holm-Oke.
* *Coccum Ilicis* our Kermes or Kutchenel, as ſome thinke.

E THe * Scarlet graine growing vpon the Oke-holm, is very good to be laid to freſh wounds with vineger. It is applied with water for the flux of watery humors vnto the eies: & dropped likewiſe into them when they be bloud-ſhotten. Now there is a kind of it growing commonly in the region of Attica and throughout Natolia, which very quickly turneth to be a grub or Magot (wherupon it is called Scolecion) and is rejected, as being of no worth. Many more ſorts there be of it, whereof the chiefe and principall I haue ſhewed already.

As touching the Gal-nuts, I haue likewiſe made of it as many kinds: for ſome be ſolid and maſſie, others full of holes, as if they were bored through. You ſhall haue of them white, and black: ſome great, & others ſmal: but how different ſoeuer they be in ſubſtance, colour, or quantity, they be all of like nature. The beſt are thoſe of Comagene. Gals are good to eat away the
F ſuperfluous excreſcences in the body. They ſerue very wel for the infirmities of the gums and uvula; for the cankers & exulcerations breeding in the mouth. Being firſt burnt, & then quenched in wine, they are ſingular for the fluxes occaſioned by a feeble ſtomack. Applied in maner of a liniment, they help the bloudy flix. Incorporat in hony, they cure whitflaws, riſings, & partings of the fleſh and skin about the naile roots; the roughneſſe of the nailes, the running ſcals

and

and vlcers in the head: the knobs or ſwelling piles in the fundament, and in one word, all thoſe corroſiue and eating vlcers, which conſume the fleſh to the very bone. Boiled in wine, and ſo inſtilled into the eares, they cure the infirmities of that part. So do they likewiſe help the eies, if they be annointed therewith. Applied with vineger, they diſcuſſe fiegmatick wheales and ſuch like breakings out, as alſo the flat biles and impoſtumes called Pani: the round kernell within them if it be chewed, allaieth the tooth-ach. The ſame is good to skin raw and galled places, & any burn or ſcalded place. Take vnripe Gal-nuts, & drink them with vineger, they wil conſume and weare away the ſwelled ſpleen. Burn the ſame, and quench them with ſalted vineger; a fomentation thereof, ſtaieth the immoderat flux of womens fleurs, & reduceth the matrice (fallen downe) into the right place. All the ſort of theſe Gals do colour the haires of the head blacke. G

Concerning Miſſelto: That the principall and beſt is found vpon the Oke, how it is cut and in what maner birdlime is made therof, I haue already ſhewed. Some for to make the ſaid glew or birdlime, ſtamp Miſſelto firſt, and then ſeeth it in water, * vntill it ſwim aloft. Others vſe to chew the grains or kernels onely which they beare, and ſpit out their outward pils or skins. But the very beſt is that, which hath no husk or skin at all: which alſo is the * ſmootheſt: without-forth of a light tawnie or yellowiſh red: within, as greene as a leeke: for indeed, there is not a thing more glutinous or glewy than it. This Miſſelto is a great emollitiue; for it ſofteneth, diſcuſſeth and reſolueth alſo hard tumors: it is excicatiue beſides, and drieth vp the Scrophules or ſwelling kernels, knowne by the name of the kings euill. If it be incorporat with roſin & wax, it mitigateth all ſorts of impoſtumes or flat biles whatſoeuer. Some put thereto Galbanum alſo, in equall quantity or weight: and ſo vſe it in the ſame manner for to heale wounds. It polliſheth and maketh ſmooth the rough & vneuen nails, if it be laid too for ſeuen daies, and the medicine not remoued before: but the nails ought to be wel waſhed with ſalnitre. Some obſerue certain ſuperſtitious ceremonies herein, and are of opinion, That it will worke the better & with more efficacy, in caſe it be gathered from the Oke, the firſt day of the new Moon: alſo if it be not cut downe with any bill, hook, knife, or edged yron toole. Moreouer, they do hold, That if it touch not the ground, it cureth thoſe who are troubled with the falling ſicknes. Semblably, if women do but carry it about them, it helpeth them to conceiue. Finally, if it be chewed and ſo applied vnto vlcers, it is moſt effectuall to heale them perfectly. H I

Donec innatet Some read *Donec nihil innatet*: that is, ſo long vntill it ſettle all to the bottom, which may ſtand wel with the firſt reading in this ſence, ſo long as it ſwimmes aloft:

* *Sæviſſimum.*

As for the little round bals or apples found vpon the Oke Robur, if they be incorporat with Bears greaſe, they cauſe the haire to come thick again, where it is ſhed, in caſe the bare or bald place be annointed therewith. K

Of the great Oke Holm Cerrus, thus much I haue to ſay, That the leaues, the bark, and maſt thereof do diſcuſſe and drie vp all gathering of impoſtumations, enen ſuch as grow to ſuppuration or mattering; and ſtay the flux of humors which feed them. A decoction thereof doth corroborat any member or part of the body which groweth to be ſenceleſſe or benummed, if the ſame be fomented therwith. Alſo for to dry, bind, & confirm any part which is feeble & weak, it is ſingular good to ſit in a bath of this decoction. The root of this Cerrus is powerful againſt the prick of ſcorpions. D

The bark of the Corke tree beaten into pouder and taken in hot water, is excellent for to repreſſe any flux of bloud, whether it be vpward or downward. The aſhes of the ſaid bark giuen in wine hot, is greatly commended for the reaching and ſpitting of bloud. L

Chap. V.

¶ *Of the Beech and Cypreſſe trees. Of the great Cedars and their fruit called Cedrides: of Galbanum.*

THe leaues of the Beech tree being chewed, do much good to the gums and lips, in any accidents that befall vnto them. The aſhes of Beech maſt is ſingular for the * ſtone, if it bee applied as a liniment. The ſame alſo bringeth haire againe, when by occaſion of ſickneſſe it is ſhed and fallen away, if the place be annointed with it and hony together.

* *Calculis.* Some reade, *oculis*, *i.* eyes: others, *Callis*, *i.* hard knots or calloſities: & both to better ſence in mine opinion.

Cypreſſe tree leanes ſtamped and ſo applied, are a conuenient remedie for the ſting of Serpents. Alſo laid vnto the head with dried groats of Barley, they eaſe the pain therof, occaſioned by the heat of the Sunne. In like ſort, the ſame cataplaſme cureth ruptures. For which cauſe a drinke made of them is very good. A liniment alſo of Cypreſſe leaues and waxe mingled together, M

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A ther,aſſuageth the ſwelling of the cods. Tempered with vineger, they will make the haire cole black. Moreouer,if they be ſtamped with two parts of ſoft dough or the tender crums of bread, & ſo incorporat together with Ammînean wine,they allay the paine of the feet or the ſinews. The little bals or Apples hanging vpon Cypreſſe trees,are ſoueraigne for to be taken in drinke againſt the ſting of ſerpents,and for the caſting vp of bloud out of the body. Brought into an ointment,they ſerue for the ſwellings or impoſtumes gathered to a place. Take them whiles they be yong and tender,ſtamp them with ſwines greaſe and Bean floure,they do much good to thoſe that are burſten:and for that purpoſe a drink made of them, is paſſing effectuall. With ordinary meale they ſerue in a cataplaſme to be applied vpon the ſwelling kernels behinde the ears,as alſo the kings euill. There is a juice drawn out of theſe apples after they haue bin ſtam-
B ped together with their grains or ſeed within:which if it be mingled with oile,helpeth them to their cleare ſight again,whoſe eies are ouercaſt with a web & dimmed. The ſame effect it hath if it be taken in wine to the weight of one Victoriat or halfe dram. But Cypreſſe apples rid and cleanſed from their grains within,and reduced into a liniment with fat dried figs, and ſo applied vnto the cods,cure their infirmities,and namely,reſolue the tumors incident to thoſe parts: but incorporat with leuaine,they diſpatch the Scrophules or kings euill. The root and leaues punned together,and then taken in drink,do comfort the bladder, and help ſuch as are diſeaſed with the ſtrangury:they ſerue alſo againſt the prick of the venomous ſpiders Phalangia. Their ſmall ſhauings or ſcrapings if a woman take in her drinke, procure her monethly terms,and are ſingular for the ſting of ſcorpions.

C The great Cedar,called by the Greeks Cedrelate,as one would ſay,the Fir-Cedre,yeeldeth a certain pitch or parroſin named Cedria,a ſingular medicine for the tooth-ach; for it breaketh them,fetcheth them out of the head and eaſeth all their pain. As touching the liquor that runneth from the Cedar,and the manner how it is made,I haue written already:this*kind of pitch were excellent for the eies but for one diſcommodity,in that it cauſeth head-ach. It preſerueth dead bodies from corruption,a world of yeares:contrariwiſe,liuing bodies it doth putrifie and corrupt. A ſtrange and wonderfull property,thus to mortifie the quick,and quicken(as it were) the dead. It marreth and rotteth apparell,as wel linnen as woollen:and it killeth all liuing creatures. And therefore I would not aduiſe as ſome haue done,to taſt this medicine and take it inwardly for the ſquinancie or crudities of the ſtomack:neither would I be bold,but fear rather,to
D preſcribe it in a collution with vineger to waſh the mouth withall for the toothach, or to drop it into their eares who be hard of hearing or otherwiſe haue vermine within them. But a monſtrous and beaſtly thing it is which ſome report of it, That if a man do annoint therwith the inſtrument or part ſeruing for generation,at what time as he is minded to know a woman carnally,it wil bring her to an * abortiue ſlip,if ſhe were conceiued before;or hinder conception,if ſhe were cleare. Howbeit,I would not make doubt to annoint therwith the head & other parts, for to kill lice,or to rid away the ſcurffe or ſcaily dandruffe among the haire,either in head or face. Some giue counſell for to drink it in ſweet wine cuit,vnto them who are poiſoned with the ſea Hare. For mine own part,I hold it a ſafer way and an eaſier to annoint therwith the leproſie. But ſome of the foreſaid authours haue applied it to filthy,putrified, and ſtinking vlcers,& the ex-
E creſcences therein: as alſo to rub or annoint therwith the eies againſt the pin and web, & ſuch accidents as dim and darken the ſight. Moreouer,they haue preſcribed to drink a cyath of it for to cure the vlcer of the lungs,and to expell wormes and vermin out of the belly. Of this pitch or roſin there is an oile made,which they call Piſſelæon,and the ſame is far more ſtrong in operation for all the infirmities aboue named,than the ſimple roſin it ſelfe. Certaine it is,that the fine duſt ſcraped or filed from the Cedar wood,chaſeth away ſerpents:ſo do the berries alſo of the Cedar beaten to pouder and reduced with oile into a liniment, in caſe a man annoint his body all ouer with the ſame.

As touching Cedrides(*i.*)the fruit of the Cedar,it is ſoueraign for the cough,and prouokes vrine,bindeth the belly,& healeth ruptures. It cureth ſpaſmes,convulſions or cramps: yea, and
F helpeth the infirmities of the matrice,if it * be applied accordingly. Alſo it is a counterpoiſon againſt the venomous ſea-Hare: and a medicine for other maladies aboue named, and namely for apoſtemes and inflammations.

Of Galbanum I haue written heretofore. Good Galbanum ſhould be neither moiſt nor dry; but ſuch in all reſpects as I haue deſcribed already. Being taken of it ſelfe alone in drink, it cureth

* *cedrium.*

* *Arborium fieri Græcorum* φθόριον ἀπὸ τοῦ φθείρειν.

* *Admoti*:ſome read *poti*, *i.* taken in drinke.

reth an inueterat cough ſhortneſſe,and difficultie of winde,ruptures,crampes, and convulſions. G
Outwardly applied, it is ſingular for the Sciatica,pleuriſie,or pains of the ſide,angry biles,and
fellons. It is good alſo to be vſed, in caſe the fleſh (corrupted by meanes of corroſiue vlcers, as
wolues and ſuch other) is departed and eaten from the bone: moreouer,for the wens called Scro-
phules or the kings euill: the knots and nodoſities growing vpon the ioints: and the tooth-ach :
it ſerueth alſo in a liniment with hony for to annoint ſcald heads. With oile of Roſes or with
Nard,it is good to be infuſed or dropped into ears that run with matter: the very perfume alone
or ſmell thereof is good to raiſe them who are taken with the epilepſie or falling ſickneſſe: alſo
to recouer women,lying as it were in a trance or dead,vpon a fit of the mother: & to bring them
again who are gon in a ſwoune. If a woman fall to trauell before her time,it is good to fetch out
that vntimely fruit of hers (if it be loth to come away) either by way of cataplaſme or ſuffumi- H
gation. The ſame effect it hath, if the branches or ſmall roots of Ellebore be well annointed
therewith, and ſo put vp as a peſſary. The ſmoke of it frying in the fire (as I ſaid before) driueth
ſerpents away: and more than ſo,ſerpents will not come neere to them that are beſmeared with
Galbanum. And ſay that one be ſtrucken with a ſcorpion, a plaſter of Galbanum will heale the
wound. If a woman haue bin long in labor of childbirth,and cannot be deliuered,let her drinke
in one cyath of wine,as much Galbanum as the quantity of a Bean, ſhe ſhal fall to her buſines
and be deliuered anon. The ſame is a good medicine to reduce the mother into the right place,
if it be vnſetled or turned. If Galbanum be taken in wine with Myrrhe, it ſendeth out the dead
infant in the mothers womb. Alſo with Myrrh and * wine,it is good againſt all poiſons, and e-
ſpecially thoſe which be called Toxica. Incorporat Galbanum with oile and * Spondylium to- I
gether,it will kill any ſerpents,if they be but touched therewith. Howbeit, there is an opinion
of Galbanum,that * in difficulty of vrine it is not good to be vſed.

*Vino. Rather acetо, i. vineger after Dioſcor.
*Cow parſnep or Maincope.
*Dioſcorides reporteth the contrary.

CHAP. VI.

¶ *Of Gum Ammoniack: of Storax: Spondylium: Spagnos: Terebinth: Chamæpitys: of Pituyſa: of Roſius: of the Pitch tree: and the Lentiske.*

SInce we are fallen into the mention of Gums, it will not be amiſſe to treat of Ammoniack;
being as it is ſo like in nature (as I haue ſaid) to Galbanum: for it hath vertue to mollifie, to
heat,diſcuſſe,and diſſolue. Vſed in collyries, it is a proper medicine to clarifie the eieſight: K
and ſerueth wel to take away the itch,the ſpots or cicatrices,the pin and web alſo of the eies. It
allaieth the tooth-ach,but more effectually,if it be ſet a burning, & the fume receiued into the
mouth. Taken in drink,it helpeth thoſe who hardly fetch and deliuer their winde. It cureth the
pleuriſie,Peripneumony or inflammation of the lungs,the infirmities of the bladder, piſſing of
bloud,the ſwelled ſpleen,and the Sciatica. And in that manner it eaſeth the belly, and maketh
it ſoluble. Boiled with the like weight of pitch or wax and oile roſat together, and ſo reduced
into an ointment,it is good for all gouts,and eſpecially that which lieth in the feet. It ripeneth
the biles called Pani,if it be applied to them with honey: and fetcheth away any corns by the
roots. In which ſort it doth ſoften any hardneſſe. Incorporat with vineger and Cyprian wax,or
els with oile roſat,it maketh an excellent plaſter for to mollifie the hard ſpleen. Moreouer,if it L
be reduced into an ointment with vineger,oile,& a little ſal-nitre,it is ſingular to annoint thoſe
that haue a laſſitude or wearineſſe vpon them.

Touching Storax and the nature thereof, I haue ſaid enough in my Treatiſe of ſtrange and
forraine trees. But ouer and aboue the qualities or properties before required, I take that for
the beſt Storax,which is fatteſt,pure,and cleane,and whereof the pieces or fragments do break
white. This drug cureth the cough,the ſoreneſſe of the throat,and the accidents of the breſt: it
openeth the obſtructions of the matrice,& mollifieth the hardnes therof. Whether it be taken
inwardly in drinke, or outwardly applied, it prouoketh womens fleurs,& moueth to the ſiege.
I reade in ſome authors, that if one drink Storax Calamita,in ſmall quantity, it will procure
gladneſſe and mirth of heart: but if it be taken in greater quantity,it breedeth heauineſſe of the
mind. Inſtilled or poured into the eares,it riddeth away all the ſinging therin: and in a liniment M
it reſolueth the wens called the Kings euill,and the nodoſities of the ſinews. Soueraign it is a-
gainſt thoſe poiſons which hurt by meanes of their coldneſſe,and therefore it is good for them
that haue drunk the juice of Hemlock.

Likewiſe

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A Likewiſe of Spondylium, a kind of wild Parſnep or Madnep, I haue ſpoken thereof heretofore, together with Storax. An embrochotion made of it, to be infuſed vpon the head, is excellent for ſuch as be in a frenſie or lethargy: alſo to cure the inueterat pains of the head. Taken in drink with old oile, it helpeth the infirmities of the liuer, the jaundiſe, the falling ſickneſſe, the ſtraitneſſe of breath (whereby one cannot take his winde but ſitting vpright) and the riſing or ſuffocation of the mother; in which caſes, a ſuffumigation thereof is good. This Spondylium is effectual to mollifie the belly, and make the body ſoluble. Reduced into a liniment with rue, it ſerueth fitly to be applied vnto vlcers that ſpread and eat as they go. The juice of the floures is of great effect, if it be poured into the ears that run with filthy matter: but when this juice is a preſſing or drawing forth, it had need to be kept well couered, for feare of flies and ſuch like,
B which are very greedy thereof, and loue a-life to ſettle vpon it. The root of Spondylium, or a piece therof ſcraped, if it be put in maner of a tent into a fiſtula, eateth away all the hardnes and calloſitie thereof. Being dropped into the ears, together with the juice, it is exceeding good for them. The root giuen alone in ſubſtance, cureth the jaundiſe, the infirmities of the liuer & matrice. If the head be all ouer annointed therewith, the haire will curle and frizle.

Concerning the ſweet Moſſe, called of the Greeks * Sphagnos, Sphacos, or Bryon, growing (as I haue ſhewed before) in France, it is good for the naturall parts of women to ſit ouer the decoction of it, in manner of a bath: likewiſe if it be mingled with creſſes, and ſo ſtamped together in ſalt water, it ſerueth well to be applied as a cataplaſme to the knees and thighs, for any tumors or ſwellings in thoſe parts. Taken in wine with dry per-roſin, it cauſeth one moſt ſpee-
C dily to make water. Stamped with Iuniper, and drunk with wine, it doth euacuat the aquoſities in the dropſie. * *Vſnea.*

The leaues and the root of the Terebinth tree, applied in form of a cataplaſme, are good for the collection of humors to an impoſtumation. A decoction made with them, doth comfort and fortifie the ſtomack. In caſe of head-ache, of ſtopping and difficultie of vrine, it is paſſing good to drink the ſeed or grains of the Terebinth tree in wine. The ſame gently eaſeth and ſofteneth the belly; it prouoketh alſo carnal luſt. The leaues of the * Pitch tree & * Larch tree bruſed and ſodden in vineger, do eaſe the tooth-ache, if the mouth be waſhed with the decoction. The aſhes made of their barks, skin the places that be chafed, fretted, and galled betweene the thighs; and heale any burn or ſcald. Taken in drinke, they bind the belly, but open the paſſages
D of the vrin. A perfume or ſuffumigation therof, doth ſettle the matrice, when it is looſe and out of the right place. But to write more diſtinctly of theſe two trees; the leaues of the Pitch tree haue a particular property reſpectiue to the liuer, and the infirmities thereof, if one take a dram weight of them and drink it in mead and honied water. It is well known and reſolued vpon, that to take the aire of thoſe woods and foreſts only where theſe trees be cut, lanced, and ſcraped, for to draw pitch and roſin out of them, is without all compariſon the beſt courſe which they can take who either be in a conſumption of the lungs, or after ſome long and languiſhing ſicknes, haue much ado to recouer their ſtrength. Certes, ſuch an aire is far better, than either to make a long voiage by ſea into * Egypt, or to goe among the cottages in ſummer time for to drinke new milk comming of the freſh and green graſſe of the mountains.

* *Piceæ.*
* *Laricij.*
It ſeemes that *Pliny* tooke πίτυν, which is the Pine, for *Picea*; and πίτυς, which is the Pitch tree, for *Larix.*

* *i.* Into a more groſſe aire.

E As for Chamæpitys, it is named in Latine by ſome Abiga, for that it cauſeth women to ſlip their conception beforetime: of others, *Thus terræ* [*i.* ground Frankincenſe:] this herb putteth forth branches a cubit long; and both in floure and ſauor reſembleth the * Pine tree. A ſecond kind there is of Chamæpitys, lower than the other, ſeeming as though it bended and ſtooped downward to the ground. There is alſo a third ſort, of the ſame odor that the reſt, and therefore ſo named. This laſt Chamæpitys, riſeth vp with a little ſtalke or ſtem of a finger thickneſſe; it beareth rough, ſmall ſlender, and white leaues; and it groweth commonly amongſt rockes. All theſe three be herbs indeed, and no other, and ſhould not be ranged among trees: yet for names ſake, becauſe they carry the denomination of Pitys [*i.* the Pitch-tree] I was induced the rather to treat of them in this preſent place, & to ſtay no longer. Soueraigne they bee all againſt the
F pricks or ſtings of Scorpions: applied in manner of a liniment with dates and quinces, they be wholſome for the liuer: their decoction together with barly meale, is good for the infirmities of reins and bladder. Alſo the decoction of theſe hearbes boiled in water, helpeth the jaundiſe and the difficulty of vrine, if the Patient drinke thereof. The third kind laſt named, taken with hony, is ſingular againſt the poiſon of ſerpents: and in that maner only applied as a cataplaſme,

* or rather, the Pitch tree.

it clenſeth the matrice & natural parts of women. If one drink the ſame herbe, it will diſſolue G
and remoue the cluttered thick bloud within the body: it prouoketh ſweat, if the body be ther-
with annointed; and it is eſpecially good for the reins. Being reduced into pills, together with
figs, it is paſſing wholſome for thoſe that be in a dropſie; for it purgeth the belly of wateriſh
humors. If this herb be taken in wine to the weight of a victoriat piece of ſiluer; *i.* halfe a Ro-
man denier, it wariſheth for euer the pain of the loins, and ſtoppeth the courſe of a new cough.
Finally, if it be boiled in vineger, and ſo taken in drink, it is ſaid that it will preſently expel the
dead infant out of the mothers wombe.

For the like cauſe and reaſon, I will do the herb Pityuſa this honor as to write of it among
trees, ſince that it ſeemeth by the name to come from the Pitch tree: this plant ſome do reckon
among the * Tithymals: a kind of ſhrub it is, like vnto the Pitch tree, with a ſmall floure, and H
the ſame of purple color. If one drink the decoction of the root, to the quantity of one hemina;
it purgeth downward both fleam and choler: ſo doth a ſpoonfull of the ſeed therof, put vp into
the body * by ſuppoſitories. The decoction of the leaues in vineger, doth cleanſe the skin of
dandruffe and ſcales: & if the decoction of rue be mingled therwith, it is ſingular for ſore breſts,
to appeaſe the wrings and tormenrs of the cholick, againſt the ſting of ſerpents, and generally
for to diſcuſſe and reſolue all apoſtemations and botches a breeding.

* *i.* Spurges.

* *In balanis* vnleſſe we reade, *Cum Phœnicobalanis*, *i.* a kind of Date, as ſome think, Tamarinds.

But to returne againe to our former trees; how Roſine is ingendred in them, of their ſeuerall
kinds, and the countries where they grow, I haue ſhewed before, firſt in the treatiſe of wines, and
afterwards in the diſcourſe and hiſtories of Trees. And to ſpeak ſummarily of roſins, they may
be diuided into two principal kinds; to wit, the dry and the liquid roſin. The dry is made of the I
Pine and the Pitch trees; the liquid commeth from the Terebinth, Larch, Lentisk, & Cypreſſe
trees; for theſe beare roſin in Aſia and Syria: & wheras ſome there be of opinion, That the ro-
ſins of the Pitch and Larch trees be all one, they be much deceiued; for the Pitch tree yeeldeth
a fatty roſin, and in maner of frankincenſe, vnctuous: but from the Larch tree there iſſueth * a
ſubtill and thin liquor, running like to life hony, of a ſtrong and rank vnpleaſant ſmell. Phyſiti-
ans ſeldome vſe any of theſe liquid Roſins, and neuer preſcribe them but to be taken or ſupped
off with an egge. As for that of the Larch tree, they giue it for the cough and exulceration of
ſome noble parts within: neither is that per-roſin of the Pine tree much vſed: as for the reſt, they
be not of any vſe vnleſſe they be boiled. Touching the diuers manners of boiling them, I haue
ſhewed them ſufficiently. K

* Which is thought to be our Terpentine.

But if I ſhould put a difference between theſe roſins according to the trees from whence they
come; the right Terpentine indeed which the Terebinth yeeldeth, liketh and pleaſeth me beſt,
being of all others lighteſt and moſt odoriferous. If I ſhould make choice of them in regard of
the countries where they are found; certes they of Cypreſſe and Syria be beſt, and namely thoſe
that in colour reſemble Attick hony: and for the Cyprian roſin, that which is of a more fleſhie
ſubſtance and drier conſiſtence. Of the dry per-roſins, thoſe are in moſt requeſt, which be white,
pure, tranſparent or cleare, quite through. In generall, thoſe that come from trees growing vpon
mountains, be preferred before them of the plains: alſo regarding the Northeaſt, rather than any
other wind. For ſalues to heale wounds, as alſo for emollitiue plaſters, roſins ought to be diſſol-
ued in oile: for drinks or potions, with bitter almonds. As touching their medicinable vertues, L
they be good to cleanſe and cloſe vp wounds: to diſcuſſe and reſolue any apoſtemes which bee in
gathering. Moreouer, they be vſed in the diſeaſes of the breſt (and namely true Terpentine) by
way of liniment; for then it is ſingular good, eſpecially if it be applied hot: alſo for the pains of
the lims, and for thoſe that be plucked with the cramp, in caſe the grieued parts be wel rubbed
therewith in the ſun; which they know well enough who buy ſlaues and ſell them for gain, after
they haue trimmed and ſet them out for ſale: for they eſpecially are very curious to annoint
their bodies al ouer with this Terpentine, for to looſen the skin when they be hide-bound, lank,
and carrion lean, to giue more liberty and ſpace for euery part to receiue nutriment, and ſo to
make their bodies ſeeme fat and faire liking. Next vnto the right Terpentine, is the roſin of the
Lentiske Tree: this hath an aſtringent or binding qualitie; but of all others it prouoketh vrine
moſt: all the reſt doe mollifie the belly and make it ſoluble, concoct and digeſt all crudities, M
ſtent the inueterate cough, and draw downe all the ſuperfluous burdens of the matrice: for
which purpoſe laſt named, their fume receiued by a ſuffumigation, is very effectuall. They are
more particularly as good as a counterpoiſon againſt the venomous gum Ixia, growing vpon
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A the plant Chamæleon. Incorporat with buls tallow and hony, they cure the biles called Pani, and ſuch riſings in the fleſh. The Lentisk roſin, is ſingular good for to lay euen and ſtreight the haires of the eie-lids when they grow into the eies. In fractures and broken bones, it is moſt neceſſary, as alſo for the ears running with filthy matter: likewiſe to kil the itch in the priuy members. Finally, the per-roſin of the Pine tree, is a moſt ſoueraigne medicin to cure all the wounds of the head.

Chap. VII.

¶ *Of Stone-pitch: of Tarre: of Pitch twice boiled: of Piſſaſphalt or Mummie: of Zopiſſa: of Torch-wood, and the Lentiske.*

B FRom what tree Pitch commeth, and the ſundry waies of making it, I haue declared heretofore: alſo that there be two principall kinds thereof; to wit, the thick or faſt Pitch, and the thin or liquid: of the former ſort, the beſt for vſe in Phyſick is the Brutian Pitch, for that (being of all others fattieſt & fulleſt of gum) it yeeldeth a twofold commodity both for medicines, and alſo to trim and roſin wine-veſſels; for which purpoſes, that which inclineth to a reddiſh yellow is counted the chiefe. But whereas ſome do ſay moreouer, that the better Pitch commeth from the male tree, I cannot conceiue what they ſhould mean thereby, neither doe I think it poſſible to diſcerne any ſuch difference. True it is, that Pitch by nature is hot, & a good incarnatiue: a ſpeciall and particular property it hath againſt the venom inflicted by the ſting
C or tooth of the horned ſerpent Ceraſtes, if it be made into a cataplaſme with fried barly groats: and being applied with honey, it healeth the ſquinancy, cureth catarrhs, and reſtraineth ſneezing: with oile of roſes, it ſerueth well to be poured into running ears, out of which there doth ooſe filthy matter: or being applied in manner of a liniment with wax, it is paſſing good: it healeth the il-fauored tettars called Lichenes, and it looſeneth the belly: licked or let downe leiſurely in maner of a loch, it is a good means to void and reach vp from the breſt, tough fleame: and to annoint the tonſils or almonds in the mouth with it and hony together, is a proper medicine: being in that manner prepared and vſed, it clenſeth vlcers: and if it be incorporat with raiſins and ſwines greaſe, it doth incarnat and fill them vp again with new fleſh: carbuncles alſo it doth mundifie; ſo doth it ſores that begin to putrifie & gather corruption: but if they be ſuch
D as ſpread & be corroſiue withal, then there would be an addition of the Pine tree bark, or brimſtone. Some haue preſcribed, for the conſumption of the lungs, and a cough of long continuance, to drinke the quantity of one cyath in Pitch. The fiſſures and chaps as wel about the ſeat as in the feet, it cureth: for the flat biles named Pani, it is very good: as alſo to take away the rough nails that be ſo troubleſome. The very odor or perfume thereof, helpeth the hardneſſe of the matrice; and ſetleth it again, being either faln down, or turned out of the due place: likewiſe it helpeth ſuch as be ſurpriſed with the lethargy. Moreouer, if it be boiled in the vrine of a yong boy vnder 14 yeares of age with barly meale, it is a good maturatiue, and bringeth the wennes called the Kings euill to ſuppuration. As for dry pitch or ſtone pitch, it helpeth much to make the haire grow again, where it is ſhed by ſome diſeaſe. The Pitch called Brutia, or of Calabria,
E boiled in wine to a waulm or two, with the fine floure of the bearded wheat Far, and ſo applied in a cataplaſm as hot as may be ſuffered, is ſingular good for womens paps. Concerning liquid Pitch or Tar, as alſo the oile which they cal Piſſelæon, and how it is made, I haue already written at large. Some boile it a ſecond time, and then they name it Palimpiſſa. With this liquid Pitch it is good to annoint the ſquinzy that groweth inwardly; as alſo the uvula within the mouth: the ſame is ſingular for the pain in the ears, to clarifie the ſight, to clenſe the mouth furred as it were, ſo as it hath no taſt of meat: likewiſe for thoſe who are ſhort winded: for women who are diſeaſed in their matrice: to ripen & rid away old coughs; and to eaſe them that can doe nothing but ſpit & reach out of the cheſt: for ſpaſmes, cramps, ſhaking, and trembling: moreouer, it helpeth them whoſe heads or bodies are drawn backward: it cureth palſies, and any pains
F or griefs of the ſinews. There is not a better thing to kill either the mange in dogs, or the ſcab and farcines in horſes, aſſes, and ſuch like trauelling beaſts.

Moreouer, as touching Piſſaſphalt, which is of a mixt nature, as if pitch and Bitumen were mingled together, it groweth naturally ſo, in the territory of the Apolloniats; yet ſome there be who make an artificial piſſaſphalt, and meddle the one with the other, and hold it for a remedy

to cure the farcins and ſcabs of cattell; as alſo when the young ſucklings doe hurt the teats of their dams. Of this kind, that is beſt which is of it ſelfe, and come to maturity and perfection: the ſame in boiling ſwimmeth aloft.* Zopiſſa, is that Pitch, which (as I ſaid heretofore) is ſcraped from ſhips, and is confected of wax well ſoked in the ſalt water of the ſea: the beſt is that which commeth from ſhips that haue bin at ſea and made ſome voiages: it goeth into emollitiue plaſters, for to reſolue the gathering of impoſtumes. As for Tæda or Torch-wood, if it bee ſodden in vineger, it maketh a ſingular collution for to waſh the teeth withall when they ake. G

* *Pix nauali.*

Let vs come now to the Lentisk tree: the wood, the ſeed or fruit, the bark and gum therof, do prouoke vrine, and bind the belly: a fomentation made with their decoction, is excellent good for eating and corroſiue vlcers: it ſerueth in a liniment for al ſores in moiſt & flegmatick parts: likewiſe to cure S. *Anthonies* fire, and to waſh the gums withall: chew the leaues thereof and cruſh them well between the teeth, the ſame will eaſe their ach: waſh them with their decoction, and they wil ſet them faſt in the head. The ſame are good to colour the haire black: the gum which this tree doth yeeld, is ſoueraign for the infirmities of the ſeat, eſpecially ſuch as require either drying or heating. The very decoction of Maſtick is comfortable to the ſtomack, it cauſeth it to rift, & is beſides diuretical. Applied vnto the head as a liniment, incorporat with the fried groats of barly, it cureth the ach or pain therof: the tender leaues be applied to right good purpoſe, for the inflammation of the eies. Moreouer, this Maſtich, which is the gum of the Lentisk tree, is vſed ordinarily to lay the hairs of the eielids euen, & to extend or make plaine and ſmooth the riueled skin of the face: therefore it is vſed in ſope, and waſh-bals. Moreouer, there is a good vſe thereof, for ſpitting and reaching vp of bloud, & for an old cough. In one word, it ſerueth all thoſe turns whereto the gum Ammoniacke is vſed. It healeth all places galled and chauſed, where the skin is rubbed or fretted off: and if the cods and members of generation be fomented either with the oile made of the ſeed of the maſtich tree mixed with waxe, or with a decoction of the leaues boiled in oile or els in water, it will skin any raw part thereof. To knit vp this diſcourſe, I am not ignorant that *Democritus* the Phyſitian, who had in cure *Conſidia*, the daughter of *M. Seruilius* late Conſull of Rome, for an * infirmity or malady of hers (for that this damoſell could not abide to heare of any vnpleaſant Phyſick) cauſed her to be fed a long time with the milk of goats which were kept with the Lentisk tree leaues, and did eat nothing els, and ſohe cured her of her malady. H I

* It ſhould ſeeme the vlcer of the lūgs o kidnies, or els ſome outragious flux of bloud.

K

Chap. VIII.

¶ *Of the Plane tree, the Aſh, and Maple: of the white Poplar and Elme, the Tillet or Linden tree, the Elder, and the Iuniper.*

THe Plane tree is an enemy to Bats or Reremice: their little bals which they beare, if they be taken to the weight of foure Roman deniers in wine, do cure all poiſons of ſerpents and ſcorpions: likewiſe they heale any burn. Being braied or ſtamped with ſtrong & ſharp vineger (which if it be Squilliticum is the better) they ſtanch any bleeding whatſoeuer. Incorporat in hony, they mundifie and clenſe all cancerous vlcers, the red pimples and ſpecks, with all black ſpots and marks in the skin which haue remained a long time. The leaues and bark reduced into a liniment, their decoction alſo, help to rid away any gathering of humors to an head, and namely if they matter and run. The decoction of the barke ſodden in vineger, is a ſingular remedy for the tooth-ach; like as the tendreſt leaues boiled in white wine, for the infirmities of the eyen. The aſhes which come of the foreſaid little bals, do heale vp any burn, occaſioned either by fire or extreame cold. The barke taken in wine, repreſſeth the venome of the ſcorpions ſting, ſo that it ſhall go no farther. L

As touching the Aſh tree, of what effectuall operation it is againſt ſerpents, I haue declared heretofore: it beareth a * ſeed incloſed within certain * cods, which being taken in wine, is an ordinary remedy for the obſtructions & infirmities of the liuer; as alſo for the pain in the ſides. The ſame alſo do euacuat the aquoſities or wateriſh humors ſpread between the skinne and the fleſh in the dropſie Leucophlegmatia: the leaues do take down by little & little and make lean a body ouer-groſſe, and do eaſe it of the troubleſome cariage that it hath of ſo much fat, if the ſame be ſtamped and giuen in wine: but herein good regard ought to be had of the ſtrength of the party, after this proportion: If it be a child, fiue leaues of the aſh are ſufficient to be infuſed in M

* Called *Lingua auis.*
* Which are named Keyes.

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A in three cyaths of wine; but elder folk and of a ſtronger complexion, may abide ſeuen well enough in fiue cyaths, and drink the infuſion. But before I do leaue this tree, it would not be forgotten that the ſmall chips and ſhauings, yea, and the ſaw duſt or filed pouder of this wood, are thought to be hurtfull vnto ſome, and they are forbidden to meddle withall. The root of the Maple tree, ſtamped into a cataplaſme, is ſingular to be applied for the griefs of the liuer, and worketh mightily.

As touching the white Poplar or the trembling Aſp, I haue ſhewed heretofore how the perfumers vſe the berries or * grapes thereof in their ſweet ointments. The barke infuſed and taken in drink, is good for the ſciatica and the ſtrangury. The iuice drawn out of the leaues, dropped hot into the ears, eaſeth their pain. Whoſoeuer carieth a twig of Poplar in their hands, ſhal not
B need to feare any ſurbating of the feet, or galling between the legs. The beſt blacke Poplar and of greateſt operation in Phyſick, is that reputed which groweth in the Iſland Creta; the fruit or grain thereof if it be drunk in wine, is ſingular for thoſe who be taken with the falling ſickneſſe. This Poplar yeeldeth a certain ſmall gum or roſin, which is much vſed by Phyſitians in emollitiue plaſters: the leaues ſodden in vineger, make a proper cataplaſme to be applied vnto the gout: the liquor or humor that iſſueth out of the pores or concauities of the blacke Poplar, taketh away warts and wheals, it skinneth alſo galled & raw places in any part of the body: theſe Poplars as wel white as black, beare vpon their leaues certain warts like to drops of water ſtanding vpon them, out of which the Bees do gather that cereous ſubſtance named Propolis. The drops alſo of water, which the ſaid Propolis doth yeeld, if they be mingled with water, is a very
C effectuall remedy for many things.

* And yet heretofore he ſaith, that it hath neither the one nor the other.

Now for the Elme: the leaues, the bark, and the wooddy ſubſtance of the branches, haue a glutinous nature to conſolidat, vnite, and heale wounds: the thinner rind or tunicle verily which lieth between the outward bark and the tree, doth aſſuage the leproſie, called of ſome S. *Magnus* euill: ſo do the leaues alſo, applied with vineger. The barke of the Elm puluerized and taken to the weight of a Roman denier in one hemine of cold water, is a very purgatiue, and doth euacuat flegmatick and wateriſh humors particularly. The liquor that iſſueth from the tree as a jelly, is ſingular good for apoſtemations, wounds, and burnes; but if the places were fomented before with the decoction, it would be the better. The Elm beareth certaine ſmall bladders or huskes, wherein there is ingendred and contained a wateriſh humour, which is very proper to imbeliſh
D the skin, & beautifie the face. The firſt tender ſprouts of the leaues boiled in wine, do aſſuage al tumors, & * draw filthy matter and corruption forth of fiſtulous ſores: the ſame do the inward thin rinds within the bark. Many are of opinion, That the very bark chewed only, and applied to green wounds, is ſingular good to heale them. They affirme moreouer, That the leaues bruiſed and applied to the feet, allay their ſwelling, ſo there be water ſprinckled among. Furthermore, the water or liquor which runneth from the heart or pith of the wood when the tree is lopped or disbranched (as I haue ſaid before) if the head be annointed or bathed withall, cauſeth the haire to grow again if it be loſt, and keepeth it on if it be ready to ſhed and fall.

* *Extrahunt ſanies pus fiſtulis.*

As touching the Tillet or Linden tree, the very wood thereof is vſed for all things in a manner that the wild oliue is imploied vnto, if the ſame be lightly bruiſed or ſtamped: howbeit, the
E leaues only are occupied; which, if they be chewed and ſo applied, do cure the cankers breeding in the mouth of ſmall infants. Being boiled and their decoction inwardly taken, they prouoke vrine: outwardly applied, they do ſtay the inordinat and exceſſiue flux of womens fleurs; but giuen in drink, they euacuat the ſame ſuperfluous bloud.

There is a ſecond kind of Elder more wild of nature, which ſome of the Greeke writers call * Chamæacte, others Helion, and it groweth much lower than the other. The decoction of the leaues as well of VValwoort as Elder, boiled in old wine, is contrarie and noyſome to the ſtomacke, and purgeth downeward waterie humors: euen ſo doth the decoction either of the ſeed or the root, if it be taken inwardly to the quantity of two cyaths: the ſame is excellent to coole any inflammation; and namely, to take out the fire of any new burn or ſcald. The yong and ten-
F der leaues, as well of Elder as VVall-woort, reduced into a cataplaſme and laied too with barly groats, doe cure the biting of a dogge. The juice both of the one and the other, infuſed and conueighed accordingly into the head, is a ſoueraigne lenitiue for all impoſtumes of the braine, and eſpecially thoſe which are growing in the fine membrane or pellicle called Pia Mater, which immediately lappeth and enfoldeth the braine. The fruit or berries of the Elder or

* i. Groũnd. Elder, Wall-wort, or Dane-wort.

of Walwort, are weaker in operation than the other parts of the tree or plant: howbeit, they ſerue G
wel to colour the haire of the head black. The ſame alſo taken in drinke, to the meaſure of one acetable, be diureticall and prouoke vrin. The ſofteſt and tendereſt leaues are eaten ordinarily in a ſalad with oile and ſalt, for to purge fleam and choler. In ſumme, the leſſer plant, which is the VValwort, is in all things more effectuall than the elder it ſelfe; for if the root thereof be ſodden, and a draught of two cyaths be giuen to them who are in a dropſie, it will purge mightily and euacuat watery humors. A decoction of the roots and leaues of Danewort, is ſingular to mollifie the matrice and naturall parts of a woman, if ſhe ſit ouer the ſame and take the vapour thereof into her body. The tender ſprigs of the milder Elder, boiled betweene two platters, do make the body ſoluble, and moue to the ſeege. The leaues drunke in wine, reſiſt and kil the poiſoned ſting of ſerpents. The tendrons of the elder, incorporate with goats tallow, and reduced H
into a liniment, are ſingular good for the gout, if they be applied to the grieued place: the water of their infuſion, if it be caſt or ſprinkled in any room of the houſe killeth fleas: and if the place be likewiſe ſprinkled with the decoction of the leaues, it will not leaue a flie aliue. There is a kind of diſeaſe [much like to purples or meazles] when the body is bepainted all ouer with red bliſters: a branch of the Elder tree is excellent good to laſh the ſaid wheales or riſings, for to make them fal again and go down. Take the inner bark or rind of the Elder, beat it into pouder, and ſo drink it in white wine, it is a ſufficient purgation.

The Iuniper of all other trees, paſſeth, either for to heat any part, or to extenuat & make ſubtill any humors: in operation much like to the Cedar. Of it there be two kinds; the greater, and the leſſe: a perfume made with the one as well as the other, driueth away ſerpents: the ſeeds or I
berries of Iuniper, aſſuage the pains of ſtomack, breſt, & ſides: the ſame ſerue wel to break wind and reſolue all ventoſities, yea and to euaporat all cold and chilneſſe: they ripen any cough, and mollifie al hardneſſe: a liniment made therof applied outwardly, cauſeth any tumor to go down and repreſſeth the riſing therof: likewiſe if the beries be drunk in ſome groſſe or thick red wine, it will ſtay a lask: like as they will abate the ſwelling of the belly, if they be laid too by way of a cataplaſme or liniment. The Iuniper berry is reckoned among the ingredients which go into antidots, or preſeruatiues againſt poiſon; ſuch I mean, as be * penetratiue and of quick operation. It is diureticall and moueth vrine. In caſe the eies do water much by reaſon of a continuall rheum taking to them, it is good to apply a liniment vnto them made therewith. Foure Iuniper berries are giuen in white wine, or 20 of them boiled in wine, for convulſions, crampes, K
ruptures, wrings, and torments in the belly, for the griefes of the matrice and the Sciatica. To conclude, ſome there be, who fearing to be ſtung with ſerpents, vſe ordinarily to rub or annoint their bodies with a liniment made of Iuniper ſeed or berries.

*Oxyporis.

Chap. IX.

¶ *Of the Sallow, Willow, or Withy: of the twig Withy or Oiſier Amerina. Of twigs or binding rods. Of Heath or Lings.*

THe fruit which the willow or Sallow yeeldeth, if it be ſuffred to hang, before it doth ripen is conuerted into a certaine ſubſtance reſembling a cobweb; but beeing gathered ere it be L
thus transformed, it is ſingular good for ſuch as reach or caſt vp bloud. The aſhes of the rind pilled from the firſt branches that the willow putteth forth, and tempered with water, taketh away corns and calloſities of the feet: they ſerue alſo to rid the ſpots and ſpecks which diſfigure the viſage, the rather if they be incorporat with the juice of the willow. Now there bee found in the ſaid willow, 3 ſorts of juice: the firſt ſweateth out of the tree it ſelf in manner of a gum: the ſecond iſſues forth by way of inciſion, when the tree is in the bloom; prouided alwaies that the cut or gaſh in the bark, be made three fingers broad: this liquour is ſingular good to clenſe the eies, and to rid away ſuch impediments as hinder the ſight; likewiſe to incraſſate or thicken where need requireth; to prouoke vrine, and draw forth all inward impoſtumes outwardly: the third juice is that which diſtilleth from the branches preſently after the bill or cutting- M
hook, when the tree is lopped, or the boughs cut from the body. Take any one of theſe juices, and heat the ſame well with oile of Roſes in the rind of a Pomegranat, excellent it is for to bee dropped into the ears: likewiſe the decoction of Sallows, or the leaues ſtamped and incorporat with wax, and ſo applied, do the like: as alſo laid too in maner of a cataplaſm, they eaſe the pain

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A of the gout. The decoction of the leaues and bark boiled in wine, is paſſing wholſom to foment the nerues withall. The blooms or chattons of the willow, ſtamped together with the leaues, cleanſe the branny ſcales that appeare in the face. The leaues of the willow punned and taken in drink, do coole them that are giuen too much vnto laſcivious luſt, and ouer hot in the action of *Venus*: and if they vſe to take the ſame often, they will diſable them altogether for the act of generation. The ſeed of the black Oiſier or willow called Amerina, mixed in like weight with white litharge of ſiluer, and brought into a liniment, is a depilatory, and fetcheth off the haire if the place be annointed therwith preſently after the baine.

There is a kind of tree named Vitex, not much different from the willow, in regard of the vſe that the twigs be put vnto, and alſo of the leaues which reſemble thoſe of the willow in out-
B ward ſhew, but that their ſmell is more pleaſant and odoriferous: the Greeks, ſome cal it Lygos others Agnos, *i.* chaſt; for that the dames of Athens, during the feaſt of the goddeſſe *Ceres*, that were named Theſmophoria, made their pallets and beds with the leaues thereof, to coole the heat of luſt, and to keep themſelues chaſt for the time. And two ſorts there be of it. The greater riſeth vp to a tree in maner of a willow: the other, which is leſſe & lower, brancheth thick, bearing white leaues, and thoſe full of down and cotton. The former of theſe two, which is called the white Agnus Caſtus, putteth forth white floures & purple one with another: whereas contrariwiſe, all the floures of the leſſe, which is called the black, be purple only. Both the one and the other loue to grow in plains and moors. The ſeed of Agnus Caſtus, if it be taken in drinke, hath a certain reliſh or taſt of wine, and it is commonly thought that it cureth feuers: & who-
C ſoeuer is annointed therewith, being incorporat into a liniment with oile, ſhall ſoon ſweat: and by that means it is good to rid away wearineſſe. Agnus Caſtus, as well the one as the other, prouoketh vrine, and the monthly terms of women. Both of them fume vp into the head as wine doth: and no maruell, for they haue the very ſmell of wine. They be ſingular to ſend all ventoſities downward. They ſtop the flux of the belly, and be excellent good for thoſe who are in a dropſie, or troubled with the ſpleen. They haue this ſpeciall property beſides, to breed good ſtore of milk in milch nurces. Aduerſe they be to all poiſons of ſerpents, ſuch eſpecially as doe miſchiefe by their cold quality. The leſſe is more effectuall againſt ſerpents. And for this purpoſe they vſe to giue either one dram of the ſeed to drink in wine or Oxycrat, which is vineger and water; or els two drams of the moſt tender leaues. There is neither of them both, but as wel
D the ſeed as the leaues, reduced into a liniment, be ſingular good for the pricke of ſpiders. And there is not any venomous creature that wil come neere thoſe who are but annointed therwith: nay they wil flie from the very perfume therof, or the couch which is made of the leaues: they abate the heat of wanton luſt: and in that regard eſpecially they be contrary to the venomous ſpiders Phalangia, which by their ſting do prick a man forward that way, and cauſe his fleſh to riſe. The floures and yong tendrils of Agnus Caſtus incorporat in oile roſat, do allay the headach, occaſioned by drinking ouerliberally: but if the ſaid headach be exceeding great, it is good to foment the head in a decoction of the ſeed of the ſaid Agnus: for it will reſolue & diſpatch the extremity therof. The ſame likewiſe by way either of ſuffumigation or cataplaſme, mundifieth and cleanſeth the matrice. And being taken as a drink with penyroial and hony, it is a pur-
E gatiue, and ſcoureth the belly. Mixed with Barly meale, and applied pulteſſe wiſe, it mollifieth thoſe botches & byles which hardly grow to ripeneſſe. The ſeed tempered with ſalt petre and vineger, healeth tettars, ringwormes, and red pimples: and with hony cureth the cankers or ſores of the mouth; yea, and any wheals and breaking forth whatſoeuer. The ſame reduced into a liniment with butter and vine leaues, wariſheth the infirmities incident to the cods: and if the ſeat be annointed with it & water medled together, it taketh away the chaps & fiſſures in that part. Brought into a cerot with ſalt, nitre, & wax, it is ſingular good for al diſlocations: both the ſeed and leaues of Agnus, enter into many cataplaſmes or mollitiue plaſters, deuiſed for the ſinewes and the guts: the ſeed boiled in wine, maketh a good decoction, which if it be dropped vpon the head by way of embracation, is right ſoueraign for lethargy and frenſie both. It is ſaid, that who-
F ſoeuer beareth in his hand a twig of Agnus, or gird himſelfe about the middle therewith, ſhall not be galled or fretted between the legs.

As touching Heath or Lings, which the Greeks call Erice, it is a ſhrub not much different from Tamariske, in colour and forme of leafe, ſuch as it is, reſembling Roſemary. The leafe of this plant (they ſay) is an enemy to ſerpents.

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As for Broom, it ſerueth alſo very well to make halters and cords of. The floures pleaſe bees passing well. I am in doubt and not able to ſay, whether this Geniſta or Broome, be that which the antient Greek writers called Sparton; for I haue ſhewed, that they vſed therof to make their fiſhing nets: and I wot not well whether *Homer* meant it, when he ſaid, that the ſhip-ſparts were vntwiſted and looſe. For this is certain, that neither the ſpart of Africk, ne yet the Spaniſh ſpart was as yet in any vſe: and at what time as barges and veſſels were ſowed together with ſeams, it is wel known, that the ſtitches were made with linnen thred, & not with ſpart. The ſeed that it beareth, which the* Greeks giue one and the ſame name to, growing within ſmal cods in maner of Phaſeols, is as ſtrong a purgatiue [of Melancholy] as Ellebore; if it be taken when one is faſting, to the weight of a dram and halfe, in four cyaths of honied water: the branches & leaues (ſuch as they be) of Geniſta or Broome, being ſtamped after they haue lien infuſed in vineger, yeeld a certain juice ſingular good for the Sciatica, if it be drunk to the quantity of one cyath. Some chuſe rather to ſteep it in ſea-water, and to draw forth the juice, and ſo miniſter it with a clyſter for the ſaid purpoſe. The ſaid juice incorporat with oile, ſerueth for an ointment alſo to be applied outwardly for the Sciatica. Some vſe the ſeed for the ſtrangury. The ſubſtance of Broom ſtamped with ſwines greaſe, helpeth the ach or pain in the knees.

*For they call it *Sparton*, as well as the plant.

To come now to Tamarisk, which the Greeks call Myrice, *Lenæus* affirmeth, That it is vſed in maner of the Amerian willow for beeſomes: and more than ſo, that if it bee ſodden in wine, ſtamped and reduced into a liniment with hony, it healeth cankerous vlcers: and in very truth, ſome hold, That the Myrice and Tamariske be both one. But doubtleſſe, ſingular it is for the ſpleen, in caſe the patient drink the iuice preſſed out of it in wine. And by report, there is that wonderful antipathy and contrariety in Nature betweene Tamariske and this one part alone of all the other bowels, that if the troughs out of which ſwine drinke their ſwil, be made of this wood, they wil be found when they are opened, altogether without a ſpleen. And therfore ſome Phyſitians do preſcribe vnto a man or woman alſo diſeaſed in the ſpleen, and ſubject to the opilations therof, both to drinke out of cups or cans of Tamarisk, and alſo to eat their meat out of ſuch treen diſhes as be made of that wood. One renowned writer aboue the reſt, and for knowledge in great credit and authority among Phyſitians, hath affirmed and auouched conſtantly, That a twig of Tamarisk ſlipped or broken from the plant, ſo as it touched neither the ground, nor any yron toole, aſſuageth all belly ache, in caſe the patient weare it about him ſo, as that his girdle and coat hold it faſt and cloſe to the body. The common people cal it The vnlucky tree, as I haue heretofore ſaid, becauſe it beares no fruit, & is neuer with vs ſet or planted. In Corinth and all the territory or region round about, they name it Brya, and make two kinds thereof; to wit, the wilde, which is altogether barren, and that which is of a more tame and gentle nature. This Tamarisk in Egypt and Syria beareth in great plenty a certain fruit, in ſubſtance hard and wooddy, in quantity bigger than the gal-nut, of an vnpleaſant and harſh taſt; which the Phyſitians do vſe in ſtead of the Gal-nut, and put into thoſe compoſitions which they name Antheras. Howbeit, the very wood of this plant, the floure, leaues, and barke alſo, be vſed to the ſame purpoſe, although they be not ſo ſtrong in operation as the ſaid fruit. The rind or barke beaten to pouder, is giuen with good ſucceſſe to them that caſt vp bloud: alſo to women who haue a great ſhift of their fleurs: likewiſe to ſuch as be troubled with a continual flux, occaſioned by the imbecility of the ſtomack. The ſame bruiſed and applied as a cataplaſme, repreſſeth and ſmiteth backe all impoſtumations a breeding. The juice preſſed out of the leaues, is good for the ſame infirmities: moreouer, they vſe to boil the leaues in wine, for the ſame intent. But of themſelues alone being brought into a liniment with ſome hony among, they are good to be applied vnto gangrenes. The foreſaid decoction of the leaues beeing drunke in wine, or the leaues applied with oyle of Roſes and wax, mitigat the ſaid gangrenes; namely, when the fleſh tendeth to mortification. And in this manner they cure the night-foes or chilblanes. Their decoction is wholſome for the paine of teeth or eares: for which purpoſe ſerueth the root likewiſe and the leaues. Ouer and beſides, the leaues haue this property, That if they be brought into the form of a cataplaſme with barly groats and ſo applied, they keep down and reſtrain corroſiue vlcers. The ſeed if it be taken to the weight of a dram in drinke, is a preſeruatiue and counterpoiſon againſt ſpiders, and namely thoſe called Phalangia. And if the ſame be incorporat with the tallow or greaſe of any fatlings or beaſts, kept vp in ſtall, ſtie, or mow, into a liniment, it is ſingular good for any vncome or fellon. Of great efficacy it is alſo againſt the ſting of all ſerpents, except

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A the Aſpis. The decoction likewiſe of the ſeed clyſterized, is ſingular for the jaundiſe, it kils lice and nits, and ſtaieth the immoderat flux of womens months. The aſhes of the very wood of the tree, is good in all thoſe caſes beforeſaid: which if they be mingled in the ſtale of an oxe, and ſo taken of man or woman, either in meat or drink, it will diſable them for hauing any mind to the ſports of *Venus* euer after. And a burning cole of this wood, when it is quenched in the ſtale or beaſts piſſe, they vſe to ſaue & lay vp in the ſhade for that purpoſe: but if one liſt to kindle luſt, * then they ſet it on fire againe. To conclude, the Magitians ſay, That it would do as much if the vrine only of a gelded man were taken for the ſaid purpoſe.

*Rurſum vrinur.

CHAP. X.

B ¶ *Of the Bloud-rod. Of Siler. Of Priuet. The Alder tree, and Ivy. Of Ciſthus and Ciſſos. Of Erithranos. Of Chamæciſſos or Ground-Ivie. Of Smilax or Bindweed. Of Clematis.*

THe Plant called the Sanguin-rod, is as vnhappy as the foreſaid Tamariske. The inner bark thereof is ſingular good to open again thoſe vlcers, which are healed aloft only and skinned before their time.

The leaues of * Siler, brought into a liniment and applied as a frontall to the forehead, allay the paine of the head. The ſeed thereof driuen into pouder and incorporat with oile, is good for the louſie diſeaſe, and keepeth the body from lice. The very ſerpents cannot abide this plant or C ſhrub, but flie from it: which is the cauſe, that the peaſants of the country make their walking ſtaues thereof.

* Some think it is the broad-leafed Oiſier.

Our Liguſtrum or Priuet, is the very ſame tree that Cypros is in the Eaſt parts. To good vſe it ſerueth amongſt vs here in Europ: for the juice of it is wholſome for the ſinews, the ioynts, and any extreme cold. The leaues applied with ſome corns of ſalt, heale all inueterat vlcers in any part whatſoeuer, and particularly the Cankers in the mouth. The graines or berries that it beareth, are good to kill lice: alſo for any gal, where the skin is fretted off between the legs: and ſo be the leaues likewiſe. The foreſaid berries do cure the pip in Hens and Pullen.

As for the Alder tree: the leaues if they be applied hot as they be taken out of ſcalding water, do cure without faile any tumor or ſwelling.

D As touching the Ivy tree, 20 kinds therof and no fewer I haue already ſhewed; and of al theſe there is not one, but the vſe of it in Phyſick is doubtfull and dangerous. For firſt and formoſt, Ivy, if it bee drunke in any quantity, howſoeuer it may purge the head, ſurely it troubleth the brain. Taken inwardly, it hurteth the ſinews: applied outwardly, it doth them much good. Of the very ſame nature it is, that vineger. All the ſorts of Ivies be refrigeratiue. In drink they prouoke vrin. But the ſoft and tender leaues, ſodden in vineger and oile roſat, and then ſtamped, and ſo tempered with more oile of roſet put too afterwards, vntil they be reduced into an ointment, are a ſingular remedy for the pains of the head; and eſpecially for the braine and the thin pellicle Pia mater, which inwrappeth the brains: to which effect the forehead ought to be annointed with the foreſaid liniment, the mouth to be fomented and waſhed with the decoction, and E the whole head afterwards well rubbed alſo with the abouеſaid vnguent. They are good for the ſpleene, both taken inwardly in drink, and outwardly applied as a liniment. The decoction of the ſame leaues may be drunke very well againſt the fit of an ague, to driue away the ſhaking cold: alſo for the ſmal pocks and meazles: for which turn likewiſe they ſerue, if they be pulueriзed and taken in wine. The berries of the Ivie cure the oppilation and hardneſſe of the liuer, either giuen in drink, or applied outwardly. So do they open alſo the obſtructions of the liuer, if a liniment be vſed only. Applied accordingly to the naturall parts of women, draw down their monthly ſickneſſe. The juice of yvie (and ſpecially of the white, which is planted in gardens) clenſeth the noſthrils of the foule vlcers and vermine therein breeding, it rectifieth alſo the filthy ſmell proceeding from thence. If the ſame be conueighed vp into the noſe, it purgeth the F head: but more effectually, if ſal-nitre be put therto. Moreouer, it is to right great purpoſe dropped into the ears with oile, in caſe they either run matter, or be pained. It reduceth cicatrices or wounds and vlcers newly skinned, to the naturall colour of the other skin: the juice of the white Ivy is of more force and better operation for the oppilations of the ſpleen, & the ſwelling hardneſſe thereof, if it be made hot with a red hot yron, than otherwiſe: whereof ſixe berries in two

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cyaths of wine,is a ſufficient doſe. Moreouer, three berries of the ſame white Ivie drunke at a G
time in Oxymell,do expell the worms in the belly:during which cure,it were not amiſſe to ap-
* Golden berry Ivy. ply them outwardly alſo. As for the Ivie,which I called * Chryſocarpos, if one take twelue of
the golden yellow berries thereof beaten to pouder,and put them to a ſextar of wine, three cy-
aths therof giuen to drink,according to *Eraſiſtratus*,purge by vrine the watery humors between
the skin and the fleſh,which ingender the dropſie. The ſame *Eraſiſtratus* was wont to take fiue
ſuch berries ſtamped into pouder and mixed with oile roſat,which after they were made hot in
the rind of a Pomgranat,he vſed to drop into the eare of the contrary ſide,for the tooth-ach:the
berries of Ivy which yeeld a iuice as yellow as Safron,if a man take before he ſit down to drink,
may be aſſured,that he ſhal not be drunk at that ſitting. Likewiſe,they eaſe them much who are
giuen to caſt and reach vp bloud,or be ſubiect to the collick and wrings of the belly. The white H
berries of the black Ivie if a man take in drinke,dull the vigor of his genetall ſeed, and diſable
him for getting children:any Ivy whatſoeuer,being boiled in wine,& ſo brought to a liniment
and applied,doth cure all vlcers,euen morimals,and ſuch as be vntoward for to be healed. The
liquor iſſuing out of Ivy,is depilatory;but as it taketh away haire,ſo it riddeth lice and vermin.
The floures of any kind of Ivy,taken (as much as a man may comprehend with 3 fingers) twice
a day in ſome green and hard wine,help the dyſentery or bloudy flix; yea, and any other laske.
The ſame reduced into a liniment with wax,are very good to skin and heal burns or ſcaldings.
The berries of Ivy,colour the haire of the head black. The juice of the Ivie root drawn with vi-
neger and taken in drinke; is ſingular againſt the poiſon of the venomous ſpiders Phalangia.
Moreouer,I find in ſome writers, That the drinking out of a cup or diſh of Ivy wood alſo,as wel I
as of Tamarisk,cureth thoſe who haue hard Spleens. The ſame authors preſcribe to bruiſe the
berries,afterwards to burn them,and with the aſhes to dreſſe and beſtrew the place that is burnt
or ſcalded,ſo that it be firſt waſhed & bathed in hot water. There are Phyſitians who giue order
to cut and lance the Ivy tree,for to draw a juice or liquor from the place of the inciſion,which
is to be vſed for rotten and worm-eaten teeth:and by their ſaying, the faulty teeth will breake
and crumble into pieces if they be annointed therwith: prouided alwaies, that the ſound and
good teeth ſtanding next,be wel defended with wax for catching harm by this medicine:more-
ouer,they ſeek and lay for the gum of Ivy, which they would perſuade vs aſſuredly vpon their
word to be ſingular for the teeth,being applied thereto with vineger.

For the vicinity and likeneſſe of the name of Ivy in Greek,which is Ciſſos,I may take occa- K
ſion to ſpeak in this place of another ſhrub or plant called Ciſthos,bigger than Thyme,& lea-
ued like Baſil. Of it be two kinds;namely,the male,with a red Roſe colored floure; the female
with a white:both ſorts are good for dyſenteries or bloudy flixes, and all looſeneſſe of the bel-
ly,if there be drunk twice a day in ſome green & hard wine,as much of their floures as may be
held at three fingers ends:which if they be made into a cerot with wax,heale old vlcers, burnes,
and ſcaldings:and alone of themſelues cure the cankers or ſores in the mouth.

Vnder this plant ſpecially grows Hypociſtis,wherof I haue written in my treatiſe of Ivies.

Likewiſe, there is another plant like vnto the Ivy,and the Greeks call it Ciſſos Erythranos:
which being taken in drink,helpeth the Sciatica,and is good for the loins: but they ſay it is ſo
vehement and forcible in operation,that together with vrine it will euacuat bloud.

Moreouer,there is an Ivy which creepeth and traileth alwaies cloſe by the ground, and the L
ſame the Greeks call Chamæciſſos. This herb being ſtamped and taken in wine to the quanti-
ty of one Acetable,cureth the infirmity of the ſpleen. The leaues incorporat with ſwines greaſe
ſerue to cure burns.

Furthermore,the Bindweed Smilax,known alſo by the name of Nicephoros,reſembleth Ivy,
but that it hath ſmaller leaues. They ſay,that a chaplet or guirland made of this Smilax, is ſin-
gular for the headach;prouided alwaies, That the leaues which goe to the making of it, bee in
number odde. Some haue ſaid that Smilax is of 2 ſorts: the one,which continueth a world of
yeres,growes in ſhadowie vallies,climbing trees,& tufted in the head with cluſters (as it were)
of berries in manner of grapes;a ſoueraigne plant againſt all poiſons;inſomuch, as if the juice
or liquor of the berries be oftentimes dropped into the ears of yong babes or little infants, no M
poiſons (by report) will euer hurt them afterwards. As for the other Smilax or Bindweed,it lo-
ueth places well toiled and husbanded,wherin it vſually groweth:but of no vertue it is & ope-
ration:the former Bindweed is that,the wood wherof we ſaid would giue a ſound,if it were held

cloſe

20030

A cloſe to the eare. Another herb there is like to this, which ſome haue called Clematis. This plant creepeth & climbeth vpon trees, hauing many ioints alſo or knots. The leaues are good to mundifie the foule leproſie. The ſeed drunk to the meaſure of one acetable, in a hemin of water or mead, maketh the belly looſe. The decoction thereof is giuen likewiſe to the ſame effect.

Chap. XI.

¶ *The vertues and properties of Canes or Reeds, of the Papyr reed, of Ebene, Oleander, Sumach, otherwiſe called Rhus Erythros, Madder, Allyſſon, Sope-wort or Fullers-weed, Apocynon, Roſemary, Cachrys, Sauine, Selago, and Samulus. Alſo of Gummes.*

B HEretofore haue wee ſhewed 29 ſundry kinds of Reeds, all indued with their medicinable vertues: and in no plants more appeareth the admirable power of dame Nature, the only ſubiect matter handled in all theſe books of ours. For in the firſt place, there preſenteth it ſelfe vnto vs the root of Reeds or Canes, which being bruiſed and applied accordingly, draweth forth of the body any ſpills of Fearne ſticking within the fleſh: ſo doth the Fearne root by the Reed. And foraſmuch as we haue ſet downe many ſorts of Canes, that amongſt the reſt, which commeth out of India and Syria, and whereof perfumers haue ſo great vſe in their ſweet ointments and odoriferous compoſitions, hath this property beſides, That if it be boiled with the graſſe called Dent de Chien [*i.* Quoich graſſe, or Parſley ſeed] it is diureticall and prouoketh vrine. Applied outwardly, it draweth down the deſired ſickneſſe of women. Taken in drink to the C weight of two oboli, it cureth thoſe who are ſubiect to conuulſions or cramps: it helpeth the liuer and the reines: it is a remedy alſo for the dropſie. As for the cough, a very perfume thereof will ſtay it, and the rather, if it be mixed with Roſin. The root ſodden in wine with Myrrh, clenſeth ſcurfe and dandruffe, it healeth alſo the ſpreading vlcers & running ſcals of the head: there is a juice beſides drawn from it, which becommeth like to Elaterium, or the juice of the wilde Cucumber. Moreouer, in any Reed, the beſt and moſt effectual part therof is that holden to be, which is next to the root. The ioints alſo and knots be of great efficacy. The Cyprian Cane is named Donax, the rind whereof, if it be burnt and brought into aſhes, is ſingular for to bring haire againe in places where it is ſhed: it healeth likewiſe vlcers growing to putrifaction. The leaues thereof are vſed, to draw forth any pricks or thorns. The ſame be of great vertue againſt D S. *Anthonies* fire, the ſhingles, and ſuch like, yea & againſt all impoſtumations: the common and ordinary Reeds haue an extractiue or drawing faculty, if they be ſtamped greene: which is not meant of the root only, but alſo the very ſubſtance of the reed it ſelf, which they ſay is of great operation. The root being reduced into a liniment, and applied with vineger, cureth all diſlocations, and eaſeth the pains of the chine bone. The ſame punned green and new, ſtirreth to luſt, if it be drunk in wine. The down or cotton growing vpon the cane, if it be put into the ears, cauſeth hardneſſe of hearing.

There groweth in Ægypt a certain plant named Papyrus, which reſembleth much the Cane or Reed: a thing of great vſe and commodity, eſpecially when it is dry; for it ſerueth as a ſponge E both to ſuck vp the moiſture in Fiſtulaes, and alſo to inlarge them. For ſwelling as it doth, it keepeth the vlcer open, and maketh way for the medicines to enter accordingly by that means. The paper made thereof when it is burnt, is counted to be cauſtick. The aſhes of it being drunk in wine, cauſe ſleep: and applied outwardly, taketh away hard calloſities.

Touching Ebene, it groweth not (as I haue already ſaid) ſo neare vnto vs, as in Ægypt. And albeit my meaning and purpoſe is not to deale with any medicinable plants growing in the ſtrange & vnknown countries of another world: yet in regard of the wonderfull properties that Ebene hath, I will not paſſe by it in ſilence. For firſt and foremoſt, the fine duſt or pouder filed from it, hath the name to be a ſingular medicine for the eies: as alſo, that the wood therof being ground vpon an hard ſtone, together with wine cuit, diſpatcheth away the cloudy miſt which F ouercaſteth the eies. As for the root, if it be vſed likewiſe and applied with water, it conſumeth the pin and web, and other ſpots in the eies. The ſame being taken with equall quantity of the herb Dragon in hony, cureth the cough. In ſum, Phyſitians repute and range Ebene among the medicines which be corroſiue.

Oleander, called in Greek Rhododendros, which ſome name Rhododaphne, and others Ne-

rion,

rion,hath not bin ſo happy yet,as to find ſo much as a name among the Latines. A ſtrange and G
maruellous quality of this plant:the leaues are a very poiſon to all four-footed beaſts ; and yet they ſerue man as a preſeruatiue and counterpoiſon againſt ſerpents, if they be taken in wine with Rue among. Alſo ſheep and goats if they chance to drink of the water wherin thoſe leaues lay ſoked,(wil by report)thereupon die.

Neither hath Rhus a Latine name,notwithſtanding it be much vſed in Phyſick,& otherwiſe. For it is a wild plant growing of it ſelf, bearing leaues like vnto the Myrtle, vpon ſhort ſtalkes and branches;ſingular for to expell any poiſon and worms out of the body:and beſides,called it is,the Curriers ſhrub,for that they vſe to dreſſe their skins with the dry leaues therof,inſtead of pomgranat rinds. Of a reddiſh colour it is,a cubit in height,& a finger thick. Moreouer,Phyſitians imploy the medicins wherinto this Rhus is put,for bruiſes:likewiſe, for the flux proceeding from a feeble ſtomack,as alſo for the vlcers in the ſeat. But the leaues ſtamped and incorporat with hony,and ſo brought into a liniment or ſalue with vineger,do heale cankerous ſores ſuch as with inflammation do eat away the fleſh to the very bone. Their decoction is ſingular to be inſtilled into the ears that run with filthie matter. Moreouer, there is made a ſtomaticall compoſition of the branches of this Rhus,boiled,which ſerueth in the ſame caſes as the aboue-named Diamoron,*i.* of the Mulberries:but if it haue allum ioined withall, it is of greater efficacy. The ſame being brought into a liniment,is paſſing good for the ſwellings in a dropſie. As for the * Rhus,which is called Erythros,*i.* the red, it is a ſhrub, and the ſeed thereof is both aſtringent and refrigeratiue. Much vſed is the grain or ſeed of this Rhus in ſtead of ſalt to pouder & ſeaſon meats. Laxatiue it is,and giueth a pleaſant taſt to any fleſh meats,eſpecially if Silphium be mingled withal:tempered with hony,it cureth and healeth all running vlcers: and in that maner prepared,it is excellent for the roughnes of a furred tongue,for places bruiſed,looking black & blew,or otherwiſe raw where the skin is raſed & pilled off. Nothing ſo ſoon healeth any wounds in the head, and bringeth them ſo quickly to cicatrice. And taken inwardly with other meats,it ſtoppeth the immoderat flux of womens fleurs. H I

* This kitchin Rhus or meat-Sumach, is all one with the other: but that the cooks vſed the ſeed,and the curriers occupied the leaues and the branches.

As touching Madder,which ſome Greeks call Erythrodanus,others,Ereuthodanus,and wee in Latine Rubia,it is an herb different from Rhus Erythros aboue named. Diers vſe it much to colour their wooll & woollen cloth,ſo do curriers about their skins and leather. In Phyſicke it ſerueth to prouoke vrine:it cureth the jaundiſe, if it be taken in mead or honied water : and reduced into a liniment with vineger,it healeth the il-fauored tettars called Lichenes. Ouer & beſides,it is good for the Sciatica and the palſie,in caſe the patient who drinks therof,do likewiſe bath euery day. The root and ſeed both of Madder,draw down womens months, ſtop the laske, and diſcuſſe or reſolue any impoſtumations breeding. The branches and leaues therof reduced into a cataplaſme and laid too,are good for the ſting of ſerpents. The leaues alſo haue a ſpeciall property to colour the haire of the head. I reade in ſome writers, that if this herb be tied about the neck or ſome other part of the body,and the patient do no more but look thereupon, it is ſufficient to cure the jaundiſe. K

* Some take it to be *Aſperula i.* Wood-Roſe.

The herb * Alyſſon differeth from this Madder,in regard of the leaues and branches onely; which be leſſe. It took that name Alyſſon,becauſe thoſe that be bitten with a mad dog, if they drink it with vineger,or weare it tied faſt about them,ſhall not likewiſe run mad. But it is verie ſtrange which is ſaid moreouer of this herb;namely, That the very ſight thereof is enough to dry vp and conſume that venomous matter or humour infuſed by the tooth of the ſaid dog,and which is the cauſe of madneſſe. L

As for the Fullers weed,which the Latines cal Radicula,and the Greeks Struthion,as I haue beforeſaid,it ſerueth to ſcoure and prepare wooll and woollen cloth for the diers hand. In Phyſick the broth or decoction thereof drunk,cureth the jaundiſe,and the infirmities or diſeaſes of the breſt. It prouoketh vrine,looſeth the belly, and cleanſeth the matrice , which is the cauſe, that Phyſitians call it Aureum poculum,*i.* the golden cup,or golden drinke. The ſame taken with honey in manner of an electuary,to the quantity of one ſpoonefull at a time, is of ſingular operation for the cough and ſhortneſſe of breath,when the patient cannot draw and deliuer his wind but ſitting vpright. Reduced into a liniment with parched barly groats and vineger,it cureth and clenſeth the foule leproſie. Drunke with Panaces and Caper rootes, it breaketh the ſtone,and expelleth it out of the body. Sodden with Barly meal in wine,and brought to a pulteſſe,it diſpatcheth riſings in the fleſh,or broad flat biles called Pani. It is vſualy put into emo- M

litiue

20030

A litiue cataplaſmes, yea, and into collyries ordained for to cleare the eie ſight. I know few things ſo good to prouoke ſneezing as this Radicula: neither is there a better herb for the ſpleene and the liuer. The ſame alſo if it be drunk to the weight of a Roman denier or dram, in mead or honied water, helpeth thoſe that be ſhort-winded. So doth the ſeed therof taken with water, cure the pleuriſie and any ſtitches or pain in the ſides.

To come now to Apocynon: a ſhrub it is bearing leaues like vnto Ivy, but that they be ſofter, and the ſhoots or tendrils therof not ſo long: the ſeed is ſharp pointed, clift, or diuided, full of a ſoft down, & of a ſtrong or vnpleaſant ſauor. Being giuen either to dogs or any other four-footed beaſts in meat, it is their bane, and killeth them. Moreouer, there is the Roſemary, wherof be two kinds: the one is barren and bears no ſeed: the other, which riſeth vp alſo in a ſtem or
B main ſtalk, carieth ſeed or a roſinous gummy fruit, called Cachrys. The leaues in ſmel reſemble Frankincenſe. The root freſh and new gathered, reduced into a ſalue, healeth green wounds: applied to the ſeat, it reduceth the fundament when it is fallen, into the right place, reſolueth the ſwelling piles, and cureth the running hemorrhoids. The juice both of the branches and herb it ſelf as alſo of the root, is ſingular for to ſcour the jaundiſe, and al things els which haue need of clenſing and mundification: it cleareth and quickneth the eieſight. The ſeed is giuen to drinke with great ſucceſſe for all old accidents of the breſt: but with wine and pepper it is good for the matrice, & helpeth to ſend down womens monthly terms. Made into a cataplaſm with * cocle floure, it is applied with good effect vnto the gout. It clenſeth and ſcoureth away morphew: it ſerueth wel to bring any part to heat that hath need of chauſing; yea, & to procure ſweat, if the
C caſe require, ſo the place be anointed therwith: alſo it helpeth any convulſion or cramp. Drunk in wine, it increaſeth milk, ſo doth the root likewiſe: the very ſubſtance of the herb reduced into a liniment, cureth the wens called the kings euil, if it be applied vnto them with vineger: and taken with hony, it is good for the cough. As for Cachrys, there be many kinds of it, as I haue ſhewed before. But this Cachrys of the Roſemary aboueſaid, if it bee rubbed, yeeldeth a ſubſtance or liquor of roſin. Contrary it is to poiſons & ſtings of all venomous beaſts, but only of Snakes. It moueth ſweat, diſpatcheth the wringing torments of the belly, and cauſeth nurces to haue plenty of milk. Sauine the herb, called by the Greeks Brathy, is of two ſorts: the one in leafe reſembleth the Tamariſk, the other the Cypreſſe tree: whereupon ſome haue giuen it the name of Candy Cypreſſe. Many vſe it in ſuffumigations & perfumes, for Frankincenſe. But in
D medicines we Phyſitians take the double weight of it inſtead of Cinnamon, & it is thought to haue the ſame operations and effects. It driues back & keepeth down all ſwelling impoſtumes: it repreſſeth alſo thoſe vlcers which be corroſiue and cankerous: brought into a ſalue, it mundifieth filthy ſores. Applied outwardly, it drawes dead infants out of the body: & no leſſe it worketh, being but receiued by way of perfume. Made into a liniment, it healeth S. *Anthonies* fire, and carbuncles. Drunk with hony and wine, it cureth the jaundiſe. It is ſaid, that the very fume or ſmoke of this herb wil rid hens and ſuch like pullen of the pip.

* *Æriua.* Some reade *Eruina*, i. of Eruile.

Much like vnto this herb Sauine, is that which they cal Selago. Many ceremonies are to be obſerued in the gathering of this herb: firſt and formoſt, the party who is to gather it, muſt bee apparelled all in white, as it were in a ſurplice; go barefoot he muſt, and haue his feet waſhed in
E faire water: before he commeth to gather it, he ought to do ſacrifice vnto the gods with bread and wine: moreouer, no kniſe or yron toole is to be vſed hereabout: neither will any hand ſerue but the right, and that alſo muſt do the deed not bare and naked, but by ſome skirt or lappet of his coat between, which was done off with the left hand; and ſo cloſely beſides, as if he came to ſteal it away ſecretly: laſt of all, when it is gathered, wrapped it muſt be, and caried in a new linnen napkin or towell. The Druidæ of France haue agreat opinion of this herbe thus gathered, and haue preſcribed it to be kept as the only preſeruatiue againſt all hurtfull accidents & miſfortunes what ſoeuer, ſaying, that the fume thereof is ſingular good for all the infirmites & diſeaſes of the eies. The Druidæ or Prelats of France aboue named, make great account of another herb growing in moiſt grounds, which they name Samolus: and (forſooth) if you did well you
F ſhould gather it faſting, with the left hand in any wiſe: & in the gathering, not look back howſoeuer you do. Moreouer, when it is thus gathered, it ought not to be laid down out of the hand in any place, but in the troughs, ciſterns or channels, where ſwine, kine, or oxen vſe ordinarily to drink, where it muſt be likewiſe ſtamped: and then without faile, the foreſaid cattell ſhal be wariſhed and ſecured from all diſeaſes.

As concerning gums, I haue heretofore declared how many kinds thereof are to be found. G
To ſpeak of them in generall, The better that any gum is, the more effectuall be the operations thereof: hurtfull they are to the teeth: they haue a property to thicken or coagulat bloud, and therefore be good for thoſe who caſt and reach vp bloud: likewiſe they be ſingular for burns, as alſo for the windpipe and inſtruments of reſpiration. The ſuperfluous and corrupt vrine within the body, they prouoke and giue paſſage vnto. They dul & diminiſh the bitterneſſe of other medicines wherin they be mingled, how ſoeuer otherwiſe they be aſtringent & do fortifie other qualities. That which commeth from the bitter almonds, and is of a ſtronger operation to thicken and incraſſat, hath vertue alſo to heat the body. The beſt gums be thoſe of Plum-trees, chery trees, and vines: they haue all of them a drying and aſtringent quality, if any part be annointed with them: and diſſolued in vineger, they kill the tettars or ringwormes in children, & heale H
them vp. Being drunk to the weight of foure oboli, in * new wine, they be good for any inueterat cough. Moreouer, they be thought to make the colour more freſh, liuely, & pleaſant; to procure and ſtir vp the appetite to meat; alſo to help thoſe who be pained with the ſtone, in caſe they be drunk in ſweet wine cuit. And to conclude with ſome particularity, The * gum of the Egyptian thorne is ſoueraigne for wounds, and all accidents of the eies.

* *Muſto, et Miſto, i.* in ſome made or compound wine.

* Thought to be *Acacia.*

Chap. XII.

¶ *Of the Arabian Thorne: of* the white Thiſtle Bedegnar: of Acanthium and Acacia.*

* Our ladies thiſtle.

TOuching the Arabian Thorne or Buſh, and the commendable qualities therof, I haue ſufficiently ſpoken in the treatiſe of perfumes and odoriferous confections: yet thus much moreouer I haue to ſay of the medicinable vertues, that it doth thicken and incraſſat thin and rheumatick humors, it reſtraineth all catarrhes and diſtillations, it repreſſeth the reaching vp bloud, & ſtaieth the immoderat flux of womens monthly terms: for which purpoſes the root is more effectuall than any other part of the plant. I

The ſeed of the white Thiſtle is ſingular for the ſting of ſcorpions: a garland made of it and ſet vpon the head, aſſuageth the paine thereof. Much like vnto this, is that Thiſtle which the Greeks call Acanthion, but that the leaues be much ſmaller, and thoſe are ſharpe pointed and prickly all about the edges, and couered with a downe reſembling a cobweb; which the people of the Eaſt countries do gather, and therof make certain cloth for garments, reſembling ſilke. K
The leaues or roots drunk in ſubſtance, are ſuppoſed to be a ſingular remedy for the crampe or conuulſion which draweth the neck and body backward.

Moreouer, there is a kind of Thorne, whereof commeth Acacia, and it is the juice thereof. It is found in Egypt to iſſue from certain trees, which be white, black, and green: howbeit, the beſt Acacia by far, is that which the former (that is to ſay, the white and the black) do yeeld. There is made likewiſe a kinde of Acacia in Galatia, which is moſt ſoft and tender; and the tree that affoordeth it, is more pricky and thorny than the reſt. The ſeed or fruit of all theſe trees, is like vnto Lentils, but only that the grain is leſſe, and the cod or huske wherein it lieth, ſmaller. The right ſeaſon to gather this fruit is in Autumn; for if it be taken before, it is too too ſtrong. L
For to draw this juice which we cal Acacia, the cods wherin the grains lie, ought to be throughly ſteeped firſt in rain water: ſoone after, when they be punned or ſtamped in a mortar, the ſayd juice is preſſed forth with certaine inſtruments ſeruing for the purpoſe: which done, they let it remaine within mortars in the ſun, and there take the thickening: and ſo at length reduce it into certain trochisks, and reſerue them for vſe. There is a iuice likewiſe drawne out of the leaues, but the ſame is not ſo effectual as the other. The curriours vſe to dreſſe their skins with the ſeed or grains therof, in lieu of Galls. The juice which the leaues of the Galatian thorne aboueſaid doth yeeld (and namely, the blackeſt) is reiected for naught; like as that alſo which is of a deepe red colour. Contrariwiſe, that which is either purple or aſh-colored and ruſſet to ſee too, as alſo that which will be ſoone diſſolued, is of exceeding efficacy to thicken and coole withall; and is M
preferred before all other in colyries or eie-ſalues: now for theſe vſes, ſome are wont to waſh the troſches aforeſaid, others torrifie and burn them. They are good to colour the haire of the head black: they heale S. *Anthonies* fire, and corroſiue ſores; yea and all grieuances of the body that conſiſt in moiſture: they cure any impoſtumes, joints that are bruiſed, kibed heels, and the turning

20030

A ning vp of the skin and fleſh from the naile roots. They repreſſe the exceeding flux of womens monthly fleurs: the matrice and tiwell if they be ſlipt and faln out of the body, they reduce into their place again. In ſum, for the eies, for the ſores and infirmities of the mouth, and naturall parts ſeruing for generation, they be ſoueraigne.

Chap. XIII.

¶ *Of the common Thorne: of the wilde or wood Thorne: of Eryſiſceptrum: of Spina Appendix: of * Pyxacanthus, and * Paliurus: of Hulver or Holly: of Yeugh: and Brambles: with the medicinable vertues of them all.*

* B. x. therne.
* Some call it Chriſts thorn.

B THe common Thorn alſo, wherewith the Fullers vſe to fill their vats and caudrons, hath the ſame operation that * Struthium, and is put to the ſame vſe. Many there be verily in all parts of Spaine, who vſe it both in ſweet Pomanders, and alſo in ointments, calling it Aſpalathus: and without all doubt, there is a kind of wild white thorne of this race growing in the eaſterly countries (as I haue ſaid) among the woods, and riſeth to the full height of a good tree. Yea and a ſhrubby plant there is, lower than the other, but as full of pricks, growing in Niſyrus and the Iſlands of the Rhodians, which ſome cal Eryſiſceptron; others, Adipſatheon, or Dipſacon, or Dracheton: the beſt is that which groweth nothing like to the Ferula, and being deſpoiled of the rind, is of a reddiſh colour inclining to purple. It is found in many places, but not euery where odoriferous. Of what force it is, when the rainebow ſeemeth to reſt vpon it, I haue

* *Radicis*, for it is called *Radicula*.

C ſhewed already. It healeth the filthy cankers or ſores of the mouth, and the ſtinking vlcers or alepocks in the noſthrils: likewiſe the ſores, botches, and carbuncles in the priuy parts, the creniſes alſo and clifts in the fundament, or elſe-where, applied vnto the place affected: but if it be drunk, it abateth all ſwelling of ventoſities: the bark or rind therof, diſpatcheth thoſe obſtructions and impediments which cauſe the ſtrangury or piſſing by drop-meale. The decoction is a ſingular remedy for them that either piſſe or vomit bloud. The foreſaid rinde ſtoppeth the flux of the belly. The like effects is that thought to work which groweth in the woods [and is called Aſpalathus of the Leuant.]

There is a kind of thorny buſh called * Appendix, for that there be red berries hanging ther-

* Some take it for the Barbery buſh.

D to, which be likewiſe named Appendices. Theſe berries, either raw by themſelues, or elſe dryed and boiled in wine, do ſtay the flux of the belly, and beſides aſſuage the torments and wrings therof. As for the berries of Pyxacanthus, they be drunk to right good purpoſe againſt the ſting of ſerpents. Paliurus alſo is a kind of thorny buſh: the people of Africk call the ſeed of it Zura, which is found to be moſt effectuall againſt ſcorpions; and for thoſe who are troubled with the ſtone, and the cough. The leaues haue an aſtringent or binding qualitie. The root reſolueth and diſpatcheth biles, impoſtumes, and botches: and if the ſame be taken in drink, it procureth vrin: if it be ſodden in wine, and the decoction drunk, it ſtoppeth a laske, and is a defenſatiue againſt the poiſon of ſerpents: the root eſpecially is giuen in wine: ſome there be who ſtamp the leaues, putting ſalt thereto, and beeing reduced into the forme of a cataplaſme, apply the ſame to the gout. The leaues be good to ſtay the immoderat flux of womens termes, the looſeneſſe of the

E belly occaſioned by a feeble ſtomack, the bloudy flix, and the inordinat motions of cholericke humors both vpward and downward. The root boiled and brought to a liniment, draweth forth whatſoeuer ſticketh within the body. Soueraign it is and of exceeding great operation, in caſe of diſlocations and ſwellings.

As touching the Holly of Hulver tree, if it be planted about an houſe, whether it be within a city, or ſtanding in the country, it ſerueth for a countercharm and keepeth away all ill ſpels or inchantments. *Pythagoras* affirmeth, that the floure of this tree wil cauſe water to ſtand all vpon an yce: alſo that a ſtaffe made thereof, if a man doe fling it at any beaſt whatſoeuer, although it chance to light ſhort for default of ſtrength in his arms who flung it, wil notwithſtanding etch forward and roll from the place where it fell vpon the earth, and approch neere to the beaſt a-

F foreſaid; of ſo admirable a nature is this Holly tree.

The fume or ſmoke of any Yeugh tree, killeth mice and rats. Neither hath Nature produced brambles for nothing els but to prick and do hurt; for ſuch is her bounty, that the berries which they beare are mans meat, beſides many other medicinable properties: for they haue a deſiccatiue and aſtringent vertue, and ſerue as a moſt appropriate remedy for the gums, the inflamma-

tion of the Tonſils,& the priuy members:the flours alſo as well as the berries of the brambles, G
be ſingular againſt the Hæmorrhoid and the Preſter, which are the two wickeddeſt and moſt miſchieuous ſerpents that be. The wounds inflicted by ſcorpions,they cloſe & heale vp againe without any danger of rankling or apoſtemation:and withall,they haue a property to prouoke vrine. The juice drawne and preſſed out of the tendrons or yong ſprouts of brambles ſtamped, and afterwards reduced vnto the conſiſtence of honey by ſtanding in the Sun,is a ſingular medicine either taken inwardly or applied outwardly,for all the diſeaſes of the mouth and eies;for them that reach vp bloud;for the ſquinancy;the accidents of the matrice and fundament;finally,for the immoderat flux of the belly occaſioned by the weakneſſe of ſtomack. As for the ſores and infirmities of the mouth, the very leaues alone of the bramble if they be but chewed, are paſſing good:but if they be reduced into a liniment and ſo applied,they heale running ſores or H
any ſcals whatſoeuer in the head:& euen ſo being laid alone vpon the left pap, they be wholeſome for ſuch as are giuen to the fainting & trembling of the heart,and ſubject to fal into cold ſweats:likewiſe being applied accordingly,they eaſe the pain of the ſtomack,and ſuch as haue their eies ready to ſtart out of their head : and to help the infirmities of the ears,their iuice is excellent to be dropped into them. The ſame juice incorporat with the cerot of roſes,healeth the clifts and ſwelling knubs in the fundament:& for the ſaid infirmity,the decoction of yong tendrils in wine, is a preſent remedy, in caſe the place be bathed and fomented therein. The ſame yong ſprings eaten alone by themſelues in a ſalad,in maner of the tender crops and ſpurts of the Colewort ; or boiled in ſome harſh, groſſe, and greene wine,do faſten the teeth which be looſe and ſhake in the head:they ſtop a lask,and reſtrain an vnnaturall iſſue or flux of bloud;and I
beſides,are good in the bloudy flix.Being dried in the ſhade,and afterwards burnt, their aſhes are ſingular to ſtay the uvula for falling. The leaues alſo being dried and beaten to pouder, are excellent good for the farcines and ſores in horſes,and ſuch like beaſts. As for the blacke berries which theſe brambles do beare,there is a kind of Diamoron made of them,which is far better for the infirmities of the mouth,and more effectual,than the other of the garden mulberies. The ſame being ſo prepared in that ſtomaticall compoſition aforeſaid,or drunk only with Hypoquiſtis and hony,be ſingular to repreſſe the fury of choler prouoking both waies:they be cordiall likewiſe,in caſe of faintings and cold ſweats : and laſtly,a preſeruatiue againſt the poiſon of the venomous ſpiders. Among thoſe medicines which they cal Styptick or aſtringent,there is not a better thing than to boile the root of this blackberry bramble in wine to the thirds;and K
namely to make a collution therwith to waſh the cankers or ſores breeding in the mouth,or to foment the vlcers growing in the fundament. And verily of ſuch a binding and aſtringent force is this bramble,that the very ſpungeous bals that it beareth,will grow to be as hard as ſtones.

Another kind of brier or bramble there is,vpon which groweth a roſe:ſome cal it Cynosbatos,others Cynoſpaſtos:it beareth a leaſe like to the print or ſole of a mans foot. A little bal or pill it breedeth,furred or briſtled much after the maner of the Cheſtnut,which ſerueth as a ſpeciall remedy for thoſe that be ſubiect to the ſtone. As for Cynorrhonos, it is another plant different from this;wherof I will ſpeak in the next book.

Chap. XIV.

L

¶ *Of * Cynosbatos,and the Raſpice : of the Rhamnos,and of Lycium and Sarcocolla. Of a certaine compoſition in Phyſicke called Oporice.*

* i.the Canebrier or Canker brier.

AS for the bramble named Chamæbatos,it beareth certain black berries like grapes,within the kernell wherof it hath a certain ſtring like a ſinew, whereupon it came to be called Newroſpaſtos:it is a different plant from the Caper,which the Phyſitians haue named alſo Cynosbatos. Now the tender ſtems of the foreſaid * Cynosbatos or Chamæbatos condite in vineger,are good for them to eat who are troubled with the opilation of the ſpleen, & with ventoſities;for it is a ſingular remedy for thoſe infirmities. The ſtring or ſinew thereof chewed with Maſtick of Chios,purgeth the mouth. The wild roſes that grow vpon this brier,being incorporat with ſwines greaſe,are excellent for to make the haire grow againe,when it is ſhed by M
ſome infirmity. *The beries of theſe brambles if they be tempred with oile oliue made of green and vnripe oliues,colour the haire black. The proper ſeaſon to gather the floures of theſe brambles that cary beries like to mulberies,is in haruеſt time:the white kind of them drunk in wine, is a ſoueraign remedy for the pleuriſie,& the flux of the ſtomack:the root ſodden to the thirds,

* *Rubus canis.*

*Obſerue how confeſſedly *Plinie* ſaieth down the ſtory o *Cynobatos* and *Chamæbatos*, i the Canebrier & th blackberry bramble.

ſtoppeth

20030

A ſtoppeth a lask, and ſtaieth the flux of bloud: likewiſe a collution made therwith, faſtneth looſe teeth, if they be waſhed withall. The ſame decoction or liquor is good to foment the vlcers of the ſeat priuy parts. The aſhes of the root burnt, keep vp the uvula from falling.

The Raſpis is called in Latin Rubus Idæus, becauſe it groweth vpon the mountain Ida, and not elſwhere* [ſo plenteouſly.] Now is this bramble more tender, & leſſe in growth: it putteth forth alſo fewer ſtalkes vpright, and thoſe more harmeleſſe and nothing ſo pricky as the other brambles before named: beſides, it loueth well to grow vnder the ſhade of trees. The floures of this bramble reduced into a liniment with hony, reſtrain the flux of rheumaticke humors into the eies, and keepeth down the ſpreading of S. *Anthonies* fire: and giuen in water to drink, it cureth infirmities of the mouth. In all other caſes, it hath like operations to the former brambles

* *Ex Dioſcor.*

B Among the diuers kinds of brambles, is reckoned the Rhamne, which the Greeks cal Rhamnos, notwithſtanding that it is whiter & more branching than the reſt. This Rham beareth many flours, ſpreading forth his branches armed with pricks not crooked or hooked as the reſt, but ſtreight and direct, clad alſo with larger leaues. A ſecond kind there is of them growing wilde in the woods, blacker than the other, & yet inclining in ſome ſort to a red colour: this carieth as it were certain little cods. Of the root of this Rham boiled in water, is made the medicine that is called Lycium. The ſeed of this plant draws down the after-birth. The former of theſe two, (which alſo is the whiter) hath a vertue more aſtringent and cooling than the other, & therfore better for impoſtumations and wounds: howbeit the leaues of both, either green or boiled, are vſed in liniments with oile for the ſaid purpoſe. But as touching Lycium, the beſt of all other is

C (by report) made of a certain Thorne tree or buſh, which they cal Pyxacanthos Chironia, the form wherof I haue deſcribed among the Indian trees: & indeed the moſt excellent Lycium, by many degrees, is that Indian Lycium thought to be. The manner of making this Lycium, is in this wiſe: they take the branches of this plant, together with the roots which be exceeding bitter, & after they be well punned and ſtamped, ſeeth them in water within a braſen pan, for three daies together or therabout: which don, they take forth the wood, & ſet the liquor ouer the fire again, where it taketh a ſecond boiling, ſo long till it be come to the conſiſtence or thicknes of hony: howbeit ſophiſticated it is many times with ſome bitter juices, yea and with the lees of oile & beaſts gall. The very froth & ſcum, in maner of a flory that it caſteth vp, ſome vſe to put into colyries & medicines for the eies. The ſubſtance of the juice beſides is abſterſiue, it mun-

D difieth the face, healeth ſcabs, cureth the exulcerations or frettings in the corners of the eies: it repreſſeth old rheumes & diſtillations, clenſeth ears running with filthy matter, repreſſeth the inflammations of the almonds in the mouth, called Tonſillæ, & of the gums; ſtaieth the cough, reſtraineth the reaching & caſting of bloud, if it be taken to the quantity of a bean: being ſpred in maner of a plaſter or liniment and ſo applied, it drieth vp running and watery ſores; it healeth the chaps and clifts in any part of the body, the vlcers of the ſecret parts ſeruing for generation, any place fretted or galled, new and green vlcers, yea and ſuch as be corroſiue and withall growing to putrefaction: it is ſingular for the caloſities, werts, or hardcorns, growing in the noſthrils, and all impoſtumations: moreouer, women find great help by drinking it in milke, for any violent ſhift or immoderat flux of their monthly ſicknes: the beſt Indian Licium is known by this,

E That the maſſe or lump therof is black without-forth, red within when it is broken, but ſoon it commeth to a black colour. An aſtrictiue medicine this is, and bitter withal; and hath the ſame effects which the other Lycium is reported to haue, but ſpecially if it be applied to the priuie members of generation. As touching Sarcocolla, ſome be of opinion that it is the gum or liquor iſſuing from a certain thorny plant or buſh: and they hold, that it reſembleth the crums of frankincenſe, called Pollen or Manna Thuris, & in taſt ſeemeth to be ſweetiſh, & yet quick and ſharpe withall. This Sarcocoll ſtamped with wine, and ſo applied, repreſſeth all fluxes: & in a liniment, good it is for yong infants. This gum alſo by age and long keeping, waxeth black; but the whiter is the better, & thereby is the goodneſſe knowne.

But before I depart from this treatiſe of Trees, and their medicinable vertues, I muſt needs

F ſay, we are beholden to them yet for one excellent medicine more, which is called Oporice by the Greeks, as one would ſay, made of fruits. This compoſition is ſingular for the bloudy flix or exulceration of the guts; alſo for the infirmities of the ſtomack. The manner of making it, is in this wiſe: Take 5 quinces, with their kernels, ſeeds & all, as many pomgranats likewiſe, let them boil gently ouer a ſoft fire in one gallon of new white wine, put therto the weight or meaſure or

one ſextar of Seruiſes,and as much in quantity of the Sumach which is called Rhus Syriacum, G
together with halfe an ounce of ſaffron; ſeeth all theſe together to the height or conſiſtence of
hony. Thus much concerning the properties of trees ſeruing in Phyſicke. It remaineth now to
annex hereunto a diſcourſe of thoſe plants which the Greek writers (by giuing them names in
ſome analogie reſpectiue vnto trees) haue left an ambiguity, and made vs doubt of them whe-
ther they be trees or herbs.

Chap. XV.

¶ *Of* * *Chamædrys, i. Germander* : * *Chamædaphne, i. Lawreoll* : * *Chamelæa* : * *Chamæſyce* :
* *Chamæciſſos, i. Ale-hooue* : * *Chamæleuce, i. Fole-foot* : * *Chamæpeuce* : * *Chamæ-cy-*
pariſſus, i. Lauander-cotton : * *Ampelo-praſos* : *Stachys* : *Clinopodium*, H
Centunculus, and Clematis Ægyptia, with the
medicines that they affoord.

* ground-oke, or petie oke.
* ground-bay, or pety Lawrell.
* ground-oliue, &c.
* ground-fig-tree, &c.
* ground Ivie.
* ground Poplar.
* ground-pine, or Pitch tree.
* ground Cypreſſe.
* Porret vine. or Leek-vine.

GErmander is an herb, called in Greek Chamædrys, and in Latine Triſſago: ſome haue named it Chamædrope, others Teucrion: it beareth leaues for bignes reſembling mints, in colour like vnto the oke leaues, cut and indented alſo after the ſame maner. Of ſome it is called Serrata; and they affirme that the firſt pattern of a ſaw was taken from the leafe of this herb, whereupon it ſhould be ſo called. The floure beareth much vpon the purple colour: it loueth to grow in ſtony places, and would be gathered whiles it is full of iuice: and thus gathered in due ſeaſon, whether it be taken in drink, or taken outwardly in a liniment, moſt effectuall it is I
againſt the poiſon of ſerpents: likewiſe it is wholſome for the ſtomack, good againſt an inueterat cough; ſingular to cut, diſſolue, and raiſe the tough fleam ſticking in the throat: a ſpecial remedy for ruptures, conuulſions, and pleuriſies: it waſteth away the ouergrown ſpleen: it prouokes vrine, and womens fleurs: in which regard, a bundle or handfull of Germander boiled in 3 hemines of water, vntill a third part be conſumed, maketh a ſoueraigne decoction or drinke for thoſe who are newly faln into a dropſie. Some there be, who ſtamp this herb and ſprinkle water among, and ſo reduce it into troſchs. Ouer and beſides the vertues before rehearſed, it it is good to heale botches newly broken and full of matter; yea old vlcers, though they be filthy and putrified, if it be applied thereto: for the ſpleen, it is vſually taken with vineger: & this iuice doth chauſe and heat thoſe parts which be annointed therewith.

As touching Lawreol, called by the Greeks Chamædaphne, it ariſeth vp with one only ſtem K
of a cubit high or thereabout: the leaues are but ſmal, howbeit like to thoſe of the Lawrell: it bringeth forth a reddiſh ſeed appearing among the leaues, which being vſed in a liniment freſh and green, eaſeth the head-ach. The ſame cooleth all exceſſiue heats: and if it be drunk in wine, appeaſeth the wrings and torments of the belly. The iuice thereof taken in drink, drawes downe womens fleurs, and prouokes vrine: the ſame applied in wooll to the naturall parts of a woman, cauſeth her to be ſoon deliuered when ſhe is in hard trauell of child-birth.

* otherwiſe called *Mezereon*, Widow-waile.

As for * Chamelæa, it hath leaues like vnto thoſe of the oliue: the ſame be bitter in taſt, and in ſmell odoriferous. This plant groweth in ſtony grounds, and exceedeth not in heigth a hand-breadth or ſpan at moſt; a purgatiue herb it is; for thereof is made an excellent ſyrrup to euacuat fleame and choler; namely, if there be taken one part of the leaues of this herbe, with two L
parts of wormwood, and ſo boiled; for certainly this decoction drunk with hony, is ſingular for to purge the foreſaid humors. A cataplaſme made with the leaues, cleanſeth vlcers. It is commonly ſaid, that if this herb be gathered before the ſun-riſing, and the party to ſay expreſſely in the gathering, That it is for the pin and web in the eies; it will diſpatch and rid away the ſaid infirmity, if one do but weare it tied about him. And howſoeuer it be gathered, whether it be with any ſuch circumſtance and ceremony, or without, yet is it ſingular for the haw gnawing in the eies of horſes and ſheepe.

Chamæſyce beareth leaues reſembling thoſe of the Lentil, but they alwaies creep along the ground and riſe not vp. This herbe groweth in drie and ſtony grounds: the ſame boiled in wine M
and vſed as a liniment vnto the eies, cleareth their ſight; for it is ſingular to diſpatch and remoue cataracts, ſuffuſions, and cicatrices, growing therein: as alſo to rid away the miſty clouds and films that ouercaſt the ſight. Being put vp into the matrice within a linnen cloath in manner of a peſſarie, it allaieth the paines thereof. VVarts of all ſorts it taketh away, if they be annointed

20030

A nointed therewith. It is a ſoueraigne remedy alſo for thoſe who cannot take their wind but ſitting vpright.

* Chamæciſſos groweth vp ſpiked with an ear like vnto wheat, and ordinarily putteth forth fiue branches, and thoſe ful of leaues. VVhen it ſheweth in the floure, a man would take it to be the * white Violet or Gilloſre. The root is but ſmall. They that are troubled with the Sciatica, vſe to drinke the leauc thereof to the weight of three oboli in two cyaths of wine, for ſeuen daies together: but it is an exceeding bitter potion. * It is not our ground Iuie or Alchove. * *Viola alba.*

As for Fole-foot, it is called in Greeke Chamæleuce: but we in Latine name it Farranum or Farfugium. It loueth to grow by riuers ſides. The leaues ſomwhat reſemble thoſe of the Poplar, but that they be larger. If the root of Fole-foot be burnt vpon the coles made with Cypres wood, the ſmoke or perfume thereof receiued or drunk through a pipe or tunnell into the
B mouth, is ſingular for an old cough.

Touching * Chamæpeuce, in leaſe it is like vnto the Larch-tree: a plant very appropriat to the paine of the back and the loins. The herb Chamæcypariſſos, if it be drunk in wine, is ſingular good againſt all the venomous ſtings of ſerpents and ſcorpions. * Some take it for Chamæpitys.

The herb Ampelopraſos groweth in vineyards, bearing leaues reſembling Porret: but it cauſeth them to belch ſoure that eat thereof. Howbeit, of great power it is againſt the ſting of ſerpents. It prouoketh vrine & womens monthly terms. And yet whether it be drunke or applied outwardly, it is paſſing good for them that piſſe bloud, & repreſſeth the iſſue & eruption thereof. Our midwiues vſe to giue it vnto women newly deliuered and brought to bed: likewiſe it is found to auaile much vnto them that be bitten with mad dogs.

C Moreouer, the herb called Stachys hath a reſemblance alſo to *Porret, but that the leaues be longer and more in number: it yeeldeth a pleaſant ſmell, and the leaues be of a pale colour, inclining ſomwhat to yellow. The nature of this plant is to moue the monethly purgation of women. As for Clinopodium (called otherwiſe Cleonicion, Zopyron, & Ocymoeides) like it is to running wilde Thyme, and full of branches, growing vp a ſpan or handfull high at the leaſt. It groweth in ſtony places, with a ſpoky tuft of floures ſhewing in a round compaſſe, and for all the world reſembleth the feet or pillers that * beare vp a table or bed. This herb taken in drinke is good for conuulſions, ruptures, ſtranguries, and ſerpents ſtings. So is the ſyrrup or juleb that is made thereof, by way of decoction. Thus much of thoſe herbs, which in name carry a ſhew and reſemblance of trees. * *σκόροδον i. Porri:* but it ſeems that *Pliny* ſhould haue read *σκορδιον, i. Marrubij*, or Horehound, out of *Dioſcorides*, as *Rondeletius* hath obſerued. * Wherupon it took the name Clinopodium.

D It remaineth now to write of ſome other herbs, which I muſt needs ſay are of no great name and reckoning, howbeit ſuch as be indued with wonderfull vertues. As for the famous and notable herbs indeed, I will reſerue the treatiſe of them for the bookes following. And firſt I meet with that which we in Italy call Centunculus, but the Greekes Clematis, with leaues pointed like the beak of a bird, or reſembling the cape of a cloke, growing cloſe to the ground in toiled corn fields. This herbe is moſt effectuall and ſingular aboue all other, for to ſtay a laske, if it be drunk in ſome red or green hard wine. The ſame beaten into pouder, and taken to the weight of one denier Roman, in fiue cyaths of Oxymell or hot water, ſtancheth bleeding: and yet in that ſort it is of great effect to fetch away the after-birth of women lately deliuered.

E But there be other herbes among the Greeke writers, going vnder the name of Clematides, and namely one, which ſome cal Echites, others Lagines, and there are be ſides who name it Petty Scammonie, and in very truth, branches it hath a foot long, full of leaues, and not vnlike vnto thoſe of Scammonie, but that the leaues be more black or duskiſh and ſmaller. This herbe is found as well in vineyards as corne lands. People vſe to eat this herb with oile and ſalt, as they do Beets, Coles, and other ſuch pot-herbs: and ſo eaten, it maketh the body ſoluble. And yet neuertheleſſe, thoſe who be troubled with the bloudy flix, are wont to take it in ſome aſtringent wine with Lineſeed, and find it to work with good ſucceſſe. The leaues applied to the eies with parched Barly groats, do reſtraine the wateriſh humors which fall thither, ſo there be a fine linnen cloth wet * between. The ſame applied in a pulteſſe to the wens called the kings euil, bring
F them firſt to ſuppuration, and afterwards hauing hogs greaſe put thereto, heale them throughly. Incorporat with green oile Oliue, they eaſe the hemorrhoids: and with honey, helpe thoſe that be in a Phthiſicke or Conſumption. If nources eat them with their meat, they ſhall haue good ſtore of milke in their breaſts. And if they annoint therewith the heads of their young infants, the haire will come the thicker. A collution made with them and vineger, aſſuageth the tooth-
ach, * *Suppoſito*: ſome reade contrariwiſe, *Superpoſito*.

ache, if the mouth be waſhed therewith. To conclude, it ſtirreth vp to fleſhly luſt. G

There is beſides another kind of Clematis, known by the name of the Ægyptian Clematis: howſoeuer ſome call it Daphnoeides, others, Polygonoeides. Leaued it is like the Lawrel, ſaue that the leaues be long and thin. But againſt all ſerpents, and eſpecially the Aſpides, it is a ſoueraigne counterpoiſon if it be drunk in vineger. Ægypt bringeth forth this herb in great abundance.

Chap. XVI.

¶ *Of Aron, Dracunculus, or Dracontium. Of Aris. Of Milleſoile. Of another hearbe of that name. Of Pſeudobunium. Of Myrrhis and Onobrichis: with their medicinable vertues.* H

Wake-robin. Dragon.

THere is a great difference betweene * Aron (of which herbe I haue written amongſt thoſe with bulbous roots) and * Dracontium: although writers be at ſome variance about this point, for ſome haue affirmed that they be both one. Howbeit *Glaucias* hath diſtinguiſhed them, in that the one groweth wild, and the other is planted: and hee pronounceth and calleth Dragon, the ſauage Aron: others are of opinion, that there is no other difference between them, but that the onion root is called Aron, and the ſtem of the ſame herb Dracontium: whereas indeed there is no likeneſſe at all between the one and the other, if ſo be that Dracontium of the Greeks be the ſame that we call Dracunculus in Latine. For Aros hath a black root growing broad, flat, and round, yea, and far greater, inſomuch as it is a good handful: but the root of Dracunculus is ſomwhat red, and the ſame wrythed and folded round in manner of a Dragon, whereupon it took that name. Nay, the very Greeks themſelues haue made an exceeding great difference, between Dragon, and Wake-Robin: for they affirme, That the ſeed of Dragon is hot and biting, and beſides, of ſuch a virulent and ſtinking ſmell, that the very ſent thereof is enough to driue a woman great with childe to trauell before her time, and to ſlip an vntimely birth. Contrariwiſe, they haue wonderfully commended Aron: for firſt and foremoſt, they preferre the female of this kind as a principall meat, before the male, which is harder to be chewed, and longer ere it be concocted and digeſted: moreouer, they affirm, That as well the one as the other, doth expectorat the fleam gathered in the cheſt: and whether it be dried and brought into pouder and ſo the drink ſpiced withall, or otherwiſe taken in form of a lohoch or electuary, it prouoketh both vrine and alſo womens monthly termes. Drunke with oxymell, it mundifie th and comforteth the ſtomacke: and Phyſitians haue giuen it in Ewes milke for the exulceration of the guts: & roſted vnder the embers, they haue preſcribed it to be taken with oil for the cough: Some haue ſodden it in milke, and giuen the decoction thereof to be drunke in that caſe. They haue appointed it alſo to be boiled, and then applied accordingly, to watery eies for to repreſſe the violence of rheum: likewiſe, vnto places black and blew with ſtripes: as alſo for the inflammation of the amygdales: alſo, they haue giuen direction to inject the ſame with oile by way of clyſtre, as an excellent remedy for the Hemorrhoids: and to applie it in a liniment with hony, for to take away the pimples and freckles of the skin. *Cleophantus* hath giuen it the praiſe of an excellent antidote or counterpoiſon: preſcribing alſo the vſe thereof for the pleuriſie and inflammation of the lungs, in the ſame manner, as in caſe of the cough: he appointed likewiſe to beat the ſeed into pouder, & being mixed either with common oile or oile roſat, to drop it into the eares for to aſſuage the pain. *Dieuches* ordained, to take and temper it with meale, and ſo to worke it into a paſte, & to giue the bread ſo made, vnto them that cough: to thoſe who be ſhort winded: ſuch alſo as cannot breath vnleſſe they ſit vpright: and laſtly, to as many as reach vp filthy matter out of their breſt. *Diodotus* the Phyſitian made thereof an electuary or lohoch with hony, for them to licke who are in a Phthiſick, or otherwiſe diſeaſed in the lights: and hee appointed it to be laid as a pulteſſe for fractures of bones. There is not a beaſt or liuing creature whatſoeuer, but if the ſhap or naturall parts be annointed therewith, it will fetch away the fruit of their womb. The juice drawn out of the root, if it be incorporat with Attick hony, ſcattereth the miſty clouds and filmes in the eies that trouble the ſight: the ſame alſo cureth the defects and infirmities of the ſtomack. And a ſyrrup made with the decoction thereof & hony, is good to ſtint a cough. All vlcers whatſoeuer, be they wolues, cankerous ſores, or otherwiſe corroſiue and eating forward ſtil: yea, the very ill-fauoured Polype and Noli-me-tangere in the noſthrils, the

These deſcriptiõs agree not with our wake Robin & Dragon. I K L M

20030

A the iuice of this root doth cure and heale wonderfully. The leaues ſodden in wine and oile, are good to be applied vnto any burne or place ſcalded. Being eaten in a ſalad with ſalt and vineger they purge the belly; ſodden with hony, and applied as a cataplaſme, they are good for diſlocations and bones out of ioint. Semblably, the ſaid leaues, whether they be green or dried, are excellent for the gout in any ioint, being laid too with ſalt. *Hippocrates* deuiſed a plaſter of them and hony together, which was ſingular for all impoſtumations whatſoeuer. For to bring downe the deſired ſickneſſe of women, 2 drams of the root or ſeeds (it skils not whether) taken in two cyaths of wine, is a ſufficient doſe. The ſame potion fetches away the after-birth, in caſe it make no haſt to come away after a woman is deliuered of child. And for this purpoſe *Hippocrates* appointed the very bulbous root of Aron in ſubſtance to be applied to the nature of a woman in the like caſe. It is ſaid, that in time of peſtilence it is a ſingular preſeruatiue, if it be eaten with
B meats. Certes, it is excellent to keep them for being drunke, who haue taken their liquor liberally; or at leaſtwiſe to make them ſober again. And yet the perfume or ſmoke thereof, when it burneth, chaſeth ſerpents away, and eſpecially the Aſpides; or els doth intoxicat their heads, & make them ſo drunk, that a man ſhall find them lying benummed and aſtonied, as if they were dead. The ſame ſerpents moreouer will not come neere vnto thoſe that be annointed all ouer with this herb Aros and oile of baies: hereupon it is thought, that it is a good preſeruatiue againſt their ſtings, if it be drunk in groſſe red wine. They ſay moreouer, that cheeſes will keepe paſſing well, if they be wrapped within the leaues of Aron.

To come now to Dragons, called in Latine Dracunculus, wherof I haue ſpoken before: the
C only time to dig it out of the ground, is when barly beginneth to ripen, and within the two firſt quarters of the Moon, all the while that ſhe doth increaſe in light. Let one but haue the root of this herb about him in any part of the body (it makes no matter how or where he cary it) he ſhal be ſure that ſerpents wil flie from him. And therefore it is ſaid, that the greater kind of them is ſingular to be giuen in drink vnto thoſe who are ſtung already by them, as alſo that it ſtoppeth the immoderat courſe of womens fleurs, in caſe it touched no yron inſtrument when it was gathered. The juice thereof is paſſing good for pain in the ears.

As for tht Dragon which the Greeks name Draconatium, it hath bin ſhewed & deſcribed to me in three forms: the one leaued like vnto the Beets, growing with an vpright main ſtem with a floure of a purple colour: this Dragon is like vnto Aron. Others brought to me a ſecond kind with a long root (as it were) marked forth and diuided into certaine ioints; it putteth out three
D ſmall ſtems and no more: and they declared moreouer and gaue direction to ſeeth the leaues thereof in vineger againſt the ſting of ſerpents. There was a third ſort ſhewed vnto me, bearing a leafe bigger than that of the Cornell tree, with a root reſembling thoſe of the canes or reeds: and (as they auouched) parted into as many joints and knots juſt, as it was yeares old, and ſo many leaues likewiſe it had, neither more nor leſſe. Thoſe that preſented it to me, vſed to giue the ſame in wine or water againſt ſerpents.

There is an herb alſo named Aris, growing in the ſame Egypt: like vnto Aron aboueſaid, ſaue that it is leſſe, hath ſmaller leaues, and not ſo big a root, and yet the ſame is full as great as a good round and large oliue. Of theſe, there be two kinds: the one which is white, riſeth vp with
E two ſtalks: the other puts forth but one ſingle ſtem. Both of them haue vertue to cure running ſcals and vlcers; to heale burns alſo and fiſtulous ſores, if a collyrie or tent be made thereof and put into the ſore: the leaues boiled in water, and afterwards ſtamped and incorporate with oile roſat do ſtay the ſpreading of corroſiue & eating vlcers. But mark one wonderful property that this plant hath: touch the nature or ſhap of any female beaſt therwith, ſhe wil neuer lin gadding vntill ſhe die with one miſchiefe or other.

Touching Millefoile or Yarrow, which the Greeks call Myriophyllon, & we in Latine Millefolium: it is an herb growing vp with a tender and feeble ſtalke, like in ſome ſort vnto Fenell, and charged with many leaues, whereupon it took the name: it groweth in moores and fennie grounds; vſed to very good purpoſe and with ſingular ſucceſſe, in curing of wounds. Ouer and
F beſides, it is giuen to drink with vineger for the difficulty of vrine and the ſtoppage of the blader, for thoſe that take wind thick and ſhort, and ſuch as are inwardly bruiſed by falling headlong from on high; the ſame is moſt effectuall to take away the tooth ache.

In Tuſcan they haue another herb ſo called, growing in medowes, which putteth forth on either ſide of the ſtalk or ſtem, a number of pretty leaues as ſmal in maner as hairs. The ſame alſo

is a moſt excellent wound-hearb. And it is auouched by the people of that countrey, That if an Oxe chance to haue his ſtrings or ſinews cut quite atwo with the plough-ſhare, this hearb will conglutinat and ſouder them againe, if it be made into a ſalue with ſwines greaſe. G

Concerning baſtard Navew, called in Greeke Pſeudo Bunion, it hath the leaues of Navew gentle, and buncheth to the height of a hand-bredth or ſpan. The beſt of this kind groweth in the Iſle Candy, where they vſe to drink fiue or ſix branches thereof for the wringing torments of the belly, for the ſtrangury, the pain of the ſides, midriffe, and precordiall parts.

Myrrhis, which ſome call Smyrrhiza, others Myrrha, is paſſing like vnto Hemlocke, in ſtalke, leaues, and floure; only it is ſmaller and ſlenderer, and hath no ill grace and vnpleaſant taſt to be eaten with meats. Taken in wine, it haſteneth the monthly courſe of womens fleurs if they bee too ſlow, and helpeth them in labour to ſpeedy deliuerance. It is ſaid moreouer, that in time of H a plague it is wholſom to drink it for feare of infection. A ſupping or broth made of it helpeth thoſe who are in a Phthyſicke or conſumption. This good property it hath beſides, to ſtir vp a quick appetite to meat. It doth extinguiſh and kill the venome inflicted by the ſting or pricke of the venomous ſpiders Phalangia. The juice drawn out of this herb after it hath lien infuſed or ſoked three daies together in water, healeth any ſore breaking out either in face or head.

Finally, Onobrychis carieth leaues reſembling Lentils, but that they are ſomewhat longer: it beareth alſo a red floure: but reſteth vpon a ſmall and ſlender root. It groweth about ſprings and fountains. Being dried and reduced into a floure or pouder, it maketh an end of the ſtrangury, ſo it be drunk in a cup of white wine well ſtrewed and ſpiced therwith It ſtoppeth a lask. To conclude, the juice therof cauſeth them to ſweat freely who are annointed all ouer with it. I

Chap. XVII.

¶ *The medicinable vertues of Coriaceſia, Callicia, and Menais, with three and twentie other herbes, which ſome hold to be Magicall. Moreouer, of Conſidia, and Aproxis, beſides ſome other which are reuiued and in requeſt againe, hauing been long time out of vſe.*

TO diſcharge and acquit my ſelfe of the promiſe which I made of ſtrange and wonderfull herbs, I cannot chuſe but in this place write a little of thoſe which the Magitians make ſuch reckoning of. For can there be any more admirable than they? And in very truth, *Democritus* and *Pythagoras*, following the tracts of the ſaid wiſe men and Magitians, were the firſt Philoſophers, who in this part of the world ſet thoſe herbs on foot, and brought them into a name. K

And to begin with Coriaceſia and Callicia. *Pythagoras* affirmeth, That theſe two herbes will cauſe water to gather into an yce. I find no mention at all in any other authors, of theſe hearbes, neither doth he report more properties of them.

The ſame author writes of an herb called Menais, known alſo by the name of Corinthas, the juice whereof (by his ſaying) if it be ſodden in water, preſently cureth the ſting of ſerpents, if the place be fomented with the ſaid decoction. He affirmeth moreouer, that if the ſaid juice or liquor be poured vpon the graſſe, whoſoeuer fortuneth to go thereupon, and touch it with the L ſole of the foot, or otherwiſe chance to be but daſhed or ſprinkled therewith, ſhall die therupon remedileſſe, and no way there is to eſcape the miſchiefe. A monſtrous thing to report, that this juice ſhould be ſo rank a venome as it is, vnleſſe it be vſed againſt poiſon.

The ſelfe ſame *Pythagoras* ſpeaketh yet of another herb which hee calleth Aproxis: the root whereof is of this nature, to catch fire a farre off; like for all the world to Naphtha, concerning which, I haue written ſomwhat already in my diſcourſe as touching the wonders of Nature: and he reporteth moreouer, That if a man or woman happen to be ſicke of any diſeaſe, at what time as this Aproxis is in the floure, although he or ſhe be throughly cured of it, yet ſhall they haue a grudging or minding thereof as often as it falleth to floure again yeare by yeare. And of this opinion he is beſides, That Frumenty corne, Hemlock, and Violets, are of the ſame nature and M property. I am not ignorant, that this booke of his wherein theſe ſtrange reports are recorded, ſome haue aſcribed vnto *Cleomporus*, a renowned Phyſitian: but the currant fame or ſpeech holdeth ſtil ſo conſtantly, time out of mind, that we muſt needs beleeue *Pythagoras* to be the author of the ſaid booke. True it is indeed, that the name of *Pythagoras* might giue authority and credit

20030

A dit vnto other mens books attributed to him, if haply any other had laboured and trauelled in compiling ſome worke, which himſelfe judged worthy of ſuch a man as he was: but that *Cleomporus* ſhould ſo do, who had ſet forth other books in his owne name, who would euer beleeue? No man doubteth verily, but that the book intituled * Chirocineta, was of *Democritus* his making: and yet therein be found more monſtrous things by a hundred fold, than thoſe which *Pythagoras* hath deliuered in that worke of his. And to ſay a truth, ſetting *Pythagoras* aſide, there was not a Philoſopher ſo much addicted to the ſchoole and profeſſion of theſe Magitians, as was *Democritus*.

* As one would ſay, ſuch a book as ſhould be continually occupied, & neuer laid out of hand.

In the firſt place he telleth vs of an herb called Aglaophotis, worthy to be admired & wondred of men, by reaſon of that moſt beautifull colour which it had: and for that it grew among the quarries of marble in Arabia, confining vpon the coaſts of the realme of Perſia, therefore it was alſo named Marmaritis. And he affirmeth, that the Sages or VViſe men of Perſia called Magi, vſed this herb when they were minded to coniure and raiſe vp ſpirits.

He writeth moreouer, That in a country of India inhabited by the Tardiſtiles, there is another herb named Achæmenis, growing without leafe, and in colour reſembling Amber: of the root of which herb there be certain Trochisks made: whereof they cauſe malefactors and ſuſpected perſons to drink ſome quantity with wine, in the day time, to the end they ſhould confeſſe the truth: for in the night following they ſhall be ſo haunted with ſpirits and tormented with fundry fanſies and horrible viſions, that they ſhal be driuen perforce to tel all, and acknowledge the fact for which they are troubled & brought in queſtion. The ſame writer calleth this plant
C * Hippophobas, becauſe Mares of all other creatures are moſt fearfull and waty of it.

* or *Hippophobas*.

Furthermore, he reporteth, That 30 Schœnes from the riuer Choaſpes in Perſia, there groweth an herb named Theombrotion: which for the manifold and ſundry colours that it hath, reſembleth the painted taile of a Peacocke, and it caſteth withall a moſt ſweet and odoriferous ſent. This herb (ſaith he) the Kings of Perſia vſe in their meats & drinks: and this opinion they haue of it, That it preſerueth their bodies from all infirmities and diſeaſes, yea, and keepeth their head ſo ſtaied and ſetled, that they ſhall neuer be troubled in mind and out of their right wits: in ſuch ſort, that for the powerfull maieſtie of this plant, it is alſo called Semnion.

He proceedeth moreouer to another, knowne by the name Adamantis, growing onely in Armenia and Cappadocia: which if it be brought neare vnto Lions, they will lie all along vpon
D their backs, and yawne with their mouths as wide as euer they can. The reaſon of the name is this, becauſe it cannot poſſibly be beaten into pouder.

He goeth on ſtill and beareth vs in hand, that in the realme Ariana, there is found the herbe Arianis, of the colour of fire. The inhabitants of that country vſe to gather it when the Sun is in the ſigne Leo: and they affirme, that if it do but touch any wood beſmeared and tubbed ouer with oile, it will ſet the ſame a burning on a light fire.

What ſhould I write of the plant Therionarca, which whenſoeuer it beginneth to come vp and riſe out of the ground, all the wilde beaſts will lie benummed and (as it were) dead: neither can they be raiſed or recouered again, vntill they be ſprinkled with the vrine of Hyæna.

The herb Æthiopis, by his report groweth in Meroe, for which cauſe it is called alſo Merois:
E In leafe it reſembleth Lectuce: and being drunk in mead or honied water, there is not ſuch a remedy againe for the dropſie.

Ouer and beſides, he ſpeaketh of the plant Ophiuſa, found in a country of the ſame Æthyopia, named Elephantine: of a leaden hue it is and hideous to ſee to: whoſoeuer drinke thereof, ſhal be ſo frighted with the terrors and menaces of ſerpents repreſented vnto their eies, that for very feare they ſhall lay violent hands on themſelues: and therefore church robbers are inforced to drink it. Howbeit, if a man take after it a draught of Date wine, he ſhall not be troubled with any ſuch fearfull viſions and illuſions.

Moreouer, there is found (ſaith *Democritus*) the herbe Thalaſſegle about the riuer Indus, and
F thereupon is knowne by another name Potamantis: which if men or women take in drink, tranſporteth their ſences ſo far out of the way, that they ſhall imagine they ſee ſtrange ſights.

As for Theangelis, which by his ſaying groweth vpon mount Libanon in Syria, and vpon Dicte, a mountain in Candy; alſo about Babylon and Suſis in Perſia; if the wiſe Phyloſophers (whom they term Magi) drinke of that herb, they ſhal incontinently haue the ſpirit of propheſie, and foretell things to come.

There

There is beſides in the region called Bactriana & about the riuer Boryſthenes, another ſtrange plant named Gelotophyllis, which (by his report) if one do drink with Myrrh and wine, it will cauſe many fantaſticall apparitions: and the party ſhal therupon fal into a fit of laughter without ceaſing and intermiſſion, and neuer giue ouer, vnleſſe it be with a draught of Date wine, wherein were tempered the kernels of Pine nuts together with pepper and honey.

Touching the herb of good fellowſhip Syſſitieteris, found in Perſis, it tooke that name becauſe it maketh them exceeding mery who are met together at a feaſt. They call the ſame herb likewiſe Protomedia, for that it is ſo highly eſteemed among kings and princes. And another name it hath beſides; to wit,* Acaſignete, becauſe it commeth vp alone & no other herbs neere vnto it: yea, and one more yet, namely, Dionyſonymphas, becauſe wine and it ſort ſo well together, and make as it were a good mariage.

* As one would ſay, without brother or ſiſter.

The ſame *Democritus* talketh alſo of Helianthe: an herb leaued like to the Myrtle, growing in the country Themiſcyra, and the mountains of Cilicia, coaſting along the ſea. And he giues out, that if it be boiled with Lions greaſe, and then together with Safron and Date wine reduced into an ointment, the foreſaid Magi and the Perſian kings therewith annoint themſelues, to ſeem thereby more pleaſant and amiable to the people: which is the reaſon, that the ſame herb is called Heliocallis.

Ouer and beſides, he maketh mention of Hermeſias (for ſo he termeth not an herb but a certain compoſition) ſingular for the getting of children, which ſhall proue faire, and of good nature beſides. Made it is of Pine nut kernels, ſtamped and incorporat with hony, Myrrh, Safron, and Date wine, with an addition afterwards of the hearbe Theombrotium and milke: and this confection he preſcribeth to be drunk by the man a little before the very act of generation; but by women vpon their conception, yea, and after their deliuery all the while they be nources and giue ſuck: and in ſo doing they may be aſſured, thoſe children of theirs, thus gotten, bred, and reared, ſhall be paſſing faire and well fauoured, of an excellent ſpirit and courage: and in one word, euery way good. Of all theſe herbes before ſpecified, he ſetteth down alſo the very names which the ſaid Magi call them by. Thus much for the Magicke herbes found in *Democritus* his booke.

Apollodorus, one of his diſciples and followers, comes in with his two herbs to the other before named. The one he calleth Æſchynomæne, becauſe it draweth in the leaues, if one come neare vnto it with the hand: the other Crocis, which if the venomous ſpiders Phalangia do but touch, they will die vpon it.

Cratevas writeth of an herb called Oenotheris, which being put in wine, if any ſauage beaſts be ſprinckled therewith, they will become tame, gentle and tractable.

A famous * Grammarian of late daies made mention of another herb Anacampſeros, of this vertue, That if a man touched a woman therewith, were ſhe departed from him in all the hatred that might be, ſhe ſhould come again and loue him entirely. The ſame benefit alſo ſhould the woman find therby, in winning the loue of a man. This may ſuffice for the preſent to haue written of theſe wonderfull Magick herbes, conſidering that I meane to diſcourſe more at large of them and their ſuperſtition, in a more conuenient place.

* *Apion* called alſo *Pleiſtonices.*

Chap. XVIII.

¶ *Of Eriphia, Lanaria, and Stratiotis, with the medicines which they yeeld.*

MAny writers haue made mention of Eriphia. This herb hath within the ſtraw of the ſtem a certain flie like a beetle, running vp and down, and by that meanes making a noiſe like vnto a yong kid, whereupon it took the foreſaid name. There is not a better thing in the world for the voice, than this herb, as folk ſay.

The herb Lanaria, giuen to ewes in a morning when they are faſting, cauſeth their vdders to ſtrout with milk. Lactoris likewiſe is a common herb and as well known, by reaſon that it is ſo full of milk, which cauſeth vomit, if one taſt thereof neuer ſo little. Some there be who ſay, that the herb which they cal * Militaris, is all one with this Lactoris: others would haue it to be very like vnto it; and that it ſhould haue that name, becauſe there is not a wound made with ſword or edged weapon, but it healeth it within fiue daies, in caſe it be applied thereto with oile.

* The ſoulders hearbe.

Semblably, the Greek writers make great reckoning of their * Stratiotes: but this hearbe groweth

* All one with *Militaris.*

20030

A groweth onely in Egypt, and namely in floten grounds where the riuer Nilus hath ouerflowed: and like it is vnto Sengreen or Houſleek, but that it hath bigger leaues. It is exceeding refrigeratiue; and a great healer of green wounds, being made into a liniment with vineger: moreouer it cureth S. *Anthonies* fire, and all apoſtumes which are broken and run matter: if it be taken in drinke with the male Frankincenſe, it is wonderfull to ſee how effectuall it is to repreſſe the flux of bloud from the reins.

Chap. XIX.

B ¶ *Of the herbes that grow vpon the head and chapter of Images and Statues. Of herbs found in riuers. Of the herb called Lingua. Of herbs growing through a ſiue, and vpon dung-hills. Of Rhodora and Impia, two herbs. Of Pecten Veneris. Of Nodia. Of Clauers, or Gooſe-graſſe, called otherwiſe Philanthropos. Of the little Bur named Canaria: of Tordile. Of the ordinarie Couch-graſſe, Stitchwort, or Dent-de-chien. Of the hearbe Dactylus, and Fenigrecke: with their medicinable vertues.*

IT is commonly ſaid, That the herbs or weeds growing vpon the head of any ſtatue or Image, preſently allay the head-ach (if they be gathered in the lappet or any part of ſome garment) ſo as the Patient weare them tied about the necke, by red linnen thread, or infolded within ſome red linnen clout. Any herb whatſoeuer gathered out of ſome riueret, brook, or great riuer, before the Sun-riſing, ſo as no man ſee the party during the time of the gathering, prouided alwaies that it be tied to the left arm of the ſick Patient, and he or ſhe not know what it is, driues
C away any tertian ague, if it be true which is commonly ſaid. There is an herbe growing about fountains, called Lingua, *i.* a Tongue: the root therof being burnt into aſhes, & incorporat with the greaſe of a ſwine (but you muſt look, ſay they, that the ſwine be black and barraine) cauſeth haire to come againe, in caſe the place which is bare & bald, be annointed therwith in the ſun. Caſt a ſiue or riddle forth into any beaten path or high way, the graſſe or weeds comming vp vnderneath, and growing through the ſame, if they be gathered and bound about the neck or any other part of women with childe, doe haſten their trauell and deliuery. Thoſe herbes which be found growing vpon muckhils, about country ferms, are paſſing good and effectual for the ſquinancy, if they be drunk with water. The graſſe or hearb neere vnto which a dog lifts vp his leg and piſſeth, if it be plucked out of the ground without touching knife or yron inſtrument, cu-
D reth any diſlocation or bone out of joint, moſt ſpeedily.

Touching the tree (in manner of an Opiet or Poplar) called Rumbotinus, I haue deſcribed it in my treatiſe of Hortyards and Tree-plots. Neare to one of theſe (and namely, when there is no vine coupled or maried to it) there groweth a certain herb, which in France they call Rhodora: it riſeth vp with a ſtem pointed and knotted in manner of a fig tree rod or wand; beareth leaues reſembling nettles, ſomwhat whitiſh in the mids, but the ſame in proceſſe of time become red all ouer; and a floure of ſiluer colour: this herb ſtamped and mixed with old hogs greaſe, makes a ſoueraigne liniment for all ſwellings, inflammations, and impoſtumes gathering to an head; prouided alwaies that no edge toole come neare to touch it, and that the party who is dreſſed
E or annointed therwith turn the head to the right hand, and ſpit thrice vpon the ground on that ſide. And the operation of this medicine will be the more effectual, if three ſundry men of three diuers nations, ſtand on the right hand when they annoint the Patient.

Concerning the herb Impia, which is of a hoary colour and white withall, it reſembleth in ſhew the Roſemary, riſing vp with a main ſtem, leafed and headed in manner of a Cole-ſtocke: from which principall body, there grow forth other ſmall branches, euery one bearing little tufts or heads riſing and mounting aboue the mother ſtocke (wherupon they called it in Latine Impia, for that the children ouer-topped their parents) yet there be others who haue thought it rather ſo called becauſe there is no beaſt wil touch or taſt it. This herb, if it be ground between two ſtones, waxeth as hot as fire, & yeeldeth a juice which is excellent for the ſquinancy, if the
F ſame be tempered with milke and wine. But this is ſtrange that is reported moreouer, namely, That whoſoeuer hath once taſted of this hearb, ſhall neuer be troubled with that diſeaſe; and therefore they vſe to giue it in waſh and ſwil, to ſwine: but look which of them refuſe to drinke of this medicine, ſhal die of the ſaid ſquinancy. Some are of opinion, That in birds neſts there is ſome of this hearbe commonly ſet and twiſted among other ſtickes, whereby it commeth to

paſſe that the yong birds neuer be choked, gobble they their meat as greedily as they will. G

As touching the herb called Veneris Pecten, which took that name of the reſemblance that the long cods thereof hath to combe or rake teeth: the root, if it be ſtamped with mallowes, and ſo reduced into a cataplaſme, draweth forth all ſpils, thornes, or whatſoeuer ſticketh within the fleſh. The herb * Exedum, is ſingular to cure the lethargy, and all drowſineſſe.

* It ſeemeth by name and effect, to be of ſome ſharpe and fretting quality.

As for Nodia, it is an herb well knowne in curriors ſhops. They call it alſo Mularis, & other names beſides they haue for it: but tearme it how you will, it healeth corroſiue vlcers: and I find that it is of ſingular operation againſt the poiſon of ſcorpions, if it be drunk in wine or oxycrat, (*i.*) vineger and water mingled together. There is a certaine rough and pricky herbe, which the Greeks call by a pretty name* Philanthropos, for that it ſticketh to folks cloaths as they paſſe by. A chaplet or guirland made of this herb, and ſet vpon the head, eaſeth the pain thereof. As H for the little Bur called Lappa Canaria, if it be ſtamped with Plantaine and Millefoile, and together with them concorporat in wine, it healeth all cancerous ſores, ſo it be applied vnto the place, and remoued once in three daies. The ſame herb digged forth of the ground without any ſpade or yron inſtrument, cureth ſwine, if it be put into the trough where they bee ſerued with draffe and ſwill, or giuen them in milk and wine. Some adde moreouer, that this charm muſt be ſaid in the digging, *Hæc eſt herba Argemon, quam Minerva reperit ſuibus remedium, qui de illa guſtauerint:* (*i.*) This is the herb Argemon, which *Minerva* inuented as a remedy for diſeaſed ſwine, as many as taſted thereof.

* Goose-graſſe or Cleauers.

As for Tordile, ſome haue ſaid that it is the ſeed of Seſeli, or Siler of Candy: others take it to be an herb by it ſelfe, which alſo they called Syreon: for mine own part, I find by my reading I nothing of it, but that it delighteth to grow vpon mountains; and that being burnt, it is good to be drunke for to prouoke womens monethly terms, and to expectorat the ſuperfluous fleame out of the breſt: for which purpoſes (they ſay) that the root is more effectuall in operation: alſo that the juice thereof taken in drink to the weight of three oboli, is ſingular for the reins: finally, that the root is one of the ingredients which go to the making of emollitiue plaſters or cataplaſmes.

The Quich-graſſe, otherwiſe named Dent-de-chien, or Dogs-graſſe, is the commoneſt herbe that groweth: it runneth & creepeth within the earth by many knots or ioints in the root, from which, as alſo from the branches and top-ſprigs trailing aboue-ground, it putteth forth new roots and ſpreadeth into many branches. In all other parts of the world, the leaues of this graſſe K grow ſlender and ſharp pointed toward the end: only vpon the mount Pernaſſus (wherupon it is called Gramen Pernaſſi) it brancheth thicker than in other places, and reſembleth in ſome ſort Ivie, bearing a white floure, and the ſame odoriferous. There is not a graſſe in the field whereon horſes take more delight to feed, than this, whether it be greene as it groweth, or dry and made into hay, eſpecially if it be giuen them ſomewhat ſprinckled with water. Moreouer, it is ſaid, that the inhabitants about the foreſaid mount Pernaſſus, do draw a juice out of this graſſe, vſed much to increaſe plenty of milk; for ſweet and pleaſant it is: but in other parts of the world, in ſtead therof, they vſe the decoction of the common graſſe, for to conglutinat wounds: [and yet the very herb it ſelfe in ſubſtance will do as much, if it be but ſtamped and ſo applied: and beſides, a good defenſatiue it is to keep any place that is cut or hurt, from inflammation.] To the L ſaid decoction, ſome put wine and hony: others adde a third part in proportion of Frankincenſe, Pepper, and Myrrhe: and then ſet all ouer the fire againe, and boile it a ſecond time in a pan of braſſe: which compoſition they vſe as a medicine for the tooth-ach and watering eies, occaſioned by the flux of humors thither. The root ſodden in wine, appeaſeth the wrings & torments of the guts; openeth the conduits of the vrine, and giueth it paſſage; beſides, it healeth the vlcers of the bladder; yea, it breaketh the ſtone. But the ſeed is more diureticall, and with greater force driueth downe vrine than the root. And yet it ſtoppeth a laske, and ſtaieth vomit. A peculiar vertue it hath againſt the ſting of dragons or ſerpents. Moreouer, ſome there be, who giue direction in the cure of the kings euil, and other flat impoſtumes called Pani, to take nine knots or ioints of a root of this graſſe: and if they cannot find one root with ſo many ioints, to take M two or three roots, vntill they haue the foreſaid number: which done, to enwrap or fold the ſame in vnwaſhed or greaſie wooll which is black [with this charge by the way, that the party who gathered the ſaid roots be faſting] and then to goe vnto the houſe of the patient that is to be cured, waiting a time when hee is from home: and be ready at his returne to receiue him with

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20030

A theſe words three times pronounced, *Iejunus ieiuno medicamentum do*, [*i.* I being yet faſting, giue thee a medicine alſo whiles thou art faſting:] and with that, to bind the foreſaid knots & roots vnto the parts affected, and ſo continue this courſe for three daies together. Furthermore, that kind of graſſe which hath ſeuen ioints in the root, neither more nor leſſe, is ſingular for the head ach, and worketh great effects if the Patient carrieth it tied faſt about him. Some Phyſitians do preſcribe for the intollerable pain of the bladder, to take the decoction of this graſſe boyled in wine vnto the conſumption of one halfe, and giue it to drinke vnto the Patient, preſently vpon the comming out of the baine or hot-houſe.

Touching the graſſe, which by reaſon of the pricks that it beares is named Aculeatum, there be three ſorts of it: the firſt is that which ordinarily hath fiue ſuch prickes in the head or top thereof, and thereupon they call it Penta Dactylon, *i.* the fiue finger graſſe: theſe prickes when
B they be wound together, they vſe to put vp into the noſthrils, and draw them downe again, for to make the noſe bleed. The ſecond is like to* Sengreen or Houſleek: ſingular good it is for the whitflaws, and excreſcences or riſings vp of the fleſh about the naile roots, if it be incorporat into a liniment with hogs greaſe: and this graſſe they call Dactylus, becauſe it is a medicine for the fingers. *The third kind named likewiſe Dactylos, but ſmaller than the other, groweth vpon old decaied wals or tyle houſes: this is of a cauſtick & burning nature, good to repreſſe the canker in running and corroſiue vlcers. Generally, a chaplet made of the herbe Gramen or Dogs-graſſe, and worn vpon the head, ſtancheth bleeding at the noſe. The Gramen that groweth along the high waies in the country about Babylon, is ſaid to kill camels that graſe vpon it.

Fenigreeke commeth not behind the other herbs before ſpecified, in credit and account for
C the vertues which it hath: the Greeks call it Telus and Carphos: ſome name it Buceras and Ægoceras, for that the * ſeed reſembleth little hornes: we in Latine tearme it Silicia or Siliqua. The manner of ſowing it, I haue declared in due place ſufficiently. The vertues thereof, is to dry, mollifie, and reſolue: the juice drawne out of it after the decoction, is right ſoueraigne for many infirmities and diſeaſes incident to women, and namely in the naturall parts, whether the matrice haue a ſchirre in it and be hard or ſwolne, or whether the necke thereof be drawne too ſtreight and narrow: for which purpoſes, it is to be vſed by way of fomentation, inceſſion, or bath; alſo by infuſion or injection with the metrenchyte. Very proper it is to extenuat the ſcurf or ſcales like dandruffe, appearing in the viſage: being ſodden and applied together with ſal-nitre, it helpeth the diſeaſe of the ſpleen. The like effect it hath with vineger: and being boyled
D therin, it is good for the liuer: for ſuch women as haue painful trauel in child-birth, & be hardly deliuered. *Diocles* appointed Fenigreek ſeed to the quantity of one acetable, to be giuen in nine cyaths of wine cuit for three draughts: with this direction, that the woman firſt ſhould take one third part of this drink, and then go to a hot bath, and whiles ſhe were ſweating therein, to drink one halfe of that which was left: and preſently after ſhe is out of the bain, ſup off the reſt. And he ſaith there is not the like medicine to be found in this caſe, when all others will take no effect. The floure or meale of Fenigreek ſeed boiled in mead or honied water, together with barly or Lineſeed is ſingular for the paine of the matrice, either applied to the ſhare in maner of a cataplaſme, or put vp into the naturall parts as a peſſary, according as the abouenamed *Diocles*
E ſaith: who was wont likewiſe to cure the lepry or S. *Magnus* euil; to cleanſe & mundifie the skin, of freckles & pimples, with a liniment made with the foreſaid floure incorporat with the like quantity of brimſtone: with this charge, to prepare the skin by rubbing it with ſalnitre, before the ſaid ointment were vſed, and then to annoint it oftentimes in a day. *Theodorus* vſed to mixe with Fenigreek a fourth part of the ſeed of garden creſſes wel cleanſed, & to temper them in the ſtrongeſt vineger that he could come by, which he took to be an excellent medicine for the leproſie. *Damion* ordained to make a drink with half an acetable of Fenigreek ſeed put into 9 cyaths of cuit or ſheere water, and ſo to giue it ſo prouoking of womens fleurs: & no man doubts but the decoction of Fenigreeke is moſt wholſome for the matrice and the exulceration of the guts: like as the ſeed it ſelf is excellent for the ioints & precordial parts about the heart. But in
F caſe it be boiled with Mallows, it is good for the matrice & guts, ſo there be put to the ſaid decoction ſome honied wine, & then giuen in drink: for euen the very vapor or fume of the ſaid decoction doth much good to thoſe parts. Alſo the decoction of Fenigreeke ſeed rectifieth the ſtinking rank ſmel of the arm-pits, if they be waſhed therewith. The floure made of Fenigreeke ſeed, incorporat with nitre & wine, quickly cleanſeth the head of ſcurfe, ſcales, & dandruffe. But

* Some take this to be *Parosychia, Dioſc.* or rather a kinde of Aizoon Monſpeliacum, or Prickmacam.

* This is thought to be great Stonecrop, wild Purcellane, or Wall pepper.

* Or rather the cods wherein the ſeed is encloſed.

boiled in hydromell (*i.* honyed water) and brought into a liniment with hogs greaſe, it cureth the ſwelling and inflammation of the members ſeruing to generation: likewiſe it is ſingular for the broad and flat apoſtems called Pani, the ſwelling kernels and inflammations behinde the ears, the gout as well of the feet as of the hands and other ioints; alſo the putrifaction of the fleſh ready to depart from the bone: and being incorporat in vineger, it helpeth diſlocations: being boiled in vineger and hony only, it ſerueth as a good linimenr for the ſpleen: and tempered with wine, it clenſeth or mundifieth cancerous ſores; but put thereto hony, it healeth them throughly in a ſhort time. The ſaid floure of Fenigreeke ſeed taken in a broth or ſupping, is an approued remedy for an vlcer within the breſt, and any inueterat cough; but it asketh long ſeething, euen vntill it haue loſt the bitterneſſe: and afterwards hony is put thereto, and then it is a ſingular grewell for the infirmities beforeſaid. Thus you ſee what may be ſaid of thoſe hearbes which are in compariſon but of a mean account: it remaineth now to diſcourſe of thoſe which are of more account and eſtimation than the reſt.

THE TWENTY FIFTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I.

¶ *The nature and properties of Hearbs growing wild and of their owne accord.*

When I conſider the excellency of ſuch hearbes, whereof now I am to treat, and which the earth ſeemeth to haue brought forth onely for the vſe of Phyſick, I cannot chuſe but grow withall into a wonderfull admiration of the great induſtry and careful diligence of our Antients before-time, who haue made experiments of all things, and left nothing vntried: neither reſerued they afterwards this hidden knowledge to themſelues, nor concealed ought, but were willing to communicate the ſame vnto poſteritie for their good and benefit: but we contrariwiſe in theſe daies, are deſirous to keep ſecret and to ſuppreſſe the labors of other men, yea and to defraud the world of thoſe commodities which haue been purchaſed by the ſweat of other mens browes: for verily we ſee, it is an ordinary courſe, that ſuch as haue attained to ſome knowledge, envie that little skil vnto their neighbours: and to keepe all forſooth to themſelues and teach none their cunning, they thinke the onely way to winne a great name and opinion of ſome deepe and profound learning. And ſo far be we off from deuiſing new inuentions, and imparting the ſame to the generall profit of mankinde, that for this long time men of great wit and high conceit haue ſtudied and practiſed to compaſſe this one point, That the good deeds of their Anceſtours might with themſelues die and be buried for euer. But certes, wee ſee and know, that the ſeueral inuentions of ſome one thing or other, haue cauſed diuers men in old time to be canonized as gods: in ſuch ſort, as their memoriall hath beene eternized by the names euen of hearbes which they found out: ſo thankefull was the age inſuing, as to recognize and acknowledge a benefit from them receiued, and by this meanes (in ſome meaſure) to make recompence. This care and induſtrie of theirs, if it had beene imployed in Domeſticall Plants neere home, which either for pleaſure and delight, or elſe for the Kitchin and Table, are ſet and ſowed, could not haue beene ſo rare and wonderfull: but they

20030

they ſpared not to climbe vp the top of high mountaines, and to rocks vnacceſſible; to trauell through blind and vnpeopled deſarts, to ſearch euery veine and corner of the earth, & all to find and know the vertues of herbs: of what operation the root was, for what diſeaſes the leaues were to be vſed; yea, and to make wholſom medicines for mans health of thoſe ſimples, which the very four-footed beaſts of the field neuer fed vpon, nor once touched.

Chap. II.

¶ *The Latine Authors who haue written of herbs, and their natures. At what time the knowledge of Simples began to be practiſed and profeſſed in Rome. The firſt Greeke writers who trauelled in this Argument. The inuention of herbs. The antient Phyſicke, and the manner of curing diſeaſes in old time. What is the cauſe that Simples are not now ſo much vſed for remedies of diſeaſes as they haue bin. Finally, of the ſweet Brier or Eglantine, and the herb Dragons, with their medicinable vertues.*

WE Romans haue bin more ſlack and negligent in this behalfe than was beſeeming vs, conſidering how otherwiſe, there was not a nation in the world more apprehenſiue of all vertues and things profitable to this life, than ours. For to ſay a truth, *M. Cato* (that famous clerke and great profeſſor, ſo well ſeen in all good Arts and Sciences) was the firſt (and for a long time the only author) who wrate of Simples: and howſoeuer he handled that argument but briefly and ſummarily, yet he omitted not the leech-craft belonging alſo to kine and oxen. Long after him, *C. Valgius* (a noble gentleman of Rome, & a man of approued literature) compiled a treatiſe of Simples which he left vnperfect; howbeit he dedicated the book to *Auguſtus Cæſar* the Emperor, as may appeare by a preface by him begun, wherein (after a religious and ceremonious manner of ſupplication) he ſeemeth to beſeech the ſaid prince, That it might pleaſe his Majeſty eſpecially, to cure all the maladies of mankind. And before his time, the only man among our Latines (as far as euer I could find) who wrot of Simples, was *Pompeius Lenæus*, the vaſſall or freed man of *Pompey* the Great. And this was the firſt time that the knowledge of this kind of learning was ſet on foot and profeſſed at Rome. For *Mithridates* (the moſt mightie and puiſſant king in that age, whoſe fortune notwithſtanding was to be vanquiſhed and ſubdued by *Pompey*) was well knowne vnto the world not only by the fame that went of him, but alſo by good proofe and euident arguments, to haue bin of all other before his time, a prince moſt addicted to the publick benefit of all mankind: for the only man he was who deuiſed to drinke poiſon euery day (hauing taken his preſeruatiues before) to the end that by the ordinary vſe and continuall cuſtome thereof, it might be familiar vnto his nature, and harmleſſe. The firſt he was alſo who deuiſed ſundry kinds of antidotes or counterpoiſons, wherof * one retaineth his name to this day: he it was alſo and none but he, as men think, who firſt mingled in the ſaid antidotes and preſeruatiues, the bloud of Ducks bred in his own realme of Pontus, for that they fed and liued there, of poiſons and venomous hearbs. Vnto him, that famous and renowned profeſſor in Phyſicke *Aſclepiades*, dedicated his books now extant: for this Phyſitian being ſolicited to repaire vnto him from Rome, ſent the rules of Phyſick digeſted into order, and ſet downe in writing, inſtead of comming himſelfe. And *Mithridates* it was (as it is for certaine knowne) who alone of all men that euer were, could ſpeake two and twentie languages perfectly; ſo as for the ſpace of ſix and fiftie yeares (for ſo long he reigned) of all thoſe Nations which were vnder his dominion, there neuer came one man to his court, but he communed and parled with him in his own tongue without any truchman or interpreter for the matter. This noble Prince (amongſt many other ſingular gifts that he had, teſtifying his magnanimitie and incomparable wit) addicted himſelfe particularly to the earneſt ſtudie of Phyſicke: and becauſe he would be exquiſite and ſingular therein, he had intelligencers from all parts of his dominions) and thoſe took vp no ſmall part of the whole world) who vpon their knowledge, exhibited vnto him the particular natures and properties of euery ſimple: by which means, he had a cabinet full of an infinit number of receits and ſecrets ſet down together with their operations & effects, which he kept in his ſaid cloſet, and left behind him with other rich treaſure of his. But *Pompey* the Great, hauing vnder his hands the whole ſpoile of this mighty Prince, & meeting in that ſaccage with thoſe notes aboueſaid, gaue commandement vnto his vaſſall or infranchiſed ſeruant the aboue-named *Lenæus* (an excellent linguiſt & moſt learned grammarian) to tranſlate the ſame into the

* i. Mithridaticum.

Latine tongue: for which act of *Pompey*, the whole world was no leſſe beholden vnto him, than G
the common-wealth of Rome for the foreſaid victorie. Ouer & beſides theſe, what Greeke au-
thors haue trauelled in Phyſicke, I haue declared heretofore in conuenient place. And among
the reſt, *Euax* a King of the Arabians, wrote a booke as touching the vertues and operations of
Simples, which he ſent vnto the Emperour *Nero*. *Crateuas* likewiſe, *Dionyſius* alſo, and *Metro-*
dorus, wrote of the ſame Argument after a moſt pleaſant and plauſible manner (I muſt needs
ſay,) yet ſo, as a man could picke nothing almoſt out of all their writings, but an infinit diffi-
cultie of the thing; for they painted euery herb in their colors, and vnder their pourtraicts they
couched and ſubſcribed their ſeueral natures & effects. But what certainty could there be ther-
in? pictures, you know, are deceitfull; alſo, in repreſenting ſuch a number of colours, and eſpe-
cially expreſſing the liuely hew of Hearbs according to their nature as they grow, no maruell if
they that limned and drew them out, did fail and de-enerat from the firſt pattern and originall. H
Beſides, they came far ſhort of the mark, ſetting out hearbs as they did at one only ſeaſon (to
wit, either in their floure, or in ſeed time) for they change and alter their form and ſhape euerie
quarter of the yeare. Hereof it came, that all the reſt labored to deſcribe their forms & colours,
by words only. Some without any deſcription at all of their figure or colour, contented them-
ſelues (for the moſt part) with ſetting downe their bare names, and thought it ſufficient to de-
monſtrat and ſhew their power and vertue afterwards, to whoſoeuer were deſirous to ſeeke after
the ſame: and verily the knowledge thereof is no hard matter to attain vnto. For mine own part,
it hath bin my good hap to ſee growing in the plant, all theſe medicinable herbs (excepting ve-
ry few) by the meanes of *Antonius Caſtor* (a right learned and moſt renowned Phyſitian in our
daies) who had a pretty garden of his own well ſtored with ſimples of ſundry ſorts, which hee I
maintained and cheriſhed for his owne pleaſure and his friends, who vſed to come and ſee his
plot, as indeed it was worthy the ſight: this Phyſitian was then aboue a hundred yeres old, & in
all his life neuer found what ſickneſſe meant; neither for all this age of his, was his wit decaied,
or memory any whit impaired, but continued as freſh ſtill as if he had bin a yong man. But to
proceed forward with our diſcourſe: Certes we ſhall not find a thing againe which our Ance-
ſtors ſo much admired and were more rauiſhed withall, than the knowledge of ſimples. True it
is, I confeſſe, that the inuention of the Ephemerides (to fore-know thereby not onely the day
& night, with the eclypſes of Sun & Moon, but alſo the very hours) is antient: howbeit, the moſt
part of the common people haue bin and are of this opinion (receiued by tradition) from their
forefathers) That all the ſame is done by inchantments, & that by the means of ſome ſorceries K
and herbs together, both Sun and Moone may be charmed, and inforced both to loſe and reco-
uer their light: to doe which feat, women are thought to be more skilfull and meet than men.
And to ſay a truth, what a number of fabulous miracles are reported to haue beene wrought by
Medea queen of Colchis, and other women; and eſpecially by *Circe* our famous witch here in I-
taly, who for her ſingular skil that way, was canonized a goddeſſe. And from hence it came (I
ſuppoſe) that *Æſchylus* a moſt antient Poet, made report of * Italy to be furniſhed with herbes
of mighty operation: and many others haue ſpoken much of the mountaine Circeios bearing
her name, wherein the ſaid Lady ſomtime dweit & kept her reſidence. And for a norable proof
of her ſingular skil in that kind, the ſame knowledge in ſome meaſure continueth vnto this day L
in the Marſians (a nation deſcended from a ſon of hers) who are well knowne to haue a naturall
power by themſelues to tame and conquer all ſerpents, and not to be ſubiect to any danger from
them. As for *Homer* verily (the father and prince of all learning & learned men, and the beſt au-
thor that we haue of antiquities) howſoeuer otherwiſe he was addicted to extoll and magnifie
dame *Circe*, yet he attributeth vnto Egypt the glory and name for good herbs; yea though in
his time there was not that baſe Egypt watered as now it is, with Nilus: for afterwards it grew
by the mud left there by the inundation of the ſaid riuer. Truly this Poet maketh mention of
many ſingular herbs in Ægypt, which the * Kings wife of that country gaue to that lady of his,
Helena, of whom he writeth ſo much; and namely, the noble Nepenthes, which had this ſingular
vertue and operation, To work obliuion of melancholy & heauineſſe, yea and to procure eaſe- M
ment and remiſſion of all ſorrowes: which, I ſay, the queene beſtowed vpon *Helena* to this end,
That ſhe ſhould communicate and impart it to the whole world for to be drunke in thoſe caſes
aboueſaid. But the firſt man knowne by all records to haue written any thing exactly and cu-
rioufly of ſimples, was *Orpheus*. As for *Muſæus*, and *Heſiodus* after him, in what admiration they
held

* Τυρίλλωνα ζώειν φαρμακευτικῶς ἐν Ἰταλίᾳ.

* Polydamna, Ἑλένης παράκοιτις, the wife of King Thon. Homer. Odyſſ. & Diodorus Siculus Antiquit. lib. 2.

20030

held,and how highly they eſteemed the herb Polion aboue the reſt,I haue ſhewed already. Certes,*Orpheus* and *Heſiodus* both haue highly commended vnto vs perfumes and ſuffumigations. And *Homer* likewiſe writeth expreſſely of certain herbs by name,of ſingular vertue,which I wil put downe in their due places. After him came *Pythagoras*, a famous Philoſopher, who was the firſt that compoſed a booke,and made a treatiſe purpoſely of ſundry herbs,with their diuers effects;aſcribing wholly the inuention and originall of them to the immortall gods,and namely, to *Apollo* and *Æſculapius*. *Democritus* compiled a volume of the ſame argument. But both hee and *Pythagoras* had trauelled before al ouer Perſis,Arabia,Æthyopia,and Ægypt,and there conferred with the Sages and learned Phyloſophers of that country,called Magi. In ſumme, ſo far were men in old time rauiſhed with the admiration of herbs and their vertues,that they baſhed not to auouch euen incredible things of them. *Xanthus* an antient Chronicler,writeth in the firſt booke of his hiſtories,of a Dragon,which finding one of her little ſerpents killed, raiſed it to life again by a certain herbe, which he nameth Balis : and with the ſaid herb,a man alſo named *Thylo*,whom the Dragon had ſlaine,was reuiued and reſtored to health againe. Alſo King *Iuba* doth report,That there was a man in Arabia,who being once dead, became aliue againe by the vertue of a certain herbe. *Democritus* ſaid,and *Theophraſtus* gaue credit to his words,That there is an herb,with which a kind of foule(wherof I haue made mention before) is able to make the wedge or ſtopple to flie out of the hole of her neaſt, into which the ſheepheards had driuen it faſt,in caſe ſhe bring the ſame herbe,and but once touch the foreſaid wedge therewith. Theſe be ſtrange reports and incredible, howbeit they draw men into a wonderfull opinion of the thing,and fil their heads with a deep conceit,forcing them to confeſſe,That there is ſome great matter in hearbs, and much true indeed which is reported ſo wonderfully of them. And from hence it is,that moſt are of this opinion and hold certainly, That there is nothing impoſſible, but may be performed by the power of herbs,if a man could reach vnto their vertues : mary few there be who haue attained to that felicity:and the operation of moſt ſimples is vnknowne. In the number of theſe,*Herophilus* the renowned Phyſitian may be reckoned:who was of this mind and gaue it out in his ordinary ſpeech, That ſome hearbs there were, which were effectuall and did much good,if a man or woman chanced but to tread vpon them vnder their feet. And verily,this hath bin knowne and found true by experience, that ſome diſeaſes would be more exaſperat and angry,yea,and wounds grow to fretting and inflammation, if folk went but ouer certain herbs in the way as they paſſed on foot. Lo what the Phyſick in old time was ! and how the ſame lay wholly couched in the Greek language,and not elſwhere to be found. But what might be the reaſon,that there were no more ſimples knowne? Surely it proceeds from this, That for the moſt part they be ruſticall peaſants,and altogether vnlettered,who haue the experience and triall of herbs,as thoſe who alone liue and conuerſe among them where they grow. Another thing there is,Men are careleſſe and negligent, and loue not to take any paines in ſeeking for them. Againe,euery place ſwarmeth ſo with Leeches and Phyſitians, and men are ſo ready to run vnto them for to receiue ſome compound medicine at their hands, that little or no regard there is made of herbs and good Simples. Furthermore,many of them which haue bin found out and knowne,haue no name at all : as for example,that herb which I ſpake of in my Treatiſe concerning the cure and remedies of corne growing vpon the lands : and which we all know, if it be enterred or buried in the foure corners of the field,will skar away all the foules of the aire, that they ſhal not ſettle vpon the corne,nor once come into the ground. But the moſt diſhoneſt and ſhamefull cauſe why ſo few ſimples in compariſon be knowne, is the naughtie nature and peeuiſh diſpoſition of thoſe perſons who will not teach others their skill, as if themſelues ſhould loſe for euer that which they imparted vnto their neighbor. Ouer and beſides, there is no certain meanes or way to direct vs to the inuention and knowledge of hearbes and their vertues : for if we looke vnto theſe hearbs which are found already,we are for ſome of them beholden to meere chance & fortune : and for others(to ſay a truth)to the immediat reuelation from God For proofe hereof,mark but this one inſtance which I will relate to you. For many a yeare vntill now of late daies,the biting of a mad dog was counted incureable : and looke who were ſo bitten,they fell into a certain * dread & feare of water : neither could they abide to drink,or to heare talk therof,and then were they thought to be in a deſperat caſe:it fortuned of late,that a ſouldier,one of the gard about the * Pretorium was bitten with a mad dog,and his mother ſaw a viſion in her ſleep,giuing(as it were)direction vnto her for to ſend the root vnto her ſonne for

* Ὑδροφοβία.

* or the prince.

to

to drink, of an Eglantine or wild roſe (called Cymorrhodon) which the day before ſhe had eſpied growing in an hortyard, where ſhe took pleaſure to behold it. This occurrent fel out in * Lacetania, the neareſt part vnto vs of Spain. Now, as God would, when the ſouldier beforeſaid vpon his hurt receiued by the dog, was ready to fall into that ſymptome of Hydrophobie, and began to feare water; there came a letter from his mother, aduertiſing him to obey the wil of God and to do according to that which was reuealed vnto her by the viſion. Whereupon he dranke the root of the ſaid ſweet brier or Eglantine, and not only recouered himſelfe beyond all mens expectation: but alſo afterwards as many as in that caſe tooke the like receit, found the ſame remedy. Before this time, the writers in Phyſick knew of no medicinable vertue in the Eglantine, but only of the ſponge or little ball, growing amid the pricky branches therof, which being burnt and reduced into aſhes, and incorporate with honey into a liniment, maketh haire to come againe where it was ſhed by any infirmity. But ſeeing I am fallen into the mention of Spain, it commeth to my mind, what I my ſelfe knew and ſaw in the ſame prouince, within the lands and domaines belonging to an hoſt of mine; namely, a certaine plant or herb there lately found called * Dracunculus, which carried a main ſtem or ſtalk an inch or thumb thick, beſet with ſpots of ſundry colors, reſembling thoſe of vipers and ſerpents: and I was told, that it was a ſingular remedy againſt the ſting or biting of any ſerpents. This Dracunculus differeth from another herb of that name, wherof I ſpake in the book going next before, for this hath a diſtinct form from that; and beſides, another ſtrange and wonderful property, namely, to ſhew two foot or thereabout aboue ground in the Spring time, when ſerpents firſt doe caſt their ſloughes or skins: & the ſame is no more ſeen, at the very time that ſerpents alſo retire into their holes and take vp their Winter harbor within the ground. Let this plant be gone once into the earth and hidden, you ſhal not ſee a Snake, Adder, or any other ſerpent ſtirring abroad. Wherby we may ſee what a kind and tender mother Nature is vnto vs (if there were nothing els to teſtifie her loue) in giuing vs warning beforehand of danger: and pointing vnto vs the very time when wee are to be afraid and to take heed of ſerpents.

G

H

I

* or Luſitania.

* Our common Dragons.

CHAP. III.

¶ *Of a certain venomous fount aine in Germany: of the hearb Britannica. What diſeaſes they be that put men to the greateſt paine.*

K

SO vnfortunat is our condition, and ſo much expoſed are we to manifold calamities, that the earth is not peſtered with wicked beaſts only for to doe vs harme: but alſo there be otherwhiles venomous waters and peſtilent tracts to work vs more wo and miſery. In that voiage or expedition which prince *Cæſar Germanicus* made into Germany, after he had paſſed ouer the riuer Rhene, and had giuen order to aduance forward with his army, he incamped vpon the ſea-coaſts along Friſeland, where there was to be found but one ſpring of freſh water; and the ſame ſo dangerous, that whoſoeuer drunk of that water, within two yeres loſt all their teeth, and were beſides ſo feeble and looſe iointed in their knees, that vnneth they were able to ſtand. Theſe diſeaſes the Phyſitians termed * Stomacace and Sceletyrbe: as one would ſay, the malady of the mouth, and palſie of the legs. Yet they found a remedy for theſe infirmities, and that was a certain herb called * Britannica, which is very medicinable, not only for the accidents of the ſinews and mouth, but alſo for the ſquinancy and ſtinging of ſerpents. It hath leaues growing ſomwhat long, and thoſe inclining to a browniſh or dark greene colour, and the root is blacke; out of which, as alſo from the leaues, there is a juice drawne or preſſed. The floures by a peculiar name be called Vibones: which being gathered before any thunder be heard, and ſo eaten, do aſſure and ſecure the parties altogether from that infirmity. The Friſians, neere vnto whom we lay incamped, ſhewed our men this herb. But I muſe much and wonder what ſhould be the reaſon of that name, vnleſſe the Friſians bordering vpon the narrow race of the ocean, which lieth only between them & England (called in thoſe daies Britanica) ſhould therupon for the neighborhead & propinquity of that Iſland, giue it the name Britannica. For certain it is, that it took not that name becauſe there grew ſuch plenty therof in that country of England, that it ſhould be tranſported ouer from thence to our camp; for as yet that Iſland was not wholly ſubiect to vs and reduced vnder the Roman ſeignorie. For an ordinary thing it was in old time practiſed by thoſe that found out any herbs, to affect the adoption (as it were) of the ſame, & to call them by

L

M

* Some thinke this diſeaſe to bee the Schorbuck or Scorbute, which raigneth yet at this day.

* Which is taken to be our Cochlearia, i. Spoonwort, commonly called Scorbut-graſſe or Scoruy-graſſe.

20030

A by their own names, wherein verily men took no ſmall contentment: according as I purpoſe to ſhew by the example of certain kings and princes, whoſe names liue and continue yet in their herbs: ſo honorable a thing it was thought in thoſe daies to find and it were but an hearbe that might do good vnto man. Whereas in this age wherein we now liue, I doubt not but there bee ſome who will mock vs for the pains taken in that behalfe, and think vs very ſimple for writing thus as we do of Simples; ſo baſe and contemptible in the eies of our fine fooles and delicate perſons, are euen the beſt things that ſerue for the benefit & common vtility of mankind: howbeit, for all that, good reaſon it is and meet that the authors and inuentors of them, as many as can be found, ſhould be named and praiſed with the beſt; yea, and that the operations & effects of ſuch herbs ſhould be digeſted and reduced into ſome method, according as they be appro-
B priat to euery kind of diſeaſe. In the meditation whereof, I cannot chuſe nor contain my ſelfe, but deplore and pity the poore eſtate and miſerable caſe of man: who ouer and beſides the manifold accidents and caſualties which may befall vnto him, is otherwiſe ſubject to many thouſands of maladies, which we haue much ado to deuiſe names for, euery houre of the day happening as they do, and whereof no man can account himſelfe free, but euery one is for his part to feare them. Of theſe diſeaſes ſo infinit as they be in number, to determine preciſely and diſtinctly which be moſt grieuous, might ſeem meere folly, conſidering that euery one who is ſicke for the preſent, imagineth his owne ſicknes to be worſt & fulleſt of anguiſh. And yet our forefathers haue giuen their judgement in this caſe, and by experience haue found, That the moſt extreme pain & torment that a man can indure by any diſeaſe, is the Strangury or piſſing dropC meale, occaſioned by the ſtone or grauell in the bladder. The next is the griefe and anguiſh of the ſtomak: and the third, Head-ach: for ſetting theſe three maladies aſide, lightly there are no pains that can kill a man or woman ſo ſoon. And here by the way, I cannot for mine owne part but maruell much at the Greeks, who haue publiſhed in their writings venomous and peſtilent herbs, as well as thoſe that be good and wholſome. And yet there is an appearance and ſhew of reaſon, why ſome poiſons ſhould be knowne: for otherwhiles it falleth out that men liue in ſuch extremity, as better it were to die, than ſo to lie in anguiſh and torment; inſomuch, as death is the beſt port and harbor of refuge that they haue. Certes, *Marcus Varro* reporteth of one *Seruius Clodius* a gentleman or knight of Rome who for the extreame pain of the gout, was forced to annoint his legs and feet all ouer with a narcotick or cold poiſon, whereby hee ſo mortified the
D ſpirits of the muskles and ſinews, that he became paralyticke in that part: and euer after vnto his dying day, was rid as well of all ſence, as of the paine of the gout. But ſay, that in theſe caſes it might be tollerable to ſet down in their books ſome poiſons: what reaſon, nay what leaue had thoſe Greeks to ſhew the means how the brains and vnderſtanding of men ſhould be intoxicat and troubled? what colour and pretence had they to ſet downe medicines and receits to cauſe women to ſlip the vntimely fruit of their womb, and a thouſand ſuch like caſts & deuiſes that may be practiſed by herbs of their penning? for mine owne part, I am not for them that would ſend the conception out of the body vnnaturally before the due time: they ſhall learne no ſuch receits of me, neither will I teach any how to temper & ſpice an amatorious cup, to draw either man or woman into loue, it is no part of my profeſſion. For wel I remember, that *Lucullus* a moſt
E braue Generall, and a captain of great execution, loſt his life by ſuch a loue potion. Much leſſe then ſhall ye haue me to write of Magick, witch-craft, charmes, inchantments and ſorceries, vnleſſe it be to giue warning that folk ſhould not meddle with them, or to diſproue thoſe courſes for their vanities, and principally to giue an Item, how little truſt and aſſurance there is to be had in ſuch trumpery. It ſufficeth me and contenteth my mind, yea and I think that I haue done wel for mankind, in recording thoſe herbs which be good and wholſome, found out by men of wit and learning for the benefit of poſterity.

Chap. IIII.

¶ *Of Moly, and Dodecatheos: of Pœony, otherwiſe called Pentorobus or Glycyſide. Of Panaces,*
F *Aſclepium, Heraclium, and Chironium. Of Panaces Centarium or Pharnaceum. Of Heraclium, Siderium. Of Henbane called Hyoſcyamus, Apollinaris, or Altercangenus.*

Homer is of opinion, That the principall and ſoueraigne hearb of all others, is Moly; ſo called (as he thinketh) by the gods themſelues The inuention or finding of this hearbe hee

* aſcri-

Odyſſio. * aſcribeth vnto *Mercury*: and ſheweth that it is ſingular againſt the mightieſt witchcraft & in- G
chantments that be. Some ſay, that this herb Moly, euen according to *Homers* deſcription, with a round and black bulbous root to the bigneſſe of an onion, and with a leafe or blade like that of Squilla, groweth at this day about the riuer or lake Peneus and vpon the mountain Cylleum in Arcadia: alſo that it is hard to be digged out of the ground. The Grecian Simpliſts deſcribe this Moly with a yellow floure, wheras *Homer* hath written, that it is white. I met with one phyſitian, a skilful Herbariſt, who affirmed vnto me, That this Moly grew in Italy alſo: and in verie truth he brought and ſhewed me a plant which came out of Campaine, about the digging vp whereof among hard and ſtony rocks, he had bin certain daies: but get he could not the entire root whole and ſound, but was forced to break it off, and yet the root which he ſhewed mee was thirtie foot long.

Next vnto Moly in account and reputation, is that plant which they call Dodecatheos, for H
that it doth repreſent & comprehend the maieſty of all the chiefe gods. They ſay if it be drunk in water, it is a ſoueraign medicine for al maladies. Seuen leaues it hath, reſembling very much thoſe of Lectuce, and the ſame ſpring from a yellow root.

*Pæon, who was equall in time to *Hercules*, and liued lõg before the Troian warre.

As touching Pæony, it is one of the firſt herbs that were euer known and brought to light, as may appeare by the author or inuentor thereof, whoſe name it beareth ſtill. Some call it Pentorobos: others Glycyſide. [where by the way I am to aduertiſe the Reader, of the difficulty in the knowledge of herbs by their names, conſidering that the ſame herbe hath in ſundry places diuers appellations.] But to proceed forward with our Pæony: it groweth among bleake and ſhady mountains, riſing vp with a ſtem between the leaues, * 4 fingers high, and bearing in the I
top 4 or 5 heads, faſhioned ſomwhat like to Filberds, within which there is plenty of ſeed both red and black. This herb is good againſt the fantaſticall illuſions of the * Fauni which appeare in ſleep. It is ſaid, that this herb muſt be gathered in the night ſeaſon: for if the Rainbird, woodpeck or Hickway, called Picus Martius, ſhould chance to ſpie it gathered, he would flie in the face, and be ready to peck out the eies of him or her that had it.

**Sesquipedali. Dioſc.* a foot and halfe.

* I ſuppoſe he meaneth the diſeaſes called *Ephialtes* or *Incubus*, the night Mare.

The herb * Panace, promiſeth by the very name a remedy of all diſeaſes. A number there be of herbs ſo called: and all aſcribed to ſome god or other for the inuention of them: for one of them hath the addition of *Aſclepion*, for that *Æſculapius* had a daughter named alſo *Panacea*. As touching the concret juice named Opopanax, it is drawn from the root of this plant (beeing of the Ferula or Fennell kind, ſuch as I haue heretofore ſhewed) by way of inciſion, the which root K
hath a thick rind, and of a ſaltiſh ſauor. When the root is pulled out of the ground, there is a religious ceremony obſerued to fil vp the hole again with all ſorts of corn, as it were in ſatisfaction to the earth for the violence offered in tearing it vp. As for the ſaid juice Opopanax, where and how it ſhould be made, and which is the beſt kind therof and not ſophiſticat, I haue declared already in my Treatiſe of forrain and ſtrange plants. That which is brought out of Macedony, they cal Bucolicum, becauſe the Neat-heards of the country mark when the liquor breakes forth and runneth out of it ſelfe, and ſo receiue and gather it from the plant: this wil not laſt, but of all the reſt ſooneſt loſeth the force. Moreouer, in all ſorts of it, that is rejected principally, which is black and ſoft; for theſe be markes to know that it is corrupted; and ſophiſticate with wax. A ſecond kind there is of Panaces, which they cal Heraclium: the inuention of the vertues L
and properties whereof is attributed vnto *Hercules*. Some there be who call it Origanum Heracleaticum the wild, becauſe it is like to Origan, wherof I haue heretofore written: but the root of this Panaces is good for nothing. A third kind of Panaces took the name of *Chiron* the Centaur, who was the firſt that gaue intelligence of the herbe and the vertues thereof. The leafe is like vnto the Dock, but that it is bigger and more hairy: the floure is of a golden yellow color: the root but ſmall: it loueth to grow in rich, fat, and battle grounds. The floure of this Panaces is moſt effectual in Phyſick: in which regard there is more vſe and profit thereof than of all the former kindes. A fourth Panaces there is beſides, found out alſo by the ſame *Chiron*, whereupon it hath the denomination of Centaureum: called alſo it is Pharnaceum: the occaſion of this two-fold name is this: becauſe there is ſome controuerſie in the firſt inuention thereof; whiles M
ſome attribute to it the Centaur *Chiron*; others to K. *Pharnaces*. This Panaces is vſually ſet and planted, bearing leaues indented in the edges like a ſaw, and thoſe longer than any of the reſt. The root is odoriferous, which they vſe to drie in the ſhadow, and therewith to aromatize their wine, for a pleaſant and delectable taſte it giueth vnto it. Hereof they haue made two ſpeciall kinds:

*πᾶν, and ἄκος, i. [a medicine for] all giefs; as one would ſay, All-heale.

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A kinds: the one with a * thicker leafe: the other with a thinner and ſmaller. * *Creſſiorũ.* πλατύφυλλον, *& Theophraſt.*

As for Heracleon Siderion, a plant it is alſo fathered vpon *Hercules*. It riſeth vp with a ſlender ſtalk to the height of foure fingers, bearing a red floure, and leaues in manner of the Coriander. Found it is growing neare to pooles and riuers: and for a wound herb there is not the like, eſpecially if the body be hurt by ſword, or any edged weapon made of yron and ſteele.

There is a wild Vine, named Ampelos Chironia, for that *Chiron* was the firſt author thereof. Of this plant I haue written in my diſcourſe of Vines [vnder the name of Vitis Nigra] like as alſo of another * herb, which hath the goddeſſe *Minerua* for the inuentreſſe. * *Matricaria* or *Parthenium*, *i.* Motherwort.

Moreouer, vnto *Hercules* is aſcribed Henbane, which the Latines call Apollinaris; the Arabians, Altercum or Altercangenon; but the Greeks, Hyoſcyamus. Many kinds there be of it: the
B one beareth black ſeed, floures ſtanding much vpon purple; and this herb is full of pricks. And in very truth, ſuch is the Henbane that groweth in Galatia. The common Henbane is whiter, and brancheth more than the other: taller alſo than the Poppy. The third kinde bringeth forth ſeed like vnto the graine of Irio. All the ſort of theſe already named, trouble the brain, and put men beſides their right wits: beſides that, they breed dizzineſſe of the head. As touching the fourth, it carieth leaues ſoft, full of down, fuller and fatter than the reſt: the ſeed alſo is white: & it groweth by the ſea-ſide: Phyſitians are not afraid to vſe this in their compoſitions, no more than that which hath red ſeed. Howbeit, otherwhiles this white kinde eſpecially, if it be not throughly ripe, proueth to be reddiſh, and then it is reiected by the Phyſitians. For otherwiſe none of them all would be gathered, but when they be fully drie. Henbane is of the nature of
C * wine, and therfore offenſiue to the vnderſtanding, and troubleth the head: howbeit, good vſe there is both of the ſeed it ſelfe as it is in ſubſtance, and alſo of the oile or iuice drawn out of it apart. And yet the ſtalks, leaues, and roots, are imployed in ſome purpoſes. For mine owne part, I hold it to be a dangerous medicine, and not to be vſed but with great heed and diſcretion. For this is certainly knowne, That if one take in drink more than foure leaues thereof, it will put him beſide himſelf. Notwithſtanding the Phyſitians in old time were of opinion, that if it were drunk in wine, it would driue away an ague. An oile (I ſay) is made of the ſeed therof, which if it be but dropped into the eares, is enough to trouble the brain. But ſtrange it is of this oile, That if it be taken in drink, it ſerues for a counterpoiſon. See how induſtrious men haue bin to proue experiments, and made no end of trying all things, inſomuch as they haue found means and forD ced very poiſons to be remedies. * *Vini.* Some read *Veneni*, *i* poiſon.

Chap. V.

¶ *Of Mercury, called Linozoſtis, Parthenium, Hermupoa, or rather, Mercurialis: of Achilleum, Panaces, Heracleum, Sideritis and Millefoile: of Scopa regia, Hemionium, Teucrium, and Splenium: of Melampodium or Ellebore, and how many kinds there be of it: of the black or white Ellebore, & their medicinable vertues: how Ellebore is to be giuen, how to be taken, to whom, and when it is not to be giuen: and how it killeth Mice and Rats.*

E THe herb Mercury, called by the Greeks Linozoſtis and Parthenion, was thought to be firſt found out by *Mercury*: whereupon many of the Greeks call it Hermu-poa: and wee all in Latine name it Mercurialis. Of it be two kinds, the male and the female: howbeit, the female Mercury is of better operation than the other. It riſeth vp with a ſtem a cubit high, which otherwhile brancheth in the top: the leaues be like vnto Baſil, but that they are narrower: full of knots or joints the ſtalk is, and thoſe haue many hollow concauities like arme-pits. The ſeed hangeth down from thoſe ioints. In the female the ſame is white, looſe, & in great plenty: in the male it ſtandeth cloſe vnto thoſe joints, but thinner: and the ſame is ſmall and as it were wreathed. The leaues of the male Mercury be of a dark and blacker green: wheras in the female they be more white. The root is altogether ſuperfluous, and very little. Both the one and the other
F delight to grow in plains and champion fields well ordered and husbanded. It is wonderful if it be true, that is reported of both theſe kinds; namely, That the male Mercury, cauſeth women to beare boies: and the female, girls. For which purpoſe the woman muſt preſently after that ſhee is conceiued, drink the juice of which Mercury ſhe will, in ſweet wine cuit, and eat the leaues either ſodden with oile & ſalt, or els greene & raw in a ſallad with vineger. Some there be who

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boile it in a new earthen veſſell neuer vſed before, together with the hearbe Heliotropium or Turnſol, and 2 or 3 cloues of Garlick, vntill it be throughly ſodden. VVhich decoction they preſcribe to be giuen to women, as alſo the herb it ſelf to be eaten the ſecond day of their monthly ſicknes, and ſo to continue for 3 daies together: & then vpon the fourth day, after they haue bathed, to company with their husbands. *Hippocrates* giueth wonderfull praiſe vnto Mercury, as wel the male as the female, for all thoſe accidents which follow women: but the maner of vſing it, which he preſcribed, there is no Phyſitian hath skil of. He appointed to make peſſaries thereof with hony, oile of Roſes, oile of Ireos or Lillies, and ſo to put them vp into the ſecret parts: and in this manner he ſaith that the herb is excellent good for to prouoke the monthly termes of women, and to fetch away the after-birth. Hee affirmeth alſo, that a potion or fomentation therwith wil do as much. Moreouer, by his ſaying, the juice of Mercury infuſed into the ears, or applied by way of liniment with old wine, is ſingular for them when they runne with ſtinking matter: he ordained likewiſe a cataplaſme of Mercury to be laid to the belly, for to ſtay the violent flux of humors thither: for the ſtrangury alſo and infirmities of the bladder. In which caſes he gaue the decoction therof with Myrrhe and Frankincenſe. And verily for to looſen the belly, although the Patient were in a feuer, there is a potion of Mercury ſingular good, made in this wiſe: Take a good handfull of Mercury, ſeeth the ſame in two ſextars of water, vntill one halfe be conſumed; let the party drink the ſame with ſalt and hony mixed therwith: but the ſaid decoction if it be made with an hogs foot, with a hen, capon, or cock boiled withal, is the wholſomer. Some Phyſitians were of opinion, That for to purge the body, both Mercuries, as wel the male as the female are to be giuen, either boiled alone by themſelues or els with Mallows: they clenſe the breſt parts, and euacuat choler, but they hurt the ſtomacke. Touching all the other properties of Mercury, I will write in place conuenient.

As *Chiron* the Centaure found out the medicinable vertues of certaine herbes, ſo we are beholden to his ſcholler *Achilles* for one, which is ſingular to heale wounds, and of his name is called Achilleos. This is that wound-herb, wherewith (by report) he cured prince *Telephus*. Some haue thought that hee deuiſed firſt the ruſt of braſſe or verdegreece, which is ſo excellent for ſalues and plaſters: & therfore you ſhall ſee *Achilles* commonly painted ſcraping off the ruſt of his ſpeare head with his ſword into the wound of the ſaid *Telephus*. Others ſay, that he tooke both the ſaid ruſt or verdegreece, and alſo the herb Achilleos to worke his cure. Some would haue this Achillea to be Panaces Heracleon; and others Sideritis: we in Latine call it Millefolia. An herb it is growing with a ſtalk or ſtem to the height of a cubit, ſpreading into many branches, clad from the very root vp to the top, with leaues ſmaller than thoſe of Fenell. Others confeſſe indeed that this herb is ſingular good for wounds: but the true Achilleos (ſay they) hath a blewiſh ſtalk a foot high & no more, bare and naked without any branches at all, howbeit finely deckt and garniſhed on euery ſide with round leaues, ſtanding one by one in excellent order, and making a faire ſight. There be again who deſcribe it with a foure ſquare ſtem, bearing heads in the top in manner of Horehound, and leaued like vnto an Oke. And this they ſay is of that efficacy, that it wil conglutinat & vnite ſinews again, if they were cut quite aſunder. Moreouer, you ſhall haue ſome who take it for Achillea that kinde of Sideritis growing vpon mud walls, which if it be bruſed or ſtamped, yeeldeth a ſtinking ſent. Moreouer, there is another going vnder the name Achilleos, like to this laſt deſcribed, but that the leaues be whiter and fattier, the little ſtalks or ſprigs more tender, & it groweth in vineyards. Laſt of al, there is one more called Achilleos, which riſeth vp to the height of 2 cubits, bearing pretty fine & ſlender branches, and thoſe three ſquare, leaues reſembling Fearn hanging by a long ſtele, & the ſeed is much like to that of the Beet. In one word, they be al of them moſt excellent for healing wounds. And as for that eſpecially, which hath the largeſt leaues, our countrimen in Latine haue called it Scopa Regia. And the ſame is holden to be good for to heale the Squinancy or Gargle in ſwine.

In the ſame age wherin *Achilles* liued, prince *Teucer* alſo gaue the firſt name and credit to one ſpeciall herb, called after him Teucrion, which ſome nominat Hemionium: this plant putteth forth little ſtalks in maner of ruſhes or bents, and ſpreadeth low: the leaues be ſmall: it loueth to grow in rough and vntoiled places: a hard and vnpleaſant ſauor it hath in taſt: it neuer floureth, and ſeed it hath none. Soueraigne it is for the ſwolne and hard ſpleene: the knowledge of which property came by this occaſion, as it is credibly and conſtantly reported. It fortuned on a time when the inwards of a beaſt killed for ſacrifice, were caſt vpon the ground where this herb grew,

20030

A grew,it took hold of the ſpleen or milt,and claue faſt vnto it,ſo as in the end it was ſeen to haue conſumed and waſted it clean:hereupon ſome there be that call it Splenion, *i.* Spleenwort:and there goeth a common ſpeech of it, That if ſwine doe eat the root of this herbe,they ſhall be found without a milt when they are opened. Some there be, who take for Teucrium and by that name do call,another herb full of branches in manner of hyſſop,leafed like vnto beans;and they giue order,that it ſhould be gathered whiles it is in floure; as if they made no doubt but that it would floure. The beſt kind of this herb they hold to be that which commeth from the mountains of Cilicia and Piſidia.

Who hath not heard of *Melampus* that famous diuinor and prophet? he it was of whom one of the Ellebores tooke the name,and was called Melampodion: and yet ſome there be who attribute the finding of that herb vnto a ſhepheard or heardman of that name,who obſeruing wel
B that his ſhe goats feeding therupon,fell a ſcouring,gaue their milk vnto the daughters of king *Prætus*, whereby they were cured of their furious melancholy, and brought again to their right wits. This herb then being of ſo excellent operation, it ſhall not be amiſſe to diſcourſe at once of all the kinds of Ellebore,whereof this maketh one. And to begin withal,two principal ſorts there be of it;namely,the white and the black:which diſtinction of colour, moſt writers would haue to be meant and vnderſtood of the roots only,and no part elſe: others there be,who would haue the root of the blacke Ellebore to be faſhioned like vnto thoſe of the Plane-tree, but that they be ſmaller and of a more darke & duskiſh green, diuided alſo into more jags and cuts;but thoſe of the white Ellebore,to reſemble the yong Beet new appearing aboue the ground, ſaue
C onely that they be of a more blackiſh colour,and along the backpart of their concauitie inclining to red. Both the one and the other bringeth forth a ſtalke in faſhion like the Ferula or Fenel-geant,a ſpan or good hand-breadth high,and the ſame conſiſteth of certain tunicles or skins folded one within another in manner of bulbous plants,riſing from the like root; and the ſaid root is full of ſtrings or fringes, as is the head of an onion. The blacke Ellebore is a very poiſon to horſes,kine,oxen,and ſwine,for it killeth them; and therefore naturally theſe beaſts beware how they eat of it,whereas confidently they feed vpon the white. The right ſeaſon of gathering the Ellebores,is in harueſt time Great ſtore thereof groweth vpon the hill Oeta, but the beſt is that which is found in one only place therof neere about * Pyra. The black Ellebore commeth vp euery where;but the beſt is in Helicon, a mountaine much renowned and praiſed for other
D herbs beſide it,wherewith it is well furniſhed. As touching the white, that of the mount Oeta is counted the principall:in a ſecond degree,is the white Ellebore of Pontus: in the third place is to be ranged,that which commeth from Elæa,which (they ſay) groweth among vines: in the fourth and laſt place,for goodneſſe,is that of the mount Pernaſſus, which is ſophiſticated with the Ellebore of Ætolia neare by. The blacke Ellebore is called Melampodium,wherewith folk vſe to hallow their houſes for to driue away ill ſpirits,by ſtrewing or perfuming the ſame,and vſing a ſolemne praier withall:it ſerueth alſo to bleſſe their cattell after the ſame order. But for theſe purpoſes they gather it very deuoutly and with certain ceremonies:for firſt and foremoſt, they make a round circle about it with a ſword or knife, before they go in hand to take it forth of the ground: then the party who is to cut or dig it vp, turneth his face into the Eaſt, with an
E humble prayer vnto the gods,That they would vouchſafe to giue him leaue with their fauour to do the deed; & with that he markes and obſerueth the flight of the Egle; for lightly while they be cutting vp of this root, ye ſhall ſee an Ægle ſoring aloft in the aire:now in caſe the ſaid Ægle flie neere vnto him or her that is cutting vp Ellebore,it is a certaine preſage and foretoken, that he or ſhe ſhall ſurely die before that yeare go about. Much ado alſo there is about the gathering of the white Ellebore;for vnleſſe the party do eat ſome garlick before,and eftſoones in the gathering ſup off ſome wine,and withall make haſt to dig it vp quickly,it wil ſtuffe and offend the head. The blacke Ellebore ſome call Eutomon,others Polyrrhizon; it purgeth downward;the white,by vomit,vpward,and doth euacuat the offenſiue humors which cauſe diſeaſes. In times paſt it was thought to be a dangerous purgatiue,and men were afraid to vſe it: but af-
F terwards it became familiar and common,inſomuch as many ſtudents tooke it ordinarily for to cleanſe the eies of thoſe fumes which troubled their ſight, to the end that whiles they read or wrote,they might ſee the better or more clearly. It is wel known,that *Carneades* the Philoſopher purpoſing to anſwer the bookes of *Zeno*,prepared his wits and quickened his ſpirits,by purging his head with this Ellebore. And *Druſus* our Countrey-man, one of the moſt famous and

* Where Pliny ſaith that Pyra was ſituate in Oeta, he is deceiued, for it was ſituate in Phocis, as Strabo and other Greeke writers do teſtifie.

renowned Tribunes of the Commons that were euer knowne at Rome (a man who aboue all others woon the fauour and applauſe of the comminalty, howſoeuer the nobility charged him to haue bin the cauſe of the Marſians war) was perfectly cured of the falling ſickneſs in the Ile Anticyra, by this only medicine: and indeed thoſe Iſlanders haue away by themſelues to prepare their Ellebore with the mixture of Seſamoeides (as I haue ſaid before) whereby the taking of it is moſt ſafe. Ellebore is called in Latine * Veratrum: the pouder as well of the one as the other ſnuffed vp into the noſthrils, either alone by it ſelfe, or mixed with the pouder of the Fullers herbe Radicula, wherewith they waſh and ſcoure their woollen cloth, * prouoketh ſneezing; and yet both of them procure ſleep. Now for vſe in Phyſicke, there would be choſen the ſmalleſt roots of Ellebor, ſuch as be ſhort alſo, and as it were curtelled, and not ſharp pointed in the bottome: and the beſt part is that which is toward the nether end; for the vppermoſt part of the root which is the thickeſt and bulbous like to an onion head, is good for dogs onely, and giuen vnto them for to make them ſcummer. In old time they vſed to chuſe the Ellebore root by the bark, and took that for the beſt which had the moſt fleſhy or thickeſt rind, to the end that they might take out the finer pith or marrow within; which they vſed to lap and couer with moiſt ſpunges, and when it began to ſwell, they diuided or ſliued it longwiſe into ſmal filaments with the point of a needle or bodkin. Theſe filaments or ſtrings, they dried in the ſhade, & laid them vp to ſerue as need ſhould require. But now adaies they cut the ſmall ſhoots or ſlips branching from the root, ſuch as are moſt charged with bark, and thoſe the Phyſitians giue vnto their Patients. The beſt white Ellebore is that, which in taſt is hot and biting at the tongues end, and in the breaking ſeemeth to ſmoke or ſend duſt from it: it is commonly ſaid, that it will continue in force thirty yeres. The black is good for the palſie, for thoſe that be lunatick and beſtraught in their wits, for ſuch as be in a dropſie (ſo they be cleare of a feuer) for inueterat gouts as well of feet and hands as other joints: it purgeth downward by the belly, both choler and fleame: being taken in water, it gently mollifieth and looſeneth the body: and from foure oboli (which is a ſmall or mean doſe) you may riſe to a full dramme, ſo you exceed not that weight. Some were wont to mingle Scammonium therewith; but the ſafer way is to put ſalt only thereto: being giuen in any ſweet liquor to ſome great quantity, it is dangerous: and yet a fomentation therwith is good to rid away and diſpatch the miſtineſſe that troubleth the eies: and therefore ſome vſe to beat it into pouder, and when it is reduced into a liniment or eie ſalue, therwith to annoint them for the ſaid purpoſe. This property moreouer it hath, to bring to maturation the ſwelling wens called the kings euill, to mollifie any hard tumors, to mundifie alſo the foreſaid wens and any botches or impoſtumes that be ſuppurat and broken. It cleanſeth likewiſe the hollow vlcers called fiſtuloes, prouided alwaies that it be not taken out of the ſore in 2 daies and 2 nights, but the third day it ought to be remoued. Incorporat with the skales of braſſe and red orpiment, it taketh away warts. Made into a pulteſſe or cataplaſme with barly meale and wine, it is ſingular good for the dropſie, if it be applied vnto the belly: take a ſliuing or ſlip of the root and draw it through the eare of ſheep or horſe in manner of rowelling, and the morrow after take it forth again at the ſame houre; this healeth the gid or wood-euill in ſheep, and cureth the glandres in horſes: incorporat with frankincenſe or wax, together with pitch or oile of pitch, it is ſingular good for the farcins or ſcab in any foure-footed beaſt. Touching white Ellebore, the beſt is that which moſt ſpeedily prouoketh ſneezing: it is without compariſon far more terrible than the blacke, eſpecially if a man reade what ado and preparation there went vnto it in the old time, when they were to drink it againſt ſhiuerings and ſhakings, againſt the riſing of the mother and danger of ſuffocation: in caſe alſo of immoderate and extraordinary drowſineſſe, of exceſſiue hicquets and yexing without intermiſſion, and of continuall ſneezing: moreouer, when they were troubled with weakeneſſe and feebleneſſe of ſtomacke: in like manner in caſe of vomits, when they came either too faſt or ouer-flow, either too little or too much: for this was a rule obſerued among them, to giue with Ellebore ſome other drugs, for to cauſe it work the ſooner, and to haſten vomit more ſpeedily: alſo they vſed means to fetch away the very Ellebore again if it lay ouer-long in the body, either by other purgatiue medicines, or by clyſters: oftentimes alſo by opening a veine or bloud-letting. And ſay that Ellebore taken in manner aforeſaid, wrought very well, yet they vſed to obſerue euery vomit, the diuers colors of humors that came away, which many times were fearfull to behold: yea and when the Patient had done caſting, they conſidered alſo the ordure and excrements that paſſed away by the belly: they gaue order beſides,

* *à verando, vnde veratores & veracula:* and becauſe ſuch prophets were counted mad & out of their wits, therefore it was ſo called, for that it cured ſuch.

* *Sternutamentũ facit, amboq; ſomnũ.* I doubt whether this be true: I ſuppoſe it ſhould be read according to the old copy (*Somnum diſcutiunt*) (i.) they diſcuſſe or ſhak off ſleep, vſed to that purpoſe in lethargies & ſuch drowſie diſeaſes.

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A beſides, for *bathing either before or after the taking of Ellebore, as occaſion beſt required; yea and they took great heed and regard of the whole body beſides; and yet, did what they could, the terrible name and report that went of this medicine, paſſed all their care and circumſpection whatſoeuer: for it was an opinion generally held and receiued, That Ellebore doth eat away and conſume the fleſh ſeething in the pot, if it be boiled therewith. But herein were the antient Phyſitians much too blame and greatly in fault, in that they were ouer timorous, and for feare of ſuch accidents inſuing vpon this medicine, gaue it in too ſmall a doſe: wheras indeed the greater quantity that one taketh of it, the more ſpeedily it worketh, and the ſooner paſſeth out of the body, when it hath once done the errand. *Themiſon* vſed to preſcribe two drams, and not aboue. The Phyſitians who followed after, allowed the doſe of foure drammes; grounding vpon a notable and famous apothegme or ſpeech of *Herophylus*, who was wont to ſay, that
B Elleoore was like vnto a valiant and hardy captaine: for when (quoth he) it hath ſtirred all the humors within the body, it ſelf iſſueth forth firſt and maketh way before them. Moreouer, there is a ſtrange and ſingular deuiſe, To clip the root of Ellebore with ſmall ſizzers or ſheares into little pieces; then, to ſift them through a ſercer, that the bark or rind may remain ſtill; and when it is clenſed and purged from the pith or marrow within, the ſame may fall thorow and paſſe away: which is paſſing good to ſtay vomits, in caſe the Ellebore doe worke too extreamely: furthermore, if we looke for good ſucceſſe in our cure by miniſtring of Ellebore, in any wiſe wee muſt take heed and be carefull, how we giue it in cloſe weather, and vpon a darke and cloudie day; for certainly it putteth the Patient to a jumpe or great hazard, and cauſeth moſt grieuous and intollerable pains and torments. For that it ſhould be taken in ſummer rather than in win-
C ter, no man doubteth thereof. Ouer and beſides, the bodie ought to be prepared a ſeuen-night before; during which time, the Patient is to eat tart and * ſharp meats and poignant ſauces, to abſtaine from wine altogether; and the fourth and third day before, to aſſay by little and little to vomit gently: laſt of all, to forbeare ſupper ouer-night, when hee is to take his Ellebore the morrow. As touching the manner of giuing Ellebore: the white may be drunke in ſome ſweet wine; but the beſt and chiefeſt way of taking it, is in milke, grewell, or pottage. Of late dayes there is come vp a pretty inuention, To ſlit or cut Radiſh roots, and within thoſe gaſhes to ſtick or enterlace pieces of white Ellebore, which don, to bind them cloſe vp again, that the ſtrength and vertue thereof may be incorporat in the foreſaid roots: and thus by the means of this kind
D temperature with the Radiſh, to giue it vnto the Patient. Ordinarily this medicine of Ellebore continueth not aboue foure houres within the body, but it commeth vp againe, and within ſeuen it hath done working. And thus being vſed as is beforeſaid, it is a moſt ſoueraigne remedie for the falling ſickneſſe, the ſwimming or dizzineſſe of the head: it cureth melancholicke perſons troubled in mind; ſuch as be brain-ſick, mad, lunaticke, phrantick, and furious: it is ſingular good for the Elephantie, the foule and dangerous morphew called Leuce, the filthie leproſie, and the generall conuulſion whereby the body continueth ſtiffe and ſtarke, as it were all one peece without any joynt. It helpeth thoſe that be troubled with trembling, ſhiuering, and ſhaking of their lims, with the gout, and the dropſie, and namely ſuch as bee entering into a tympanie: ſingular it is for thoſe that haue weake and feeble ſtomackes and can keepe nothing that
E they take; for ſuch as are giuen to ſpaſmes or crampes, lie * bed-rid of the dead palſie or ſuch chronicke diſeaſes, encumbered with the Sciatica, haunted with the quartaine Ague, which will not be ridde away by any other meanes; troubled with an old cough, vexed with ventoſities and griping wrings and torments which be periodicall, and vſe to come and goe at certaine ſet times: howbeit, Phyſitians forbid the giuing of Ellebore vnto old folk and yong children: *Item*, to ſuch as be of a fœminine and delicate bodie; as alſo to thoſe that be in minde effœminate: likewiſe to thoſe who are thinne and ſlender, ſoft and tender: in which regards, wee may not be altogether ſo bold to giue it vnto women as vnto men. In like manner, this is a medicine that would not bee miniſtred inwardly to fearefull, timorous, and faint-hearted perſons; neither to thoſe who haue any vlcer in the precordiall region about the midriffe, ne yet vnto
F ſuch as vſually bee giuen to ſwell in thoſe parts; and leaſt of all vnto thoſe that ſpit or reach vp bloud; no more than to ſickely and craſie perſons who haue ſome tedious and lingring maladie, as phthyſicke, &c. hanging vpon them; and namely, if they be grieued and diſeaſed in their ſides or throat. Neuertheleſſe, applied without the bodie in manner of a liniment with ſalted hogs greaſe, it cureth the breaking forth of flegmaticke wheals and pimples; as alſo healeth old

* *Hippocrates* appointeth them to bathe before, who purge not eaſily with Ellebore: & in caſe of conuulſions occaſioned by the taking therof, he preſcribeth likewiſe the bain.

* As Radiſh roots and oxymell.

* *Clinicis* ſome read *Cynicis*, & then it ſignifieth thoſe that haue their mouths drawn awrie to their eare: the diſeaſe is called *cynicus ſpaſmus*.

fores remaining after impoſthumes ſuppurate and broken: mixed with parched or fried braley- G
groats it is a very rats-bane,& killeth both them & mice. The Gauls or Frenchmen when they ride a hunting into the chaſe,vſe to dip their arrow heads in the iuice of Ellebore, & they haue this opinion,that the veniſon which they take will eat the tenderer; but then they cut away the fleſh round about the wound made by the foreſaid arrows. Furthermore it is ſaid, That if white Ellebore be beaten to pouder and ſtrewed vpon milk,all the flies that taſt thereof will die. To conclude, the ſaid milke is good to rid away lice, nits,and ſuch like vermin out of the head and other parts of the body.

Chap. VI.

¶ *Of the herbe Mithridation. Of Scordotis or Scordium. Of Polemonia,and Philetæria,otherwiſe* H
called Chiliodynama. Of Eupatorie or Agrimonie. Of great Centaurie,otherwiſe named Chironea. Of the little Centaurie,named alſo Libadion and Fel terræ. Of Trierches: and the medicinable vertues vpon theſe Simples depending.

Cratevas hath aſcribed the inuention of one herb to K. *Mithridates* himſelfe,called after his name Mithridation: this plant putteth forth no more than two leaues, and thoſe directly and immediatly from the root,reſembling the leaues of Branc-vrſin:there riſeth vp a ſtem between them both in the mids,carrying an incarnat floure in the head like a roſe.

Pompeius Lenæus (who by the commandement of *Pompey* the Great tranſlated into Latine the I
Phyſick notes and receits of K. *Mithridates*) ſaith moreouer,that the ſaid prince found out another herb named Scordotis or Scordium;and that among other his writings hee met with the deſcription of the ſaid herb,ſet down vnder the kings own hand in this manner;namely,That it grew a cubit high,with a main ſtem four-ſquare, and the ſame full of branches garniſhed with downy or furred leaues,indented and cut like to thoſe of the oke. This herb is found ordinarily growing within the region of Pontus, in battle and moiſt champian grounds, and in taſte is very bitter. There is another kind of Scordium,with larger and broader leaues, and like it is vnto wild Minth or Calamint:both the one & the other be of great vſe in Phyſicke,either by themſelues alone,or els put into opiats and antidots among other ingredients.

* Of πόλεμος, which ſignifieth,war,or debate.

Touching * Polemonia,which others call Philetæria,it tooke the name vpon occaſion of the K
ſtrife and controuerſie betweene certaine princes which debated about the firſt inuention thereof. The Cappadocians know it by the name Chiliodynama, *i.* as one would ſay, endued with a thouſand vertues. This plant hath a thicke and groſſe root,but ſmal & ſlender branches, from the tops whereof there hang down certaine berries in tufts and cluſters, incloſing within them black ſeed:in all other reſpects it reſembles rue,& groweth commonly vpon mountaines.

* *Eupator.*

As for Agrimony,called otherwiſe Eupatoria,it hath gotten credit & reputation by a*king, as it may appeare by the name. The ſtalk or ſtem of this herb is of a wooddy ſubſtance,blackiſh in colour,hairy,and of a cubit in height,or rather more. The leaues grow diſpoſed and diſtant by certaine ſpaces aſunder,much like vnto thoſe of cinquefoile or hempe, ſnipped & cut about the edges ordinarily in fiue parts;the ſame are of a blackiſh or dark green,and full of a kinde of L
plume or downe. The root is ſuperfluous for any operation that it hath in Phyſick: the ſeed of this herb drunk in wine,is a ſingular remedy for the dyſentery or bloudy flix.

Rha poſtick.

The greater * Centaury is that famous herbe wherewith *Chiron* the Centaure (as the report goeth) was cured,at what time as hauing entertained *Hercules* in his cabin, hee would needs be handling & tempering with the weapons of his ſaid gueſt,ſo long vntill one of his arrows light vpon his foot and wounded him dangerouſly:wherupon ſome there be who name it Chironion. The leaues grow large,broad,and long,indented or cut rather,like a ſaw round about the edges: neare vnto the root they come vp very thick: the ſtems run vp three cubits high, full of knots and ioints all the way:knobbed in the top like vnto Poppie heads:the root is of a mighty bigneſſe,inclining to a red colour, howbeit tender and eaſie to break or knap in ſunder: two cubits M
it beareth in length;full of a liquid iuice: bitter in taſte,and yet ſweet withal:it loueth to grow vpon banks and prety hils,where the ground is fat and battle. The beſt Centaury of this greater kinde, commeth out of Arcadie,Elis, Meſſenia, Pholoe,and mount Lycæus: and yet there is good found vpon the Alpes, and in many other places. Some there be, who out of this plant draw

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A draw a juice in manner of Lycium. Of ſuch efficacy it is to incarnat wounds, that (by report) if it be put into the pot to ſeeth among many gobbets or pieces of fleſh, it wil cauſe them to grow together and vnite. The root only is to be giuen inwardly, and namely in drinke, to the weight of two drams, in ſuch caſes as I will ſhew hereafter: with this charge, That if the Patient haue an ague hanging vpon him, it be ſtamped and taken in water: others may drink it well enough in wine. Alſo the juice drawn forth of it when it is boiled, is good for the diſeaſes or rot of ſheep.

Another Centaury there is, ſyrnamed alſo in Greeke Lepton (*i.* Small) for that it hath little leaues in compariſon of the other: ſome name it Libadion, for that it loueth to grow neere to ſprings or fountains: it is ſomwhat like to Origan, ſaue that the leaues be narrower and longer: the ſtalk is cornered, riſing vp to a ſmal height; to wit, a hand-breadth or a ſpan at moſt: the
B ſame alſo putteth forth little branches: the floure hath ſome reſemblance of the * red-Roſe campion: the root is ſmall, & needleſſe for any Phyſicke vſe: but the juice of the herb it ſelfe, is of ſingular operation. This herb would be gathered in Autumne, when it is freſh, full of leaues, and floures, for then it yeeldeth beſt iuice. Some take the ſtalks and branches, ſhred them ſmal, let them lie infuſed in water 18 daies, and then preſſe forth the juice. This is that * Centaury, which we here in Italy call Fel Terræ, *i.* the Gal of the earth, by reaſon of the exceeding bitterneſſe which it hath: the Gauls terme it Exacos, becauſe if it be drunk it ſendeth downeward by ſeege out of the body, any hurtfull poiſon whatſoeuer.

* Lychnidis.

* Our cõmon Centaury.

There is a third Centaury named Centauris, knowne by the addition Triorches: whoſoeuer commeth to cut this herb, he quits himſelfe wel and eſcapeth faire, if he wound not himſelfe.
C This plant yeeldeth forth a certaine red juice like vnto bloud. *Theophraſtus* hath deliuered in his hiſtory of Plants, that the hawkes * Triorchides protect and defend this herbe, & are ready to incounter and fight with them that come to gather it; wherupon it took the foreſaid name Triorchis. But many ignorant and vnskilfull perſons there be, who write confuſedly of all theſe Centauries, and attribute this laſt property and name, to the firſt Centaurie the great.

* Our Buzzards (as *Turner* thinketh)

¶ Chap. VII.

¶ *Of Clymenos, Gentian, Lyſimachia, Parthenis or Artemiſia, Ambroſia, Nymphæa, Heraclium, and Euphorbium, with their operations in Phyſicke.*

D THe herb Clymenos beareth the name of K. *Clymenus*, the firſt inuenter and finder out thereof: Leafed it is like vnto Ivie, full of branches: the ſtalkes or ſtems be hollow and emptie within, diuided by joints and partitions: of a ſtrong and vnpleaſant ſmell: the ſeed reſembleth the grains or berries of Ivie; and it taketh pleaſure to grow in wilde woods and among mountains. As touching the operations which it hath, & namely what diſeaſes it cureth being taken in drink, I will ſhew hereafter: mean while, I will not put off any longer, but aduertiſe the Reader, euen in this place, That this herb as it doth good one way, ſo it hurteth another; for if they be men that drink it, wel may it cure them of the maladies for which it is giuen, but ſurely it killeth their naturall ſeed and diſableth them for getting children, ſo long as they vſe it. The
E Grecian writers deſcribed it to be like in leaf vnto Plantain: in ſtem four ſquare, bringeth forth certain little cods full of ſeed, infolded and interlaced one within another after the manner of the tufted and curled haires about the Pourcuttle fiſhes called Polypi. But be it what it will, the juice of the herb is refrigeratiue, and of great vſe in Phyſicke.

As for the herb Gentian, we muſt acknowledge *Gentius* king of the Illyrians for the Authour and patron therof, for he brought it firſt into name & credit: and howſoeuer it grow in al places, yet the beſt is that which is found in Illyricum or Sclauonia. The leaues come neare in faſhion and forme to thoſe of the Aſh tree, but that they be ſmall in manner of Lettuce: the ſtem is tender, of a thumb thickneſſe, hollow as a kex and void within: leafed here and there with certain ſpaces betweene, growing vp other while 3 cubits high. The root is pliable and will winde
F euery way, ſomwhat blacke or duskiſh, without any ſmell at all: it groweth in great plenty vpon wateriſh hillocks that lie at the foot of great mountains, ſuch as the Alps be. The juice of the herb is medicinable, like as the root it ſelfe alſo, which is very hot of nature and not to be giuen in drinke to women with childe.

Lyſimachia, the herbe ſo much commended by *Eraſiſtratus*, beareth the name of king *Lyſi-*

machus, who first gaue light of the vertues that it hath: greene leaues it beareth like vnto those G
of the willow: the floures be purple: giuen much it is to branch from the root, and those ſtalkes
* *Odore acri*: Surely our herb Willow or *Lyſimachia* hath a kind of ſharp coole ſent not vnpleaſant: although *Pliny* vſe the word (*acri*) for hot and biting in other places. Hereupon it might well bee called λυσιμαχία, (i.) Looſtrife, and not of K. *Lyſimachus*.
grow vpright: a * ſharp ſmell it carrieth with it, and delighteth to liue in watery places. Of ſo effectuall vertue it is, that if it be laid vpon the yoke of two beaſts which will not draw gently together, it ſtaieth their ſtrife and maketh them agree well enough.

Not men only and great kings, but women alſo and queens haue affected this kind of glory, To giue names vnto herbs. Thus queen *Artemiſia* wife to *Mauſolus* king of Caria, eternized her owne name by adopting (as it were) the herb Mugwort to her ſelfe, calling it Artemiſia, whereas before, it was named Parthemis. Some there be who attribute this denomination vnto *Diana* (called in Greek Artemis Ilithya) becauſe it is of ſpeciall operation to cure the maladies incident to women. It brancheth and buſheth thick much like to wormwood, but that the leaues
be bigger, fat and wel liking withal. Of this Mugwort there be two kinds: the one carieth broad H
leaues, the other is tender and the leaues ſmaller: this grows no where but along the ſea coaſts. There be writers who call by this name Artemiſia, another herb growing in the midland parts of the main and far from the ſea, with one ſimple ſtem, bearing very ſmall leaues and plentie of floures, which commonly break forth and blow when grapes begin to ripen, and thoſe caſt no vnpleaſant ſmel, which herb ſome thereupon name * Botrys, others Ambroſia: and of this kind there is great ſtore in Cappadocia.

* Or rather *Botryſi* oke of Ieruſalem) is of ſome called *Artemiſia*, of others *Ambroſia*, as ſaith *Dioſcorides*.
* Nenuphar is called in Greeke Nymphæa, the originall of which herb and name alſo, aroſe by occaſion of a certain maiden Nymph or yong lady, who died for jealouſie that ſhe had conceiued of prince *Hercules* whom ſhe loued: and therefore by ſome it is named alſo Heraclion, of
others Rhopalos, for the reſemblance that the root hath to a club or mace. But to come againe I
to our firſt name Nymphæa; this quality it hath alluding and reſpectiue thereunto, That whoſoeuer do take it in drink, ſhal for 12 daies after find no prick of the fleſh, no diſpoſition (I ſay) to the act of venery or company of women, as being depriued for that time of all naturall ſeed. The beſt Nemphar or Nymphæa, is found in the lake Orchomenus, and about the plain of Marathon. The people of Bœotia, who alſo vſe to eat the ſeed thereof, commonly call it Madon. It taketh great contentment to grow in waters: the leaues floting vpon the face of the water, be broad and large, whiles others put forth from the root. The floure reſembleth the Lillie, which when it is once ſhed, there be certain knobs remaining like vnto the bolls or heads of Poppie. The proper ſeaſon to cut the ſtems and heads of this plant, is in Autumne. The root is blacke,
which being gathered and dried in the Sunne, is counted a ſoueraigne remedy for thoſe that be K
* Water-roſe. vexed with the flux or fretting of the belly. A ſecond * Nemphar or Nymphæa there is, growing in Theſſaly, within the riuer Peneus, with a white root, but a yellow flour in the head about the bigneſſe of a roſe.

* Water-lilly.
No longer ago than in our forefathers daies, *Iuba* king of Mauritania, found out the herb Euphorbia, which he ſo called after the name of his own Phyſitian *Euphorbus*, brother to that learned *Muſa* Phyſitian to *Auguſtus Cæſar*, who ſaued the life of the ſaid Emperor, as heretofore I haue declared. Theſe two brethren Phyſitians, ioined together in counſell, and gaue direction for to waſh the body all ouer in much cold water, after the hot baine or ſtouve, thereby to knit and bind the pores of the skin: for before their time, the maner was to bathe in hot water only, L
as we may ſee plainly in the Poet *Homer*. But now to return vnto our herb Euphorbia, the foreſaid K. *Iuba* wrote one entire book (at this day extant) wherin he doth nothing els but expreſſely ſet forth the commendable vertues and properties of this one herb. He found the ſame firſt vpon the mountain Atlas, where it was to be ſeen (ſaith he) bearing leaues reſembling Branc-vrſin: ſo ſtrong and forcible it is, that thoſe who receiue the juice or liquor iſſuing from it, muſt ſtand a good way off; for the manner is to launce or wound it firſt, and then preſently to retire backe, and ſo at the end of a long pole to put vnder it a paile or trey made of kids or goats leather for a receptory; into which there runneth forth out of the plant, a white liquour like vnto milke: which when it is dried and growne together, reſembleth in ſhew a lumpe or maſſe of Frankincenſe. They that haue the gathering of this juice called Euphorbium, find this benefit thereby, M
That they ſee more clearly than they did before: an excellent remedy this is againſt the venom of ſerpents, for what part ſoeuer is ſtung or wounded by them, make a light inciſion vpon the
* Or the vpper part of the hurt place. * crown [of the head] and apply therto this medicinable liquor, it wil ſurely cure it. But in that country, the Getulians (who commonly do gather Euphorbium, for that they border vpon the

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A mount Atlas) ſophiſticate it with goats milke. Howbeit, fire will ſoon detect this impoſure of theirs, for that which is not right but corrupt, when it burneth, doth yeeld a lothſome fume and ſtinking ſent. The juice or liquor which in France is drawn out the herb Chamælea (the ſame that beareth the red grain, named by the Latines Coccum) commeth far ſhort of this Euphorbium. The ſame being grown thick and hard, if a man break it, reſembleth gum Ammoniacke. Taſt it neuer ſo little at the tongues end, it ſetteth all the mouth on a fire, and ſo continueth it a long time hot, but more by fits, vntill in the end it parcheth and drieth the chaws and throat alſo far within.

Chap. VIII.

B ¶ *Of Plantain, Bugloſſe, and Borrage. Of Cynogloſſa or Hounds tongue. Of Buphthalmus, i. Oxe eie, or Many-weed. Of Scythica, Hippice, and Iſchæmon. Of Vettonica and Cantabrica. Of * Conſiligo and Hiberis. Of Celendine the great, Canaria and Elaphoboſcos. Of Dictamnum, Ariſtolochie or Hert-wort: That fiſh are delighted ſo much therwith, that they will make haſt vnto it, and be ſoon taken. Alſo the medicinable vertues of thoſe herbs aboue named.*

* Stetterwoort, or Bears foot, as ſome think.

Themiſon, a famous Phyſitian, ſet forth a whole booke of the herbe Way-bred or Plantaine, wherein he highly praiſeth it: and challengeth to himſelfe the honor of firſt finding it out, notwithſtanding it be a triuiall and common herb, trodden vnder euery mans foot. Two kinds of it be found: the one which is the leſſer, hath alſo narrower leaues, and inclining more to a blackiſh green, reſembling for all the world theepe * or lambs tongues, the ſtalke is cornered
C bending downward to the ground, & it growes ordinarily in medows. The other is greater, with leaues encloſed (as it were) within certain ribs reſembling the ſides of our body: which being in number ſeuen, gaue occaſion to ſome herbariſts for to call it Heptapleuron, as a man would ſay, the ſeuen ribbed herb. The ſtem of this Plantain riſeth to a cubit in height, much like to that of the Naphew. That which groweth in moiſt and waterie places, is of greater vertue than the other. Of wonderfull power and efficacy it is by the aſtringent quality that it hath, for to dry and condenſate any part of the body, and ſerueth many times in ſtead of a cautery or ſearing yron. And there is nothing in the world comparable vnto it, in ſtaying of fluxes and deſtillations, which the Creeks call Rheumatiſmes.

Whereupon it ſeemeth to be called in Greeke ἐπτάπλευρον.

To Plantain may be ioined the herb * Bugloſſos, ſo called, for that the leafe is like an Oxe
D tongue. This herb hath one ſpeciall property aboue the reſt, that if it be put into a cup of wine it cheareth the heart, and maketh them that drink it, pleaſant and merry; whereupon it is called Euphroſynon.

Our Borrage.

Vnto this for affinity of name, it were good to annex Cynogloſſos, *i.* Hounds tongue, for the reſemblance that the leaues haue to a dogs tongue: a proper herb for vinet-works and knots in gardens. It is commonly ſaid, That the root of that Cynogloſſos which putteth forth 3 ſtems or ſtalks, and thoſe bearing ſeed, if it be giuen to drink, cureth tertian agues: but the root of that which hath foure, is as good for the Quartains. Another *Cynogloſſos there is like to it, which carrieth ſmall burs: the root whereof being drunke in water, is a ſingular counterpoiſon againſt
E the venome of toads and ſerpents.

This is our common Houd-tongue with little burs.

An herb there is with flours like vnto oxe eies, wherupon it took the name in Greek * Buphthalmos: the leaues reſemble Fennel: & it groweth about town ſides: it ſhutteth forth ſtalkes from the root plentifully, which being boiled, are good to be eaten. Some there be who call it Cachla. This herb made into a ſalue with wax, reſolueth all * ſchirrous and hard ſwellings.

Some cal them Moones. *Schirrhomata*, otherwiſe *Stocomata*, which be bunches or ſwellings in the fleſh full of a greaſie matter.

Other plants there be, which beare the names not of men but of whole nations, which firſt found them and their vertues out. And to begin withall, beholden we are to Scythia for that which is called Scythica. It groweth notwithſtanding in Bœotia, and is exceeding ſweet in taſt. Alſo there is another of that name, ſingular good for the cramps, called by the Greeks Spaſmata. An excellent property it hath beſides, for that whoſoeuer holds it in their mouth, ſhall for
F the time be neither hungry nor thirſty. Of the ſame operation there is another herb among the Scythians or Tartars, called * Hippice, becauſe it workes the like effect in horſes, keeping them from hunger and thirſt. And if it be true that is reported, the Scythians with theſe herbs wil endure without meat or drink for twelue daies together.

* *Theophraſtus* writeth the like of the ſweet root or Liquorice and Hippace, that is, cheeſe made of mares milk; but not of any herb Hippice

Touching the herbe Iſchæmon, the Thracians firſt found out the rare vertue that it hath in ſtanching

ſtanching bloud, according as the very name implies. For (ſay they) it wil ſtop the flux of bloud running and guſhing out of a veine not only opened, but alſo if it were cut through. It coucheth and creepeth low by the ground, and is like vnto Millet, but that the leaues be rough and hairy. The manner is to ſtuffe the noſthrils therewith for to ſtay the bleeding at noſe. And that which groweth in Italy ſtancheth bloud, if it be but hanged about the neck, or tied to any part of the body. G

Betony: The people in Spaine named Vettones, were the firſt authors of that herb, which is called in France *Vettonica, in Italy Serratula, and by the Greeks Ceſtron or Pſychotrophon: Surely an excellent herb this is, and aboue all other ſimples moſt worthy of praiſe. It commeth forth of the ground, and riſeth vp with a cornered ſtalke, to the heigh of two cubits, ſpreading from the very root leaues of the bigneſſe of Sorrell, cut in the edges, or toothed in manner of a ſaw, with H floures of a purple color growing in a ſpike, & ſeed correſpondent therto. The leaues dried and brought into pouder, be good for very many vſes. There is a wine and vineger made or condite rather with Betony, ſoueraign for to ſtrengthen the ſtomack, and clarifie the eieſight. This glorious prerogatiue hath Betony, that look about what houſe ſoeuer it is ſet or ſowed, the ſame is thought to be in the protection of the gods, and ſafe enough for committing any offence, which may deſerue their vengeance and need any expiation or propitiatory ſacrifice.

A kind of wild Gilloflo. In the ſame Spain groweth *Cantabrica, lately found by the people Cantabri, and no longer ſince than in the daies of *Auguſtus Cæſar*. This herb is to be ſeen euery where, riſing vp with a benty or ruſhy ſtalk a foot high, vpon which you may behold ſmall long floures, like to cups or beakers, wherein lie encloſed very ſmall ſeeds. Certes, to ſpeak the truth of Spain, it hath bin I alwaies a nation curious in ſeeking after ſimples. And euen at this day in their great feaſts Much like to the Welch Metheglin. where they meet to make merry Sans-nombre, they haue a certain waſſell or Bragat, which goeth round about the table, made of honied wine or ſweet mead, with a hundred diſtinct herbs in it: and they are perſuaded that it is the moſt pleaſant and wholſomeſt drinke that can be deuiſed: yet there is not one amongſt them all who knoweth preciſely what ſpeciall herbs there be in all that number, in this only they be all perfect, that there go a hundred ſeuerall kinds therto, according as the name doth import.

In our age we remember well, that there was an herb diſcouered in the Marſians country: and yet it groweth alſo amongſt the people named Æquiccole, neare vnto the borough Neruesia, Beare-foot: and they cal it *Conſiligo: this is a ſoueraigne plant, as we ſhall ſhew hereafter in place conK uenient, for thoſe that be ſo farre gone in a Phthiſicke or conſumption, as no man would hight them life and recouery.

Of late daies *Seruilius Damocrates*, a famous practitioner in Phyſick, brought to light an herb which he termed Hiberis, a deuiſed and fained name for his own pleaſure, and nothing ſignificant, as may appeare by a certain *Poem that he made as touching the diſcouery of that herbe. Written in Iambicke verſes as appeareth in *Galen.* It commeth vp moſt willingly about old tombes and ſepulchres, decaied wals, and ruinat buildings, in vntoiled and neglected places, and namely, common high waies. It beareth floures at all times, and is leaued like to Creſſes: the maine ſtalke is a cubit high: but the ſeed ſo fine and ſmall, that hardly they can diſcerne it. The root alſo hath the very ſmel of Creſſes: it ſerueth to many good purpoſes, but with moſt ſucceſſe in Summer time, & neuer but when it is green and L freſh gathered. Much ado and trouble there is about the punning and ſtamping of it. Being tempered and incorporate with a little hogs greaſe, it is ſingular to be applied to the paine of the hucklebone called Sciatica, as alſo to the gout of any ioints whatſoeuer. If the patient be a man it muſt lie bound faſt vnto the place four houres at the moſt: but women may abide it but half ſo long, prouided alwaies, that preſently vpon this medicine they go down into an hot bain, and after they haue bathed, annoint their bodies all ouer with wine and oile. Thus muſt the patient doe once euery 20 daies, ſo long as there remaineth any grudging or minding of the foreſaid pain. And ſurely in this ſort it drieth vp and cureth all inward and ſecret rheums running neare vnto the bones. Howbeit, this caueat would be giuen, not to lay this plaſter too in the very heat and fury of the pain or diſeaſe, but the time muſt be waited when the extremity is ſomwhat ſla- M ked and ouer paſt.

Moreouer, other liuing creatures alſo there be beſides men, to which we are to attribute the our Celendine inuention of herbs: as firſt and principally, the great *Celendine, called in Greek Chelidonia, for that the old Swallows with the helpe of this hearb helpe their young ones to ſee again, yea though

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A though their eies were plucked out of their head, as ſome are of opinion. Of this herb there be two kinds: the greater, which putteth forth many ſtems, & thoſe full of branches, beareth leaues like vnto the wild * Parſnep, but that they be larger. The herb it ſelfe groweth vp to the height of two cubits. The leaues be whitiſh or hoary, like as the whole plant it ſelfe, al ſaue the floure, which is yellow. The whole herb yeeldeth a biting and fretting juice, of the colour of Safron: and it bringeth forth ſeed reſembling that of Poppy. The leſſe * Celendine is ſeen with leaues faſhioned much after the Ivy, but that they be rounder. Both Celendines do floure in the ſpring about the time that the ſwallows come abroad and ſhew themſelues vnto vs, and thoſe floures begin to fade again vpon the departure of that bird from vs. The onely time to draw or preſſe their juice from them, is whiles they be in the floure: which if it be put into a braſen pan, and
B ſeeth gently vpon hot embers or aſhes only, together with the beſt Atticke honey, is a ſingular medicine to diſcuſſe and ſcatter the cloudy films that dim the eie-ſight. The ſaid juice alone without any other preparations, goeth to the making of many collyries or eyeſalues, which be called Chelidonia, by reaſon of that ingredient.

Touching the Dogs graſſe Canaria, it took that name in Latin, becauſe dogs vſe therwith to diſcharge their gorge & whet their ſtomackes when their appetite to meat is gone. A ſtrange thing of theſe dogs: we ſee them chew this herb in our ſight ordinarily euery day, yet ſo, as wee neuer can tel which * herb it is that they haue bitten: for we may perceiue it only when it is eaten down. But no maruel if this creature be ſo ſpightful as to conceale from vs a purgatiue herb, conſidering a greater malice that he ſheweth in another: for it is ſaid, that if a dog be bitten by a
C ſerpent, he hath recourſe by and by to a certaine herb that cureth him preſently; but he will be ſure that no man ſhall ſee him when he croppeth that herb.

Yet the poore hinds (ſimple and harmleſſe creatures they) are not ſo coy and dainty of their knowledge, for they haue ſhewed vs the plant * Elaphoboſcon, whereof I haue already written: like as the herb * Seſeli alſo, which preſently after they haue calued, they feed vpon in our ſight, & make it not ſtrange. Nay, they haue not thought much to impart to vs the vertue of the herb Dictamnus (as I haue partly declared heretofore) for we may euidently ſee them after they bee ſhot or wounded, to go forthwith vnto this hearb, and no ſooner haue they eat of it, but immediatly the arrows or darts wherewith they were hurt and ſticking in them, fall out of their bo-
D dies. This plant is found growing no where but in the Iſland Candy. The branches be exceeding fine and ſlender: it reſembleth in ſome ſort Penyroial. At the tongues end hot it is and biting. And the leaues only are in vſe: for * neither floure nor ſeed it hath, ne yet any ſtem or ſtalk. As for the root, as it is ſmal and little, ſo is it * needleſſe for any good it doth in Phyſick: a rare plant this Dictamnus is, for euen in Candy, the naturall place therof, it grows not euery where, but within ſome ſmall compaſſe of ground within that Iſle: and there Goats haue a wonderful deſire to be feeding vpon it. Mary in lieu of this true Dictamnus, there is a baſtard kind found
* in many countries, called Pſeudodictamnum: in leafe it reſembleth the other, the branches be leſſe: and ſome there be who name it Chondris. That it is of weaker operation, and nothing ſo effectuall as the former, a man ſhall ſoone find by the taſte: for take neuer ſo little of the right Dictamnum into the mouth, it ſetteth it preſently on a fire. They that vſe to gather theſe Di-
E ctamnes, beſtow them cloſe ſirapped within the ſtems of Ferula or reeds, & then bind them faſt together, for feare that their vertue & ſtrength ſhould exhale & vaniſh away. Writers there be who affirm, that both the one & the other Dictamnum do grow in many countries: but the worſt is that which commeth vp in rich and fat grounds: therfore they that would meet with the right Dictamnum, muſt ſeek it in rough places, for no where els it loues to grow. A third kind there is of Dictamnum, and ſo called: but neither in ſhape anſwerable, nor in effect comparable to the other. In leafe it reſembleth water Mints, but that the branches be greater. Moreouer, this ſetled and deep perſuaſion men haue of Candy, that what Simples ſoeuer grow there, they be infinitly better than all others of the ſame kind what ſoeuer. Next vnto which Iſland there goeth a great name and opinion of the mountain Pernaſſus, for excellent herbes: how ſoeuer otherwiſe
F mount Pelius in Theſſaly, the hil Telechrius in Eubœa: and generally, al Arcadia, & the country of Laconica throughout, be renowned much for plenty of good ſimples. And yet the Arcadians verily vſe no other Phyſicke but milke onely, and that about the ſpring, at what time all herbs there, be in their beſt verdure and fulleſt of ſap; ſo as the vdders of beaſts be their Phyſitians, yeelding them medicines out of their paſtures. But aboue all, they vſe to drink cow milk,

for

* *Paſtinaca ſerratula.* Some read *Ranunculi*: Crowfoot, or rather *Dioſcor.*

* *Scrophularia*, i. Pilewort or Figwort. This floureth ſooner, to wit, in February.

* With vs they doe eat the common Quich graſſe.

* *Gratia Dei.*

* Which the old Romanes called *Silit*: whereof *Feſtus* thinketh that *Siluiti* (i. a break faſt, tooke the name: becauſe they vſed before dinner or nooner refection, to drinke a draught of wine aromatized with this hearbe.

* In *Dioſcor.* whom *Pliny* ſeemeth here to tranſlate, it ſhould be read thus, οὐτε ἄνθος, οὐτε καρπὸς σύμφορα ἐστι, not ſpica, that is, neither floure nor ſeed is medicinable: for that it hath floures, appeareth by *Virgil* 12 *Æneid.* in theſe verſes: *Dictamni genetrix Cretæa carpit ab Ida, puberibus caulem foliis, & florе comantem Purpureo, &c.*

* Yet *Dioſcor.* ſaith, that it helpes women to ſpeedy childbirth.

for that thoſe kind of cattell, feed indifferently in manner of all kind of herbs. Certes, of what power and efficacy herbs are, and namely, what effects they may work euen by the milk of four-footed beaſts graſing and paſturing thereupon, appeareth manifeſtly by two notable examples which I will report vnto you. About Abdera, and along the ſtreet or high way called *Diomedes* cauſey, there lie certain paſtures, wherein all the horſes that feed, become inraged, & ſtark wood thereby. Semblably, the herbage belonging to Potniæ, a towne in Magneſia, driueth Aſſes to a kind of madneſſe. G

Leauing now thoſe herbs which took their appellations of beaſts, let vs proceed to others. Among which, Ariſtolochia deſerueth to be ranged with the beſt and principall: an herb which ſeemeth to haue had that name giuen it by great bellied women, for that it is * ἄριστα λοχείαις. Our Countreymen of Italy call this herbe in Latine Malum terræ, which is as much to ſay, as the * Apple of the earth: and they do make foure kinds thereof. The firſt hath a round root ſwelling and bunching out: leaues reſembling the Mallow, and partly thoſe of Iuy, but that they be of a more browne and duskiſh colour, and withall, ſofter in the hand. The ſecond Ariſtolochia or Birthwort is taken to be the male, and hath a root as thicke as a good Baſton or ſtaffe, growing longwiſe to the length of foure fingers. The third, which by ſome is called Clematis, by others, Ariſtolochis of Candy, hath a root exceeding long and ſlender, like to that of a young Vine: and this is reputed of all others for the beſt and moſt effectuall. The roots of them all be of a Box colour, the ſtalks ſmall, and the floures purple. They beare little prety berries, much like to capers. But it is the root alone which is medicinable. A fourth kinde there is alſo, which they call Piſtolochia, ſmaller and ſlenderer than the laſt before, named Clematis. A root it hath diuided into many fibers or ſtrings, growing thick one by another, to the thickneſſe of big and well growne rushes: whereupon ſome haue giuen it the name of Polyrrhizon. All the ſort of theſe Ariſtolochies yeeld an aromaticall odour: but the long and ſmaller root is that which is moſt pleaſant to ſmell vnto: for it hath a fleſhie rind, and is one of the principall ingredients which enter into thoſe odoriferous perfumes and ointments which ſtand moſt vpon Nard: theſe Birth-woorts delight all of them to grow vpon plaines and battle grounds. The right ſeaſon to digge or draw them out of the earth, as in harueſt time: and then after they be rid and ſcaled as it were, from the earth or mould ſticking vnto them, they vſe to lay them vp ſafe. Howbeit the beſt ſimply are thoſe which come out of Pontus. And take this for a generall rule, That in euery kind, the weightieſt is alwaies moſt medicinable. The round rooted Ariſtolochie hath a ſpeciall property againſt the poiſon of ſerpents. Yet there goeth the greateſt name of the long, for this excellent qualitie, if it be true, that is reported thereof: namely, that if a woman newly conceiued with childe, applie the root thereof to her naturall parts within a morcell of raw bœufe, it will cauſe her to breed and forme in her wombe a man childe. Our Fiſhers heere by in Campaine, doe tearme the round root, The poyſon of the earth. In very truth I haue ſeene them with mine owne eyes to ſtampe the ſaid root, and incorporat it with lime into a paſte, and ſo to caſt it into the ſea in ſmall pellets or gobbets, for to catch fiſhes: and I aſſure you they will skud amaine, and make haſte to this bait, and be very eager of bit: but no ſooner haue they taſted thereof, but they will turne vp their bellies, and lie floating aloft vpon the water ſtarke dead. As for that Ariſtolochie, which for the manifold rootes that it hath is called Polyrrhizos, it is thought to be ſoueraigne for conuulſions or crampes, contuſions, or bruiſes; for ſuch alſo as haue fallen from ſome ſteepe and high place, if the root be drunke in water. Likewiſe, the ſeed of this kinde, is ſuppoſed ſingular good for the pleuriſie: and to corroborate, ſtrengthen and heat weake and diſtempered ſinewes. The ſame likewiſe may be reckoned for a * Satyrion. H I K L

It remaineth now to knit vp this diſcourſe with a rehearſall of all the operations and effects of the plants before named. To begin then with the moſt dangerous accident of al other; to wit the ſting of ſerpents, theſe hearbes following are very medicinable and effectuall in that caſe: namely, Brittannica, and the roots of all the kinds of Panaces taken in wine. The floure & ſeed beſides (of Chironium eſpecially) if it be drunk, or otherwiſe applied as a liniment with wine and oile. Alſo the wild Origan or Marjeram called Cunila Bubula, hath a ſingular property by it ſelf that way: like as Polomonia, otherwiſe called Philetœria, if one take 4 drams weight of the root in wine. Semblably, Teucrion, Sideritis, & Scordotis giuen in wine. But more particularly againſt ſnakes, aders, & the like, the ſaid herbs be right ſoueraign, either inwardly taken or M

out-

*i. Excellent good for women in child-bed. Wherein Pliny is ſomewhat ouerſeen but his error is not great, ſeeing that women with child vſe ordinarily alſo to be brought a bed and lie in.

* Meant by Ariſtolochie or Birthwort the round.

* Any herbe good to prouoke filthy luſt. For although there be a ſpeciall herb of that vertue ſo called, yet by a kind of Synecdoche, all others of like operation may be termed Satyria.

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A outwardly applied vpon the wound,be it in iuice,ſubſtance of leaſe,or decoction,it skilleth not whether:for which purpoſe a dram weight of the root of great Centaurie drunk in three cyaths of white wine is excellent:as for Gentian,it ſerueth properly againſt ſnakes,if it be taken to the poiſe of two drams with Pepper and Rue, in 6 cyaths of wine,green or dry, it makes no matter. Touch herbe Willow or Lyſimachia, ſerpents cannot abide the very ſmell thereof, but flie from it. If any body chance to be ſtung alreadie by them, there is not a better medicine than to giue Celendine in drinke. But of Betonie aboue all the reſt there is made a moſt ſoueraigne ſalue to be laied vnto the place that is ſtung. And ſuch a contrarietie in nature or Antipathie there is)by folks report)between them and this herb, that if the leaues thereof be ſtrewed in a circle round about them,the ſerpents within wil neuer giue ouer flapping with their tailes,and
B beating their own ſides,vntill they haue killed themſelues. Now for their ſting, it is an vſuall practiſe to giue inwardly one dram weight of the ſeed of Betonie in three cyaths of wine,or els to incorporate 3 drams of the pouder in one ſextar of water, and lay it as a cataplaſme to the ſore. Cantabrica, Dictamnum,and Ariſtolochia,ſerue likewiſe for good counterpoiſons,in caſe a dram weight of their root be giuen in one hemine of wine. But then the Patient muſt vſe to drink it often. And verily Ariſtolochia worketh the ſame effect,if it be reduced into a liniment and ſo applied:ſo doth Piſtolochia, which herb is ſo aduerſatiue vnto ſerpents, that if you doe but hang it vp in the chimney ouer the hearth, it will chaſe away all kind of ſerpents out of the houſe.

C

Chap. IX.

¶ *Of Argemonie, Agarick,and Echium. Of Henbane and Vernaine. Of Blattaria and Lemonia. Of Cinquefoile, Carot, and the Clot or great Bur. Of Cyclaminus or Sow-bread, and Harſtrang : hearbs all ſingular againſt the ſting of Serpents.*

THe root of Argemonia taken to the weight of one Roman denier in 3 cyaths of wine,is ſingular againſt the ſting of ſerpents. And ſince I am come to mention this herbe,I thinke it conuenient to diſcourſe farther thereof: like as of other ſimples alſo, which I meane to name firſt,before that I treat of their vertues and effects. And in this courſe of ſetting downe medicines,euer as I meet with any herb of any ſingularity,I will range it there whereas I know
D it to be moſt ſoueraigne and effectuall. Wel,this * Argemony aforeſaid hath leaues like to Anemony,*i.* Roſe Perſly or Windfloure:jagged they be in maner of garden Parſly. Heads it beareth in the top of euery ſtalke or branch,reſembling thoſe of wild Poppy or Corne-roſe : and a root alſo not vnlike to that of the ſaid herb. A juice it yeeldeth,yellow as Safron,hot,ſharp,and biting in taſt. With vs here in Italy it groweth vpon corn lands. Our countrymen haue deſcribed three kinds therof,but they allow and commend that only,which hath a root ſenting much of Frankincenſe.

* An hearbe like to the wild Poppie.

Touching Agaricke, it is a fungous excreſcence growing out of certain trees neare vnto the ſtraits of Boſphorus,much like vnto a white Muſhrum. The ordinary doſe or receit thereof, to be giuen,bruiſed,and beaten ſmall into pouder, is to the weight of two drams in two cyaths of
E Oxymel or honied vineger. That which is found in Gaule or France, is thought to be weaker in operation. Moreouer,that Agaricke is counted the male which is more maſſiue or compact, and bitterer withall:but one ill quality it hath,namely,to make the head to ake. The female is of a more looſe and ſofter ſubſtance:which at the firſt when you taſt it ſeemeth ſweet,but within a while it turneth to be bitter.

Echium is of two kinds. One of them is like to Peniroyall,garniſhed & crowned (as it were) with tufts of leaues in the head : which being giuen to the weight of two drams in 4 cyaths of wine,is ſingular good for the venome of ſerpents,inflicted by their ſting. The like effect hath the other alſo,which is diſtinctly knowne from the other by the rough and prickie downe that the leaues do beare,and it carieth in the top little knobs reſembling vipers heads:and this may
F be taken either in wine or in vineger,chuſe you whether.

The great Clot-bur,called in Greek Arcion,ſome haue named in Latine Perſonata. There is not a plant in the field that carieth a broader leaſe,and beſides, furniſhed it is with as big Burs. The root of this hearb boiled, the Phyſitians preſcribe to be giuen in vineger to drinke againſt the ſting offerpents.

Hen-

Henbane, ſtamped leaues and all, is ſingular to be taken in wine, eſpecially againſt the ſting of the Aſpides. G

*i. Vervaine. But of all other herbs, there is none more honored among the Romans than * Hierobotane, called alſo otherwiſe in Greek Periſtereon: which we in Latine name Verbenaca. This is that hearb, which (as I haue declared heretofore) our Embaſſadors vſe to cary with them when they go to denounce war, and to giue defiance vnto our enemies. VVith this herbe the feaſtiuall table of * *Iupiter* is wont to be ſwept and clenſed with great ſolemnitie; our houſes alſo be rubbed and hallowed, for to driue away ill ſpirits. And hereof be two kinds. That which they take to be the female, is ſtored well with leaues; the male hath them growing but thin: yet both of them put forth many ſmall and ſlender branches, commonly a cubit long, and cornered. The leaues be leſſer and narrower than thoſe of the Oke, but deeper they be indented, and the partition wider: the floures be of a * gray colour, the root long and ſmall. It groweth euery where vpon plains ſubiect vnto waters. Some writers make no diſtinction at all of male & female, but hold them all to be of one and the ſame kind, becauſe they work the ſame effects. In France the Druidæ vſe them both indifferently, in caſting lots, telling fortunes, & foreſhewing future euents by way of propheſie. But the wiſe men or ſages called Magi, ouerpaſſe themſelues mightily in this herb, and ſhew their foolery and vanity without all ſence and reaſon: They would beare vs in hand forſooth, that whoſoeuer be rubbed all ouer the body therewith, ſhall obtaine whatſoeuer their heart deſireth, be able to cure and driue away all manner of agues, reconcile them that be fallen out, make friendſhip between whom they liſt, and in one word, giue remedy to any diſeaſe whatſoeuer: they giue moreouer expreſſe order, that it be gathered about the riſing of the great dog-ſtar, but ſo, as neither Sun nor Moon be at that time aboue the earth to ſee it; with this eſpeciall charge beſides, that before they take vp the herbe, they beſtow vpon the ground where it groweth, honey with the combes, in token of ſatisfaction and amends for the wrong and violence done in depriuing her of ſo worthie an hearbe. They reſt not ſo, but when theſe ceremonious circumſtances be performed, they inioine them alſo who are to dig it vp, for to make a circle round about the place with ſome inſtrument of yron and then to draw and pluck it vp with the left hand in any wiſe & ſo to fling it aloft ouer their heads vp into the aire: which done, they appoint preciſely that it be dried in the ſhade, leaues, ſtalkes, and roots, euery one apart by themſelues. To conclude, they adde moreouer and ſay, that if the hall or dining chamber ſprinckled with the water wherein Veruaine lay ſteeped, all that ſit at the table ſhall be very pleaſant, and make merrie more jocundly. VVell, to leaue theſe toies and fooleries, the truth is this, ſtamp and beat it, giue the juice or pouder therof in wine, it is a good defenſatiue againſt the poiſon of ſerpents.

*Dapalis. Arnob. lib. 2.

*Flos Glaucus,

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I

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An herb there is much reſembling Mullen or Langwort, and indeed ſo like as oftentimes one is taken for the other, howbeit, the leaues be not altogether ſo white, and more little branches it putteth forth, bearing likewiſe a pale yellow floure: caſt this herb or ſtrew it in any place all the moths thereabout will gather to it, whereupon at Rome they call it Blattaria.

The herbe Lemonium yeeldeth a white juice, much like vnto milke, which will harden and grow together in manner of a gum: and it groweth in moiſt places. The weight of one denarius giuen in wine, is a ſingular preſeruatiue againſt the dangerous ſting of ſerpents. L

As for Cinque ſoile or fiue leaued graſſe, there is not one but knoweth it: ſo common it is, and commendable beſides for the * ſtrawberries which it beareth. The Greeks call it Pentapetes, Chamæzelon, or Pentaphyllon: the Latines Quinquefolium. The root when it is new digged, looketh red: but as it beginneth to drie aboue ground, ſo it waxeth black, and becommeth alſo cornered. It tooke the common name both in Greeke and Latine, of the number of leaues which it beareth. This herb herein is of great affinitie with the vine, that they both bud, ſpring leaſe, and ſhed the ſame together. It is vſed alſo about purging & bleſſing of the houſe, againſt naughtie ſpirits or inchantments.

*Pliny herein erreth groſſely. Indeed the leaues of Cinque ſoile are much like to the Strawberrie leaſe: but as the one hath no fruit or berry at all, ſo the other (to wit the ſtrawberrie wire) puts forth but three leaues.

*The tame and the wilde.

As for Sparganium, an herb ſo called by the Greeks, the root thereof is good to be giuen in white wine againſt venomous ſerpents. M

Of Carrots, *Petronius Diodotus* hath ſet downe 4 ſeueral kinds. But what need I to go through them all foure, ſeeing they may be reduced well enough into * twaine, and doe require no other diſtinctions. The beſt and moſt approued Carrots be thoſe of Candy: the next to which in goodneſſe come out of Achaia. But generally in what countrey ſoeuer they grow, the better

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A be ſuch as come vp in the ſounder and drier grounds. As touching the Candy Carot, it reſembleth fennel, but that the leaues ſtand more vpon the white; they be ſmaller alſo and hairy withall. The ſtem groweth vpright a foot high, and hath a root odoriferous to ſmell vnto, and of a moſt pleaſant taſt: this ioieth in ſtony places expoſed to the South quarter of the world. As for the other Carots of a wild nature, In what countrey grow they not? you ſhall finde them vpon earthie bankes and hils, you ſhall haue them about high waies, but neuer ſhal a man meet with them in a leane and hungry ground; they loue a battle and fat ſoile: their leaues come neare to the Coriander: their ſtem ariſeth to a cubit heigth, bearing round heads, three ordinarily, and otherwhiles more: the root is of a wooddy ſubſtance, and being once dried, it ſerueth to no purpoſe. The ſeed of this kind is like vnto Cumin; but of the former, to Millet grain, white, quick, and ſharp; and they be all odoriferous and hot in the mouth. The ſeed of the ſecond is more æ-
B gre and biting than the former, and therefore ought to be taken in leſſe quantitie. As for the third kind (if we liſt to make ſo many) it is much like to the wild Parſnep, called in Greek Staphylinos, and in Latine Paſtinaca Erratica: the ſame beareth a ſeed ſomwhat long in form, and a ſweet root. All the ſort of theſe Dauci or Carots, are ſafe enough from the bit of four-footed beaſts both winter & ſummer, vnleſſe it be after they haue caſt their abortiue fruit before-time [for then they ſeek therto to be cleanſed of their gleane.] Of all Carots, the ſeeds be vſed only: but that of Candie affordeth the root alſo, which is ſweet: but both the ſeed of the one ſort and the root of the other, be moſt appropriat remedies againſt ſerpents: a dram weight in wine is a ſufficient doſe at a time: which alſo may be giuen in a drench to foure-footed beaſts that be ſtung by them.

C Touching the herb Therionarca (I mean not that which the Magitians vſe) it groweth alſo in this part of the world here with vs in Italy: many branches it putteth forth, and ſprings thick with diuers ſhoots from the root: the leaues be of a light green, and the floure of a red roſe colour: it killeth ſerpents outright; beſides, it hath this property, That if it be brought neere vnto any wild beaſt what ſoeuer, it benummeth their ſences [whereupon it took that name.]

Perſolata, which the Greek writers call * Arcion, there is not one but knoweth: large leaues it hath, and bigger than the very Gourds; more hairy, blacker alſo and thicker; a white root and a great: this root taken in wine to the weight of two deniers Roman, is good likewiſe againſt the venom of ſerpents. In like manner, the root of Cyclaminus or Sow-bread is as effectual againſt them all: leaues it hath ſomewhat reſembling thoſe of Ivy, but that they be of a more duskiſh
D and ſad greene, ſmaller alſo and without corners, wherein a man may perceiue certaine whitiſh ſpecks. The ſtem is little, and hollow within: the flours of a purple colour; the root broad (ſo as a man would take it to be a Turnep) and couered ouer with a black rind: it groweth in ſhadowy places. Our countrymen here in Italy call it in Latine Tuber terræ, that is to ſay, The knur or bunch of the ground. Sowne and planted it would be in euery garden about an houſe, if ſo be it be true that is reported of it; namely, that whereſoeuer it groweth, it is as good as a countercharm againſt al witchcraft and ſorceries: which kind of defenſatiue is called properly Amuletum. Moreouer, this root (they ſay) if it be put into a cup of wine, turneth the brain preſently, and maketh as many drunk as drink therof. For the better keeping and preſeruing of this root,
E it muſt be ordered after the manner of Squilla or Sea-onion roots, (*i.*) cut into thinne ſlices or roundles, then dried, and ſo laid vp: the ſame alſo is vſually ſodden to the conſiſtence or thickeneſſe of hony. As good as this root is in thoſe former reſpects, yet it is not without ſome venomous quality; for it is commonly ſaid, That if a woman with child chance to ſtep ouer it, ſhee will fall preſently to labour before her time, and loſe the fruit of her wombe. A ſecond kind of Cyclaminus or Swine bread I finde, ſyrnamed by the Greekes * Ciſſanthemos, growing with ſtems full of knots or joints, hollow within and good for nothing; far different from the former, winding and claſping about trees; bearing berries much like to thoſe of Ivy, but they are ſoft; a white floure faire and louely to ſee too, but a needleſſe root for any goodneſſe in it: the berries that it beareth be only in vſe, and thoſe are of a ſharp and biting taſt, & yet they be viſcous and
F clammy to the tongue: theſe being dried in the ſhadow and ſtamped, are afterwards reduced into certain bals or troſches. My ſelf haue ſeen a third kind alſo of Cyclaminos, carying the name beſides of Chamæciſſos, which brought forth but one only leafe: the root was much forked & diuided into branches, wherwith folk vſed to kil fiſhes. But among al other herbs of name, Peucedanum is much talked of and commended: principally, that which groweth in Arcadie: next

* Some take it to be the Clot bur, or Butterbur.

* κιανόρυπος. *Dioſcor. ideſt,* I cafed like to Ivie.

to it, moſt account is made of that in Samothrace: a ſlender ſtalk it carrieth and a long, reſembling the ſtem of Fennell: neere vnto the ground it is repleniſhed well with leaues: the root is black, thick, full of ſap, and of a ſtrong and vnpleaſant ſmell: it delighteth to come vp and grow among ſhady mountains. The proper time to dig it out of the ground, is in the later end of Autumne: the tendereſt roots and thoſe that run deepeſt downe into the earth, are moſt commendable. The manner is to cut theſe roots ouerthwart into certaine cantels or pieces of foure fingers in length, with kniues made of bone; whereout there iſſueth a juice which ought to be dried & kept in the ſhade: but the party who hath the cutting of them, had need firſt to annoint his head all ouer and his noſthrils with oile roſat, for feare of the gid; and leaſt he ſhould fall into a dizzineſſe or ſwimming of the braine. There is another juice or liquor found in this plant lying faſt within the ſtems therof; which they yeeld forth after inciſion made in them. The beſt juice is knowne by theſe marks; It carieth the conſiſtence of honey, the colour is red, the ſmell ſtrong, and yet pleaſant, and in the mouth it is very hot and ſtinging. Much vſe there is of it in many medicines, as alſo of the root and decoction thereof: but the juice is of moſt operation; which being diſſolued with bitter almonds or rue, people vſe to drink againſt the poiſon of ſerpents; & in caſe the body be annointed all ouer with oile, it preſerueth them ſafe againſt their ſtings. G H

Chap. X.

¶ *Of ground Elder or Wallwoort. Of Mullen or Taper wort. Of the Aconit called Thelyphonos. Of remedies againſt the pricke of Scorpions, the venome of Hedge-toads, the biting of mad Dogs: and generally againſt all poyſons.* I

THe ſmoke or perfume alſo of VValwort (a common herb and knowne to euery man) chaſeth and putteth to flight any ſerpents. The juice of * Polemonia, is a proper defenſatiue eſpecially againſt ſcorpions, if one haue it tied about him or hanging at his neck: likewiſe it reſiſteth the prick of the ſpiders Phalangia, and any other of theſe venomous vermins of the ſmaller ſort. Ariſtolochia hath a ſingular vertue contrary vnto ſerpents: ſo hath Agaricke, if foure oboli thereof be drunke in as many cyaths of ſome artificiall or compound aromatized wine. Vervaine is a ſoueraigne herb alſo againſt the venomous ſpider Phalangium, being taken in wine or oxycrat, *i.* vineger and water: ſo is Cinqueſoile, and the yellow Carrot.

*Sauge de bois.

That herb which the Latines call Verbaſcum, *i.* Lungwort or Hightaper, is named in Greek Phlomos. Two ſpecial kinds there be of it: the one is whiter, which you muſt take for the male; the other black, & that may go for the female. There is a third ſort alſo, but it is found no where but in the wild woods. The leaues of all the former, be broader than thoſe of the Colewort, and hairy withal: they beare a mainvpright ſtem, a cubit in height with the vantage: the ſeed is black and of no vſe in Phyſicke: a ſingle root they haue, of a finger thicknes. Theſe grow alſo vpon plains and champian grounds. The wild kinde beareth leaues reſembling ſauge: the branches be of a wooddy ſubſtance, & the ſame grow high. There be moreouer of this kind two other herbs named * Phlomides, both of them hairy; their leaues be round, and they grow but low. A third ſort there is beſides, named by ſome Lychnitis, and by others Thryallis: it ſheweth 3 leaues or foure at the moſt, and thoſe be thick & fat, good to make wyks or matches for lights. It is ſaid, that if figs be kept in the leaues of that which I named the female, they will not rot. To diſtinguiſh theſe herbs into ſeuerall kinds, is a needleſſe peece of work, conſidering they agree all in the ſame effects: their root together with rue, is to be drunk in water againſt the poyſon of ſcorpions: true it is, that the drinke is very bitter, but the effect that it worketh maketh amends. K L

*Some take theſe for the Cowſlip and Primroſe.

There is an herbe called by ſome * Thelyphonon, by others Scorpion, for the reſemblance that the root hath to the Scorpion; and yet if Scorpions be but touched therwith, they will die thereupon: no maruell therefore if there be an ordinary drinke made of it againſt their poiſon: [and here commeth to my mind that which I haue heard; namely, that if a dead ſcorpion be rubbed with the white Ellebore root, it wil reuiue and quicken again.] The ſaid Thelyphonon hath ſuch a ſpightful nature againſt the four-footed beaſts [of the female ſex] that if the root be laid to their ſhap or naturall place, it killeth them: and if the leafe, which is like vnto the Cyclamin or Sowbread leafe aboue named, be applied in that maner, they will not liue one day to an end. This herb is parted and diuided into knots or joints, taking pleaſure to grow in coole and ſhady places. To conclude and knit vp theſe remedies againſt ſcorpions; the juice of Betonie, and of

*Aconitum Pardalianches, Libard-baine. M

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A of Plantaine likewiſe, is a ſingular remedie for their poiſon.

Moreouer, Frogs (ſuch eſpecially as keep in buſhes and hedges, and be called in Latine Rubetæ, *i.* toads) are not without their venom: I my ſelf haue ſeen theſe vaunting Montebanks calling themſelues Pſylli, as comming from the race of thoſe people Pſylli who feared no kind of poiſon; I haue ſeen them (I ſay) in a brauery (becauſe they would ſeem to ſurpaſſe all others of that profeſſion) to eat thoſe toads baked red hot between 2 platters; but what became of them? they caught their bane by it, and died more ſuddenly than if they had bin ſtung by the Aſpis: but what is the help for this rank poiſon? ſurely the herb * Phrynion drunk in wine. Some cal it Neuras, others Poterion: pretty flours it beareth: the roots be many in number, full of ſtrings like vnto ſinews, and the ſame of a ſweet & pleaſant ſent. Likewiſe Aliſura is counted another
B remedy in this caſe: an herb it is, called by ſome Damoſorium, by others Liron: the leaues might be taken for Planta in, but that they be narrower, more iagged and plaited, bending alſo toward the ground; for otherwiſe ribbed they be and full of veins, as like as may be to Plantain. As for the ſtalk, it is likewiſe one and no more, plain and ſlender, of a cubit in heigth; in the head whereof it hath knobs; roots growing many and thick together, and thoſe but ſmall, like vnto thoſe of the blacke Ellebore, but they be hot and biting, of a ſweet and odoriferous ſmell, and of a fatty ſubſtance withall: it groweth ordinarily in watery and moiſt places. And yet there is a ſecond kind of it which commeth vp in woods, of a more duskiſh and blacker colour than the former, bearing bigger leaues: the root of both is of ſingular operation againſt the venomous frogs or toads aboueſaid: alſo againſt the ſea-hare, if it be taken in wine to the weight of one dram. And
C ſince we haue mentioned the ſea-hares, take this withall, That Cyclaminos alſo is ſoueraigne againſt their venom. Moreouer, a mad dog letteth in a dangerous poiſon by the wound that his tooth maketh, againſt which there is not a better thing than dog-roſe of the Eglantine called Cynorrhodon, as I haue before declared. Plantain is a ſingular herb againſt the biting of any venomous beaſt whatſoeuer, whether it be taken inwardly in drink, or outwardly applied. Betonie is likewiſe good therfore if it be drunk in old wine. Veruain, which the Greeks call Periſtereos, is an herb bearing one main ſtalk of a good heigth, furniſhed well with leaues, ſpreading forth toward the head into other branches, much ſought to by doues and pigeons, whereupon it took the foreſaid name Periſtereos. They ſay, whoſoeuer carry this herb about them, there dare not a dog bark at them. Thus much as touching the dangers proceeding from venomous beaſts.

D What remaineth now but in the next place, to treat as well of ſuch ſorceries and maleficiall poiſons, as men haue deuiſed and practiſed to the miſchiefe of their own kind, as of their remedies? where in the firſt place there preſenteth it ſelf vnto vs that noble herb Moly, ſo much commended by the Poet *Homer*, as a ſoueraigne preſeruatiue not only againſt all thoſe wicked inventions, but alſo againſt the ſecret and diueliſh practiſes; to wit, charmes and inchantments, wrought by Art magick and witchcraft. Next vnto which, the herbs * Mithridation, Scordotis, and Centaury: alſo the ſeed of Betony drunk in honied wine or ſweet cuit: the pouder alſo of the dried herb it ſelfe, to the weight of one dram taken in 4 cyaths of old wine, doth expell out of the body & euacuat by the ſeege any poiſon whatſoeuer; but the patient muſt be forced to vomit vp the firſt potion, and then to recharge again & take another draught of the foreſaid me-
E dicine. And verily it is a common ſpeech, That whoſoeuer vſe to taſt euery day a little of Betony, ſhall neuer catch harm by any poiſoned cup. If a man or woman chance to haue drunk down any poiſon, the root of Ariſtolochia is a preſent remedy, vſed in that order as I haue preſcribed before in caſe of ſtinging by venomous ſerpents. The like effect hath the iuice of Cinquefoile. Semblably Agarick, if it be taken to the weight of one denier Roman in three cyaths of honied water or mead, is of the ſame operation; with this charge, That the party do lay vp his ſtomack or caſt before. There is an herb called Calves-ſnout, in Greeke Antirrhinon or Anarrhinon, a kind of wild Lichnis like vnto Line or flax, with little or no root at all, carying a floure reſembling the Hyacinth or Crowtoes, and the ſeed much like a calues ſnout or muzzle: the Magitians haue a great opinion of this herb, That whoſoeuer be rubbed all ouer with it, or annointed
F throughly with the iuice thereof, ſhall looke more beautifull, louely, and amiable: and whoſoeuer weareth it in a bracelet about the wreſt or arme, ſhall take no harme by charme, ſorcerie, witchcraft, or poiſon. The like conceit they haue of another herb called * Euploea; and they affirme, That if any man or woman be annointed therewith, they ſhall grow in great credit and reputation with the people. Moreouer, they ſay, that the herb Artemiſia or Mugwort will preſerue

* Some take it for *Ruta muraria*, or *Saluia vita*, a kind of Saxifrage: or rather Maiden-haire.

* Whereof he writeth in the beginning of the ſixt chapter of this booke.

* *Euploea* indeed ſignifieth in *Homer*, a bon-voiage, or proſperous nauigatiō: but what is that to this place? No doubt *Plinie* ſhould haue read in *Theophraſtus* εὐωδία which is no herb, but the happineſſe of a good name among men, whereof *Pliny* ſpeaketh here, & which *Theophraſtus* attributeth to Antirrhinon, as one of the effects of that herb. But lay the fault (I pray you) as well here as elſewhere, vpō *Plinies* Anagnoſts or Readers, who either read wrong, or pronounced not their words diſtinctly and plainly vnto him.

all thoſe who haue it about them, from witch-craft, ſorceric, and poiſon, from danger by venomous beaſts, yea and from the hurtfull and maligne aſpect of the very Sun. The ſame, if it be taken in wine, helpeth and ſaueth thoſe that are poiſoned with Opium: being either drunke, or worn about the neck, or but tied to any part of the body, it hath a peculiar vertue againſt the venom of todes. There is an herb of the bulbous or onion-root kind named * Pericarpum: whereof be two ſorts, the one hath a red bark or rind [about the root;] the other a black, and is like vnto the Poppy; of greater operation this is than the former; but both of them be very hot: which is the reaſon, they ſerue to good purpoſe for to be giuen vnto them that haue drunk Hemlock: againſt which venomous herb, Frankincenſe, and Panaces (eſpecially that which they call Chironium) be counted ſingular: and this Panaces alſo laſt named, is an excellent antidote for them that are poiſoned with venomous Muſhroms.

* So called, becauſe the fruit claſpeth round about the ſtem or ſtalke of the heabe.

Chap. XI.

¶ *Proper receits and remedies for the diſeaſes of the head.*

SInce wee are waded ſo far into the deep ſecrets of Phyſick, it will not be amiſſe to proceed forward and to ſet downe many good medicines for all the maladies incident either in generall to the whole body, or particularly to euery ſpeciall part and member thereof, beginning firſt at the head.

There is an vnſeemely accident happening otherwhiles to the head, and diſgraceth it much, called * Alopecia, when as the haire vnnaturally falleth off. The cure of this inconuenience, is to make a liniment with the roots of Nymphæa and Hemlocke ſtamped together, and therwith to annoint the bald and naked places, for it will cauſe the haire to come vp again & grow thick. Polytricha & Callitrica [both capillare herbs] differ one from another; for that Polytrica hath white benty filaments or threds, the leaues be alſo more in number & greater with all: beſides, the very plant it ſelfe ſpreadeth and brancheth more than the other: this herb is ſingular to faſten the haire of the head at the root, and to make it buſh and grow thick, being otherwiſe ready to ſhed. In like manner, there is an herb called in Latine * Lingulaca, which loueth to grow about ſprings or fountains, & is ſingular for the ſame imperfection of ſhedding haire: if the root together with the leafe burnt and beaten to pouder, be incorporate with the greaſe of a blacke ſow (but in any wiſe ſhe muſt be a yong guilt that neuer farrowed or had pigs) and ſo brought into a liniment, and the head rubbed and annointed therwith: with this charge beſides, That after the annointing, the Patient ſit bare headed in the ſun; for that helps forward the cure verie much. And in the ſame caſe there is the like vſe of the Cyclamine or Sowbread root.

* Becauſe foxes are much ſubiect vnto it, who are called in Greeke *Alopekes*.

Capillus veneris, or Maiden-haire.

* Adders tongue.

Touching the ſcurfe or brannie ſcales called Dandruffe, the root of Veratrum or Ellebore, ſodden either in oile or water, maketh a moſt excellent medicine to rid it away, & to cleanſe the head thereof.

As for head-ache, the roots of all the kinds of Panaces, ſtamped and tempered with oile, doe cure the ſame: ſo doth Ariſtolochia and Iberis, if they be applied in manner of a frontall and bound to the forehead, the ſpace of an houre or longer if the Patient can abide it, ſo that a bath be vſed preſently vpon it. The yellow carot alſo called in Latine Daucum, is a good remedy for the pain in the head. Moreouer, the foreſaid herb or root Cyclaminos, if it be mixed with hony and put vp as an errhin or naſal into the noſthrils, purgeth the brain, & the ſame brought into an ointment, healeth the ſcalls and ſores in the head. Of the like operation is Veruain, which they cal in Greek Periſtereos. The wild Caraway, named Cacalia or Leontine, beareth certain grains reſembling ſmal ſeed pearls, which a man ſhal ſee hanging betweén the leaues, which be big & large: and it groweth lightly vpon hils: take 15 of theſe grains or ſeeds, ſteep them well in oile, and make therof a liniment, it is paſſing good to rub and annoint the head withall, ſo it be done vpward againſt the haire. Furthermore, the herb Callitriche, is ſingular good [illegible] prouoke ſneezing; it beareth leaues much like vnto thoſe of Lentils or Ducks meat: the ſt[illegible] very ſmall like fine bents, and the root is as little: it delighteth to grow in coole, ſhady, and moiſt grounds, and is of a ſharp and hot taſt.

For the lowſie diſeaſe, wherein lice and ſuch vermin crawle in exceeding abundance all ouer the head, there is not a better medicine than an ointment made of hyſſope and oyle ſtamped and incorporat together: the ſame likewiſe killeth the itch in the head. Now the beſt hyſſop is

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A that of Cilicia, growing vpon the mountaine Taurus: and in a ſecond degree, there is reckoning made of that which commeth out of Pamphylia and Smyrna. An herb this is, nothing friendly to the ſtomack: being taken with figs, it purgeth downward; with hony, by vomit: howbeit, ſtamped with hony, ſalt, and cumin, and ſo reduced into a plaſter, it is thought to be a proper remedy for the ſting of ſerpents.

Lonchitis is not the ſame herb (as moſt men haue thought) that Xiphion or Phaſganion, although the ſeed be pointed like to a ſpeare head; for it beareth leaues reſembling leeke blades, which toward the root be red, and more in number than about the ſtem it ſelfe: it carrieth little heads in the top, made after the faſhion of maskes or viſors, ſuch as players in Comœdies are wont to weare, lilling out pretty little tongues, and the roots be exceeding long, & yet it grow-

B eth in drie grounds far from water. Contrariwiſe, * Xiphion or Phaſganion delighteth in wateriſh and moiſt places: at the firſt comming vp, it maketh a ſhew of a ſword blade: the ſtem riſeth vp to the heigth of two cubits: the root hath beards or fringes as it were hanging about it, and is in faſhion ſhaped to a filberd nut: which ought to be digged out of the ground before harueſt, and to be dried in the ſhade: the vpper part of this root (for it groweth double) ſtamped with Frankincenſe and mixed with wine of equal weight, and ſo made into a ſalue, draweth out the ſpills or broken ſcales in the brain-pan or ſcull: the ſame is good likewiſe to draw any impoſtume that is broken, and to fetch out corruption in any part of the body: and it is ſingular for the bones that be broken and cruſhed * vnder cart or waggon wheels: laſtly, the ſame is an effectuall remedy againſt poiſons.

* Our Glader or Flags.

* Carpentis.

C But to returne againe to the head-ach; the ſaid Ellebore boiled either in common oile, or els in oile roſat, and applied in manner of a liniment, doth aſſuage the ſame; ſo doth Peucedanum [*i.* Hare-ſtrange] being incorporat in oile of roſes and vineger. The ſame alſo being laied vnto the head warm, doth mitigat the pain called the migram, when as the one half of the head doth ake; and it cureth beſide, the dizzineſſe of the braine. The root of Peucedanum made into an ointment and vſed accordingly, prouoketh ſweat, by reaſon of the hot nature that it hath, which is burning and cauſticke. The herb Fleawort, which ſome cal Pſyllion, others Cynoides, Chryſtallion, Sicelion, and Cynomyia, hath a ſmall root, whereof there is little or no vſe in Phyſick. The branches that it bringeth forth, be ſlender and pliable in manner of vine ſhoots, bearing in the top certain big berries or knobs like vnto beans; the leaues not vnlike to * dogs heads; the

* Whereupon it is called *Cynoides.*

D ſeed reſembleth dogs fleas, whereupon it hath that name Cynomyia, and the ſame lieth within the foreſaid berries. The herb it ſelfe is ordinarily growing in vineyards: of great vertue it is to refrigerat and to diſcuſſe or reſolue withall: but the ſeed it is which yeeldeth moſt vſe in Phyſicke; and the ſame is applied in a frontall to the forehead and temples, with vineger and oile of roſes, or elſe with vineger and water together, for to allay the paine of the head. For other accidents, when it is applied in forme of a liniment, the manner is to take the meaſure of one acetable, and to infuſe it in a ſextar of water vntill it gather together into a thicke and clammie ſubſtance; then it would be ſtamped, and the mucilage or ſlime drawne out thereof ſerueth for any paine, impoſtume, and inflammation. Ouer and beſides. Ariſtolochia is a ſingular herb for the wounds of the head: it draweth forth broken bones and ſpils in any part of the head; and ſo

E doth Piſtolochia. To conclude, there is an herb called * Thyſſelium, not vnlike to garden Parſley: the root whereof if it be but chewed in the mouth, purgeth the head of phlegmaticke humours.

* *Hydroſelynū, Dodonæi, id eſt* Water-parſley

Chap. XII.

¶ *Receits for the diſeaſes of the eies, made of Centaurie, Celendine, Panaces, Henbane, and Euphorbium.*

IT is thought that the Rha-pontick (which is the greater Centaurie) helpeth the eie-ſight verie much, if a fomentation be made therewith and water together. The juice of the leſſe Cen-

F taurie tempered with hony and applied, helpeth the imperfections of the eies; namely, when there ſeeme gnats to flie before them, or when they are ouer-caſt with a cloud; for it ſcattereth the dimneſſe and web which darkeneth the ſight, and doth ſubtiliate the cataract or cicatrices that ouergrow the ball or apple. The herbe Sideritis is ſo appropriate vnto the eies, that it cureth the verie haw that groweth in horſes eies. But ſo excellent is the herbe Celendine, that it

paſſeth them all,and is a ſoueraigne medicine for all ſuch imperfections. The root of Panaces G
mixed with parched or fried barly meale,maketh a good cataplaſme for to repreſſe the rheume
of watery and weeping eies. And there is a ſingular drink commended for the ſtaying of ſuch
humors,made of Henbane ſeed one obulus,of Opium or the juice of Poppy and wine as much:
Some put therto the like quantity of the juice of Gentian,which alſo they vſed to mingle with
collyries and eie-ſalues (that require ſome ſharpneſſe and acrimony) * in ſtead of the foreſaid
* Pro Meconio: & yet in Dioſcorides it is μηκωνίου. Opium or Poppy juice. Moreouer, Euphorbium clarifies the eie-ſight, if there be an inunction
made therewith. For bleered eies,it is good to drop the juice of Plantain into them. As for the
thick miſts that hinder the eie-ſight,Ariſtolochia doth diſcuſſe and reſolue them. The herb I-
beris bound vnto the forehead,together with Cinquefoile,ſtoppeth the fall of humors into the
eies,and cureth all other maladies incident vnto them. Mullen or Lungwort is likewiſe a great H
defenſatiue againſt the foreſaid rheums which haue taken a courſe to the eies and cauſe them
to water; ſo is Veruain,if it be applied with oile roſat or vineger: For the cataract or ſuffuſion of
the eies,for the pin and web which offend the eie-ſight, the Troſches of Cyclamine being diſ-
ſolued and ſo applied,are ſoueraigne. As for the juice of Peucedanum,(*i.* Hare-ſtrange) it is (as
I ſaid before) a notable medicine for to cleare the ſight, and rid away the muddy miſts before
the eies, if it be laid to with Opium and oile roſat. Finally, Flea-woort ſtaieth and keepeth vp
the flux of humors into the eies,if the forehead be annointed with the mucilage thereof.

Chap. XIII.

¶ *Of Pimpernell,named Anagallis and Corchoros. Of Mandragoras or Circeium. Of Hemlocke, Creſtmarine or Sampire,named in Greeke Crithmos Agria. Of the herbe Molybdæna. Of Fumiterre. Of Acorus or Galangale. Of Floure-de-lys. Of Cotyledon or Venus navill. Of Sengreen, and Purcellane. Of Groundſwell. Of Ephemeron. Of the Taxill,and of Crowſoot: with the medicinable vertues of the ſaid hearbes, appropriate to the diſeaſes of the eies, eares, noſthrils, teeth and mouth.* I

THe herbe Pimpernell,ſome call Anagallis,others Corchoros. Of it be found two kindes;
the male with a red floure,the female with a blew: neither of them both be taller than the
hand-bredth or a ſpan at moſt: tender they be likewiſe in all parts: the leaues be very ſmal,
round,and lying vpon the ground: they grow as well the one as the other in gardens and watery
places: that with the blew floure bloweth firſt: the juice of them both tempered with hony,diſ- K
patcheth the miſt and dimneſſe of the eies, conſumeth the redneſſe occaſioned by a ſtripe or
bruiſe,and taketh away the red ſpots in the white of the eie; and ſo much the ſooner,if the hony
be of the beſt, and made about Athens, wherewith the eies be annointed. The ſaid medicine
likewiſe is good for to extend and dilate the tunicles that make the ball or apple of the eie: and
therefore it is an ordinary courſe that their eies be annointed therewith beforehand,who are to
be pricked with a needle for couching of a cataract. Theſe herbs be ſingular good likewiſe for
the haw in horſes or beaſts eies. The iuice of Pimpernell conueyed vp into the noſthrils, clean-
ſeth the braine by the emunctory of the noſe,ſo that afterwards the Patient do draw vp wine in-
to the noſthrils,for a collution to waſh them. A dram of the ſaid iuice drunk in wine, is a coun- L
terpoiſon againſt the venom of ſnakes. But this is ſtrange,and I cannot chuſe but maruell of it,
that ſheep ſhould ſo much hate and abhor the female Pimpernell as they do: howbeit,in caſe
they ſhould miſtake the one for the other becauſe they are ſo like (for in flour only they differ)
and taſt the Pimpernel with the blew floure,preſently they haue recourſe (by a natural inſtinct)
to an herbe for remedy called in Greeke Aſyla,and by vs in Latine Ferus oculus [*i.* the wild and
cruell eie,or Margellane.] Some there be,who ſet down certain ceremonies and circumſtances
to be obſerued by them who are to dig or plucke vp this hearbe; namely,That they goe to this
buſineſſe before the Sun-riſing, and ſalute or bid good morrow to it three times,before they
ſpeak any other word that morning; and then to take it vp and caſt it on high: which don, to
preſſe forth the iuice of it. Thus ordered forſooth,they ſay it is of better operation,and will do M
the deed ſurely.

Touching Euphorbium,what it is I haue ſufficiently ſpoken. The iuice thereof is ſingular
for bleered eies,eſpecially if they be ſwelled withall: likewiſe wormwood ſtamped and incor-
porat with hony: as alſo the pouder of Betony. There groweth many times a fiſtulous vlcer be-

tweene

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A tweene the corner of the eie and the noſe, called Ægilops; for to heale which ſore, there is a ſoueraigne herbe of that * name growing among Barly: in blade or leaſe it reſembleth that of wheat: the ſeed or graine whereof, beaten into pouder and mixed with meale or floure, or the juice drawne out of the herbe, they vſe for the ſaid purpoſe to applie vnto the affected place in manner of a ſalue or liniment. Now the ſaid juice muſt be preſſed out of the ſtalke and leaues thereof, whiles they be freſh and fulleſt of ſap: but then the haw or eare that it beareth, ought to be taken away, which being incorporat with the floure of three moneths corn, is made vp into bals or troſches. Some were wont in this cure to vſe the juice alſo of Mandragoras, but they gaue it ouer afterwards. Howbeit, for certain, the root of Mandragoras bruiſed or ſtamped, and tempered with the oile of roſes and wine, cureth weeping and watering eies; yea, and aſſuageth their pain: & the ſaid juice, how ſoeuer it be rejected in the former caſe, goeth into many collyB ries or eye-ſalues.

* Ægilops. Some take it for wild Otes; others for Darnell.

This herbe Mandragoras, ſome writers cal Circeium; and two kinds there be of it: the white which is ſuppoſed the male; and the black, which you muſt take for the female: the leaues of this female reſemble thoſe of the * Lectuce, but that they be narrower: hairy alſo they are, and al of an * equall bigneſſe. Two or three roots it hath, and thoſe of a reddiſh or ruſſet colour without, but white within: of a fleſhy ſubſtance and tender, running downe into the earth almoſt a cubit in length. A certain fruit or apple they beare, of the bigneſſe of Filberds or Hazel-nuts, within which there be ſeeds like vnto the pippens or Pears. The white Mandrage ſome name Arſen, (*i*) the male; others * Morion: and there be again who cal it Hypophlomos. The white leaues of this Mandrage be broader than the other, and indeed equall to the garden Docke or Patience:
C In the digging vp of the root of Mandrage, there are ſome ceremonies obſerued: firſt they that goe about this worke, looke eſpecially to this, that the wind be not in their face, but blow vpon their backs: then with the pont of a ſword they draw three circles round about the plant which don, they dig it vp afterwards with their face into the Weſt. There is a juice preſſed forth both of the fruit, and alſo of the leaues ſhred and minced: of the * ſtem likewiſe being firſt headed or the top cut off; and alſo of the root, which ſomtime they do pounce and prick for to let out the liquor, otherwhiles they boile it: and the root ſo prepared, is as good as the juice. The ſame alſo being cut into certain thin rundles they vſe to * preſerue in wine. Howbeit, Mandrage is not found alwaies and euery where full of juice: but in what place ſoeuer ſuch may bee gotten, the right ſeaſon to ſeek for it is about vintage time: the ſent therof is ſtrong, but the root and fruit
D do ſmell the ſtronger. The apples of the white, when they be ripe, the maner is to dry in the ſhadow; but the juice drawn out of them, is permitted to ſtand in the Sun for to gather and harden. In like ſort, the juice of the root whether it be bruiſed and ſtamped, or ſodden in groſſe red wine to the conſumption of a third part. The leaues moreouer of Mandrage are commonly kept and condite in a kind of pickle or ſalt brine: for otherwiſe the juice of them whiles they be freſh and green, is peſtiferous and a very poiſon. And yet order them ſowel as you can, hurtfull they be euery way: the only ſmell of them ſtuffeth the head, and breedeth the murre and the poſe. Howbeit, in ſome countries they venture to eat the apples or fruit thereof; but thoſe that know not how to dreſſe and order them aright, loſe the vſe of their tongue thereby, and proue dumbe for
E the time, ſurpriſed and ouertaken with the exceeding ſtrong ſauor that they haue. And verily if they be ſo bold as to take a great quantity therof in drinke, they are ſure to die for it. Yet it may be vſed ſafely enough for to procure ſleep, if there be a good regard had in the doſe, that it be anſwerable in proportion to the ſtrength and complexion of the patient; one cyath thereof is thought to be a moderat and ſufficient draught. Alſo it is an ordinary thing to drink it againſt the poiſon of ſerpents: likewiſe before the curting or cauterizing, pricking or launcing of any member, to take away the ſence and feeling of ſuch extreme cures. And ſufficient it is in ſome bodies to caſt them into a ſleep with the ſmel of Mandrage, againſt the time of ſuch Chirurgery. There be that drink it in lieu of Ellebore, for to purge the body of melancholick humors, taking two oboles therof in honied wine. Howbeit, Ellebore is ſtronger in operation for to euaF cuat black choler out of the body, and to prouoke vomit.

* Whereupon it is called *Thridacias*.
* *Æqualibus*, not *caulibus*, for Mandrage bears no ſtems
* *i. Membrum virile, vel Genitale.*

As touching Hemlock, it is alſo a ranke poiſon, witneſſe the publicke ordinance and law of the Athenians, wherby malefactors, who haue deſerued to die, were forced to drink that odious potion of Hemlock. Howbeit, many good vertues hath this herb, and would not be reiected and caſt aſide for the ſundry vſes therof in Phyſicke. The ſeed is euery way hurtfull and venomous.

* Other Herbariſts deſcribe Mandrages without a ſtem or ſtalke.
* *Seruator in vino*, according to *Crateuas*, ἐνβάπτων οἴνῳ, whereas *Dioſcorides* ſaith, διαπλέκεις λίνῳ, *i. traycitur lino*, that is to ſay, they file them vp hanging by little threds drawne through them.

As

As for the ſtems and ſtalks, many there be that do eat it both green & alſo boiled or ſtewed be- G
tween two platters. Light theſe ſtems be as kexes, and full of ioints like Reeds and Canes: of a darke gray or ſullen colour, riſing vp many times aboue two cubits high: and toward the top they ſpread and branch. The leaues in ſome ſort reſemble Coriander, but that they be more tender, and a ſtrong ſtinking ſmell they haue with them. The ſeed is thicker and groſſer than that of the Anniſe. The root likewiſe hollow, and of no vſe in Phyſicke. The leaues and ſeed are exceeding refrigeratiue: which if they haue gotten the maſtery and vpper hand of any that hath taken them, ſo as there is no way but one without help, they ſhal feele themſelues begin to wax cold in their extream or outward parts, & ſo to die inward: howbeit there is a remedy euen then, before the cold haue taken to the vital parts: namely to take a good draught of wine, which may ſet the body in a heat, and chaufe it again: mary if they drinke it with wine, there are no meanes H
in the world to ſaue their liues. There is a juice preſſed out of the leaues and floures both toge-ther, for that is the right reaſon, namely whiles it is in flour: the which is preſſed out of that ſeed ſtamped, being afterwards dried in the Sun and made into bals or troſches, kils them that take it inwardly, by congealing & cluttering their bloud; for this is a ſecond venomous and deadly quality that it hath: which is the cauſe, that whoſoeuer die by this means, there appear certain ſpots or ſpecks in their bodies after they be dead. And yet there is a vſe of this juice, to diſſolue hot and biting medicines therin in ſtead of water: moreouer, there is made of it a very conueni-ent cataplaſme to be applied vnto the ſtomack, for to coole the extreame heat thereof. But the
* *Epiphoras æſtiuas*, or rather *æſtuoſas*, i. hot rheumes. principal vertue that it hath, is to repreſſe and ſtay the flux of hot humors into the eies* in ſum-mer time, and to aſſuage their pains if they be annointed therewith. It entreth beſides into col- I
lyries or medicines deuiſed to eaſe pain: and verily there is no rheumatick flux in any part of the body but it ſtoppeth it. The leaues alſo of Hemlocke doe keepe downe all tumors, appeaſe paines, and cure watering eies. *Anaxilaus* mine Author ſaith, That if a pure maiden doe in her virginity annoint her breſts with this juice, her dugs will neuer grow afterwards, but continue ſtill in the ſame ſtate. True it is indeed, that beeing kept vnto the paps of women in child-bed, it drieth vp their milk: as alſo extinguiſheth naturall ſeed, if the cods and ſhare be annointed therwith. What remedies they ſhould vſe to ſaue themſelues who are adiudged by law to drink it, I for my part purpoſe not to ſet down. The ſtrongeſt Hemlocke and of ſpeedieſt operation is that which growes about Suſa in the confines of Parthia. Next to it for fearful working, is that which commeth out of Laconica, Candy, and Natolia. In Greece the Hemlocke of Megara is K
counted the quickeſt, and then that of Attica.

Creſtmarine or Sampier, called the wild Crethmos, riddeth the eies of the gummy & viſcous water that ſticketh in them, if it be applied thereto: and if it be made into a cataplaſme with fried Barly meale, it aſſuageth alſo their ſwelling.

There groweth commonly an herbe named in Greeke Molybdæna, that is to ſay in Latine, Plumbago, euen vpon euery corne land; in leaſe reſembling the Dock or Sorrell, with a thicke root, and the ſame rough and pricky. Let one chew this herb firſt in his mouth, & then eftſoons
* Some take it for a Cataract. lick with his tongue the eie, it conſumeth and taketh away the * Plumbum, which is a kinde of diſeaſe or infirmity incident to the eies.

* This *Fuchſius* thinketh to be Piſtolochia or our Ariſtolochia the rounder. As touching the firſt * Capnos, which in Latine is commonly called Pedes Gallinarei, *i.* hens L
feet: it groweth about decaied wals and ruinat buildings, among rubbiſh, & in hedges: the bran-ches be very ſmal, & ſpread looſely or ſcattering, the floure of a purple colour, the leaues green, the juice wherof diſcuſſeth the dimneſſe and thickneſſe about the eies, and clarifieth the ſight:
* It ſeemes to be our Fumitory, called in Greek Capnos. and therefore it is vſually put into eie-ſalues. There is another herb of the ſame * name, & like in effect, but different in form from it, which doth branch thicke, and is of a tender ſubſtance: the leaues for ſhape reſembling Coriander, and thoſe of a wan or aſhie colour, but it beareth a purple floure: it groweth in Gardens, Hort-yards, and Barly-lands. If the eies be therewith an-nointed, it cleanſeth and cleareth them: but it cauſeth them to weepe and water, like as ſmoke doth, whereupon it tooke the name Capnos in Greek. If the haire of the eie-lids be once pulled forth, and then the edges or brims be annointed therewith, it will keep them for euer comming M
vp againe.

* *Galangale.* * Acorus hath leaues like to the Flour-de-lis, but that they be only narrower, & growing to a longer ſtele or taile: the roots be black & not ſo full of veins nor grained, otherwiſe they agree well with the Ireos root, hot & biting at the tongues end. To ſmel vnto they are not vnpleaſant:

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A and being taken inwardly, they do gently moue rifting, and cauſe the ſtomack to breake winde vpward. The beſt Acoros roots be thoſe which co ne from Pontus: then they of Galatia: and in a third rank are they to be ſet which are brought out of Candy. Howbeit, the principall and the greateſt plenty are thoſe eſteemed which grow in the region Colchis neere to the riuer Phaſis: and generally in what countrey ſoeuer, they that come vp in watery grounds be chiefe: the freſher that the roots be and more newly drawn, the ſtronger ſent and leſſe pleaſant taſte they haue with them, than after they haue bin long kept aboue ground. Thoſe of Candy be whiter than the other of Pontus. They vſe to cut them into gobbets as big as a mans finger, and then hang them within bags or pouches of leather a drying in the ſhade. I find in certain writers, that the root of Oxymyrſine is called Acaros, and therfore ſome (alluding to the name of Acoros) chuſe rather to call this plant Acaron the wild. Well, the root of Acorus is of great operation and ef-
B fect to heat and extenuat: and therefore the juice thereof taken in drinke, is ſingular againſt catarracts or any accidents of the eies that cauſe dimneſſe. Soueraigne likewiſe it is taken to be againſt the venome of ſerpents.

Cotyledon, named in Latine Vmbilicus Veneris, is a pretty little herb, hauing a tender and a ſmal ſtem, a leafe thick & fatty, growing hollow, like to the concauity wherin the huckle-bone turneth, and therupon it took the foreſaid name in Greek. It groweth by the ſea ſide and in rocky or ſtony grounds: of a liuely green colour, and the root round, much like to an Oliue. The juice is thought to cure the eies. Another kind there is of Cotyledon, with groſſe and * fattie leaues likewiſe, but broader than the former. Toward the root they grow thicker, which they
C ſeem to compaſſe and incloſe, as it were an eie. A moſt harſh & vnpleaſant taſt it hath: the ſtem is high, but very ſlender. This herb hath the ſame properties which the Flour-de-lis.

* λιπαρῆς, out of *Dioſcor.* not ἰυπαρῆς, as *Pliny* ſeemeth to read, when hee tranſlated it (*Sordidis.*)

Of Sengreen or Houſleek, which the Greeks call Aizoon, there be two kinds. The greater is ordinarily planted in earthen pans or veſſels ſet out before the windows of houſes: which ſome name Buphthalmon, others Zoophthalmon, and Stergethron, becauſe it is thought ſo good in loue drinks or amorous medicines: others again giue it the name Hypogeſon, for that it is ſeen to grow vnder the eaues of houſes. There are alſo who loue to term it Ambroſia & Amerimnos. Here in Italy they call it Sedum the greater, Oculus alſo, and Digitellus. For the ſecond kinde is ſomewhat leſſe, which the Grecians diſtinguiſh by the name * Erithales or Trithales (be-
D cauſe it beareth floures thrice in the yeare;) others Chryſothales; and ſome again, Iſoetes. But both the one and the other they call Aizoon, becauſe they be alwaies freſh and green: according to which name in Greek, ſome giue it the Latine name Sempervivum. The greater kind beareth a ſtem a cubit high and more, and the ſame of the thickneſſe of a mans thumb, with the better. The leaues in the head or top whereof, be like vnto a tongue, fleſhy and fat, full of juice, a good inch broad; ſome bending downe and coping toward the earth, others ſtanding vpright, but ſo, as if a man mark their round circle or compaſſe wherein they lie couched, he ſhal obſerue the very proportion of an eie. The leſſe Sengreen or Iubarb groweth vpon walls, and ſpecially ſuch as be ruinat and broken down: likewiſe vpon the tiles of houſe-roofs. This herb is tufted with leaues from the very root euen to the top of the branches. The leaues be narrow and ſharp pointed, and full of juice. The ſtalk groweth a good hand-breadth or ſpan high. The root is not me-
E dicinable nor of any vſe.

* Which ſome take to be Prick-madame of the French Trique-madame.

Much like to this is that herb which the Greeks call Andrachne Agria, *i.* wilde Purcellane; the Italians, Illecebra. The leaues be but ſmall to ſpeake of, howbeit broader than thoſe of the herb before named, and ſhorter toward the top. It groweth vpon rocks and ſtony places: & folke vſe to gather it for to eat. All theſe laſt rehearſed haue the ſame operation, for they be exceeding cold and aſtringent withall. Good they be to ſtay the rheum that falleth into the eies and cauſeth them to water; whether the leaues be applied to them, or the juice in manner of a liniment: moreouer, they cleanſe and mundifie the vlcers of the eies, they do alſo incarnat, heale, and skin them vp: ſingular good beſides to looſe and open the eie-lids, when they are glued and cloſed vp with viſcous gum. The ſame do allay the head-ache, if either the temples be annointed
F with the iuice therof, or the leaues be applied to them. Moreouer, they mortifie or kil the poyſon inflicted by the prick of the venomous ſpiders Phalangia: but the greater Sengreene hath this peculiar vertue, to reſiſt the deadly poiſon of the herb Aconitum. Furthermore it is ſayd, that whoſoeuer carry it about them, ſhal not be ſtung by ſcorpions.

All the kinds of them are proper remedies for the pain in the eares. Like as the iuice of Hen-

bane

bane alſo, if it be applied moderatly, of Achillea and the beſt Centaury; of Plantaine and Harſtrang, together with oile roſat and Opium: finally, the iuice of Acorns or Galangale vſed with Roſes, is much commended in that caſe. But this would be noted, that the manner of preparing of all theſe iuices, is to heat them firſt, & then to conuey or infuſe them into the ear by a * pipe for the purpoſe [called an Orenchyte.] Semblably, the herb Vmbilicus Veneris or Cotyledon is much commended for mundifying the ears, when they run with filthy matter eſpecially, if it be tempered with deere ſewet, and namely of a Stag or Hind, and ſo inſtilled hot. The iuice of the Walwort root clarified and ſtrained through a fine linnen cloth, and ſoon after dried & hardened in the Sun, healeth the ſwelling impoſtumations vnder the ears, if as need requireth, it be diſſolued in oile of Roſes, and ſo applied hot. The like effect in that caſe hath Veruain & Plantain; Sideritis alſo being incorporat in old Hogs greaſe.

*Stilla.

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After the ſame manner Ariſtolochia together with Cyperus, healeth the ſtinking and ilfauored vlcer of the noſe, called Noli-me-tangere.

The root of Panaces, eſpecially that which is called Chironia, if it be chewed in the mouth, aſſuageth the tooth-ach: ſo doth the iuice thereof, if there be a collution made therewith. The root of Henbane hath the like vertue, if one chew it with vineger, as alſo of Polemonia or ſauge de bois: for which purpoſe it is paſſing good to chew the Plantain root, or to waſh the mouth and teeth with the iuice or decoction thereof boiled in vineger. And the very leaues of Plantain be ſingular for the pain of the teeth; yea, though the gums were putrified with rank & corrupt bloud, or in caſe there owſed or iſſued out of them filthy bloudy matter. And the ſeed of Plantain cureth the impoſtumations of the gums, albeit they gathered to ſuppuration and ran matter. Moreouer, Ariſtolochia doth knit and conſolidat the gums; yea, and faſteneth the teeth in the head. For theſe infirmities of gums and teeth, the root of Veruain is highly commended if it be chewed: or if it be boiled in wine or vineger, and the mouth waſhed with that decoction. The roots of Cinque-foile ſodden likewiſe either in wine or vineger to the conſumption of a third part, worke the ſame effect. But looke that before you boile them, they be wel rinced and waſhed either in ſea water or ſalt water at the leaſt: and when you vſe this collution, ſee you hold the liquor or decoction in your mouth a long time. But ſome there be who thinke it better to rub the teeth with the aſhes of Cinquefoile burnt, leaues, root, and all. Moreouer, the root of Mullen or Taperwort ſodden in wine, maketh a ſingular collution for the teeth. Likewiſe if the teeth be waſhed with the decoction of Hyſſop or the iuice of Harſtrang, together with Opium or Poppie iuice, much good and eaſe will inſue thereupon. As alſo by the iuice of a Pimpernell root: and the rather of that which is counted the female, if the ſame be conueighed vp into the noſthril of the contrary ſide to the tooth that aketh. There is an herb called Groundſwel, which the Greeks name Erigeron, and we the Latines Senecio: they ſay if a man make a circle round about it with ſome inſtrument of yron, and then dig it out of the ground, and therewith touch the tooth that is pained, three ſeueral times, and between euery touching ſpit vpon the ground, and then beſtow the ſaid herb, root and all, in the very ſame place where he drew it, ſo as it may liue and grow again, the ſaid tooth ſhall neuer ake afterwards.

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This Groundſwell is an hearbe much like in ſhape vnto Germander, as ſoft alſo and tender as it, the ſmall ſtalkes or braunches whereof incline to a reddiſh colour: and it loueth to grow vpon tiled houſes or VValles. The Greekes impoſed that name Erigeron, becauſe in the Spring it looketh hoarie, like an old gray beard: in the top it diuideth it ſelfe into a number of heads, betweene which there commeth forth a light plume, much like vnto Thiſtle-downe: VVhich is the reaſon that *Callimachus* calleth it Acanthius; and others, Pappos. But in the farther Deſcription of this Hearbe, it ſeemeth that the Greekes agreed not: for ſome haue ſayd that it is leafed like to Rocket; others to an Oke, but that they bee much leſſe. There bee VVriters alſo who hold the root to bee good for nothing in Phyſicke: and there bee againe that commend it to bee ſingular for the ſinewes: beſides, ſome others are of opinion, That it ſtrangleth and choaketh as many as drinke it. Contrariwiſe, certaine Phyſitians preſcribe it for the Iaundiſe to bee taken in Wine: for all the diſeaſes likewiſe of the bladder, and againſt the infirmities of the Heart and Liuer. And they aſſure vs, That it ſcoureth the Reines or Kidneies of all grauell. In caſe of the Sciatica they haue ordayned it to bee drunke to the weight of a dramme with Oxymell, preſently after ſome exerciſe by walking: giuing out, that there is not a better thing in the World for the gripes and tor-

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A ments of the guts, if it be taken in ſweet wine cuit: eſteeming it a ſingular herbe for the griefe of the midriffe and precordiall parts about the heart, if it be eaten with meat in a ſallad with vineger: and in regard of theſe manifold commodities, they ſow and nouriſh it in their gardens for to be alwaies ready at hand. And ſome authours I find who haue made a ſecond kind thereof: but they haue not deſcribed what manner of herbe it is, only they appoint it to be giuen in water againſt the ſting of ſerpents, and to be eaten for the falling ſickneſſe. For mine own part, I will ſet down the vſe thereof in ſome caſes, according as I haue found it by experience to work in the practiſe here at Rome. The plume or downe which it beareth, if it be ſtamped and reduced into a liniment with Saffron and a few drops of cold water, and ſo applied, cureth the inordinat flux of wateriſh humors into the eies. The ſame dried and parched againſt the fire, or o-
B therwiſe fried with ſome cornes of ſalt, and laid to the ſwelling wens called the Kings euil, healeth them.

The May-Lillie (called in Greeke Ephemeron) is leafed like vnto the Lillie, but that the leaues be leſſe: the ſtem is ſemblable and equall vnto it, vpon which it beareth a * blew floure. The ſeed which it carrieth is nothing medicinable. One ſingle root it hath of a finger thickneſſe, which is ſoueraigne for the teeth, if it be cut and minced ſmall, and afterwards ſodden in vineger for a collution to waſh the teeth with it warme. The very ſubſtance alſo of the root is ſingular good to confirme the teeth ſtanding looſe in the head: and to be put into thoſe that be hollow and worme eaten. Moreouer, the root of Celendine is good for the teeth, if it be bruiſed or ſtamped, and ſo with vineger held in the mouth. If teeth be rotten and corrupt, the black
C Ellebore is ſingular to be put into their concauities. And both of them (as well the blacke as the white) ſerue in a collution to ſtrengthen and keep them faſt in their ſockets, if they be boyled in vineger. As touching the Tazill (which is called in Latine Labrum Veneris) it grows in riuers and * waters: within the heads or burs which it beareth, there is found a little worme or grub, which for the tooth-ache they vſe to binde about the teeth, or to put it in their holes and cloſe them vp with wax. But when that herbe is pulled out of the ground, great heed muſt be taken that it touch not the earth. The herbe Crowfoot is called in Latine Ranunculs, in Greeke Batrachion; whereof be foure kindes: The firſt beareth leaues like vnto Coriander, but that they be farter, and as broad as thoſe of the Mallow, of a ſwert colour: the ſtalke is whitiſh, or griſled and ſlender, the root alſo white: it groweth ordinarily along great rode waies, eſpecial-
D ly in cold, ſhadowie, & moiſt places. The ſecond is better furniſhed with leaues, and thoſe more cut and indented than the former, and riſeth vp with greater and higher ſtalks. The third is the leaſt, hauing a ſtrong ſent, and bearing a yellow floure like vnto gold. The fourth is like to this, and hath likewiſe a yellow floure. They be all of them of a cauſticke and burning qualitie. For lay but the leaues raw and greene (as they grow) vpon any place, they will raiſe bliſters in the skinne, as well as a light coale of fire: which is the reaſon, that they bee much vſed for lepro-ſies and foule ſcabs; alſo to take out any markes imprinted in the skinne, or vnſeemely ſcarre. In ſumme, it is one of the ingredients that go to the making of all potentiall cauteries or cauſticke medicines. VVhere the haire is gone, and the place bare and naked, they vſe commonly to applie theſe hearbes for to recouer the haire againe: but they muſt be ſoone remooued. For
E tooth-ache alſo it is an ordinary thing to chew of their roots, but if one continue ſo long, it will burſt their teeth in pieces. The ſame beeing cut into roundles, and dried, and ſo beaten into pouder, ſerueth to prouoke ſneezing. Our Herbariſts here in Italy call this hearbe Strumea: becauſe it helpeth and cureth the wens named Strumæ or the Kings euill, and the flat biles or puſhes called Pani, if the ſame be hanged vp afterwards in the chimney to take ſmoke. For this opinion they haue, and be verily perſuaded, that if it be ſet again into the ground, the wens and biles aforeſaid which were healed, wil return and be ſore again. The like ſorcery and witchcraft they vſe with Plantaine: but in truth, the juice of Plantaine is ſingular good for the cankers or vlcers within the mouth: ſo are the leaues and roots, if they be only chewed, yea though the patient or diſeaſed perſon were troubled with the ſpitting rheume; for they intercept all
F thoſe defluctions, which take a courſe into the mouth. Cinque-foile is a very ſoueraigne herb for the ſores of the mouth, and for ſtinking breath. Pſyllium, *i.* Fleawort, is good for the vlcers thereof.

But ſince I haue named a ſtinking breath, which is a foule and naſtie diſeaſe, putting man or woman to ſhame, as no infirmitie more; I will ſet downe one or two compound receits for

that

* *Dioſcorides* ſaith white.

* It containes water indeed within the concauities or arme-pits (as it were) of the leaues where they ioine to the ſtem, but ſurely in riuers it growes not.

Lacteo-Dioſc. i. white.

that imperfection. Take Myrtle & Lentisk leaues, of each a like weight; of the Gal-nuts growing in Syria, halfe as much in quantity; stamp them all together, and in the stamping, sprinckle them with good old wine: giue the patient this composition in bole to chew and eat in the morning, there is not the like medicine vnto it for a sweet breath. Also take Ivy beries, Casia or Canell, and Myrrhe, of each an equall weight, incorporat them with wine in manner aforesaid, and vse this confection accordingly. For the sores that be incident to the nose, the seed of dragons made into pouder, and tempred with hony, is singular to be applied therunto, yea though they were very cankers, and had eaten deep. Where the skin looketh blacke and blew, whether it be vnder the eies, or otherwise in any part of the visage, a salue made of Hyssope applied therto, restoreth it to the fresh and natiue colour. To conclude, a liniment of Mandragoras taketh out the markes or prints that be branded or seared in the face [if it be applied presently while they be fresh.]

THE TWENTY SIXTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proeme.

CHAP. I.

¶ Of medicines appropriate and respective to all other parts and members of the body. Of certaine new maladies: and namely, of the illfauored tetter called Lichenes: what kinde of infection it is, and when it first entred into Italy. Of the blain or sore called the Carbuncle. Of the filthy leprosie or wild scab named Elephantiasis. And of the Collicke.

LOng is it not since the face and visage of men began to be annoied with certaine new and strange diseases, vnknowne in our forefathers daies, and neuer heard of before in Italy, nor almost in any part of Europe. And euen of late daies when these maladies first set foot in these parts, they were not seene for to spread throughout all Italy, ne yet to range greatly in Illyricum, France, or Spain, although some little sprinckling there was in those countries: but about Rome only and those quarters adioining, as they raigned first, so they raged most. These new-come diseases verily were nothing painfull to the Patients, nor dangerous any waies and deadly; but so foule and filthy, so loathsome and ougly, that a man would haue chosen rather to die any death, than to be so disfigured. But of them all, the worst and most detestable was that, which by a Greeke name they called Lichenes, and in Latine (becausе ordinarily it began about the chin)* Mentagra. A terme giuen vnto it (I assure you) at the first by way of jeast and in a meriment (as commonly we see many are disposed to play and make good game at other mens miseries) but afterwards it went currant in euery mans mouth: and by no other name than Mentagra was it known, notwithstanding the disease possessed not the chin alon, but in many that had it, took vp the whole visage, all saue the eies, yea, and ran downward to the neck & breast, spreading also to the armes and the very hands: and in such sort was the skin of the poore wretches bepainted

*For *Mentum* in Latine is a chin.

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A bepainted and beraied with foule ſcurfe and filthy ſcales,as it would haue pittied one at the heart to ſee them. This contagious diſeaſe,our fathers and anceſtors in times paſt neuer heard of,nor knew what it meant:for the firſt time that it crept into Italy,was in t he daies of *Tiberius Claudius* late Emperor of Rome,euen a bout the middle of his raigne;and that was by the means of a certain knight or gentleman of Rome borne at Peruſium,who being ſecretary or clerke vnto the Treaſurer vnder the Romans in Aſia,and giuing attendance according to his place,chanced there to be infected, and ſo hee brought the diſeaſe ouer with him to Rome. But will you heare the ſtrange nature of this foule euil?women were not ſubiect vnto it;no more were ſlaues, baſe and poore commoners,no nor citizens of mean ſtate and condition:the greateſt gentlemen and thoſe of the nobility, it made choiſe of, and picked them from among the reſt: very catching it was,and ſoone paſſed from one to another,eſpecially by the mouth,and*by the means B of a kiſſe were it neuer ſo ſhort: foule and ill-fauored enough was the diſeaſe it ſelfe, but the ſcar, remaining after it was healed(for many there were who came vnder the Chirurgians hand and indured the cure) looked a hundred times worſe: and why? no way there was to rid it, but by cauſtick medicines or potentiall cauteries;and vnleſſe the fleſh were eaten away to the very bones,it was not poſſible to kill and root it out clean,but it would reuiue and ſpring again: and verily there came Phyſitians and Chirurgions out of Egypt (a countrey apt to breed the like, diſeaſes and where they be common) ſuch as profeſſed only the skill in this kind of cure, who filled their purſes well,and mightily enriched themſelues by their practiſe at Rome: for well known it is,that *Manlius Cornutus* (late L. Pretor, and lieutenant general for the ſtate in the prouince of Guienne or Aquitane in France) dealt with one of theſe Egyptian leeches for to be cu- C red of this diſeaſe, and agreed to pay him 200000 Seſterces for his paine. And thus much of Mentagra.

* *Veloci transitu ſe ſaluta-bant.* men vſed to ſalute one another by a kiſſe.

Moreouer,what a wonderfull thing is this obſerued in theſe new kind of maladies,that many times(contrary to the courſe of other ſickneſſes) they come together in troupes; that ſome of them ſhould all on a ſudden light vpon a particular country;that they ſhould take to one certaine member of mans body;aſſaile thoſe of ſuch an age and no other, haue a ſpight to perſons of this or that quality, and ſpare the reſt; as if they made choice, ſome to plague young children,others elder folk; ſome to puniſh none but the rich and mighty, others to be doing with the poore and needy? In our Annals or Chronicles we find vpon record,That while *Lucius Paulus* and *Q. Marcius* were Cenſors of Rome, the peſtilent carbuncle(a diſeaſe appropriat to Pro- D uance and Languedoc in France) came firſt into Italy. Of which maladie,there died within the compaſſe of one yeare(about that very time when I compiled this worke and hiſtory of mine) two noble men of Rome and late Conſuls;to wit,*Iulius Rufus* and *Q. Lecanius Baſſus*: of which two,the former was cut for it by the counſell of vnskilfull Phyſitians, and * by that means loſt his life. As for the other,hauing it vpon the thumb of his left hand, he chanced * to pricke it himſelfe with a needle;and although the wound was ſo ſmall, that hardly it could be ſeene and diſcerned,* yet it coſt him his life. This carbuncle riſeth ordinarily in the moſt hidden and ſecret parts of the body,and for the moſt part vnder the tongue:it is hard and red in manner of the ſwelling veines called in Latine Varices: and yet in the head it looketh blackiſh;the skin alſo E about it ſeemeth ſwert and dead: it ſtretcheth the skinne and the fleſh in ſome ſort ſtiffe, but without any great ſwelling; no paine at all,no itching no other ſymptome but ſleepe, wherewith it ſo poſſeſſeth the Patients,that in three daies it will make an end of them. Otherwhiles it cauſeth the party to fall into a quiuering and ſhaking as it were for cold,and raiſeth certaine bliſters or angry pimples round about it; and verie ſeldome cauſeth an Ague: but looke in whom ſoeuer it taketh to the ſtomacke or throat, it quickely diſpatcheth and maketh an end of them.

* Either by ſome mortification or effuſion of bloud. * *Pollicis acu impuſa.* * It ſeemeth by a gangrene. *Moſt of theſe ſigne ſhew a gangrene and canker, rather than our carbuncle.

As touching the white leproſie,called Elephantiaſis (according as I haue before ſhewed) it was not ſeen in Italie before the time of *Pompey* the Great. This diſeaſe alſo began for the moſt part in the face, and namely it tooke the noſe firſt, where it put forth a little ſpecke or pimple F no bigger than a ſmall Lentill;but ſoone after,as it ſpread farther and ran ouer the whole body, a man ſhould perceiue the skin to be painted and ſpotted with diuers and ſundry colors, & the ſame vneuen,bearing out higher in one place than another,thicke here, but thin there, and hard euery where;rough alſo, like as if a ſcurfe or ſcab ouerran it,vntil in the end it would grow to be blackiſh, bearing downe the fleſh flat to the bones, whiles the fingers of the hands, and toes of

the feet were puffed vp and ſwelled againe. A peculiar malady is this, and naturall to the Egyptians; but look when any of their kings fell into it, wo worth the ſubjects and poore people: for then were the tubs and bathing veſſels wherein they ſat in the bain, filled with mens bloud for their cure. But ſurely this diſeaſe continued not long in Italy, before it was quite extinguiſhed: like as another before it, and in old time * Gemurſa, which began between the toes: and ſo long agoe it is ſince any haue bin troubled therwith, that the very name alſo is forgotten and grown out of vſe. Where by the way, this is to be noted as a ſtrange and wonderfull thing, That ſome of our diſeaſes ſhould haue an end and loſe their courſe for euer; and others againe continue ſtill: as for example, the cholique paſſion; which came among vs no longer agoe than in the daies of *Tiberius Cæſar* the Emperor: and the firſt that euer felt it, was the prince himſelfe; whereupon aroſe no ſmall queſtion throughout the whole city of Rome: for when as the ſaid Emperour publiſhed à certain proclamation, wherein he excuſed himſelf for not comming abroad to manage the affaires of the State, becauſe he was ſick of the cholique; the Senat and people reading this ſtrange name of an vnknowne maladie, entred into a deep diſcourſe with themſelues, what to thinke and make of it? But what ſhould we ſay of all theſe kinde of diſeaſes? and what an anger and diſpleaſure of the gods is this, thus to plague and puniſh vs? Was it not enough to haue ſent amongſt men into the world a certaine number of maladies otherwiſe, and thoſe not ſo few as three hundred, but we muſt be in feare and danger ſtill euery day of new? and yet ſee! as many as there be of them comming by the hand of God, yet men thorow their owne exceſſe and diſorders, bring as many more vpon themſelues, and be cauſes ſtill of farther troubles & miſeries. Well, thus you ſee by that which I haue written in the former bookes, what was the old Phyſicke in times paſt; namely, conſiſting of the ſimples onely found in dame Natures garden, and how ſhe alone at the firſt and for a long time, was our Phyſitian and furniſhed vs with remedies for all diſeaſes.

* Some thinke it was an inflammation reembling our Carbuncle or Anthrax.

Chap. II.

¶ *The praiſe of Hippocrates, and other Phyſitians meere Simpleſts.*

Hippocrates verily had this honor aboue all men, That he was the firſt who wrote with moſt perſpicuity of Phyſicke, and reduced the precepts and rules thereof into the bodie of an art: howbeit, in all his bookes wee find no other receits, but herbes. Semblably, the writings of *Diocles* the Caryſtian, were no leſſe ſtored with the like medicines, and yet a famous Phyſitian he was, and both in time and reputation next and ſecond to *Hippocrates*. *Praxagoras* alſo, and *Chryſippus*, yea and after them *Eraſiſtratus* held on the ſame courſe. As for *Herophylus*, although he was the firſt that went more exquiſitly to work and brought in a more ſubtill and fine method of Phyſick, yet none eſteemed better of ſimples than hee. But ſurely, practiſe and experience (which as in all things elſe is found to be moſt effectuall, ſo in the profeſſion of Phyſick eſpecially) began in his daies by little and little to ſlake, vntil in the end al their Phyſicke proued nothing but words and bibble babbles; for beleeue me, his ſchollers and diſciples thought it more for their eaſe and pleaſure to ſit cloſe in the ſchooles and heare their doctours out of the chaire diſcourſe of the points of Phyſicke, than to go a ſimpling into the deſarts and forreſts to ſeeke and gather herbs at all ſeaſons of the yere, ſome at one time, and ſome at another.

Chap. III.

¶ *Of the new practiſe in Phyſicke · of Aſclepiades the Phyſitian: and what courſe he tooke to alter and aboliſh the old Phyſicke for to bring in the new.*

WHat cunning means ſoeuer theſe new Phyſitians could deuiſe to ouerthrow the antient manner of working by ſimples, yet it maintained ſtill the remnants of the former credit, built ſurely vpon the vndoubted grounds of long experience; and ſo it continued till the daies of *Pompey* the Great, at what time *Aſclepiades* a great Oratour and profeſſor of Rhetoricke went in hand to peruert and reiect the ſame: for ſeeing that he gained not by the ſaid Art ſufficiently, & was not like to ariſe by pleading cauſes at the bar, to that wealth which he

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A he deſired (as he was a man otherwiſe of a prompt wit and quick ſpirit) he reſolued to giue ouer the law, and ſuddenly applied himſelfe to a new courſe of Phyſick. This man hauing no skill at all, and as little practice, conſidering he neither was well ſtudied in the Theoricke part of this ſcience, nor furniſhed with knowledge of remedies which required continuall inſpection & vſe of ſimples, wrought ſo with his ſmooth and flowing tongue, and by his daily premeditat orations gained ſo much, that he withdrew mens mindes from the opinion they had of former practiſe, and ouerthrew all. In which diſcourſes of his, reducing all Phyſick to the firſt and primitiue cauſes, he made it a meere coniecturall Art; bearing men in hand, that there were but fiue principall remedies which ſerued indifferently for all diſeaſes; to wit, in Diet, Abſtinence in meat, Forbearing wine otherwhiles, Rubbing of the body, Walking, and the * Exerciſe of ge-
B ſtations. In ſum, ſo far he preuailed with his eloquent ſpeech, that euery man was willing to giue eare & applauſe to his words: for being ready enough to beleeue thoſe things for true, which were moſt eaſie; and ſeeing withall, that whatſoeuer he commended to them, was in each mans power to perform, he had the general voice of them: ſo as by this new doctrine of his, he drew al the world into a ſingular admiration of him, as of a man ſent & deſcended from heauen aboue, to cure their griefs and maladies. Moreouer, a wonderfull dexterity and artificiall grace he had to follow mens humors, and content their appetites, in promiſing and allowing the ſick to drink wine, in giuing them eftſoons cold water when he ſaw his time, and all to gratifie his patients. Now for that *Herophylus* before him had the honor of being the firſt Phyſitian who ſearched into the cauſes of maladies: and becauſe *Cleophantus* had the name among the Antients, for bring-
C ing wine into requeſt and ſetting out the vertues thereof: this man for his part alſo, deſirous to grow into credit & reputation by ſome new inuention of his own, brought vp firſt the allowing of cold water beforeſaid, to ſick perſons; & (as *M. Varro* doth report) took pleaſure to be called the Cold-water Phyſitian. He had beſides other pretty deuiſes to flatter & pleaſe his patients, one while cauſing them to haue hanging litters or beds like cradles, by the mouing & rocking whereof too and fro, he might either bring them aſleep, or eaſe the pains of their ſicknes; otherwhiles ordaining the vſe of bains, a thing that he knew folk were moſt deſirous of: beſides many other fine conceits very plauſible in hearing, and agreeable to mans nature. And to the end that no man might think this ſo great alteration and change in the practiſe of Phyſick, to haue bin a blind courſe and a matter of ſmal conſequence, one thing aboue the reſt that woon him-
D ſelfe a great fame, and gaue no leſſe credit and authority to his profeſſion, was this, that meeting vpon a time by chance with one he knew not, carried forth as a dead corſe in a biere for to be burned, he cauſed the body to be carried home from the funerall fire, and reſtored the man to health again. Certes, this one thing, wee that are Romanes may be well aſhamed of and take in great indignation, That ſuch an old fellow as he, comming out of Greece (the vaineſt nation vnder the ſun) & beginning as he did of nothing, ſhould only (for to inrich himſelf) lead the whole world in a ſtring, and on a ſudden ſet down rules and orders for the health of mankind, notwithſtanding many that came after him, repealed as it were, and annulled thoſe lawes of his. And verily, many helps had *Aſclepiades*, which much fauored his opinion and new Phyſick; namely, the manner of curing diſeaſes in thoſe daies, which was exceeding rude, troubleſome, & pain-
E full; ſuch adoe there was in lapping and couering the ſicke with a deale of cloaths, and cauſing them to ſweat by all meanes poſſible: ſuch a worke they made ſometime in chafing and frying their bodies againſt a good fire, but euery foot in bringing them abroad into the hot Sunne, which hardly could be found within a ſhadie and cloſe citie as Rome was. In lieu whereof, not onely there, but throughout all Italy (which now commanded the whole World, and might haue what it liſt) hee followed mens humours in approouing the artificiall baines and vaulted ſtouves and hot houſes, which then were newly come vp and vſed exceſſiuely in euery place by his approbation. Moreouer, he found means to alter the painefull curing of ſome maladies, and namely of the Squinancie; in the healing whereof other Phyſitians before him went to worke with a certain inſtrument which they thruſt down into the throat. He condemned alſo (& wor-
F thily) that dog-phyſick which was in thoſe daies ſo ordinary, that if one ailed neuer ſo little, by and by he muſt caſt and vomit. He blamed alſo the vſe of purgatiue potions, as contrary and offenſiue to the ſtomack; wherein he had great reaſon and truth on his ſide: for to ſpeake truely, ſuch drinks are by moſt Phyſitians forbidden, conſidering our chiefe care and drift is in all the courſe of our phyſick, to vſe thoſe means which be comfortable and wholſom for the ſtomack.

* i. Riding on horſebacke, carrying in a coach, litter, barge, &c.

Chap. IIII.

¶ *The fooliſh ſuperſtition of Art-Magicke, which here is derided. Of the tettar called Lichen: remedies proper for it, and the diſeaſes of the throat.*

ABoue all other things, the ſuperſtitious vanities of Magitians made much to the eſtabliſhing of *Aſclepiades* his new Phyſicke; for they in the heigth of their vanity, attributed ſo ſtrange and incredible operations to ſome ſimples, that it was enough to diſcredit the vertues of them all. Firſt, they vaunted much of Æthyopus, an hearbe which (by their ſaying) if it were but caſt into any great riuer or poole, it would draw the ſame dry; and was of power (by touching onely) to open lockes, or vnbolt any dore whatſoeuer. Of Achœmenis alſo another herb, they made this boaſt, That beeing throwne againſt an armie of enemies ranged in battel array, it would driue the troups and ſquadrons into feare, diſorder their ranks, and put them to flight. Semblably, they gaue out and ſaid, that when the king of Perſia diſpatched his Embaſſadors to any forrein ſtates and Princes, he was wont to giue them an herb called Latace, which ſo long as they had about them (come where they would) they ſhould want nothing, but haue plenty of all that they deſired: beſides a number of ſuch fooleries wherewith their bookes bee peſtered. But where, I beſeech you, were theſe herbs when the Cimbrians and Teutons were defeated in a moſt cruell and terrible battell, ſo as they cried and yelled again? What became of theſe Magitians and their powerfull herbs, when *Lucullus* with a ſmall army conſiſting of ſome few legions, ouerthrew and vanquiſhed their owne kings? If herbs were ſo mighty, what is the reaſon (I pray you) that our Romane captaines prouided euermore aboue all things how to be furniſhed with victuals for their camp, and to haue al the waies and paſſages open for their purueiours? In the expedition of Pharſalia, how came it to paſſe that the ſouldiers were at the point to be famiſhed for want of victuals, if *Cæſar* by the happy hauing of one hearbe in his campe, might haue injoied the abundance of all things? Had it not bin better think ye, for *Scipio Aemilianus* to haue cauſed the gates of Carthage to flie open with the help of one herbe, than to lie ſo many yeres as he did in leaguer before the city, & with his engins & ordinance to ſhake their wals, & batter their gates. Were there ſuch vertue in Ethiopius aforeſaid, why dowe not at this day dry vp the Pontine lakes, and recouer ſo much good ground vnto the territory about Rome? Moreouer, if that compoſition which *Democritus* hath ſet downe and his bookes maketh prayſe of, to be ſo effectual, as to procure men to haue faire, vertuous, and fortunat children, how happeneth it that the kings of Perſia themſelues could neuer attaine to that felicity? And verily wee might maruell well enough at the credulity of our Anceſtors in doting ſo much vpon theſe inuentions (howſoeuer at the firſt they were deuiſed and brought in, to right good purpoſe) in caſe the mind and wit of man knew how to ſtay and keepe a meane in any thing els beſides: or if I could not proue (as I ſuppoſe to doe in due place) that euen this new leech-craft brought in by *Aſclepiades* which checketh thoſe vanities, is growne to farther abuſes and abſurdities than are broched by the very Magitians themſelues. But this hath beene alwaies and euer will bee, the nature of mans mind, To exceed in the end and go beyond all meaſure in euery thing which at the beginning aroſe vpon good reſpects and neceſſary occaſions.

But to leaue this diſcourſe: let vs proceed to the effects and properties remaining behind of thoſe herbs which were deſcribed in the former booke; with a ſupplement alſo and addition of ſome others, as by occaſion ſhall be offered and preſented vnto vs. Howbeit, to begin firſt with the remedies of the ſaid Tettars (ſo foule and vnſeemly diſeaſes) I mean to gather a heape of as many medicines as I know appropriat for that maladie, notwithſtanding I haue ſhewed alreadie of that kind not a few. Well then, in this caſe, Plantaine ſtamped is very commendable: ſo is Cinquefoile and the root of the white Daffodill, punned and applied with vineger. The young ſhoots or tender branches of the fig-tree boiled in vineger: likewiſe the root of the * Marſh-Mallow ſodden with glew in a ſtrong and ſharpe vineger to the conſumption of a fourth part. Moreouer, it is ſingular good to rub tettars throughly with a pumiſh ſtone firſt, to the end that the root of Sorrell ſtamped and reduced into a liniment with vineger, might be applied afterwards therupon with better ſucceſſe; as alſo the floure of * Miſelto tempred & incorporat with quick-lime: the decoction likewiſe of Tithymale together with roſin, is much praiſed for this cure: but the herb Liuerwort excelleth all the reſt, which therupon tooke the name Lichen: it groweth

* *Hibiſci*, ſome take it for the Hollyhocke.

* *viſci*, ſome read *Hibiſci*.

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A groweth vpon ſtony grounds, with broad leaues beneath about the root, hauing one ſtalke and the ſame ſmall, at which there hang downe long leaues: and ſurely this is a proper herb alſo to wipe away all marks and cicatrices in the skin, if it be bruiſed and laid vpon them with hony. Another kind of * Lichen or Liuerwort there is, cleauing wholly faſt vpon rockes and ſtones in manner of moſſe, which alſo is ſingular for thoſe tettars, being reduced into a liniment. This herb likewiſe ſtancheth the flux of bloud in green wounds, if the iuice be dropped into them: and in a liniment, it ſerueth well to be applied vnto apoſtumat places: the iaundiſe it healeth, in caſe the mouth and tongue be rubbed and annointed with it and hony together: but in this cure the Patients muſt haue in charge, To bathe in ſalt water, to anoint themſelues with oile of almonds, and in any caſe to abſtain from all ſalads and pothearbs of the garden. For to heale tettars, the root of Thapſia ſtamped with hony is much vſed.

* Our common Liuerwort.

B As for the Squinſie, * Argemonia is a ſoueraigne remedy if it be drunk in wine: Hyſſop alſo boiled in wine and ſo gargarized: likewiſe Harſtrang with the rennet of a Seale or Sea-calfe, taken both of them in equall portion: moreouer, Knot-graſſe ſtamped with the pickle made of Cackrebs and oile, and ſo gargled, or els but held only vnder the tongue: Semblably, the iuice of Cinquefoile, being taken in drink to the quantity of three cyaths: this iuice beſides, in a gargariſme, cureth all other infirmities of the throat. And to conclude with Mullen; if it be drunk in water, it hath a ſpeciall vertue to cure the inflammation of the amygdals or almond kernels of the throat.

* Which ſome take to be wild Poppy, called *Rœas*.

C

Chap. V.

¶ *Receits for the ſcrophules ar wens called the Kings-euill: for the paines and griefes of the fingers: for the diſeaſes of the breaſt, and namely for the Cough.*

PLantaine is a ſoueraigne herb to cure the Kings euill: alſo Celendine applied with honey and hogs lard: ſo is Cinquefoile. The root of the great Clot-bur ſerueth for the ſame purpoſe, if it be incorporat with hogs greaſe, ſo that the place after it is annointed therewith, be couered with a leafe of the ſaid Bur laid faſt vpon it: in like manner Artemiſia or Mugwort: alſo a Mandrage root applied with water, is good for that purpoſe. The broad leafed Sideritis or Stone-ſauge, being digged round about with a ſpike of yron and taken vp with the left hand, and ſo applied vnto the place, cureth the kings euill; prouided alwaies, that the Patients when they be healed, keep the ſame herbe ſtill by them, for feare leaſt it being replanted againe by theſe Herbariſts (ſuch is the malicious ſorcerie of ſome of them as I haue already ſhewed) the malady returne and be as bad as it was before: the like caueat I find giuen vnto them, who are cured of this diſeaſe either by Mugwort or Plantaine. The herb Damaſonium, called likewiſe * Aliſma, if it be gathered about the Summer ſolſtead, applied vnto the foreſaid wens with rain water, is ſingular good for them; for which purpoſe, the leaues are to be ſtamped, or the root bruſed and incorporat with hogs greaſe, and ſo applied in a liniment; with charge, That the place be couered with a leafe of the ſame: in which manner prepared and vſed, it ſerueth to allay all

D

K

* *Alcea* in ſome readings.

g pains in the nape of the neck, and to keep downe or diſſipat the ſwelling in any part of the body. There is an herb growing commonly in meadows, called the Daiſie, with a white floure, & partly inclining to a red, which if it be ioined with Mugwort in an ointment, is thought to make the medicine far more effectual for the kings euil. Condurdum is an herb of ſmal continuance, for about the Summer Solſtice it ſheweth a red floure and ſoon ſheddeth the ſame: which (as they ſay) if it be hanged about the neck, repreſſeth and keepeth vnder the foreſaid diſeaſe: the like doth Veruaine together with Plantaine, vſed and worne in the ſame manner.

L

Touching all the accidents happening to the fingers, and namely the excreſcences & riſings of the skin about the roots of the nailes, called in Greeke Pterygia, Cinquefoile is a ſingular good herb for them.

M

F Amongſt all the infirmities of the breaſt, the cough is moſt troubleſome and grieuous, for which, the root of Panaces in ſweet wine is a ſoueraigne remedie. The iuice of Henbane is excellent for them alſo that reach vp bloud out of the breaſt: and the very ſmoke therof as it burneth, is as proper for them that cough. In like manner, Scordotis beeing dried and made into pouder, afterwards mingled with creſſes and roſin, and ſo reduced into a liquid confection or

lohoch,cureth the cough. The ſaid herb taken ſimply by it ſelf alone, raiſeth tough flegme out of the breſt,and cauſeth it to break from the Patient with eaſe. The like effect hath Centaurie the greater, yea though a man did bring vp bloud: for which infirmity,the juice of Plantain alſo is thought to be ſingular. Betony taken in water to the weight of three oboli,is of great force againſt the ſpitting of bloud, and raiſing vp of filthy matter out of the cheſt. The root of the great bur hath the like vertue, if it be eaten to the weight of one dram with 11 Pine-nuts. The juice of Harſtrang,as alſo Galangale,is good for the pain in the breſt;and therfore they go both of them into preſeruatiues and antidots which ſerue for counterpoiſons. The Carot likewiſe helpeth thoſe that cough;like as the herb Scythica (which is the wild Caraway;) for beeing drunk to the weight of 3 cyaths in ſweet wine cuit, it is generally good for all diſeaſes of the breſt,for the cough,and helpeth ſuch as fetch vp filthy and rotten matter. G H

Chap. VI.

¶ *Of Mullen or Lungwort: of Cacalia: of Folefoot called Tuſſilago or Bechium; and of Sauge: herbs all appropriate for the cough.*

MVllen or Lungwort with the yellow golden floure,being in like maner taken to the ſame quantity,eaſes the foreſaid infirmities. Certes this herb is of that efficacy in theſe caſes, that if a drench thereof be giuen to horſes, which not onely haue the cough,but alſo bee broken winded,it wil help them:the ſame effects I find attributed to Gentian. The root of Cacalia ſoked in wine and chewed,is good not onely for the cough but alſo for the infirmities in the throat. Take 5 branches or ſlips of hyſſop,and two ſprigs of rue,with 3 figs, ſeeth theſe together,it is an excellent drink for to diſcharge the breſt of flegme that ſtuffeth it. Folefoot,called in Greek Bechion,that is to ſay in Latin*Tuſſilago,doth appeaſe the violence of the cough. Two kinds there be of this herb: the wild, which whereſoeuer it is ſeene to grow, ſheweth that there is water vnder it:a thing that they know well enough who ſeek for ſprings, for they take it to be an aſſured ſign and direction to water: it beareth leaues like to Iuy, but ſomwhat bigger, either 5 or 7 in number,which vnderneath or toward the ground be ſomwhat whitiſh,but aboue in the vpper ſide,of a pale colour,without floure,ſtem,or ſeed,and the root is but ſmall. Some would haue it and Chamæleuce both, to be one and the ſame herb called by diuers names:take this herb,leaſe and root together,when they be dried, ſet all on fire and receiue the ſmoke by a pipe,as if you would ſuck or drinke it downe,it is (they ſay)a notable medicine to cure an old cough;but between euery pipe you muſt ſip a pretty draught of ſweet wine. The ſecond Bechion ſome would haue to be called Saluia,an herb like vnto Mullen: ſtampe the ſame,and let the juice run through a ſtreiner;which being made hot,drink it for the cough and pain in the ſides. This herb likewiſe is very effectuall againſt ſcorpions & ſea-dragons. Alſo an inunction made therwith and oile together,is commended much for the ſting of ſerpents. A bunch of hyſſope ſodden with three ounces of hony,is a fine medicine for the cough. I K

*i. Cough-wort.

Chap. VII.

¶ *For the paine of the ſides and breaſt: for thoſe that cannot draw their wind but ſitting vpright: for the paine of the liuer: the heart ach: for the lights: difficulty of vrine: the cough: the breaſt: vlcers: for the eies: for the flux of the belly, occaſioned by a feeble liuer: againſt immoderat vomits: for the yex, the pleuriſie,and all griefes of the ſide.* L

LVngwort or Mullen drunke in water with Rue,is very good for the pain of the ſides and the breſt: for which purpoſe alſo, they ſay, that pouder of Betony is as good, if it be taken in water wel warmed. The juice of Scordotis is holden to be a great corroboratiue of the ſtomack: ſo is Centaury alſo & Gentian,drunk in a draught of water. Plantain either eaten alone by it ſelfe,or with a gruell & broth of Lentils,or els with a frumenty potage made with wheat, is comfortable to the ſtomack. Betony,although otherwiſe it lie heauy in the ſtomacke; yet if one either chew the leaues,or drink them in ſome broth,it helpeth much the defects & infirmities thereof. In like caſe Ariſtolochia if it be taken in drinke. Alſo Agaricke chewed drie, ſo as betwixt whiles the patient ſup a little of pure wine of the grape,hath like vertue: as for Nymphæa M

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A phœa or Nemphar ſyrnamed Heraclia, it ſtrengtheneth the ſtomacke, applied outwardly in a liniment: euen ſo doth the juice of Harſtrang. For the hot diſtemper of the ſtomacke, it is good to lay vnto it the herbe Flea-wort or Cotyledon, otherwiſe called Vmbilicus veneris, ſtamped with fried Barly meale into a cataplaſme: or els to take Iubarb, *i.* Sengreen, to the ſame effect. The herbe Molon hath a ſtem * chamfered or channelled along: ſoft leaues, & thoſe ſmall: a root foure fingers long, in the * end whereof it beareth an head like vnto Garlicke. Some call it Syron. Taken in wine, it helpeth the ſtomack and difficulty of drawing breath: In which caſes the greater Centaury is ſingular, if it be reduced into a lohoch or liquid electuary. Plantain alſo eaten any way, either in a green-ſauce or ſallad. This compoſition is reputed a ſoueraign me-
B dicine, Take of Betony ſtamped the weight of one pound, of Atticke hony as much, incorporat them together, and hereof drinke euery day the quantity of halfe an ounce in ſome conuenient liquor, or in water warm. Ariſtolochia or Agarick are ſoueraigne meanes to be vſed in theſe infirmities, if one drinke the weight of three oboli thereof, either in warme water or aſſes milke. The herb Ciſſanthemos is good to be drunk for thoſe that be ſtreight winded, and muſt ſit vpright when they draw their breath. In the like caſe Hyſſop is commended: as alſo for purſiuenеſſe and ſhortneſſe of wind. The juice of Harſtrang is an ordinary medicine for the griefe of the liuer, the pains alſo of breſts and ſides, in caſe the Patient be cleare of the ague. As for Agarick, it helpeth all ſuch as ſpit bloud, if the pouder thereof, to the weight of one Victoriat, be giuen in fiue cyaths of honied wine. Of the ſame operation is Amomum. But particularly for the liuer, the herb Teucria is thought to be ſoueraign, if it be taken freſh & green to the weight
C of foure drams in one hemine of water and vineger mixed together. One dram of Betony giuen in three cyaths of warm water, or in tw ain of cold, is thought to be a ſingular cordiall. The iuice of Cinquefoile helpeth all the imperfections of the liuer and lights, it cureth them that voyd or reach vp bloud, and generally it ſerueth for al inward corruptions and diſtemperatures of the whole maſſe of bloud. Both Pimpernels be wonderfull medicinable for the liuer. Fumiterre the herb whoſoeuer do eat, ſhal purge choler by vrine. Galangale is helpfull likewiſe rō the liuer, to the cheſt alſo, and the midriffe or precordial parts. The herb Caucon, named alſo *Ephedra, and by ſome Anabaſis, groweth ordinarily in open tracts expoſed to the wind: it wil clime vpon trees, and hang down from their boughs and branches. Leafe it hath none, but is garniſhed with a number of haires, which are no other but ruſhes indeed full of ioints and knots: the
D root is of a pale colour. Let this herb be beaten to pouder, and giuen in red wine that is greene and hard, it is good for the cough, for the ſhortneſſe of wind, and the wrings of the belly: it may be taken alſo in ſome other ſupping, whereto it were conuenient to put wine. In like ſort the infuſion of one dram of Gentian which hath lien ſteeped the day before, may be very wel taken in three cyaths of wine for thoſe purpoſes. Herb Benet or Auens hath a ſmall root of a blackiſh colour, which hath a good ſent: this herb not only cureth the pains of the breſt and ſide, but alſo diſcuſſeth all crudities proceeding of vnperfect digeſtion, by reaſon of the pleaſant ſauour that it hath. As for Veruaine, it is medicinable vnto all the prncipall and noble parts within the body: good for the ſides, the lungs, the liuer, and the breaſt: but moſt properly it reſpecteth the lungs; and namely, when the patient is in a phthyſick or conſumption, by the means of their
E vlcer. The root of Bearfoot, an herb which I ſaid was but lately found out, is a preſent remedie for ſwine, ſheep, goats, & all ſuch cattel, in caſe they be diſeaſed in the lights, if it be but drawn croſſe through any of their eares. The ſame ought to bee drunke in water, and a piece thereof continually held vnder the tongue. As for any other part of this hearbe aboue ground, be it leafe, ſtalke, floure or ſeed, it is not yet certainly knowne, whether it be good or no for any purpoſe in Phyſicke. As for the kidneies, the hearbe Plantaine is good to be eaten; Betonie to be drunke; Agaricke alſo to be taken in drinke, like as for the cough. * Tripolium groweth vpon the rocks by the ſea ſide, on which the ſea-water beateth: ſo as a man cannot ſay, that it is either in the ſea or the drie land: in leafe it reſembleth woad, but that it is thicker: the ſtemme is a
F ſpan or hand-breadth high, forked, and diuided at the point: the root white, odoriferous, groſſe, and hot in taſte: when it is ſodden in a frumenty pottage of wheat, they giue it with good ſucceſſe to thoſe that be diſeaſed in the liuer: this is thought of ſome to be all one with Polium, whereof I haue ſpoken in due place. Symphonia or Gromphena, an herbe hauing leaues, ſome red, others greene, growing to the ſtem in order, one red and another greene, is a ſoueraigne medicine for ſuch as reach and void vp bloud, if it be taken in oxycrat, or vineger & water mingled together.

*Striato haply for ſtricto, *i.* ſlender, as *Oribaſius* deſcribeth it. ῥαβδοειδῆ λεπτὸν. * *Dioſcorides* deſcribeth his Moly with ſuch a head vpon the top of the ſtem.

*By theſe names he calleth alſo Horſtaile.

* A kind of Turbit.

together. Melandryum is an herb found growing in corn-fields & medows, with a white floure, and the ſame of a ſweet and pleaſant ſent: the ſmal ſtems therof be commended for the liuer, in caſe they be ſtamped & giuen in old wine. Chalcetum commeth vp in vineyards: which if it be punned, ſerueth for a good cataplaſme to be applied vnto the region of the liuer. The root of Betony taken to the weight of foure drams in wine cuit or honied wine, prouoketh vomit readily, as well as Ellebore. But for this purpoſe Hyſſope is better, being beaten in pouder, and giuen with honey: but order would be giuen before vnto the Patient, to eat Creſſes or Irio. * Molemonium alſo is of the like effect, if it be taken to the weight of one denier. Moreouer, the herb Silybum hath a white juice like vnto milke: which after it is thickened to the ſubſtance of a gum, is vſually taken to the foreſaid weight, with hony, for a vomitorie; and doth euacuat cholericke humors eſpecially. On the contrary ſide, wild Cumin and the pouder of Betony, if they be drunk with water, do ſtay vomiting. For to digeſt the crudities of the ſtomack, and to rid away the loathing to meat, Carrot is thought to be very good: ſo is the pouder of Betony, if it be taken in honied water. And Plantain alſo boiled in potage after the manner of Coleworts or ſuch like potherbs. * Hemonium ſtaieth the painful yex or hocquet. In like ſort Ariſtolochia. Clymenos giues liberty to draw the wind more freely. The greater Centaury and Hyſſop are ſingular in drink for the pleuriſie and inflammation of the lungs. The iuice of Harſtrang principally is a proper remedy for thoſe that haue the pleuriſie. Touching that Plant, which the French cal * Halum: the Venetians Cotonea: it is holden excellent for the griefe of the ſides, for the reines, thoſe that be plucked with the cramp, and burſten by any inward rupture: this herb ſomwhat reſembleth wild Origan or Marjeram, ſaue that in the head it is like rather vnto Thyme: ſweet it is in taſt, and quencheth thirſt: a ſpungeous and light root it hath, in one place white, in another black. Of the ſame operation for the paires, of the fide, is Chamærops, an herbe which hath leaues growing double about the ſtalk, and thoſe like vnto the Myrtle leaues: and bearing certain buttons or heads, much after the manner of the Greciſh Roſe; and the way to take it is in wine. Agarick drunk in that order as it was preſcribed for the cough, doth aſſuage the paine of the Sciatica and the back bone. Semblably, doth the pouder of dried Stœchas or Betony, if it be taken in mead or honied water.

* Or Polemonium.

* Ceterach.

* Bigle, or *Symphytum Petræum.*

G H I K L M F

Chap. VIII.

¶ *Of all the infirmities and remedies of the belly, and thoſe parts that either be adioining to it, or within contained. The means how to looſen and bind the belly.*

TOuching the panch or belly, much ado there is with it: and although moſt men care for nothing els in this life, but to content and pleaſe the belly, yet of all other parts it putteth them to moſt trouble: for one while it is ſo coſtiue, as that it will giue no paſſage to the meat; another while ſo ſlippery, as it will keep none of it: one time you ſhal haue it ſo peeuiſh, as that it can receiue no food; and another time ſo weake and feeble, that it is able to make no good concoction of it. And verily now adaies the world is growne to that paſſe, that the mouth and panch together are the chiefe meanes to worke our death. The wombe (I ſay) the wickedeſt veſſell belonging to our bodies, is euermore vrgent, like an importunat creditour, demanding debt, and oftentimes in a day calleth vnto vs for victuals: for the bellies ſake eſpecially we are ſo couetous to gather good; for the belly we lay vp ſo many dainties and ſuperfluities; to content the belly, we ſtick not to ſaile as far as the riuer Phaſis; and to pleaſe the belly, we ſeek & ſound the bottome of the deep ſeas: and when all is done, no man euer thinketh how baſe and abject this part of the body is, conſidering that filthy ordure and excrement which paſſeth from it in the end. No maruell then if Phyſitians be much troubled about it, and be forced to deuiſe the greateſt number of medicines for the help and cure thereof. And to begin with the ſtaying and binding of it: a dram of Scordotis the herbe, ſtamped greene and taken in wine, doth the feat; ſo doth the decoction thereof, if it be drunke. Alſo Polemonia is a ſoueraigne herb to be giuen in wine for the bloudy flix. The root of Mullen or Lungwort, taken to the quantity of two fingers in water, worketh the ſame effect. The ſeed of Nymphæa Heraclea drunk in wine, is of the like operation: ſo is the vpper part of the double root of Glader or the Flagge, miniſtred to the weight of two drams in vineger. To this purpoſe alſo ſerueth Plantaine ſeed, done into pouder

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A and put into a cup of wine: or the herb it ſelfe boiled with vineger, or els frumenty pottage taken with the juice thereof. Plantaine ſodden with Lentils, or the pouder of the dry herb ſtrewed like ſpice into drinke, together with the pouder of ſtarched Poppie. The iuice alſo of Plantain or of Betony put into wine that hath bin heat with a red hot gad of ſteele, either miniſtred by clyſtre or drunk, in the ſaid caſe is very commendable. Moreouer, the ſame Plantain or Betony is ſingular to be giuen in ſome green or auſtere wine, for thoſe who are troubled with the lask proceeding from a weake ſtomack: and for that purpoſe Iberis may be applied vnto the region of their belly, as I haue before ſaid.

In the diſeaſe Tineſmus (which is an inordinat quarrell to the ſtool, and a ſtraining vpon it, without doing any thing) the root of Nemphar or Nymphæa Heraclia, is ſingular good to bee
B drunk in wine: likewiſe Fleawort taken in water, & the decoction of * Galangale root: the juice of Houſleeke or Sengreene ſtoppeth the flux of the womb, ſtaieth the bloudy flix, and chaſeth out of the body the round worms. The root of Comfrey and of the Carot, ſtoppeth likewiſe the bloudy flix. The leaues of Houſleeke ſtamped and taken in wine, are ſingular good againſt the wringing torments of the belly. The pouder of dried Alcæa drunk, cureth the ſaid wrings. Aſtragalus, *i.* Peaſe Earth-nut, an herb bearing long leaues, indented with many cuts or jags, and thoſe which be about the root made bias: riſeth vp with three or foure ſtems full of leaues: carieth a floure like to the Hyacinth or Crow toes: the roots are bearded and full of ſtrings, enfolded one within another, red of colour, and exceeding hard in ſubſtance: it groweth in rockes and ſtonie grounds expoſed to the Sun, and yet charged or couered with ſnow the moſt part of
C the yeare, ſuch as is the mountain Pheneus in Arcadia. This herb hath an aſtringent power: the root if it be drunk in wine, bindeth the belly, by which means it prouoketh vrine, namely, by driving backe the ſerous and watery humors to the reines; like as moſt of thoſe ſimples that be aſtringent that way, are diureticall. The ſame root ſtamped and taken in red wine, healeth the exulceration of the guts, & thereby ſtaieth the bloudy flix: but ſurely hard it is to bruiſe or ſtamp it: the ſame is ſingular for the apoſtumation of the gums, if they be fomented therwith: the right ſeaſon to draw and gather thoſe roots, is in the end of Autumne, when the herb hath loſt the leaues, and then they ought to be dried in the ſhade. Both ſorts of Ladanum growing among corne, be excellent for to knit the belly, if they be ſtamped and ſearced. The manner is to drink them in mead, likewiſe in wine * to repreſſe choler. Now the herb whereof Ladanum is made
D is called Lada, & groweth in the Iſland Cypros, the liquor wherof ſticketh commonly to goats beards. The excellent Ladanum commeth out of Arabia. There is a kind of it made now adaies in Syria and Africke, which they call Toxicon: for that in thoſe countries the people vſe to take their bowſtrings lapped about with wooll, & trail the ſame after them among thoſe plants which beare Ladanum, and ſo the * tattie dew cleaueth therto. Of this Ladanum I haue written more at large in my treatiſe of ointments & redolent compoſitions: but this later kind is ſtrongeſt in ſauor & hardeſt in hande; and no maruell, for it gathereth much groſſe and earthy ſubſtance, whereas indeed the beſt Ladanum is commended and choſen, when it is pure, clear, odoriferous, ſoft, green, and full of roſin. The nature thereof is to ſoften, to drie, to concoct, and to procure ſleep: it retaineth the haire of the head being giuen to ſhed, and maintaineth the ſame
E blacke ſtill, that it turne not hoary: wholſom it is for the eares, if it be inſtilled into them with Hydromel (that is to ſay, mead or honied water) or els with oile Roſat. It cleanſeth the skin of dandruffe, and when it ſeemeth to pill: and withall, healeth the running ſcals of the head, if ſalt be mixed therewith. And being taken with Storax [Calamita] it cureth an inueterat cough but moſt proper it is for thoſe who belch ſoure and ſtrong. Moreouer, Chondris, which alſo is called baſtard Dictamnum, is a great binder of the belly: ſo is Hypociſthis, named by ſome Orobathion, much reſembling a green or vnripe Pomegranat. This plant growes (as I haue ſaid) vnder Ciſthus, whereupon it took the name. Both kinds of it (for twaine there be, to wit, the white and the red) being dried in the ſhade, ſtay a lask, if they be drunk in thick, auſtere, or green wine: the
F iuice only is vſed in Phyſick, the which is aſtringent and deſiccatiue: and the red kind is of the twaine more appropriat for the ſtaying or drying vp of rheumes; which if it be drunke to the weight of three oboli, is ſoueraigne for them that reach and raiſe vp bloud. Either drunke or clyſterized with Amyl, it cureth the bloudy flix. The like effects hath Veruaine giuen in water, yea, and in Amminean wine, if the Patient haue no ague hanging vpon him: with this proportion, that there be the quantity of fiue ſpoonefulls of the herb put to three cyaths of wine. Moreouer,

* *Acorũ*, which ſome take for our *Calamus Aromaticus*.

* *Ad bilẽ*: ſome read *nouile*.

* *Pinguedine roſcida*.

ouer, the herb Lauer, which loueth to grow in brooks and riuers, being either condite and preſerued, or els ſodden, allaieth the wrings of the belly. Water-ſpecke or Pondweed, called in Greek Potamogeton, is ſingular good for the dyſentery or bloudy flix; for the flux alſo which proceedeth from a weak ſtomack. This herb beareth leaues like to Beets, but that they be leſſe only and more hairy, or furred with a downe. A little it beareth aboue the water, and hath a peculiar property, which is refrigeratiue and aſtringent: the leaues alone be medicinable, & thoſe be good for the morimals in the legs: for cankerous and corroding vlcers, if they be applied in a cataplaſme with hony or vineger. *Caſtor* the Phyſitian deſcribeth this herb * Potamogeton after another ſort, namely with a ſmall ſlender long leafe like vnto horſe-haires, putting forth a long ſtem likewiſe, and the ſame ſmooth, growing alſo in waters. He vſed with the root of this herb to cure the Kings euill, and heale all hard tumors. This Potamogeton hath an aduerſatiue nature to Crocodiles alſo, and therfore they who hunt after them, carry this herbe ordinarily about them. In like maner Achillea ſtoppeth a lask. And the ſame effects worketh Statice, an herb running vp commonly in ſeuen ſtems, in the top bearing buttons or heads reſembling Roſes. * Ceratia beareth but one leafe, and hath a knotty and great root, which is good to be eaten for to cure the lask, occaſioned by the feeble ſtomacke, and the bloudy flix, proceeding from the vlcer of the guts. Lions-paw, commonly called * Leontopodion, by ſome Leuceoron, by others Dorypetron, and Thorybetron, hath a root which *bindeth the belly, and yet notwithſtanding purgeth choler: if it be taken to the weight of two denarij Roman, in mead or honied water. This herbe groweth in light and lean champian grounds. It is ſaid, that if the ſeed thereof be taken in drinke, it cauſeth ſtrange viſions and fantaſticall dreames. Harefoot, which the Greekes name Lagopus, drunke in wine, bindeth the belly: but if the Patient be in an ague, it would be taken with water: beeing applied and bound vnto the ſhare, it repreſſeth the tumors and riſings in thoſe parts: an herbe this is growing vſually among corne. Many there be, who for the dangerous bloudie flixe that is thought incureable, commend highly aboue all other herbes, Cinquefoile, in caſe the Patient drinke the roots thereof boiled in milke: and the like opinion they haue of Ariſtolochia, in caſe there be taken of the root to the weight of one victoriat in three cyaths of wine. Now this would be noted by the way, that in theſe caſes of aſtringency and binding, all the medicines before named which are to be taken warme, ought to be heat with a gad of ſteele, quenched in the liquor. Thus much of thoſe Simples that bind the belly.

C H I K

Contrariwiſe, the juice of Centaury the leſſe is a purgatiue, if a dram thereof bee taken in one hemine of water, together with ſome few cornes of ſalt and drops of vineger; for it doth euacuate choler. The greater Centaurie, commonly called Rhapontick, ſtilleth the wrings and griping paines of the belly. Betonie maketh the body looſe and ſoluble, taken to the weight of foure drams in nine cyaths of Hydromell or Mead. In like manner Euphorbium is laxatiue, & ſo is Agaricke, if two drammes thereof be drunke in water with a little ſalt, or to the weight of three oboli in mead or honied water. Sowbread alſo, named by the Greeks Cyclaminos, taken inwardly with water, or put vp by ſuppoſitories, prouoketh to the ſeege: ſo doth a ſuppoſitory made with the root of * Chamæciſſus. Take a good bunch or handfull of Hyſſope, ſeeth it in water with a little ſalt to the conſumption of a third part: it ſerueth to euacuat fleagme, if it be but applied as a liniment to the belly: or ſtamped and incorporat with oxymel and ſalt, in which maner vſed, it driueth worms out of the body. The root of Harſtrang purgeth both flegmatick and cholerick humors alſo. Pimpernel taken in mead, is a good purgatiue: ſo is Epithymum, which you muſt take to be the * floure of a kind of Thyme that reſembleth Sauery: here is the difference only, that this floure is of a graſſe green colour, but that of the other Thyme is white. Some call this Epithymum, Hippopheon: a ſimple not very wholſome for the ſtomack, ne yet good to prouoke vomit; howbeit, ſingular to appeaſe the wringing paines in the belly, and to carminate or diſſolue ventoſities. The ſame may be taken alſo by way of lohoch or liquid electuarie, confected with honey, and ſometimes with the Ireos root, for the ſtuffing and other imperfections of the breaſt. Epithymum looſeneth the belly, if it be taken from foure drammes to ſix, with honey, a little ſalt and vineger. Some Herbariſts deſcribe Epithymum otherwiſe, namely, that it groweth without any root, and that it reſembleth a little ſmal ſtring or thread like vnto haire, of a red colour: which if it bedried in the ſhade and drunke in water to the weight and meaſure of halfe an acetable, purgeth downeward fleagme and choler both.

L M

Nem-

* *Myriophyllon aquaticum Dodonæi.*

* *Dodon. Ophioglo ſſon* or Adders tongue.

* Our ladies Mantle.

* *Dalechampius* maruelleth how this may ſtand: and yet we ſee it ordinarie in the cure of dyſenteries and outragious Diarrhæs, to purge choler with Rubarbe, Myrabolanes, &c. and withthem alſo to bind.

* Which ſome take for groũd Iuie.

* Here *Pliny* is deceiũd: for it is a kind of lace winding about Thyme, as Doder about Flax.

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A Nemphir taken in ſome hard aſtringent or wine, * gently purgeth the belly. Alſo, Pycnocomon is laxatiue: an herb this is like vnto Rocket, but that the leaues be thicker in ſubſtance, and * grow more thin: it hath a round root, and the ſame yellowiſh, and ſenting much of the earth: the ſtem is foure cornered, of a mean height, ſmall and ſlender, and the floure much like to that of Baſill. Found it is ordinarily in ſtony grounds. The root of this hearb drunk in mead, to the weight of 2 deniers, doth euacuat downward by the belly, both cholericke and alſo flegmatick humors. The ſeed cauſeth troubleſome and vnquiet dreams, if one drinke a dram therof in wine. Fumiterre alſo * conſumeth and diſpatcheth the kings-euill. Polypodium (which wee cal in Latine Filicula) becauſe it is like vnto Fearn, purgeth choler. The root, which is only medicinable and in vſe, is ful of hairs, of a greeniſh colour within, as big commonly as a mans little finger: full of hollow concauities it is, repreſenting thoſe holes that the fiſhes called Polypi haue about their feet or clees: ſweetiſh it is in taſt, and groweth either vpon rocks, or * elſe at the foot of old trees. After that this root hath bin wel ſoked in water, they vſe to preſſe the iuice forth of it; or the ſame may be ſhred & minced ſmal, ſtrewed among pothearbs either of Beets or Mallows; yea, and put into the pot with them: or els tempered in ſome ſalt ſauce, or ſodden in broth: a fine medicine and a ſafe, gently looſing the belly, though the patient were in an ague: it doth euacuat choler and flegme both: but ſomwhat offenſiue it is to the ſtomack. The pouder of it dried, conueighed vp into the noſthrils, conſumeth the ill-fauoured ſore within, called Polypus or Noli-me-tangere. It * floureth, but ſeedeth not. Moreouer, Scammonie alſo ouerturns and hurteth the ſtomack, vnleſſe two drams of Aloe be put vnto as many oboli of it: for then it purgeth choler, and ſendeth it down by the belly. Now this Scammonie is the juice of a certain herb (called likewiſe Scammonea) which brancheth and tufteth immediatly from the root: the leaues be fat, white, and made triangle wiſe: the root thick, moiſt, and in handling wil make ones ſtomack to riſe, and be ready to heaue. It loueth to grow in battle grounds, and thoſe of a white leere. About the riſing of the great Dog-ſtar they vſe to make an hollow trough in the root as it groweth; to the end, that all the moiſture thereof may fall and gather into it: which liquor beeing dried in the Sun, is wrought and made into bals or trochisks. The root it ſelfe alſo is commonly dried, or at leaſtwiſe the rind thereof. In regard of the countrey where it groweth, that is commended moſt which commeth from Colophon, Myſia, and Priene: but if you reſpect the form, and look of it, chuſe that which is neat and clean, reſembling as neare as poſſibly may be, ſtrong Oxe glue, ſpungeous or fiſtulous, full of holes or paſſing ſmall pipes. If you go by other qualities, take that which wil ſoon diſſolue or melt: which alſo hath a ſtrong and ſtinking ſmel, clammy and gummy, turning into a whitiſh liquor like milk, if you taſte it at the tongues end, exceeding light in the hand, and when it is reſolued, growing to a whitiſh colour. And yet this property you ſhall ſee in that Scammonie which is ſophiſticate: and that ywis may ſoone be done, for do but take the meale or floure of Eruile and the iuice of the ſea Tithymal (& ſuch is that commonly which commeth from Iudæa) it wil counterfeit the right Scammony: but ſuch ſtuffe as this offendeth the throat, and is ready to choke or ſtrangle as many as vſe it. Howbeit this may be ſoon found by the very taſt only: for the Tithymall ſetteth the tongue in a heat as if it were a bulb root: and is not good to purge, whether a man take it faſting or full. As for the true and ſincere Scammony, they were wont to exhibit it for a purgation euen ſimply by it ſelf alone in a draught of mead with ſome ſalt, and the doſe was four oboli. But it was found to do the deed beſt, and moſt effectually taken with Aloe: ſo that the patient, when it began once to worke, took a prety draught of ſweet honied wine. Furthermore, the root if it be boiled in vineger to the conſiſtence of hony, maketh a ſingular liniment for to annoint the leproſie; yea, and in caſe of head-ach it is found good to annoint the head with it & oile together. As for the Tithymall aforeſaid, our countrymen here in Italy, ſome call it Lactaria, as one would ſay, the Milke herb; other Lactuca caprina, *i.* Goats Lectuce. It is commonly ſaid, that with the milke or juice of theſe Tithymals, a man may write vpon the skinne of the body: for draw any letters therewith and ſtrew aſhes or duſt thereupon, when they be drie, they will appeare very legible. And this is a tricke practiſed by thoſe that make court vnto other mens wiues their miſtreſſes, deliuering their minds ſecretly vnto them by this means, which they dare not ſet down in paper or miſſiue letters. Many kinds there be of theſe * Tithymals. The firſt is known by the addition of Characias, which alſo is called the male Tithymall: the * branches be of a finger thicknes, red, * riueled, 5 or 6 in number, running vp to the height of a cubit: and leaued they be immediatly

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* *Cuius contrarium verũ eſt*, for it is a binder.

* how is it then called *Pycnocomon*?

* I ſee not how this ſhould ſtand here.

* Yea & in the head of old doddle Okes.

* It beareth neither floure nor ſeed.

* or Spurges.

* *Ramis*, rather *caulibus*, the ſtems, out of *Dioſcor.*

* *Rugoſis*. Dioſ. hath *ſuccoſis*, *i.* full of ſap.

atly from the root,which hang downward inclining to the earth : but in the top it hath an hairy G
tuft or head in manner of ruines. This groweth in rough places and rocks by the ſeas ſide. The ſeed together with the hairy buſh that it hath, they vſe commonly to gather in Autumn:which after it be dried in the Sun,they ſtamp and then lay vp againſt their need. As for the iuice,men draw it about the time that Quinces begin to ripen and gather a downe about them: for then they breake the ſprigges and tender crops of the plant, out of which there iſſueth the iuice or milk,which they receiue either in Eruile floure,or els vpon figs, that it may dry with them together. Now it is ſufficient to let fiue drops fall vpon euery ſuch fig:for this opinion they haue, that looke how many drops light vpon a fig,ſo many ſtooles ſhall hee haue who taketh that fig in a dropſie,to purge wateriſh humors. But in the gathering of this iuice or liquour, great heed muſt be taken,that no drop of it touch the eyes. There is a iuice alſo preſſed out of the leaues H
being bruiſed and ſtamped,but not ſo effectuall as the former. The decoction of the branches alſo is vſed to the ſame purpoſe. And the ſeed being ſodden,ſerueth to the making of certaine pils confected with hony,which are highly commended for purgatiues:the ſame ſeed * enclo-
ſed within wax,is good to be put into hollow teeth when they ake: in which caſe alſo,a colluti-
on made of the root boiled in wine or oile,is ſingular good,if they be waſhed therewith: With the iuice of this herb there is a liniment made for tettars and ringworms:and ſome there be who drink the ſame for to purge both vpward and downward,for otherwiſe an enimy it is to the ſto-
mack : in which potion if there be put ſome ſalt,it doth euacuat fleagme, but with ſalt petre it voideth cholerick humors. If the patient haue a mind to purge by ſeege,he ſhal do wel to drink
the iuice of Tithymall in water and vineger mingled together : but if he be diſpoſed to vomit, I
it is better to drink it in cuit or mead. The ordinarie doſe is three oboles thereof in a potion. But the better way is to take the figs prepared as is beforeſaid,after meat : and euen ſo taken,in ſome ſort the iuice doth ſting the throat and ſet it on fire. For to ſay a truth, of ſo hot a nature it is, that alone of it ſelfe,being applied outwardly vnto any part of the body, it raiſeth pimples and bliſters no leſſe than fire; in which regard,it is vſed for a cauſtick or potentiall cauterie:the ſecond kind of the Tithymall,is knowne by the name Myrſinites, which others call Caryites: The reaſon of the one name is this, for that it beareth ſharp pointed and prickie leaues in man-
ner of the Myrtle,but that they be ſomwhat more tender : and the ſame groweth in rough pla-
ces like as the former. The buſhy heads or tufts of this Tithymall, would be gathered when Barly beginneth to ſwell in the eare : & ſo they be let to take their drying in the ſhade 9 daies K
together : for in the Sun they wil be withered in that ſpace. The fruit which this plant beareth doth not ripen all together in one ſeaſon,but ſome part thereof remaineth againſt the next yere: and the ſaid fruit is called the Tithymal nut;which is the cauſe,that the Greeks haue impoſed vpon it that ſecond name Caryites. The proper time to gather and cut down this herb,is when corn is ripe in the field, and ready to be reaped or mowed. Which beeing waſhed, muſt after-
wards be laied forth a drying:& ſo they vſe to giue it with two parts or twice as much of black Poppie,yet ſo as the whole doſe may not exceed one acetable. This Tithymall is nothing ſo ſtrong a vomitory as the former,no more be the reſt,whereof I will ſpeak anone. Some there be who giue the leaues alſo with black poppy after the foreſaid proportion:& the very nut or fruit it ſelfe alone in mead or cuit,or els if they put any thing thereto,it muſt be Seſama : and truely L
in this maner it ſendeth flegmatick & chollerick humors away by ſeege. This Tithymal is ſin-
gular for the ſores in the mouth. But for cankerous and corroſiue vlcers indeed which corrode deep into the mouth,it is good to chew and eat the ſame with honey. The third kind of Tithy-
mall is called Paralius or Tithymalis. This herb puts forth round leaues: riſeth vp with a ſtalk a ſpan or handfull high : the branches be red and the ſeed white, which ought to be gathered
Ex Theophraſt. when the grape beginneth to ſhew [blacke] vpon the vine. And being dried and made into pou-
der, is a ſufficient purgation,ſo it be taken inwardly to the meaſure of one acetable : the fourth, kind is named Helioſcopium:the leaues wherof reſemble Purcellane, and from the root it puts forth 4 or 5 ſmall vpright branches,which be likewiſe red and half a foot high:the ſame alſo be
ful of iuice or milk. This herb delighteth to grow about town ſides,bearing a white ſeed,wher- M
in Doues & Pigeons take exceeding great pleaſure : which alſo is ordinarily gathered when the grape maketh ſome ſhew of ripening. It took this name Helioſcopium,for that it turns the heads which it beareth,round about with the Sun. Halfe an acetable thereof taken in Oxymel, purgeth choller downeward. And in other caſes vſed it is, like as the former Tithymall named
Characias.

* or rather the ſeed or milk is to be put into the hollow teeth: and the reſt which be ſound are to be defended with wax,according to *Dioſcorides.*

20030

A Characias. The fifth, men call Cypariſſias, for the reſemblance that the leaues haue to thoſe of the Cypreſſe tree: it riſeth vp with a double or threefold ſtem, and loueth to grow in champian places: of the ſame operation and vertue it is, that Helioſcopium and Characias beforenamed. The ſixth Tithymal, is commonly called Platyphyllos, although ſome name it Corymbites, others Amygdalites, for the reſemblance that it hath to the almond tree: there is not a Tithymal hath broader leaues than it, which is the reaſon of the firſt and vſuall name Platyphyllos: it is good to* kil fiſh: it purges the belly, if either the root, leaues, or iuice, be taken in honied wine or in mead, to the weight of foure drams: a ſpeciall vertue it hath to draw water downward from all other humors. The ſeuenth is called commonly Dendroides, and yet ſome giue it the name Cobion, others Leptophyllon: ordinarily it is found growing vpon rocks, and of all others car-

B rieth the faireſt head: likewiſe the ſtems be reddeſt, and the ſeed ſheweth in moſt plenty: the effects be all one with thoſe of Characias: as touching the plant called Apios Iſchas or Rhaphanos-agria, *i.* the wild Radiſh: it putteth forth two or three ſtalkes like bents or ruſhes, ſpreading along the ground, and thoſe be red, and the leaues reſemble rue: the root is like an onion head, but that it is larger, which is the reaſon that ſome haue called it the wild Radiſh: this root hath a white fleſhie ſubſtance within, but the skin or rind thereof is blacke: it groweth vſually vpon rough mountains, and otherwiſe in faire greens * full of graſſe. The right ſeaſon to dig vp this root, is in the Spring; which being ſtamped and ſtrained, they vſe to put in an earthen pot, where it is permitted to ſtand, & look what it caſteth vp and ſwimmeth aloft, they ſcum off and throw away: the reſt of the iuice thus clarified, purgeth both waies, if it be taken to the weight

C of one obolus & a half in mead or honied water: and in that maner prepared, it is giuen to thoſe that be in a dropſie, the ful meaſure of one acetable: the pouder alſo of the root dried, is good to ſpice a cup for a purgation: and (as they ſay) the vpper part of the root purgeth * choler vpward by vomit, whereas the nether part doth it by ſeege downward.

Now for the pains and wrings which oftentimes torment the poore belly: all the kinds of Panaces and Betony are ſingular to aſſuage and allay them plain, vnleſſe they be ſuch as are occaſioned by crudity and indigeſtion. As for the iuice of Harſtrang, it diſſolueth ventoſities, for it breaketh wind vpward and cauſeth one to rift: ſo doth the roots of * Acorus: alſo carots, if they be eaten in a ſalad after the maner of * Lettuce. For the infirmities proper to the guts, & name-

D ly the worms there breeding, Ladanum of Cypreſſe is ſoueraigne to be taken in drinke: in like maner the pouder of Gentian drunk in warm water, to the quantity of a bean: Plantain likewiſe hath the ſame effect, if there be taken of it firſt in a morning to the quantity of 2 ſpoonfuls, and of Poppy one ſpoonfull, in 4 cyaths of wine not very old: the ſame medicine may be giuen alſo laſt at a night to bedward; with ſome addition of ſal-nitre or fried barly meale, if it be long after meat: and one hemine of the iuice thereof is ſingular for the cholique, if it be miniſtred in a clyſtre, though the patient were in an ague. In caſes of the ſpleene, it is good to drink 3 oboles weight of Agarick in one cyath of old wine, for it cureth the ſpleen: and of the ſame operation is the root of all ſorts of Panaces, taken in honied wine: but for the accidents of the ſpleen, Teu-

E crion hath no fellow, if it be taken either dry in pouder, or boiled, to the quantity of one handfull in 3 hemines of vineger: and the ſame herb maketh a ſoueraigne ſalue for green wounds to be applied with vineger; or if the patient cannot indure it, with a fig or water in ſtead of vineger. Polemonia likewiſe is a good herb for the ſpleen, to be drunk in wine: ſo is Betony, taken to the poiſe of one dram in 3 cyaths of oxymell: and Ariſtolochia is likewiſe reſpectiue to this part, in caſe it be giuen vnto the patient as againſt the poiſon of ſerpents. If the Patient continue the eating of Argemonia ſeuen daies together with his meat, it will (as they ſay) in that time conſume and waſt the ſwelling ſpleen: & Agarick taken to the weight of 2 oboli in oxymell, is effectuall that way. The root of Nymphæa Heraclia or Nenuphar drunk in wine, is able of it ſelfe to conſume the ſame. Ciſſanthemos is an excellent herb for the ſpleene or milt: if a man take a dram of it twiſe a day in two cyaths of white wine, and hold on that courſe for fortie daies together, it wil (by report) rid away the diſeaſed ſpleen by vrine; to which purpoſe, the de-

F coction of hyſſop with figs ſerueth very well: euen ſo doth the decoction of Lonchitis, if it bee taken before it ſpindle and run vp to ſeed: alſo the root of Harſtrang boiled, is good for ſpleene and kidnies. Acorum, if it be taken in drink, conſumeth the milt.

For the Midriffe and Hypochondriall parts, or the ſmall guts lying in the flanke vnder the ſhort ribs, * Radiſh roots be ſingular. The ſeed of water Betony, if it be drunke thirty daies to-

* If it be punned into pouder & ſtrewed on the water, as ſaith *Dioſc.*

* *Herbofis: Theophraſtus* hath κατχναιώδη: that is to ſay, cragge or flintie: it ſeemeth that *Plinie* tranſlated χλωδη

* And fleſhie, ſaith *Dioſcor.*

* Which ſome take for Galangale, others for our Calamus.

* *i.* With vinegre and oile.

Radices.

gether, the weight of one denarius at once in white wine, is ſingular in that caſe: the pouder of Betony taken in drink with hony and vineger of Squilla, is commended for that purpoſe: as alſo the root of Lonchitis drunk in water; and Feucrium applied as a liniment. G

Scordum incorporat with wax, and Agarick with the pouder or floure of Fenigreek, help the infirmities of the bladder, and namely, the intollerable pains of the ſtone and grauell, as I haue beforeſaid. Polemonia drunk in wine; and in like manner Agaricke, is good for that purpoſe: the root or leaues of Plantaine taken in ſweet wine cuit; alſo Betonie, prepared in that manner as it was appointed for the diſeaſe of the liuer, be remedies for the infirmities of that part. Betonie alſo giuen in drink and applied in a liniment, healeth a rupture; and the ſame is moſt effectuall in curing the ſtrangury: ſome preſcribe and giue counſell to drink Betony, Veruaine, Yarrow, or Millefoile, of each a like portion in water, as an excellent remedy for the ſtone and grauel. And well knowne it is, that for to eaſe the ſtrangury and remoue the cauſe thereof, Dictamnus is an approued medicine: ſo is the decoction of Cinquefoile, if it be boiled in wine to the conſumption of a third part, found by experience to be an vndoubted remedy in that infirmity: the ſame alſo is ſingular good to be applied in that rupture where the guts be falne downe. The vpper root of Glader or Flags, cauſeth young infants to make water, if it be laid to the bottom of the belly: the ſame giuen inwardly with water, cureth thoſe that are burſt and haue their guts ſlipped downe; and helpeth the infirmities of the bladder in an outward liniment. The iuice of Harſtrang healeth little children who are burſten; and of Fleawort there is made a good ointment to annoint their Nauell, when it beareth out ouermuch. Both the Pimpernels do prouoke vrine: ſo doth the decoction of Acorus root: the very root it ſelfe alſo beaten into pouder, and taken in drink, worketh the like effect; and beſides, healeth all the accidents of the bladder. Cotyledon or Vmbelicus Veneris, both herb and root, breaketh the ſtone, and expelleth it by grauell; being otherwiſe ſingular good for all inflammations of the genitall parts or members of generation, if the ſtalks and ſeed be taken with Myrrhe, of each a like quantity: Walwort ſtamped together with the tender leaues thereof, and ſo drunk in wine, driueth out the ſtone: the ſame applied outwardly cureth the * accidents befalling to the cods. Ground ſwell, with the pouder of Frankincenſe and ſweet wine reduced into an ointment cureth the inflammation of the ſayd cods. The root of Camfrey brought into a liniment, ſtaieth the rupture whereby the guts come downe: and white Hypociſthis, repreſſeth the cancerous ſores in thoſe parts. Semblably Mugwort is ſingular to be giuen in ſweet wine, for the ſtone and ſtrangur'. The root of Nenuphar or Nymphæa Heraclia taken in wine, aſſuageth the paine and griefe of the bladder: of the ſame power is * Sampier, ſo highly commended by *Hippocrates*: now is this one of the wild woorts which are vſually eaten in ſalads: and certes, this is that very herbe which the good countrey wife *Hecale* forgat not to ſet vpon her boord in a feaſt that ſhe * made (as we may read in *Callimachus* the Poet:) And what is it but a kind of garden Batis? It groweth vp with one ſtem halfe a foot high, or a ſpan at moſt: the ſeed is exceeding hot, round and odoriferous like vnto Roſemary: if it be dried, it burſteth, and hath within a white kernell, which ſome call Cachrys. The leaues be fatty, and of a grayiſh white in manner of the oliue leafe, but that they be thicker, and ſaltiſh in taſt: roots it hath three or foure, of a finger thickneſſe: it groweth vpon the ſea coaſt among rocks and clifts. This herbe may be eaten, raw or boiled, it skilleth not how, with Beets, Coles, and other ſuch woorts; and in taſt likewiſe it is aromaticall and pleaſant: it is vſually preſerued and kept condite in a kinde of pickle: and the principall vſe that it hath, is to cure the ſtrangury, if either leafe, ſtalk, or root, be drunk in wine: alſo, beeing thus taken, it maketh folke look with a more louely, & cheerful colour: but if one be too bold with it, & vſe it not with moderation, it breedeth ventoſities. The decoction of Sampier maketh the body ſoluble, and is diureticall, for it mightly draweth water from the kidnies. In like manner, the pouder of dryed Althæa or Marſh-Mallow, drunk in wine, cureth the ſtrangury, and eaſeth them that piſſe dropmeale; which it wil do more effectually, if the Carot be ioined withall: the ſame is wholeſome for the ſpleen; and a counterpoiſon againſt ſerpents, if it be taken in drink. If the pouder thereof be ſtrewed and mingled among the barley which is giuen in Prouander vnto cart horſes and ſuch like, it helpeth them when they run at noſe with the glanders, and ſtale drop by drop. Touching the herb Anthyllion, it is as like as may be to Lentils, which if it be drunk in wine, cureth all the infirmities of the bladder; and namely, when there iſſueth forth bloud with vrin: there is another hearbe comming neare to it in name; to wit, Anthyllis, like vnto Iua Muſcata, or Chamæpitys, H I K L M

*To wit, when they be hard or ſwolne.

* Or *Creſtma-rine.*

* To prince *Theſeus.*

20030

A mæpitys,carrying purple flours,ſenting ſtrong, and hath a root like to Cichory,which is good in theſe caſes. But it ſeemeth that * Brooklime, called otherwiſe Cepæa (an herbe reſembling Purcellane,but that the root is blacker,and good for nothing in Phyſick,growing vpon the ſandy ſhore,and hauing a bitter taſte) is better for the ſaid infirmities than the former named Anthyllis; for if it be taken in wine with the root of Sperage, it is excellent for the diſeaſes of the bladder:of the ſame operation is * Hypericon,which ſome call Chamæpitys, others Corion. This herb * ſhooteth forth many branches,which be ſmall and ſlender,of a cubit in length,and red withall:in leafe it reſembleth rue; the ſmel is quick,hot,and piercing:the ſeed which it beareth within certain cods,is black,and the ſame ripeneth together with barly. The nature of the ſeed is aſtringent: it doth incraſſat and thicken humors,and ſtoppeth a lask:vrin it prouoketh; and being drunk in wine,ſcoureth away the ſtone and grauell in the bladder. A ſecond Hyperi-

B con there is, which ſome call Coris, in leafe it reſembleth * Tamarix, vnder which it gladly groweth,but that the leaues be more fat,and not ſo red:it groweth not aboue a *ſpan high:odoriferous to ſmell vnto,and of a mild ſweet taſt,and yet * ſharp withall. The ſeed is hot,and therfore cauſeth ventoſities,and * inflation in ruptures:howbeit,vnto the ſtomack it is not hurtful: and ſingular good for the ſtrangury, in caſe the bladder be not exulcerat:drunk in wine,it cureth the pleuriſie. Moreouer,for the bladder and the diſeaſes thereof, Maiden-haire made into pouder together with Cumin,and giuen in white wine,is a ſoueraigne remedy; alſo Veruaine, ſodden leaues and all,vntill the third part of the liquor be conſumed or the very root only thereof taken in honied wine hot,expelleth the ſtones and grauel in the bladder. In like maner the herb

C Perpreſſa,which groweth at Aretium and in Sclauonia, being boiled in water from 3 hemines to one,and ſo taken inwardly as a drink, is an appropriate medicine for the bladder. Clauer or three leafed graſſe taken in wine; Camomile likewiſe * drunk,is good for the ſame. Moreouer, Anthemum expelleth the ſtone;an herb this is,which putteth forth immediatly from the root fiue ſmall leaues,and two long ſtems,with a red roſe colour floure: the roots ſtamped alone,are as effectual in this caſe as green* Lauer. As for Silaus,it groweth along thoſe riuers which run continually and be neuer dry,eſpecially ſuch as glide vpon ſand & grauel:it riſeth to the height of a cubit,and reſembleth garden Parſley:they vſe to ſeeth it after the maner of * Soure-docke, and ſo prepared,it doth much good to the bladder,which,if it be excoriat and ſcabbed,the root of Panaces will heale it; for otherwiſe it is hurtful to that part. The herb called * Malum Erra-

D ticum[*i.*as one would ſay,the wandring poiſon,or apple]it expelleth the ſtone, if one pound of the root be throughly ſodden in a congius or gallon of wine,vnto the conſumption of the half, ſo that the patient take thereof for three daies together one hemine at a time; and that which remaineth of the decoction,in wine,with Lauer & ſea-nettles. Alſo Carots and Plantaine ſeed taken in wine,drueth down ſtone and grauell. The nettle called Fulviana(an herb well knowne to them eſpecially that handle it,and which took that name of him who firſt found out the vertue thereof) if it be ſtamped and drunk in wine,prouoketh vrine.

Scordium is ſingular for the ſwelling of the genetoirs or cods. Henbane is good for the diſeaſes of the members ſeruing to generation. The iuice of Peucedanum [*i.* Harſtrang] incorporate with hony,like as the ſeed alſo taken inwardly, helpeth thoſe who are pained with the ſtrangu-

E rie; likewiſe Agaricke, if three oboli thereof be drunk in one cyath of old wine: the root of Trifoile or Clauer giuen to the poiſe of two drams in ſweet wine: and one dram of Daucum, *id eſt*, Carot]either the herb,root,or ſeed,haue the like effect.

Such as be troubled with the Sciatica or gout in the huckle-bone,finde remedy by a plaſter or cataplaſm,made with the ſeed and leaues both,of Madder; alſo with a drink of Panaces:likewiſe if the place be well rubbed with Polemonia, and bathed with the decoction of the leaues of Ariſtolochia,it finds much eaſe thereby. The broad ſinew or cord at the end of the muſcles which is called in Greek Platys;likewiſe the ſhoulders if they be pained,feele ſenſible alleviation,by Agaricke,if the weight of three oboli be drunk in one cyath of old wine. Cinquefoile both taken in drinke,and alſo applied as a plaſter,allaieth the paine of the Sciatica: ſo doth the

F herb Scammony boiled with barley meale. The ſeed of both the Hypericons drunke in wine,is proper for that malady.

The accidents of the ſeat or fundament,eſpecially when that part is fretted or galled,a ſalue of Plantaine healeth moſt ſpeedily.

The ſwellings or blind piles appearing like bigs or knuckles within the fundament,are cured

* *Becabunga.*

* S.*Iohns* wort
* *Surculaceo frutice.*

* *Tamaricis*: but *Dioſ.* ſaith *Ericæ.i.*Heath.
* *Palmo non altius,ex Dioſc.*
* *Acutum.*
* *Inflationem facit*: *aliter ad inflationem facit.*

* *Potum.*

* Water creſſes.

* *Olus acidum*, or rather, *Olus atrum*, *i.* Aliſanders.

* Some take it for *Ariſtolochia* the round, (which in the 8 chap. of the 25 booke hee named *venenũ terræ*) others for wildings or crabs.

with fiue-leafe graſſe: & if the ſaid part be turned the inſight outward, or diſplaced, there is not a better thing to ſettle and reduce it to the former ſtate, than a fomentation with the Cyclamin or Sowbread root and vineger together. Pimpernell with the blew floure, reſtoreth the tiwill or fundament into the right place, if it be falne downe and hang out of the body: and contrariwiſe, that with the red floure driueth it downe. Vmbilicus Veneris is of wonderfull operation in the cure both of the blind piles, and the running hæmorrhoids. The root of Acorus, [*i.* Galengale] ſodden in wine, ſtamped and brought into a liniment, aſſuageth the tumors or ſwellings of the cods. And *Cato* affirmeth. That whoſoeuer haue the Ponticke wormwood about them, ſhall not be galled betweene their legs.

* Or *Calamus Aromaticus.*

Chap. IX.

¶ *Of Penyroiall and Argemone.*

OThers adde moreouer Penyroiall to the foreſaid wormwood, & ſay, that if a man gather Peniroyall faſting and bind it faſt to the reins and ſmal of the back, he ſhal feel no griefe in the ſhare, or if he were pained already in that part, ſhall find eaſe thereby. * Inguinaria, which ſome name Argemony, is an herb growing euery where amongſt buſhes, briers, and brambles, which if it be but held in the hand, is thought to be excellent good for the accidents that befall the groin. Panaces made into a cataplaſme with hony, healeth the flat biles and botches that ariſe in the emunctories of the ſhare: and the like effect hath Plantaine, applied with ſalt, fiue-leafe, & the root of the great clot-bur, like as in caſe of the kings euill: euen ſo is * Damaſonium to be vſed. As for Taperwort or Mullen, if leafe root and all be ſtamped, with ſome ſprinckling of wine among, and be afterwards lapped within a leafe of the own, and ſo heat vnder the embers & laid to the grieued place hot, it is very good for the ſame purpoſe: & ſome affirm vpon their own knowledge, by the experience that they haue ſeen, that this cataplaſme wil work much more effectually, if a yong maiden all naked haue the applying of it to the ſaid bile; prouided alwaies, that both ſhe and he the patient be faſting: alſo that ſhe touch the ſore or impoſtume with the back-ſide of her hand, & in ſo doing ſay theſe words following, *Negat Apollo peſtem poſſe creſcere quam nuda virgo reſtinguat : (i.) Apollo* wil neuer ſuffer, that a botch which a naked virgin thus cureth ſhall poſſibly grow farther: which charm ſhe muſt pronounce thrice, after ſhe hath withdrawn her hand backe; and withall, both he and ſhe are to ſpit as often vpon the floore, that is to ſay, euery time that ſhe repeateth the foreſaid ſpell. Furthermore, the root of Mandragoras being applied with water, healeth theſe botches: ſo doth the decoction of the Scammonium root, reduced into a pulteſſe with hony. Alſo the herb Sideritis laid too, with old hogs greaſe: laſt of all, Chryſippea, incorporat with fat figs: where, by the way note, that this herb retaineth the name of him who firſt brought it to light.

* Some call it Shar ewort or Codwort, o. thers take it to be wild Tanſie, and ſome for *Rhœas.*

* Some take it for *Fiſtula paſtoris.*

* *Peſtem*, haply *hominem peſtilentialem*, a plague ſore.

Chap. X.

¶ *Of the water-Roſe, otherwiſe called Nenuphar. Of ſuch herbs as either heat or coole the aptite to luſt and venery. Of Satyrion or Ragwort,* * *with the red roots of Crategis and Sideritis.*

* Erythraick.

NYmphæa, which alſo is named Heraclea, if it be but once taken in drinke, diſableth a man altogether for the act of generation (as I haue ſaid before) 40 daies after: the ſame if a man drink faſting, or eat with his meat, freeth him from the dreams of imaginary *Venus*, which cauſe pollution. The root applied in a liniment to the genetoirs, doth not onely coole luſt, but alſo keep down and repreſſe the abundance of natural ſeed: in which regard, it is thought good to nouriſh the body and maintain a cleare voice. On the contrary ſide, the vpper root of Glader giuen to drink in wine, kindleth the heat of luſt: like as the herbe which they call Sampier Sauage: as alſo wild Clarie, being ſtamped and incorporat with parched barly meale. But in this caſe wonderfull is the herb Orchis both male and female, and few be like vnto it, for two kinds there be of it: the one beareth leaues like vnto the oliue, but that they are longer, riſeth vp with a ſtem foure fingers high, carrying purple floures, a double bulbous root formed like to a mans genitoirs, whereof the one ſwelleth and the other falleth by turns ech other yeare; and ordinarily it groweth neere the Sea ſide. The other is knowne by the name of Orchis Serapias, and

* Satyrions.

is

20030

A is taken to be the female: the leaues reſemble leeke blades, the ſtalke is a ſpan or hand-breadth high, and the flours be purple; the root likewiſe is bulbous & twofold, fathioned like to a mans ſtones or cullions; of which, the bigger, or (as ſome ſay) the harder, drunk in water, prouoketh the deſire to venery: the leſſer or the ſofter taken in goats milk, repreſſeth the foreſaid appetite. Some ſay it is leafed after the maner of Squilla or ſea-onion, ſaue that the leaues be ſmoother and ſmaller, and it putteth vp a ſtalk ful of pricks or thorns: the roots wherof, do heale the ſores in the mouth, and diſcharge the cheſt of fleame; but drunk in wine, do ſtop a laske. A power it hath alſo to ſtir vp fleſhly luſt, like as Satyrion: but this herb differeth from the other, in that it is diuided by joints or knots, and beſides buſheth more, and is fuller of branches: the root is thought to be good for ſorcery and witchcraft: the ſame alſo, either by it ſelfe alone reduced in-
B to pouder, or els ſtamped & incorporat with fried barly groats into a liniment, is ſingular good for the tumors and other riſings and impoſtumes in the ſaid priuie parts or members of generation. The root of the former Orchis giuen to drinke in the milke of an ewe bred vp at home of a cade lambe, cauſeth a mans member to riſe and ſtand; but the ſame taken in water, maketh it to go down againe and lie. As for the Greekes, they deſcribe Satyrion with leaues like vnto the red Lilly, but that they be ſmaller, & no more in number than three, which ſpring directly from the root: the ſtem ſmooth, a cubit high, naked and bare without leaues, and it hath withall two bulbous roots; of which the nethermore, which alſo is the bigger, ſerueth to get boies; the vpper (and that is the leſſe) is as good to engender girles. They haue likewiſe another kinde of Satyrion, which they name Erythraicon, and it beareth certain grains or ſeeds reſembling that of
C * Chaſt-tree, or Agnus Caſtus, but that they be bigger and ſmooth: the root is hard and white within, the rind wherof is red, and in taſt is ſomwhat ſweetiſh: an herb ordinarily found (as they ſay) vpon mountains: and by their ſaying, the root is of that vertue, that if it be held onely in a mans hand, it wil cauſe the fleſh to riſe & incite him to the company of women; but much more will it ſet him in a heat if he drink it in ſome hard and green wine: in regard of which propertie, the manner is to giue it in drinke to goats and rams, if they be vnluſty and nothing forward to leape the females. The Sarmatians likewiſe miniſtred a drench made with this herb vnto their ſtone-horſes or ſtallions, when by reaſon that they are ouertrauelled and tired out of heart by continuall labour, they perceiue them to be ſlow and vnapt to couer mares, which defect the Greekes call by a proper and fit term Proſedamon. But ſay that one by taking of this root is o-
D uer luſty and too much prouoked that way, the means to abate and quench the heat & ſtrength thereof, is to drink mead or the juice of lettuce. In ſum, the Greeks generally when they would ſignifie any extraordinary wanton luſt or appetite to venery, haue a pretty name for it and call it Satyrion. And euen ſo they haue giuen a denomination to Cratægonon, which is an herbe diuided by knots or joints, buſheth and ſpreadeth with a number of branches, the ſeed whereof is hot, and the root of no validity or vſe in Phyſick: likewiſe they impoſed vpon other the names of Arrhenogonum and Thelygonum; the ſeeds or graines of which reſemble cods or cullions. Moreouer, it is ſaid, That whoſoeuer haue about them the marow or pith of the Tithymal branches, ſhall be very prone and forward to the ſports of *Venus*. *Theophraſtus*, a renowned author, and otherwiſe a graue and modeſt writer, exceedeth in this point, and telleth vs of ſtrange and in-
E credible wonders; and namely, of a man who was able to company with women ſeuenty times together, by touching or handling one only herb; but he hath not put downe either the name or portraiture of that herb.

Sideritis the herb, if it be bound to the ſwelling and painfull veins called Varices in Latine, doth not only diminiſh their tumor, but alſo appeaſe and take away their dolour.

Touching the gout, the time hath bin when it was not ſo common a diſeaſe as now it is; and not only in our fathers and grandſires daies, but euen in our age and within my remembrance it was no ordinary ſickneſſe here in Italy, as being a forrain malady and come out of ſtrange countries hither to vs: for certainly if it had bin known to the Italians in old time, I doubt not but it would haue found a Latine name to be called by. Neither is the gout a diſeaſe incureable, as
F ſome haue beleeued, for known it hath bin in ſome to haue worne away of it ſelfe without any medicines; but in many more, to haue been cured by the meanes of Phyſicke. Among the appropriat remedies for this malady, are to be ranged the roots of Panaces, applied in a cataplaſm with raiſins; the juice of Henbane or the ſeed, with the floure or pouder of Seſama; Scordium laid too in a pulteſſe with vineger; and the hearbe Iberis, as hath beene ſayd before: alſo

How ſoeuer *Dalecampius* and others haue laboured to reſtore this place after this manner, yet there remaineth ſome confuſion: by intermingling *Orchis* and *Satyrion* together, both in their deſcriptions and properties.

Vitex, *Dioſc.* hath *λίνῳ ἰδιάζει*, Line or Flax; not *ἄγνῳ*.

Podagra (vſed ordinarily in Latine for the gout, is a Greeke name, and ſignifieth the griefe or maladie of the feet.

Veruaine ſtamped and incorporat with hogs greaſe, is good for the gout: ſo is the root of Sow- G
bread, the decoction wherof healeth kibed heels, if they be bathed therin: the root of * Xiphion
cooleth the hot gout; the ſeed of * Pſyllium doth the ſame: Hemlock alſo, incorporat with Li-
tharge or hogs greaſe: but aboue all other, Houſleek or Sengreen is right ſoueraigne to be ap-
plied at the firſt aſſault or fit of the red gout (*i.*) when it is occaſioned by a flux of hot humors:
and whether it be hot or cold gout, Groundſwell tempered into a liniment with ſwines greaſe,
and ſo applied, is a very fit and conuenient medicine: as alſo Plantain leaues ſtamped, with a lit-
tle ſalt mixed among: and Argemonia punned in a mortar & applied with hony: moreouer, Ver-
uain reduced into an vnguent, is ſingular in that caſe; yea and if the goutie feet be well ſoked in
the decoction therof, much eaſe wil inſue thereupon: alſo Lappago, an herb reſembling * Pim-
pernell, but that it is fuller of branches, and tufted more with leaues, which alſo be rough, rug- H
ged, and wrinckled, yeelding a juice in taſt more harſh, and in ſmell ſtrong and vnpleaſant: as for
that of this kind which is * ſoft, they call Mollugo: like vnto which (but for the leaues that be
more rough in handling) is Aſperugo, whereupon it took the name. Now for the gout, let the
Patient take euery day 11 deniers weight of the juice preſſed forth of the former Lappago in
two cyaths of wine: but for this diſeaſe the moſt excellent remedy and that which rids it quite,
is the ſea-weed, which in Greeke they call Phycos Thalaſſion, and in Latine Fucus Marinus; an
herb like vnto Lettuce, & commonly Murets & other ſhel-fiſhes lye bedded vpon theſe weeds,
which being applied before they are dried, do cure not the gout of the feet onely, but alſo any
diſeaſe of all other joints. Now of this Sea-graſſe ſo named, there be found three kinds: the firſt
is broad and large; the ſecond longer, and ſomwhat red; the third hath curled and frizled leaues, I
which in Candy they do vſe in dying of their clothes; but all are of one and the ſame operation
in Phyſick. *Nicander* was wont to giue them in wine, as a counterpoiſon againſt the venome of
ſerpents. Moreouer, the ſeed of that herb which I named Pſyllium, is ſingular good for the gout,
if the ſame be well ſteeped in water; ſo that in euery hemine of the ſeed there be mingled the
quantity of two ſpoonfuls of Colophonian roſin, and one of frankincenſe. Finally, the leaues of
Mandragoras be highly commended in this caſe, if they be ſtamped and incorporat with fried
Barly groats into a cataplaſme.

* Glader or Flags.
* i. Fleawort.
* *Anagallidi*, *Dioſcoridis*, Chees-
* *Mollugo* o
K

Chap. XI.

¶ *Generall medicines and receits for all the infirmities incident to the Feet, the Ankles, Ioints, and Sinews: Item, the remedies for thoſe diſeaſes which poſſeſſe and trouble the whole body. Of the herbe Mirthrida. Medicines for thoſe that cannot ſleep: and for the Palſie. Of cold feuers: and the ague that is incident to horſes: of the Phrenſie. Of the herbs Walwort and Houſleek. Laſt of all of the Shingles or S.* Anthonies *fire.*

IF the feet be ſwoln about the ankles, the mud that is found in the bottom of waters, wrought and concorporat together with oile, is of wonderful operation to allay the ſame. For the pain in the ioints, or griefe of ſinews, the juice drawn out of Centaury is paſſing good: in like maner, the herb Centauris. As for Betony, it is comfortable vnto the nerues, which run and ſpread behind ouer the ſhoulder-blades, the ſhoulders, the back-bone, the loins and hanches, if it bee L
taken in * drink, after the manner as it was ordained for the liuer. Cinquefoile, is ſoueraign for
the pain of the joints, if it be applied outwardly: likewiſe the leaues of Mandragoras made into
a pulteſſe with parched barly meale; or the root it ſelfe newly drawn out of the ground & ſtam-
ped with the wild Cucumber; or els boiled in water; for the chaps that appeare in the feet or vp-
on the elbows, the root of Polypodie is ſingular good; for the griefe of the joints, the juice of
Henbane reduced into an ointment with ſwines greaſe, is a proper remedy: likewiſe the iuice
of the herb * Amomum, together with the decoction: alſo Cotton-weed or Cudwort, boiled
in water: or freſh gathered moſſe ſoked in water and bound to the grieued place, and there kept
faſt without remouing, vntill it be drie: as alſo the root of the Bur called Lappa Boaria, drunke
in wine. Sow-bread ſodden in water, cureth the eluiſh & angry kibes beginning to riſe vpon the M
heels, and all other chilblanes and bloudy fals occaſioned by cold. Semblably, Vmbilicus Ve-
neris applied with hogs greaſe, healeth the foreſaid kibed heels: ſo do Crowfoot leaues; and
the juice of Epithymum. Ladanum made into a ſalue with Caſtoreum, and ſo applied, fetcheth
out the core of agnels or corns by the roots: the like effect hath Vervaine, if it be laied too with
wine.

* Rose of Iericho.

20030

A wine. And now that I haue run through thoſe maladies which are offenſiue to euery particular member, I purpoſe to write in the next place of ſuch as occupy the whole body; and of the remedies common to them all, which I find to be theſe enſuing.

And firſt there preſenteth it ſelfe vnto me the noble herb * Dodecatheos, wherof I haue ſpoken before as a ſoueraigne remedy for thoſe vniuerſal diſeaſes, if it be taken in drink. Next to it are the roots of all kinds of the Panaces, which are thought to be excellent, and principally for long and languiſhing maladies: like as their ſeed for the obſtructions of the bowels and the inward accidents of the guts: for the pains generally of the whole body, the iuice of Scordium is right commendable, and ſo is that of Betony: which herb taken in drink, hath a peculiar pro-
B perty to mend the wan and leaden hew of body, reducing it to a more freſh and pleaſant color. The herb * Geranion, which ſome call Myrrhis, others Merthrys, is like vnto Hemlocke, ſaue that it hath ſmaller leaues, and a ſhorter ſtem, which alſo is round, of a ſweet ſent to the noſe, and good ſauor in the mouth; for ſo we Latines doe deſcribe it: but according to the deſcription of the Greeks, the leaues rather reſemble the Mallow, but that they are whiter ſomwhat, the ſtalks ſlender and hairy: * it brancheth out big at the diſtance of euery two handbredths, howbeit, full of leaues between: and among the leaues are to be ſeen in the top of the branches and ſprigs little buttons or heads like vnto Crane-bils. Another kind there is of them leafed after the maner of paſſe-floures, or wind-floures, but that they be intailed or indented deeper: and a round root it hath faſhioned like an apple, which is ſweet in taſt, and is an excellent reſtoratiue for all ſuch as haue bin weakened and decaied in nature by long ſickneſſe: and this I take to be the true
C Geranion, which is a rare herb. A dram weight thereof drunk twice a day [firſt and laſt] in three cyaths of wine, is a ſingular medicine for the phthyſicke. And in that order it is good for ventoſities: and hath the ſame effect though it be taken raw. The iuice of the root is ſoueraigne for the infirmities of the ears. The ſeed giuen in drink to the quantitie of 4 drams with pepper and Myrrh, cureth the cramp which pulleth the head and body all backward. The iuice of Plantain if it be drunk, or the herb it ſelfe boiled and ſo eaten, is wholſome for thoſe that be in a Phthiſick. Plantain eaten with ſalt and oile in a morning, ſo ſoon as a man is awakened, is a great cooler. The ſame is an ordinary medicine for thoſe that miſlike, and whoſe meat is not ſeene vpon them, if they take it each other day. Of Betony and hony there is a liquid confection or lohoch made, which being licked and let down leiſurely, to the quantity at a time of a good big beane,
D helpeth thoſe that are in a Phthyſick or conſumption of the lungs. Alſo Agarick, if it be drunk to the weight of 2 oboli in wine cuit, is good in the like caſe: ſo is Daucum alſo taken in wine with Rhapontick. For the hungry worms Phagedænæ (a name in this place ſignifying an inordinat * diſpoſition, to be alwaies eating and neuer ſatisfied, although otherwiſe I vſe it for cankerous and corroding vlcers) the Tithymalls or Spurges taken inwardly with Seſama ſeed, is counted ſoueraigne. Among the maladies which affect & infeſt the whole body, want of ſleep, or an indiſpoſition thereto, is by moſt Phyſitians counted one: for which defect, they ſhew vs theſe herbs following; to wit, Panaces, water Betony, and Ariſtolochia, which they preſcribe to the patient both for to ſmel too, and alſo to annoint his head al ouer withal. Likewiſe Houſleek called Aeizoon & alſo Sedum, giuing direction to wrap it within a blacke cloth, and ſo to lay it
E vnder the pillow or boulſter of the ſick perſon, but in no wiſe to let him or her know ſo much. Likewiſe Oenothera, otherwiſe named Onuris, is effectuall for this purpoſe: an herb good alſo in wine to make the heart merry. It groweth with leaues reſembling thoſe of the Almond tree, and beareth floures like vnto Roſes. Store of branches it putteth forth, and hath a long root, which being dried, ſenteth much of wine. Of ſuch vertue is this herb, that if it be giuen in drink to the wildeſt beaſt that is, it will tame the ſame and make it gentle. As for the crudities or raw humors lying in the ſtomack, which cauſe loathing and abhorring of meat, Betony is ſingular to digeſt them: the ſame drunk immediatly after ſupper, helps concoction, namely, if one dram weight of the herb be taken in 3 cyaths of oxymel: and ſo it reſolueth and ſcartereth the fumes
F ariſing vp into the head, occaſioned by ſtrong wine. Of the ſame operation is Agaricke, drunke at the end of a meale in hot water. The foreſaid Betony hath the name of a ſpeciall remedie for the palſie: ſo is Iberis alſo reputed, as I haue ſhewed once before; the ſame hearbe reviueth the lims which are benummed and in manner dead. And verily, Argemon is of that vertue, that it diſcuſſeth all thoſe cold humors which mortifie any member, and put them in danger to be cut off or launced. The root of that Panaces which I named Heraclia, drunke with the ren-

net

So called, for that it repreſenteth the maieſty of the twelue principall gods and goddeſſes, called *Maiorum gentium*, or *Conſentes*, whom the Painims imagined to ſit in counſell together with *Iupiter* their Preſident: and theſe hath *Ennius* compriſed in this Diſtichon. *Iuno, Veſta, Minerua, Ceres, Diana, Venus: Mars, Mercurius, Iouis, Neptunus, Vulcanus, Apollo.*

* Herbe Robert, as ſome thinke, or the firſt kind by *Dodonæus.*

* Doues foot or Momordica

The Carot. * βύνιας.

net of a Seal, ſo as there be in proportion 3 parts of the ſaid root to one of the rennet, cureth the falling ſickneſſe. And of the ſame effect is Plantaine, taken in drink. The ſaid diſeaſe is healed by Betony, if a dram therof be taken in oxymell: by Agarick alſo, to the quantity of 3 oboli: and by a drinke made with Cinquefoile. Moreouer, Brionium called likewiſe Archezoſtis, wariſheth this infirmitie, but it muſt be giuen in Amminean wine. Furthermore, the root of Baccharis dried and beaten into pouder, taken with Coriander in 3 cyaths of hot water, is a ſoueraigne mean to help that malady.* Cudweed made into pouder, and taken with vineger, hony, or hot water: Veruain drunk in wine: three beries of Hyſſop ſtamped and drunk in water for 16 daies together: Harſtrang, and the rennet in the maw of a Seale, of each a like quantity taken in drink: the leaues of Cinquefoile, if they be ſtamped and drunk in wine for 31 daies: the pouder of Betony to the weight of 3 deniers, concorporat with one cyath of Squillitick vineger, & an ounce of Atticke hony: laſtly, two oboles of Scammonie, with foure drams of Caſtor, be all appropriat medicines for the falling ſickneſſe. G H

In all * cold agues, if the Patient drink Agarick in hot water, the fits will be the lighter. And more particularly, the herb Sideritis drunk with oile, ſhortneth the cold fit in a tertian: ſo doth that * Ladanum which groweth among corne, if it be ſtamped and ſo giuen. Likewiſe, Plantain, if the patient drink the weight of two drams in mead two hours before the fit; or the verie juice of the root either after it hath lien a time infuſed, or ſimply ſtamped without any ſuch preparation; yea, and the ſubſtance of the root reduced into pouder, and giuen in a draught of water, made hot with a gad of ſteel quenched in it. Some haue appointed in this kind of ague 3 of thoſe roots, and 3 cyaths of water preciſely: and the ſame Phyſitians for a Quartaine haue preſcribed foure of either: and by their ſaying, if when Borage beginneth to fade vpon the ground, one take out the pith or marow within the ſtem, and whiles he is ſo doing, name withal the ſick party, and ſay hee doth it for to rid him or her from the ague; and withall beſtow it in 7 leaues neither more nor leſſe of the ſaid herbe, and hang all tied faſt about the patient before the time that the fit ſhould come, the feuer wil neuer returne again. Alſo a dram of Betony or Agaricke taken in three cyaths of mead, driueth away any intermittent ague, eſpecially thoſe that begin with * quiuering and quaking. Some are wont to giue of Cinquefoile three leaues in a tertian, and foure in a quartan, and ſo riſe to more according to the period or type of the * reſt: others ordain indifferently for all agues the weight of 3 oboli, with ſome pepper, in mead or honied water. Veruaine verily giuen in wine as a drench to horſes, cureth them of their feauers: but in Tertians it muſt be cut juſt aboue the third joint where it brancheth: but for Quartanes at the fourth. The ſeed of both kinds of Hypericon is good to be drunk in Quartans. And the pouder of Betony dried, is ſingular for the quaking fits: and in very deed the herb it ſelfe repreſſeth all ſhiuering and whatſoeuer proceeding of cold. In like maner, Panaces is of ſo hot a nature, that Phyſitians giue direction to them who are to trauell ouer high mountains couered with ſnow, for to drink it, & annoint their bodies all ouer with it. Semblably, Ariſtolochia doth withſtand all chilling and through colds. The beſt cure of thoſe who be in a frenſie, is by ſleepe: and that may be procured eaſily by the juice of Peucedanum & vineger together infuſed vpon the head by way of imbrocation, or by rubbing the ſame with it: likewiſe with the juice of both the Pimpernels. Contrariwiſe, there is more adoe with thoſe that are in a lethargy, to awaken them and keep them from drowſineſſe: and yet may that be affected ſome ſay by rubbing their noſthrils with the juice of the ſaid * Harſtrang in vineger. For thoſe that be out of their right wits or beſtraught, Betony is ſingular good to be giuen in drink. Panaces breaks the Carbuncle: alſo the pouder of Betony in water, healeth it: or the Colewort with Frankincenſe, if the patient drinke often therof hot. Some take a burning cole of fire, and when it is extinguiſhed or gon out in the preſence of the patient, with their finger gather vp the cindres or light aſhes which ſettle therupon, and apply them vnder the carbuncle: others ſtamp Plantain and lay it to the ſore: the Tithymall called Characites, cureth the dropſie. Alſo Panaces and Plantaine taken as a meat in bole, with this regard, That the patient haue eaten ſome dry bread before, without any drinke at all. In which caſe Betony likewiſe is ſingular, if two drams thereof be giuen in as many cyaths of wine ſimply, or wine honied. Moreouer, Agaricke, or the ſeed of Lonchitis, drunke to the quantitie of two Ligulæ or ſpoones full, in water. Flea-woort beeing vſed with wine: the juice of Pimpernels, both the red and the blew: the root of Vmbilicus Veneris in honied wine: the root of Walwoort newly drawne out of the ground, ſo that the earth bee onely ſhaken off without I K L M

* *Centunculus.*
* *Baccæ.* Some read *faſces, i.* bunches: but in mine opinion, *cymæ, i.* tops or ſpikes, agree beſt to the ſence.
* He meaneth intermittent, ſuch as begin with cold fits more or leſſe.
* Taken for *Herba Iudaica*
* *Horrore*, as Quartanes.
* namely quintans, ſextanes, Septimanes, & Nonanes, &c.
Harſtrang.
or rather with Euphorbium, as ſome haue corrected the place.

20030

A without any waſhing at all: in caſe as much thereof as two fingers will comprehend, be taken in one hemine of old wine hot: the root of Clauer or Trefoile drunke in wine to the weight of two drams: Tithymall, named Platyphillon: the ſeed of Hypericon, and namely that which otherwiſe is called Coris: Chamæacte, which ſome think to be Wall-wort, if either the root be beaten to pouder and miniſtred in three cyaths of wine, ſo the patient haue no feuer hanging vpon him, or the ſeed giuen in thick red wine; be appropriat remedies euery one, for a dropſie. In like maner Vervaine, if a good handfull thereof be boiled in water vnto the conſumption of the one halfe. But principally the juice of Wall-wort is thought to be the meeteſt medicine for to fit this malady. *i.* Broad leafed

B For the bleach or breaking out in wheales, for ſmall pocks, ſwine pocks, and ſuch like eruptions of flegmatick humors, Plantain is a proper remedy to rid them away: ſo is the root of ſowbread applied with hony. The leaues of Walwort or ground Elder ſtamped, incorporat in old wine and ſo laid too, doe heale the meazels, purples, or red bliſters, which ſome call Boa. The juice of Night ſhade or pety Morell, vſed as a liniment, killeth the itch. The ſhingles and ſuch hot pimples called S. *Antlonies* fire, are cured by nothing better than by Houſleek, by the leaues of Hemlock ſtamped into an vnguent, or the root of Mandragoras. Now the manner of pr paring and ordering it thus: take the ſaid root, drie it abroad in the open aire, like as they do Cucumbers; but principally let it hang firſt ouer new wine; afterwards in the ſmoke: this don, ſtamp it and temper it with wine or vineger. Good it is alſo in this caſe to make a fomentation with
C wine of Myrtles, and therwith to bathe the grieued place. Alſo take of Mints two ounces, of ſulphur-vif one ounce, pouder them both, and mingle them together with vineger, vſe this mixture for the ſaid S. *Anthonies* fire. And ſome take ſoot & vineger tempred together for the ſame purpoſe. Now of this diſeaſe which we terme * S. *Anthonies* fire, there be many kindes, whereof *Eriſypelas.*
there is one more daungerous than the reſt, which is called * Zoſter, for that it coueteth to goe round about the middle of a man or woman in manner of a girdle; and in caſe both ends meet together indeed, it is deadly and incureable. To meet with it therefore by the way & to preuent this extremity, Plantaine is thought to be a ſoueraign remedy, if it be incorporate with Fullers earth. Alſo Veruaine alone by it ſelfe, and the root of the great Bur. Now for other corroſiue vlcers and tettars, it is very good to vſe the root of Vmbilicus veneris with honied wine: Sen-
D green: the juice of Mercurie alſo with vineger. *i.* A girdle, and it is our ſhingles.

Terra Cimolia.

Chap. XII.

¶ *For diſlocations or members out of ioint. Againſt the Iaundiſe, Felons, hollow ſores called Fiſtula's. Tumors, Burnes, and Scaldings. Againſt other diſeaſes. For to comfort the ſinewes, and ſtanch blond.*

THe root of Polypodium brought into a liniment, is a proper remedy for any diſlocation. The ſeed of Fleawort: the leaues of Plantaine punned with ſome few cornes of ſalt put therto: the ſeed of Mullen boiled in wine, ſtamped and reduced into a cataplaſme: Hem-
E locke, incorporat with hogs greaſe. All theſe applied accordingly, do aſſuage paine and bring down any ſwelling, occaſioned by diſlocation. The leaues of Ephemerum brought into a liniment, are good for any bunches or tumors cauſed by thoſe accidents, if they be taken betimes whiles they may be diſcuſſed and reſolued. Some take it for the May Lillie or Lilly convally.

As touching the Iaundiſe, I cannot but wonder at it, eſpecially appearing as it doth in the eies; namely, how the gall ſhould get vnder thoſe fine membranes and tunicles, lying ſo cloſe couched as they do. *Hippocrates* hath taught vs a rule, That if the jaundiſe ſhew in a feuer * after the ſeuenth day from the beginning thereof, it is a deadly ſigne. Howbeit, I my ſelf haue known ſome to haue eſcaped and liued ſtil, notwithſtanding that deſperat ſigne. But this is not alwaies
F a ſymptome incident to an ague, but happeneth otherwhiles without a feuer: and then a drinke made of the greater Centaurie, as I haue before ſhewed, doth withſtand & ſtay the courſe therof. Alſo Betony riddeth away the iaundiſe, if the patient do drink three oboli therof in one cyath of old wine. The leaues of Veruaine likewiſe haue the like effect, if the ſame quantity be drunke foure daies together in one hemine of wine hot. But the ſpeedieſt cure of this diſeaſe, is by Cinque-foile or fiue leaued graſſe, if three cyaths of the juice be taken with ſalt and hony in drink. The root of Sowbread is a ſoueraigne medicine for this infirmity, if the Patient drinke

* Nay rather before the 7 day for then it is Symptomaticall, and ſignifieth irregular humours: whereas vpon the 7, 9, 11, and ſuch Decretorie daies it is criticall, and giueth hope of recouery. As *Hippocrates* himſelfe teacheth. *Aphoriſ.* 62 and 64, *li.* 4.

the

the weight of three drams: but this care ought to be had, that the roome be hot, and ſo cloſe that no winde may come in, for feare of catching cold: and then it will driue out the jaundiſe by ſweat, luſtily. The leaues of Fole-foot taken in water: the ſeed of Mercuries, both the male & female, if a cup of drink be ſpiced therewith, or if it be ſodden with Wormewood or cich peaſe: the * berries of hyſſop drunk with water: the herb Liuerwort, ſo that the patient abſtain from all worts or potherbes, ſo long as he taketh it: Capillus veneris giuen in wine: and the Fullers herb in wine honied, be all of them good medicines for the jaundiſe. G

Baccæ, rather *cymæ*, i. the tops, as before.

As for the ſores called Fellons or Cats-hairs, they will breed euery where in any part of the body, and put folk to great anguiſh and trouble who haue them, yea, and otherwhiles indanger their life, eſpecially if they meet with lean and worn bodies. But what remedy? Take the leaues of the herb Pycnocomos, let them be ſtamped and incorporate with fried Barley meale, and ſo applied, in caſe the ſaid fellons are not drawne to a pointed or ſharpe head. The leaues alſo of * Ephedros brought into a liniment and laid too, do diſcuſſe & diſſolue them, if they be taken in the beginning. H

Hippuris, Horſe-taile.

Moreouer, you ſhall not ſee a part of the body but it is ſubiect to the Fiſtulaes, which creepe inwardly and hollow as they go: but eſpecially, when by the vnskilfull direction of Phyſitians, or the lewd hand of chyrurgions there be an inciſion vntowardly made in the body. The help is to make tents of Centaurie the leſſe, with honey boiled, and put them into the concauity. Alſo to vſe an injection of Plantain juice. To apply Cinquefoile with ſalt and hony. Ladanum alſo with Caſtoreum: to lay vnto the ſore, Vmbilicus veneris, with deere Marow, eſpecially of Stag or Hind, hot. The ſtring or pith of a Mullen root faſhioned ſlender to the form of a tent put into the vlcer, or the root of Ariſtolochia in that manner vſed, or the juice of Tithymall conueied into it, ſerue all to cure the Fiſtula. I

Al inflammations, biles, & impoſtumes, are healed by a liniment made of Argemony leaues So be all hard and ſchirrous tumors, occaſioned by the gathering of humors, with Veruaine or Cinquefoile ſodden in vineger: with the leaues and roots of Mullen: with hyſſope applied in wine: with the root of Acorus, ſo that there be a fomentation withall made of the decoction of the ſaid herb: and finally with Houſleek. In like manner, theſe herbs before rehearſed do heale bruiſes, hard tumors, or bunches and hollow ſores. The leaues of * Illecebra draw forth any arrow heads and whatſoeuer ſticketh within the body: ſo do the leaues of Folefoot: the Carot alſo, and the leaues of * Lions paw, ſtamped and incorporat with fried Barly meale in water. The leaues of Pycnocomos punned, or the ſeed beaten to pouder, & with Barly meale parched, and ſo reduced into a cataplaſm, are good to be applied to biles and impoſtumes broken & running matter. In like manner the Ragworts are to be vſed. K

A kind of Houſleeke.

Our Ladies Mantle.

As touching the accidents that happen in the bones, the root of Satyrion if it be laid outwardly vpon them, are thought to work a moſt effectual & ſpeedy cure. Al cankerous & eating ſores, likewiſe impoſtumes growing to ſuppuration, are healed with the ſea weeds, if they be applied before they be dried & withered. Alſo the root of marſh Mallow, doth diſſipate and ſcatter all gatherings of humors to an impoſtume, before it be come to an head and to ſuppurat.

Plantain and the Clot Bur are ſingular for burns or ſcalds, healing them vp ſo cleanwithout a skar, that a man ſhall not perceiue the place: the maner is to take the leaues, ſeeth them in water, ſtamp them into a liniment, and ſo to apply them. Likewiſe the roots of Sowbread, together with Houſleek: the herb it ſelfe Hypericon, which I called before * Corion, haue the like effect. L

* Or *Coris*.

For the infirmities incident to ſinews and joints, Plantain is a ſoueraigne herb, if it be ſtamped with ſalt: ſo is Argemonia punned and incorporat with hony. The juice of Harſtrang is ſingular to annoint thoſe that be ſprained, ſuch alſo as be ſtretched with an vniverſall cramp as if they were all of a peece. For to mollifie the hardneſſe of ſinews that be ſhrunk vp, there is not a better thing than the juice of Ægilops: and to aſſuage their pain, a liniment made with groundſwell and vineger, is excellent. For thoſe that be ſprained and troubled with that crampe which draweth their necke backward, it is good to rub and annoint them well with Epithymum; with the ſeed of S. *Iohns* woort, which alſo is called Coris, and to drinke the ſame. As for the hearbe Phrynion, they ſay it hath vertue to conglutinat and vnite ſinews again, if they were cut in ſunder, if it be laied too preſently, either ſtamped or chewed in the mouth. For ſuch likewiſe as be ſpaſmatick, pjucked backward with the cramp, or troubled with trembling and ſhaking of the lims, it is good to giue them the root of the marſh Mallow to drink in mead: and in that maner M

Darnell, as ſome thinke.

taken

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taken, it healeth thoſe that be ſtiffe and ſtark for cold. Finally, the red ſeed of the herbe Pæony ſtancheth any flux of bloud, the root thereof hath the like operation. As for Cyclaminos, that is to ſay Sowbread, it ſtaies any bleeding, whether it be at the mouth raught vp from out of the body, or at the noſthrils, whether it run by the fundament, or guſh from the matrice of women. Likewiſe Lyſimachia ſtancheth bloud either in drink, liniment, or Errhin put vp into the noſe. The like effect hath Plantain ſeed. Cinquefoile alſo both taken inwardly and applied outwardly. Moreouer, if the noſe bleed, take the ſeed of Hemlocke, beat it into pouder, mixe it with water, and ſo put it vp handſomly into the noſthrils. Alſo Sengreene and the root of Aſtragulus. To conclude, wild Hirſe called in Greek * Iſchæmon and Achillæa, do ſtay any iſſue of bloud.

*i S anchbloud, a kind of Yarrow.

CHAP. XIII.

¶ *Of the herbe Equiſetum: of Nenuphar, Harſtrang, Sideritis, and many more effectuall to ſtanch bloud. Of Stephanomelis and Eriſithale. Alſo remedies againſt wormes and vermine.*

HOrſe-taile, named in Latine Equiſetum, and by the Greeks Hippuris, an herb which heretofore I diſallowed to grow in any medows (and it is eſteemed the very haire, proceeding out of the earth, like for all the world to the haire of an Horſe-taile) if it bee boiled in a new earthen pot neuer occupied before, ſo as the pot be brim full when it is ſet on the fire and ſo to continue ſeething, vntill a third part be conſumed, doth waſt the ſpleen of lackies & footmen, if for 3 daies together they drink one hemine of the decoction at a time: and beſides, this charge they ought to haue in any wiſe, to forbeare all fat and oily meats for 24 houres before they begin this diet drink. In deſcribing of this herb, the Greeks do not agree, but are of diuers opinions: ſome giue that name to a certain herb with blackiſh leaues reſembling thoſe of the Pine tree: and they report a wonderfull vertue thereof; and namely, that if it doe but touch a man, it wil ſtanch any iſſue of bloud. And as ſome name it Hippuris, ſo others called it * Ephedros, and there be again who giue it the name Anabaſis: becauſe forſooth, as they ſay, it climes vpon trees, and hangeth down from thence, with many blackiſh ſlender haires in manner of riſhes, reſembling horſe tailes. Small branches it hath ful of joints, and few leaues, which be alſo fine and ſmall. The * ſeed that it beareth is round, like vnto Coriander; and the root of a woody ſubſtance: this kind, ſay they, groweth principally in thickets and groues. An aſtringent and binding power it hath. The juice if it be conueighed vp into the noſthrils, ſtenteth bleeding at noſe, though it guſhed out from thence: it knitteth alſo the belly, and ſtoppeth a lask. Taken in * ſweet wine to the quantity of 3 cyaths, it helpeth the bloudy flix. Vrine it prouoketh, the cough it ſtaieth, and cureth ſtraitneſſe of winde when the patient is forced to ſit vpright for to draw his breath. It healeth ruptures, and repreſſeth thoſe ſores that loue to ſpread and run ouer the body. The leaues are good to be drunk for the infirmities that offend guts & bladder: a ſpeciall vertue it hath to cure thoſe that be burſten bellied and haue their guts ſlipping downe in the bag of their cods. The ſaid Greek writers deſcribe alſo another Horſe-taile, by the name of Hippuris, with ſhorter, ſofter, and whiter haires than the former; and they commend it as a ſouereigne herb for the ſciatica and for wounds, to be applied vnto the place with vineger; & namely for to ſtanch bloud: in which caſe the root of Nenuphar ſerueth very well, if it be ſtamped and laid vpon a green wound. If a man or woman void bloud at the mouth, which doth riſe from the parts below, there is not a better thing than Harſtrang taken in drinke with the ſeed or berries of the Cypreſſe tree. And as for Sideritis the herb, it is ſo powerfull that way, that it ſtancheth bloud out of hand, if it be applied & kept faſt to the wounds of theſe ſword-fencers that fight at ſharp, bleed they neuer ſo freſh: the which effect we may ſee in the aſhes and coles of Fennell-geant: but the toad ſtoles or Muſhrums growing about the root of the ſaid plant, doth the feat more ſurely: in caſe the noſe guſh out with bloud, Hemlock ſeed alſo beaten to pouder, tempered with water and ſo put vp, is counted very effectuall to ſtay the bleeding: in like maner *Stephanomelis, if it be applied with water. The pouder of Betonie dried and drunk in Goats milk, ſtancheth bloud iſſuing out of womens breſts by the nepples. The ſame doth Plantaine bruiſed and laid too in a pulteſſe. The juice of Plantaine is good to be giuen them that vomite bloud. For a bloud that runneth vp and downe, breaking out one while here and another while there, a liniment made of a Burre root and a little ſwines greaſe, is commended to be excellent.

Or rather *Ephydros*.

And that is juſt none.

* *Dulci*: rather *auſtero*, i. hard or green wine.

Which ſome take to be *Argentina*, i. white Tanſey.

For

For ſuch as be burſten or haue any rupture within, be plucked with convulſions, or haue faln from on high; Centaury the greater, the root of Gentian being ſtamped into pouder or boiled, the iuice of Betonie, be counted ſingular means to recouer: and more than that, if a vein be broken by ouermuch ſtraining the voice, or the ſides. Likewiſe, Panaces, Scordium, and Ariſtolochia taken in drinke, ſerue well for the ſame purpoſe. Moreouer, if any be bruiſed within the body, or haue bin ouerturned backeward and throwne downe, it is good for them to drinke the weight of two oboli of Agarick in three cyaths of honied wine; or in caſe an ague follow them withall, in honied water: for which purpoſe ſerueth alſo that kind of Verbaſcum or Mullen, the floure whereof reſembleth gold: the root alſo of Acorus. All the kindes of Houſleeke, to wit, Prick-madam, Horſe-taile, or Stone-crop: but indeed the iuice of the biggeſt is moſt effectuall. In like manner the decoction of Comfrey root and Carot taken raw. There is an herbe called Eriſithales, with a yellow floure, and leafed much after the manner of Brankvrſine: the ſame ought to be drunk in wine, as alſo Chamerops in the ſame caſe. As for Irio, it would be giuen in ſome ſupping: and Plantain may be vſed any way, it matters not how: which herb hath this good property ouer and beſides, to cure the lowſie diſeaſe, whereof *Scylla* the Dictatour died, who was eaten with lice. A wonderfull thing, that in the very maſſe of bloud there ſhould be ingendered ſuch creatures to conſume mans body. But the iuice of the wild vine called * Vva Taminia, as alſo of Ellebore, is ſoueraigne againſt this foule and filthy maladie, in caſe the body be annointed all ouer with a liniment made of it and oile together. As for the ſaid Taminia, if it boyled in vineger, it killeth ſuch vermine breeding in clothes or apparell, ſo they be waſhed or rubbed therewith.

* He meaneth *Staphiſagre*, although he attribute vnto it this wrong name.

Chap. XIIII.

¶ *For vlcers and wounds. To take away warts. Of the herbe Polycnemon.*

VLcers as they be of many ſorts, ſo they are cured after diuers manners. If they be ſuch as run and yeeld filthy matter, a liniment or ſalue made of the root of all kinds of Panaces, & wine together, are thought to be a ſoueraigne means to heale them. But that Panaces, which they call Chironia, hath a ſingular property aboue the reſt to drie vp ſuch ſores: the ſame root beaten to pouder and incorporat with honey, breaketh and openeth any ſwelling impoſtumes. This herb tempered with wine, it makes no matter whither you take floure, ſeed, or root ſo it be applied with Verdegreaſe or the ruſt of braſſe, healeth any ſores, be they neuer ſo deſperat, and principally ſuch vlcers as be corroſiue and eat as they go. The ſame if it be mingled with fried Barly meal, is good for old feſtered vlcers. Alſo Heraclion, Siderion, Henbane, Fleawort, Tragacanth, and Scordotis, incorporat accordingly with hony, cleanſe the ſaid ſores. As for this laſt named, the very pouder of it alone ſtrewed vpon vlcers, eateth away the excreſcence of proud fleſh. * Polemonia healeth thoſe malignant ſores which be called morimals, and are hard to be cured. Centaury the greater reduced either into a pouder, and ſo caſt vpon the ſore, or brought into a liniment and applied accordingly: the tops alſo of the leſſe Centaurie either ſodden or beaten to pouder, do mundifie and heale vp all inueterate and cankered vlcers. The * tender crops or husks of * Clymenos, are good to be laid vnto freſh & green wounds. Moreouer, the root of Gentian either ſtamped or boiled in water to the conſiſtence of hony, or the very iuice thereof, ſerueth very well to be applied vnto corroſiue and eating vlcers: like as a kind of Lycium made of it is as appropriat for wounds. Lyſimachia is an excellent wound herb, and healeth wounds ſpeedily, if they be taken whiles they be new. Plantain is a great healer of any ſore whatſoeuer, but principally of ſuch vlcers as be in the bodies of women, children, and old folk. If it be * made ſoft & tender at the fire firſt, it doth the cure ſo much the better: and being incorporat in ſome ordinary cerot, it mundifieth and cleanſeth the thicke edges and ſwollen brims of any ſore, and ſtaieth the canker of corroding vlcers. But when Plantaine is thus reduced into a pouder & ſtrewed vpon the ſore, you muſt not forget to couer the ſame with the own leaues. Moreouer, Celendine is ſingular for all impoſtumes and botches, whether they be broken or no, yea, it mundifieth and drieth vp hollow vlcers called Fiſtulaes: and for wounds is is ſuch a ſingular deſiccatiue, that Chirurgions vſe it in ſtead of Spodium. The ſame being incorporat with hogs greaſe, is excellent to be applied vnto them when they be in manner paſt cure, and giuen ouer by the Chirurgion. The herbe Dictamnus taken in drinke, thruſteth out arrowheads:

* *Sauge de bois.*

* *Colicuſi.*

* Some take it for water Betony.

* *Mollita.* Why not *Molita*, (i. ground to pouder againſt the fire) ſince that he vſeth *farina* ſo commonly for the pouder of drie hearbs?

20030

A heads: and in a liniment outwardly, draweth forth the ends of darts, and any ſpils whatſoeuer ſticking within the body: for which effect, the leaſe would be taken to the weight of one obolus in one cyath of water. Next to this in operation, is the other baſtard kind therof, call'd Pſeudodictamnum: and there is neither of them both, but is good for to draw all biles & impoſthumes that are broken & do run matter. Moreouer, Ariſtolochia is an excellent herb to eat and conſume putrified vlcers full of dead fleſh: it mundifieth alſo thoſe that be foule and filthie, if it be applied with honey; yea and draweth out the vermin bred of the corruption within them: the calloſities likewiſe and hard excreſcences ariſing in ſores, it fetcheth away: alſo it drawes forth any thing ſticking in the fleſh, eſpecially arrows and the ſpils of broken and ſcaled bones, if it be laid too with roſin. Of it ſelfe alone without any thing els, it is a good incarnatiue and
B filleth vp hollow vlcers with good fleſh: but mixed with the pouder of the Flour-de-lis root, and ſo incorporat with vineger, it is ſingular for to heale vp green wounds. Moreouer, for old ſores, Veruaine and Cinquefoile medled together with ſalt and hony, do make a ſoueraign ſalue. The roots of the great Clot bur are good to be laid vnto freſh wounds, made by the ſword or any edged tooles: but the leaues are better for old wounds, if the ſame be tempered with hogs greaſe: howbeit this charge ought to be giuen, That as well the one as the other, haue a leaſe of the own laid ouer them to couer the whole place. As for * Damaſonium, it would be vſed in theſe caſes, prepared in that manner as it is ordained for the Kings euill. And the leaues of Mullen ſerue wel for the ſame purpoſe, if they be applied with vineger or wine. Veruaine is a good herbe for all ſorts of wounds and ſores, were they ouergrowne with calloſities and ful of putrefaction: the
C root of Nymphæa Heraclea, healeth perfectly all running and filthy vlcers. In like manner, the root of Cyclamin [*i.* Sowbread] either alone of it ſelfe, or incorporat with vineger or hony: The ſame is ſingular good for thoſe wens or impoſtumes that ingender within them a certaine matter like vnto * fat or tallow. Like as Hyſſop is an appropriat herb for running vlcers. Semblably
* Peucedanum, which is of that efficacy for the healing of green wounds, that it will draw corruption from the very bone. The ſame effects haue both the Pimpernels: and beſides, they doe repreſſe thoſe cancerous ſores that eat deepe: they ſtay alſo the flux of a rheume to any ſore, which hindereth the healing thereof: they be good alſo for green wounds, but eſpecially in old bodies. The freſh leaues of Mandragoras newly gathered, incorporate with the maſſe of ſome cerot, are ſingular for impoſtumes and maligne vlcers: like as the root healeth wounds beeing
D made into a plaſter with honey or oile. Likewiſe Hemlocke tempered with the floure of fine white wheat, and wrought into a paſte with wine. Houſleeke cureth ſhingles, ringwormes, and ſuch like wild-fires, yea if they grow to be wolues, and begin to putrifie: like as Groundſwell healeth thoſe vlcers which be giuen to ingender vermin: but the roots of the mountaine Cich, or peaſe earth-nut, are ſoueraign for green wounds: and both kinds of Hypociſthis, do mundifie inueterat vlcers. The ſeed of Pied-de-lion, ſtamped with water, and reduced into a liniment with parched Barley groats concorporate all together, draweth forth arrow heads: ſo doth the ſeed of Pycnocomon, in the ſame ſort vſed and applied. The iuice of the Spurge called Tithymalus Characias, healeth gangrens, cankers, and putrified ſores tending to mortification. The decoction alſo of the branches ſodden in oyle, with fried barley meale. As for * Ragworts, they
E cure morimals alſo, either drie or greene, ſo they be applied with vineger and honey: and Oenothera by it ſelfe, healeth thoſe vntoward and fretting vlcers, which are the worſe and more angry for the handling. The Scythians are woont to heale wounds with their hearbe Scythica. And for cancerous ſores, the herb Argemonia incorporat with honey, is knowne to be moſt effectuall. When any wound or ſore is * ouer healed, an Aſphodill root boiled, as I ſaid before, then ſtamped together with parched barley, and ſo applied, is ſingular good to rectifie that default: but for any ſore or wound whatſoeuer, Henbane leaues be ſingular. The root of Aſtragalus beaten into pouder, are ſoueraigne for ſuch vlcers as do water much, and be alwaies moiſt: likewiſe the common * Maidenhaire boiled in water: but more particularly, if the ſkin be newly fretted off by wearing ſome vneaſie ſhoes, there is not a better thing to heale and skin the
F place, than a ſalue made with Veruain: alſo with herb willow ſtamped; or Nenuphar dried, made into pouder, and ſo ſtrewed vpon the gall. As for the other Maidenhaire, it is counted better to heale the ſame raw excoriations, if they haue continued ſome time, and are growne to be exulcerat. There is as an herb named Polycnemon, like vnto wild Origan, how ſoeuer the ſeed reſemble that of Peniroyall: it ſhooteth forth many branches, and thoſe knotted and iointed in di-

* *Fiſtulæ paſtoris*, or, water Plantaine.

* *Steatomatæ.*

* Harſtrang.

* *Orchis.*

* *Sanatis*, that is to ſay, when the ſkar riſeth above the fleſh & is not euen with the reſt of the skin: or, if you reade *Præſanatis*, skinned too ſoon & healed onely in ſhew and apparance outwardly.

* *Callitrix*, which is *Trichomanes*, or *Capillus Veneris.*

uers places: it beareth in the head certain berries as it were in bunches and cluſters, odoriferous, and as they ſent ſomwhat ſtrong and hot, ſo the ſmel is not vnpleaſant: take this herbe, chew it with your teeth, and then lay it to any wounds made by the edge of the ſword or ſuch like weapon, and ſo let it lie and remoue it not vntill the fifth day, you ſhal ſee it to heale excellent wel. Camfrey applied vnto a green wound, skinneth it moſt ſpeedily: ſo doth Sideritis; as for this herb, it ſhould be applied with honey. The ſeed and leaues of Mullen, ſodden in wine, & ſtamped to the form of a cataplaſme, draweth forth all thorns, ſpils, and arrow heads, which ſticke within the body. The like effect work the leaues of Mandragoras, incorporat with parched barley meale; and Sowbread roots ſtamped and mixed with honey. The leaues of Germander punned with oile, are excellent to be applied vnto thoſe vlcers which doe corrode the fleſh vnder them and eat forward; like as the Reiks or ſea-weeds. Betonie is a ſoueraigne herbe for cancerous vlcers: alſo for the blacke ſploches that haue continued a long time vpon the skin, if there be ſalt put thereto. Argemonia tempered with vineger, taketh away warts: ſo doth the root of Crowfoot, which alſo is ſingular good to fetch off with eaſe, the ragged and fretted nailes that be offenſiue. The leaues of Mercurie, the male and female both, or the iuice thereof brought into a liniment, haue the like operation. Al the ſorts of the Tithymals take away any warts whatſoeuer: ſo do they rid the troubleſome riſings and impoſtumations like whitflawes about the naile roots, and all flecks, ſpots, whelks, and ſpecks whatſoeuer. Ladanum reduceth any ſcars to look faire and freſh coloured againe.

Chap. XV.

¶ *Many experiments and approued receits, for the prouoking or ſtaying of womens monethly tearmes: for curing the diſeaſes of their matrice: for ſending out the birth, or retaining the ſame within the bodie the full time. Alſo ſundry deuiſes for to amend the faults that blemiſh the skin of the face: to colour the haire of the head, or to fetch it off. Laſt of all, diuers medicines for the farcines or ſcab in foure-footed beaſts.*

IT is ſaid, That if a traueller or wayfaring man weare faſt tied about him, Mugwort or Sauge, he ſhall neuer be weary nor thinke his journey long. But to come now vnto the infirmities of women: the black ſeed of the herb Pæony, is generally good for all their * maladies, if it bee taken in mead: the root alſo is of the ſame operation, and beſides prouoketh the ordinary courſe of their months. The ſeed of Panaces drunk with wormwood, moues their fleurs, & procureth them to ſweat: the like effect hath Scordotis either in drink or liniment. A dram of Betony giuen to women in 3 cyaths of wine, helps all the maladies incident to their natural parts, * but eſpecially thoſe that inſue vpon their deliuery of childbirth. Achillæa being applied accordingly, ſtaieth the exceſſiue flux of their monthly termes: for which purpoſe alſo, it is good for them to ſit in a bath made with the decoction of the ſaid herb: & in this caſe, to their breſts or paps * there would be laid a plaſter of Henbane ſeed tempered with wine: the root alſo applied in manner of a cataplaſme to their ſecret parts, is counted ſoueraigne for that infirmitie: like as Celendine the greater laid vnto the foreſaid breſts. If the after birth, when the childe is borne, be loth to come away; or if the infant be dead within the mothers womb, the roots of Panaces applied accordingly to the priuy parts, fetch forth both the one and the other. The very herb it ſelf Panaces drunk in wine, or outwardly vſed to the region of the matrice, * cleanſeth the ſame. Sauge de bois taken with wine, expelleth the after-birth; and by a ſuffumigation, mundifieth the matrice. The iuice of Centaury the leſſe, bringeth women to their deſired ſickneſſe, if they drink it, or foment the parts beneath, therewith. Likewiſe the root of the bigger Centaury vſed after the ſame maner, appeaſeth the pains of the mother. If the ſame be ſcraped ſmooth, & put vp into the right place as a peſſary; it draweth away the dead child within her body: for the griefe and anguiſh which women feele in their womb, there is no better thing than to apply the iuice of Plantaine in a locke of wooll: and in danger of ſuffocation by riſing of the mother, to giue it in drinke. But Dictamnus is ſoueraigne and hath no peere: it prouoketh monthly fleurs: it ſendeth out the dead childe, yea though it lay ouerthwart and ſtuck croſſe in the birth: for which purpoſe, the woman muſt drink to the weight of one obolus, in water: and verily of ſuch power is this herb in ſuch caſes, that ſo long as women go with child, it muſt not come within the chamber where they are, for feare it put them to trauell before their time. And not onely in drinke

* In their matrice, as namely, the riſing of the mother, &c

* To wit, the ſtay of the after burden, after-throwes, ſuppreſſion of their purgatiõ, or immoderat ſhifts, &c.

* Swelled and hard.

* *Purgat*, ſome read better (in mine opinion) *corrigit*, i. reduceth it into the right place being vnſetled and peruerted.

20030

A drink is it thus effectual,but alſo in a liniment; yea and the very perfume and ſmoke therof receiued in the body,will do the deed. Next to it,there is not a more ſoueraigne herb than the baſtard Dictamne, called Pſeudodictamnus: but it muſt be boiled to the weight of one denier, with pure wine and ſtrong of the grape,and then taken in drinke, it prouoketh womens deſired ſickneſſe. And yet Ariſtolochia is many waies good for the infirmities of women: for if there be myrrh and pepper put thereto,and then either taken in drink or put in a peſſarie,it draws downe their fleurs,bringeth forth the after-birth,and fetcheth away the dead infant: it keepeth vp and ſtaieth the matrice ready to fall and ſlip out of the body,either in fomentation,perfume,or peſſary,eſpecially the * ſmall kind thereof. But in caſe a woman be in danger of ſuffocation by the aſcent of the mother,or otherwiſe diſeaſed for want of her monethly purgation, let her drinke * *clematis.*

B Agaricke to the weight of three oboli in one cyath of old wine: make a peſſarie of Veruain incorporat with freſh hogs lard,and applie Calues-ſnout,otherwiſe called Snap-dragon with oile roſat and hony,ſhe ſhall haue eaſe,and be cured ſpeedily. Semblably the root of Nenuphar, eſpecially that which groweth in * Theſſalie, applied vnto the naturall parts of women, eaſeth the paines thereof: and if it be drunke in groſſe red wine, it ſtaieth their ſhirts or immoderat flux of the moneths. Contrariwiſe,the Sow-bread root,both taken in drinke and alſo outwardly vſed,prouoketh the ſame, if they do ſtay vpon a woman. Alſo a decoction thereof, if a women do ſit therein,helpeth the accidents of the bladder. Ciſſanthemos taken in drinke, ſendeth out the after-birth,and healeth the maladies of the matrice. The vpper root of the Flag or Gladder, drunke in vineger to the weight of one dramme,bringeth women to the ordinary courſe of their * With the yellow fleure.

C fleures. The fume of Harſtrang burnt,fetcheth women againe when they lie as it were ſtrangled and dead in a fit of the mother. Flea-wort taken to the weight of a dram in three cyaths of honied water,prouoketh their monthly terms,but eſpecially it maketh them ſoluble if they were coſtiue. The ſeed of Mandragoras cleanſeth the matrice,if a woman take it in her drinke: the iuice whereof applied to the naturall parts,prouoketh her moneths and fetcheth away the dead child within her body. Againe,the ſeed taken with wine and brimſtone, ſtaieth the immoderat flux of the monethly terms. Crowfoot either drunk or eaten with meat, knitteth the belly and ſtoppeth a lask: an herb otherwiſe (as I haue ſaid) of a cauſticke and burning nature,if it be vſed raw; but certainly,beeing boyled with ſalt,oyle,and cumine,a commendable meat. Yellow Carots taken in drinke, doe exclude the after birth, and prouoke womens fleurs with exceeding

D great facilitie. A perfume of Ladanum,ſetteth ſtreight the matrice when it is out of the right place,and turned to a ſide: and for the paine and exulceration thereof,it is of great force either applied outwardly or iniected inwardly. Scammonie,either in drink or cataplaſm,ſendeth forth of the body the dead fruit of the wombe. Both kinds of S. *Iohns* woort, ſtirreth the iſſue of womens fleurs,onely by an outward application. But aboue all (in the iudgement of *Hippocrates*) * Crithmos paſſeth for that, if either the ſeed or the root be taken in wine. As for the pill or rind thereof,it fetcheth away the after-birth alſo: and drunk in water, it helpeth the ſuffocation occaſioned by the riſing of the mother. The root of * Geranium likewiſe more particularly,is a very conuenient remedy for to bring away the after-birth, and to cure the inflammation of the matrice. Horſetaile hath a ſecret vertue to mundifie the naturall parts of women, either * Sampier or Creſſes. * Herb Robert.

E drunke, or applied outwardly. Knot-graſſe giuen in drinke, * ſtaieth the inordinate and exceſſiue voidance of the fleurs: ſo doth the root of Marſh Mallow. The leaues of Plantain, * driue downe the ſame: ſo likewiſe Agaricke in honied water. Mugwort ſtamped and incorporat with oile of Ireos,Figges,and Myrhe,hath the ſame effect, if it be applied accordingly: The root of which hearbe,if a woman take in drinke,is ſo purgatiue and will bring her to ſuch a laske, that ſhee ſhall withall exclude the dead infant within her bodie. A decoction made with the branches of Mugwoort,bringeth downe womens monethly ſickneſſe, and fetcheth away the after-birth,if they ſit therein: a dramme weight of the leaues taken in drinke, is of the like vertue and operation: if they be but laied vnto the belly in manner of a cataplaſme, eſpecially with barley meale, they will doe as much. Moreouer, Acoron, both the kindes of Conyza, as alſo * *Siſir.* * I marueil how that ſhould ſtand, conſidering they are a meere garden weede, vnleſſe we haue receiued it for ſome *propriétatem*, & to ſome ſecret vertue.

F Sampier, are ſingular good for all the inward griefes and maladies whatſoeuer of women. Alſo both kinds of Anthyllis drunke in wine,are ſoueraigne for the accidents of the matrice,namely to aſſwage the throws and wrings thereof, and to bring away the after-birth when it ſtaieth behind. A fomentation made with Maidenhaire, is comfortable to the naturall parts of women: like as it hath vertue to clenſe the ſcurfe and dandruffe,to rid away the white patches appearing

in the skin or haire,and to color the ſame black,if it be brought into pouder,& with oile made G
into a liniment.Herb Robert drunk in white wine,and Hyociſthis in red,do ſtay the flux of reds
or whites.Hyſſop is a ſoueraign herb to open and relax the obſtructions of the matrice cauſing
ſuffocation.The root of Veruaine taken inwardly with water, is the beſt thing in the world for
all the maladies incident to women,either in their trauell or after their deliuerance. To which
effect,ſome there be,who together with Harſtrang mix the grains of the Cypreſſe tree beaten to
pouder,and giue it to drink in groſſe red wine.For the ſeed of Fleawort,boiled in water,and laid
too warme,doth moderate and qualifie all the violent fluxes of the matrice. Camfrey ſtamped
and giuen in groſſe wine or allegant,bringeth down the ſickneſſe of women when it ſtaieth vp-
on them. The iuice of Scordotis taken to the quantity of one dram in foure cyaths of honied
water,giueth women ſpeedy deliuerance in childbirth: and for that purpoſe, the leaues of Di- H
ctamnus are excellent,if they be taken in water:and knowne it is for certain, that the weight of
one obolus of thoſe leaues giuen to a woman in hard trauell,wil preſently cauſe her to be deli-
uered with eaſe,yea though the infant were dead in the belly. The like operation hath the ba-
ſtard Dictamnum,but that it worketh more ſlowly: and in this caſe, they vſe to tie the root of
Cyclamin about the woman in labour; to cauſe her alſo to drinke Ciſſanthemos; yea and the
pouder of Betony in honied water. As for Arſenogonon and Thelygonon, they be two herbes,
bearing certain grapes or berries like to oliue bloſſomes,but that they be more pale; and white
ſeeds or kernels within,reſembling thoſe of white Poppy.If a woman drink Thelygonum,ſome
ſay,ſhe will therupon conceiue a maid child. Arſenogonon differeth from the other in nothing
but in the ſeed,which commeth neare vnto that of the oliue: and (forſooth) if ſhe take this herb I
in drink,ſhe ſhall haue a man-child;beleeue it who that liſt. Others there be,who ſay,that both
the one and the other be like vnto Baſill ;and that Arſenogonon carrieth a double ſeed knit to-
gether like as they were two genitors.

That kind of Houſleek which I called Digitellus,is ſingular for the diſeaſes incident to wo-
mens Breſts. Groundſwell bringeth abundance of milke into womens paps, if they drinke it in
wine cuit:ſo doth Sowthiſtle ſodden in frumenty.The grape called Bumaſtos, taketh away the
* haires about the nipples of nources breſts, which ſpring ſometime after they haue once born
children:which alſo otherwiſe is very good to cleanſe the skales and ſcurfe in the face, and to
ſcoure away other ſpots and pimples ariſing vpon the skin. Gentian, and Nymphæa called He-
raclea,the root alſo of Cyclamin,riddeth all ſuch cutanean ſpecks and blemiſhes. The graines K
of wild Carawaies,called Cacalia, incorporate in wax melted and made liquid, lay the skin of
the face plain and euen,and ſmooth all wrinkles. The root of Acorum, ſerueth likewiſe to pu-
rifie the skin from all outward deformities. Herb Willow giueth the hair of the head a yellow
colour. Hypericon,which alſo is named Corion,dieth it black: likewiſe doth Ophrys,an herbe
growing with two leaues and no more,like vnto jagged Beets or Colewoorts. Alſo Polemonia
ſetteth a black colour vpon haire,if it be boiled in oile. As for depilatorie medicines,which are
to take away the haire from any part, the proper place to treat of them is indeed among thoſe
that pertain eſpecially to women: but now adaies men alſo are come to it, and vſe ſuch deuiſes
as well as women. The moſt effectuall of all others be they accepted,that are made of the herbe
Archezoſtis. The iuice of Tithymall is likewiſe very good to fetch off haires: and yet there be L
ſome,who pluck them out firſt with pinſers,and then with the ſaid iuice incorporat with oile,
rub the place often in the hot ſun. Finally,Hyſſop tempered with oile into a liniment, is excel-
lent to heale the mange or ſcab in four-footed beaſts:and Sideritis hath a peculiar vertue for to
cure ſwine of their ſquinſies or ſtrangles. Now is it time to purſue all other kindes of hearbes
which remaine behind.

* Some think this is meant of hairs within the paps, which ſhould be ſwallowed downe by c ā e in a cup of d inke, and ſo rankle in the br ſt, &c. a diſeaſe called by *Ariſtotle* Tyſchia. And *Rondeletius* is of an opinion, that ſome ſuch thing reſembling an haire may breed w thin the breſt, of putrified humours or corrupt milke. But it ſeemeth by that whi h foloweth, that *Pline* meant no ſuch matter, but rather ſome outward eye-ſore.

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20030

THE TVVENTY SEVENTH BOOK OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

The Proeme.

CHAP. I.

CErtes, the farther that I proceed in this diſcourſe & hiſtory of mine, the more am I forced to admire our forefathers and men of old time: for, conſidering as I do, what a number of ſimples there yet remain behind to be written of, I cannot ſufficiently adore either their carefull induſtry, in ſearching and finding them out; or their liberal bounty, in imparting them ſo friendly to poſterity. And verily, if this knowledge of Herbes had proceeded from mans inuention, doubtleſſe I muſt needs haue thought, that the munificence of thoſe our anceſtors had ſurpaſſed the goodneſſe of Nature her ſelfe. But now apparent and well knowne it is, That the gods were authors of that skil and cunning, or at leaſtwiſe there was ſome diuinitie and heauenly inſtinct therein, euen when it ſeemed to come from the braine and head of man: and to ſay a truth, confeſſe we muſt, That Nature (the mother and nource of all things) both in bringing forth thoſe ſimples, and alſo in reuealing them with their vertues to mankind, hath ſhewed her admirable power as much as in any other work of hers whatſoeuer. The herbe Scythica is brought hither at this day out of the great fens & meers of Mœotis, where it groweth. Euphorbia commeth from the mountain Atlas, far beyond *Hercules* pillars & the ſtraits of Gibralter, and thoſe are the very vtmoſt bounds of the earth: from another coaſt alſo, the herbe Britannica we haue, tranſported vnto vs out of Britaine, and the Iſlands lying without the continent, and diuided from the reſt of the world; like as Æthiopis out as far as Æthyopia, a climat directly vnder the Sun, and burnt with continuall heat thereof: beſides other plants and drugs neceſſary for the life and health of man, for which merchants paſſe from all parts too and fro, and by reciprocall commerce, impart them to the whole world; and all by the meanes of that happy peace which (through the infinite maieſty of the Roman Empire) the earth inioieth: in ſuch ſort, as not only people of ſundry lands and nations haue recourſe one vnto another in their traffick & mutual trade, but high mountains alſo & the cliffes ſurpaſſing the very clouds, meet as it were together, & haue means to communicat the commodities, euen the very herbs which they yeeld, one to the benefit of another: long may this bleſſing hold, I pray the gods, yea and continue world without end: for ſurely it is their heauenly gifts, that the Romans as a ſecond Sun ſhould giue light and ſhine to the whole world.

CHAP. II.

¶ *Of the poiſon Aconite, and the Panther which is killed thereby.*

AConite alone, if there were nothing els, is ſufficient to induce any man to an endleſſe admiration and reuerence of that infinit care and diligence which our antients imployed in ſearching out the ſecrets of Nature; conſidering how by their means we know there is no poiſon in the world ſo quicke in operation as it, inſomuch as if the ſhap or nature of any liuing

creature of female sex be but touched therewith, it will not liue after it one day to an end. This G
was that poison wherewith *Calphurnius Bestia* killed two of his wiues lying asleep by his side, as
appeareth by that challenge and declaration which *M. Cæcilius* his accuser framed against him.
And hereupon it was, that in the end of his accusatory inuectiue, he concluded with this bitter
speech, That his wiues died vpon his finger. The Poets haue feined a tale, That this herb should
be ingendered first, of the fome that the dog *Cerberus* let fall vpon the ground, frothing so as he
did at the mouth for anger when *Hercules* pluckt him out of hell: and therefore it is forsooth,
that about Heraclea in Pontus (wher is to be seen that hole which leadeth into hel) there grow-
eth Aconit in great plenty: howbeit, as deadly a bane as it is, our forefathers haue deuised means
to vse it for good, and euen to saue the life of man: found they haue by experience, that being gi-
uen in hot wine, it is a counterpoison against the sting of scorpions: for of this nature it is, that H
if it meet not with some poison or other in mens bodies for to kill, it presently sets vpon them
and soon brings them to their end: but if it incounter any such, it wrestleth with it alone, as ha-
uing found within, a fit match to deale with: neither entreth it into this fight, vnlesse it find this
enemy possessed already of some noble and principall part of the body, and then beginneth the
combat: a wonderfull thing to obserue, that two poisons, both of them deadly of themselues
and their own nature, should die one vpon another within the body, and the man by that mean
only escape with life. Our ancestors in times past staied not thus, but found out and deliuered
vnto vs proper remedies also for wilde beasts; and not so contented, haue shewed meanes how
those creatures should be healed which are venomous to other: for who knoweth not, that scor-
pions if they be but touched with Aconite, presently become pale, benummed, astonied, and I
bound, confessing (as it were) themselues to be vanquished and prisoners: contrariwise, let them
but touch the white Ellebore, they are vnbound and at liberty again; they recouer (I say) their
former vigor and vertue: whereby we may see, that the Aconite also giueth the bucklers to ene-
mies twaine, pernicious poisons both; the one to it selfe, and the other to all the world. Now if
happely any man should say, That the wit and head alone of man could possibly compasse the
knowledge of these things; surely he should shew therein his ingratitude and impiety vnto the
gods, in not acknowledging their beneficence. The people about Heraclea, to kil the Panthers
which breed in those parts, vse to rub with Aconite certain gobbets of flesh, which they doe lay
about the mountains as a bait and bane for them: and vnlesse by this meanes they did destroy
them, no doubt they would fill the whole countrie; which is the cause that some call it Pardali- K
anches, *i.* libard-bane: but they again on the other side, presently haue recourse to the excrements
of a man, as I haue before declared, the only counterpoison whereby they saue themselues: who
doubteth now, but the knowledge of this secret came first to them by meere chance? and con-
sidering that it is not possible to render a reason of the nature and vsage of such wild beasts (and
whensoeuer we see the like to fall out, we count it still a new & strange accident) we must needs
attribute the finding thereof to Fortune.

Chap. III.

¶ *That of all Creatures and Inuentions in this life, the author is a god.* L

THis Chance and Fortune then, by means wherof we attaine to so many inuentions that we
haue, is a diuine power, and no lesse indeed than a God: by which name also we vnderstand
and call that great mother and mistresse of all things, dame Nature: and surely consider-
ing that conjecturall it is and doubtfull, Whether these wild beasts come by this knowledge
day by day at a venture, or were indued naturally at the first with that perceiuance? we haue as
great reason to attribute a diuinity and godhead to the one, as the other. Well, be it Chance,
or be it Nature, that hath thus ordered the matter, certes a great shame it had bin, that all other
creatures should haue knowne thus (as they do) what is good and profitable for them, and man
only remain ignorant. But such was the industrie and goodnesse of those ancestours of ours in
times past, that they not only deuised means, but also deliuered to posterity, how this venomous M
herbe Aconitum might be most safely and commodiously mingled in those collyries and me-
dicines which be ordained for the eies: an euident argument and plaine proofe, I assure you,
that there is nothing so bad but it hath some goodnesse in it, and may be vsed wel. And therfore
dispensed withall I looke to be, if I who hitherto haue written of no poisons, put downe the de-

scription

20030

A ſcription thereof; to the end that a man may know it, and by knowing, take heed and beware. This herb hath leaues, reſembling Cyclamin or the Cucumber, in number no more than foure, and thoſe toward the root in ſome ſort rough and hairy. The root but ſmall, and the ſame like vnto a ſea crab fiſh: and therfore ſome haue named it Cammaron; whereas others, for the reaſon before ſhewed, call it * Theliphonon. And for that the root doth turn and crook inward in maner of a ſcorpions taile, there be that giue it the name Scorpion. There wanted not others who choſe rather to call it * Myoctonon, becauſe with the very ſent it is able to kill mice and rats a great way off. It groweth naturally vpon bare and naked rocks, which the Greeks cal * Aconas: which is the reaſon (as ſome haue ſaid) why it was named Aconitum. And for that in the place B where it groweth or neare vnto it, there is no mould, nor ſo much as any duſt found for to giue it nouriſhment, ſome haue thought it took the name therupon. Yet there be others who aſſigne another cauſe of that denomination, to wit, for that it is as forcible and as ſpeedy in working the death of thoſe whom it toucheth, as the hard ſtone or rag in turning or wearing the edge of any yron toole; for no ſooner commeth it neere vnto the body and is applied vnto it, but the quicke operation is ſenſibly found.

*i. Femalbane.

*or *Myophonon* * *Ab α. priuati-ua particula, & μυὶς, i.* duſt: whereupō bare ſtones without any mould vpon them, be alſo called in Greek ἀκόνη, & ſo be whetſtones likewiſe: Yet *Theophraſtus* is of opinion, That it tooke the name *Aconitū* of Aconæ, a certain towne, neer to which it groweth abundantly.

Chap. IIII.

¶ *Of Æthiopis, Ageraton, Aloe, Alcea, Alypon, Alſina, Androſace, Androſæmon, Ambroſia, Anonis, Anagyron, and Anonymon.*

C THe leaues of Æthiopis are great and many in number, hairy alſo neere vnto the root, and otherwiſe correſpondent to thoſe of Mullen. It riſeth vp with a four cornered ſtem, rough in handling, and after the maner of the main ſtem of the Clot-bur, hauing many concauities or holes like arm-pits in the grafting of the branches to the ſaid ſtem. It beareth ſeeds like vnto Eruile, which ordinarily grow double two by two, and are white. The roots be many, and thoſe long, ful and well nouriſhed, ſoft, and clammy in taſt: being dried, they wax black & grow hard withal; in ſuch ſort, as a man would take them for horns. They grow ordinarily in Æthyopia, alſo vpon the mountain Ida in the region of Troas, and in Meſſenia. The right ſeaſon to gather theſe roots, is in Autumne; and then they ought to be laid a drying in the Sun for certain daies together, to keep them from moulding. Being taken in white wine, they help the infirmities of D the matrice; and the decoction therof drunk, is good for the Sciatica, the pleuriſie, & the hoarſneſſe in the throat. But that which commeth out of Æthyopia is counted beſt and hath no fellow, for it worketh preſently.

As for Ageraton, it is an herb of the Ferula kind, growing vp to the height of 2 ſpans like to Origanum, but that the floures reſemble buttons or brooches of gold. The ſume of this herbe when it burneth, prouoketh vrin and mundifieth the matrice, eſpecially if a woman ſit in a bath thereof, and do foment the natural parts therewith. The reaſon of the name Ageraton, is this, becauſe the floures continue very long before they ſeem to fade and wither.

*Ab α. ſteretica, & γῆρας, old age.

Aloe is an herbe which hath the reſemblance of the ſea-onion, but that it is bigger and the leaues be more groſſe and fat, chamfered or channelled biais all along: the ſtem that it beareth, E is tender, red in the middeſt, not vnlike to Anthericon: one root it hath and no more, which runneth directly deep into the ground in manner of a big ſtake: ſtrong it is to ſmell vnto, and bitter in taſt. The beſt Aloe is brought out of India: but there groweth good ſtore thereof in Aſia, howbeit of no vſe, but that they lay the leaues freſh vnto green wounds; for they do incarnat and heale wonderfully, like as their juice alſo. And for that it is ſuch an excellent wound-herbe, folk vſe to ſet and ſow it in barels or pipes pointed beneath, and broad aboue; like as they do the greater Houſleek. Some there be who for to draw a juice or liquor out of it, ſtay not vntill the ſeed be ripe, but cut the ſtem for that purpoſe: others make inciſion alſo in the leaues: moreouer there is otherwhile found in Aloe a certain liquid gum iſſuing out of it ſelf, and ſticking faſt to F the ſtem thereof: and therefore they hold it good to paue or ram the ground hard all about the place where Aloe groweth, that the earth ſhould not drink vp the liquor which diſtilleth from it. *Some haue written that in Iury aboue Ieruſalem, higher into the country, there is a certain minerall Aloe to be found, growing in manner of a mettal within the ground: but there is none worſe than it, neither is there any blacker or moiſter. If you would know the * beſt, chuſe that which is fat and cleare, of a red colour, brittle and apt to crumble, cloſe compact in manner of a liuer,

*Petronius Niger, as Dioſcorides ſaith in his preface.

* It ſeemeth that he means here the concreted iuice thereof, which we alſo do call Aloe.

a liuer,eaſie alſo to melt and reſolue. If you ſee any that is black,hard, ſandy, or grittie (a thing G
which may ſoone be knowne betweene the teeth in taſting of it) the ſame is to be rejected for naught. Many there be who do ſophiſticat it with other gums and the juice Acacia. Aloe is of an aſtringent nature,ſeruing to make thick, to cloſe faſt, and gently to heat any part of the body. Much vſe there is of it in many caſes, but principally to looſen the belly: being the onely purgatiue medicine that is comfortable to the ſtomack and ſtrengtheneth it,ſo farre is it from offending the ſame by that laxatiue vertue or any contrary qualitie that it hath: & for this purpoſe the ordinary doſe to be giuen in drinke,is one dram. But when the ſtomacke is feeble and wil keep nothing, the manner is to take the quantity of one ſpoonfull thereof, in two cyaths of water either warm or cold,twice or thrice in a day by turns,pauſing ſome ſpace between as need requireth,and as the patient ſhall find expedient. Moreouer, if occaſion be to purge the bodie H
throughly,Phyſitians vſe to giue three drams thereof,and not aboue. And the better wil it work if it be taken preſently before meat. If the head be rubbed or annointed therewith and ſome auſtere and aſtringent wine,againſt the haire and in the Sunne, it retaineth the haire that is ready to fall. A liniment made of it together with vineger and oile Roſat, applied vnto the forehead and temples in maner of a frontall,eaſeth the head ach: ſo doth it alſo,if by way of embrochation it be diſtilled from aloft vpon the head in a more thin and liquid ſubſtance. A very conuenient and ſingular medicine it is to heale all the diſeaſes incident to the eies,but eſpecially for the itch and ſcab riſing in the eie-lids. Alſo when the skin looketh blacke and blew vnder the eies,or otherwiſe be marked by occaſion of ſome bruiſe,it taketh them all away,if it be applied thereto with hony: and namely that which commeth out of Pontus. It is a proper remedy for I
the amygdals,the gums,and all the vlcers of the mouth. Taken to the weight of a dram in water,it ſtaieth the ſpitting and voiding of bloud vpward,if it be not exceſſiue: but in caſe it bee violent & immoderat,it ought to be drunk in vineger. The flux of bloud in wounds,or the bleein any part whatſoeuer,it ſtancheth,either applied by it ſelf alone or els with vineger. In other reſpects alſo it is right ſoueraign for wounds,a great healer,and that which vniteth & skinneth quickly. A ſingular remedy it is to be either caſt vpon the vlcers of a mans yard, the ſwelling piles,the riſts & chaps of the ſeat; in plain dry pouder by it ſelf alone,or els to be applied therto with wine or with cuit,according as the griefe requireth to be mitigated or repreſſed. Moreouer,it gently ſtaieth the immoderat flux of bloud by the hæmorrhoids. And in a clyſter it is
excellent to heale the exulceration of the guts in the bloudy flix. Alſo it is very good & whol- K
ſom for thoſe who hardly digeſt their meat,to drink it a pretty while after ſupper. And for the Iaundiſe it is ſingular to take the weight of 3 oboli thereof in water. It is good to ſwallow pils of Aloe either with boiled hony or Turpenttne for to purge the guts and inward bowels: and a ſalue made therewith,taketh away the whitflaws and impoſtumations about the naile roots: for eie-ſalues,and other ocularie medicines,it ought to be waſhed, that the moſt ſandy and groſſe parts therof may ſettle to the bottom and be ſeparated from the purer ſubſtance: or els it ought to be torrified in an earthen veſſell, and plied continually with ſtirring with a quill or feather, that it may be burnt and calcined equally.

Touching Alcæa,it is an herb bearing leaues like vnto Veruain,which alſo is called Periſtereon,riſing vp with three or foure ſtems,well garniſhed with leaues,and carrying floures in ma- L
ner of Roſes: it putteth forth for the moſt part ſix white roots,and thoſe a cubit long,not directly,but crooked and bending bias. It groweth ordinarily in battle grounds, and ſuch as ſtand ſomwhat vpon water. The roots chiefely do ſerue in Phyſick, which being taken with wine or water,do cure the dyſentery or bloudy flix,ſtop a lask,and knit thoſe that are burſt inwardly vpon ſome violent ſtrain or convulſion.

As for Alypon, a pretty herbe it is, ſhooting vp with a ſlender ſtem adorned with little ſoft and tender heads,not vnlike to the Beet,quick and ſharp in taſte, biting exceedingly and burning,howbeit clammy to the tongue. Taken in mead with a little ſalt,it maketh the body ſoluble. The leaſt doſe that is giuen thereof is two drams, from which they ariſe to foure,which is
counted a reaſonable & indifferent potion: but neuer exceed the weight of ſix. And ordinarily M
this purgation is taken by them that haue occaſion to vſe it,in broth of a cock,capon or pullet.

* Alſine,which ſome call * Myoſoton, is an herbe growing among * groues, whereupon it tooke that name Alſine. It begins to put forth and appeare aboue ground about midwinter,and by midſummer it is dried away: when it traileth and creepeth vpon the ground, the leaues doe repreſent

* Chickweed.
* i. Mouſe ear.
* ἄλσος, a groue.

20030

A repreſent the ears of little mice. But another herb there is, as I will ſhew hereafter, which more fitly and properly in that regard may be called * Myoſotis. Surely this might be taken well enough for * Hexine, but that the leaues be ſmaller, and thoſe leſſe hairy. It groweth vſually in gardens, and moſt of all vpon walls: when it is ſtamped or bruiſed, it ſenteth of a Cucumber. Commonly vſed it is in cataplaſmes for to be applied vnto impoſtumes and inflammations: and emploied it may be in all thoſe caſes whereunto Parietary ſerueth. For the ſame effect they haue both, but that Chickweed is weaker in operation. And this particular property it hath by it ſelfe beſides, to ſtay the flux of waterie humors into the eies: alſo to heale all vlcers, and thoſe eſpecially which are in the priuy parts, being applied thereto in a pulteſſe with Barly meale: the

* The right Mouſe eare.
* Parietarie of the wall.

B juice thereof is good to be dropped or poured into the ears.

Androſaces is a * white hero, bitter in taſte, without any leaues, but in ſtead thereof it hath certain little husks or cods hanging by ſmall bents, and thoſe containing ſeed within them. It groweth along the ſea ſide, and moſt of all vpon the coaſts of Syria. The cods being ſtamped or boiled in water, vineger, or wine, are good to be giuen (to the weight of 2 drams) to them that are in a dropſie, for they prouoke vrine mightily. It ſerueth alſo in the cure of the gout, either taken by the mouth, or applied outwardly in a liniment. Of the ſame operation is the ſeed alſo.

* *Alba.* Hiply *Plinie* hath tranſlated λευκάκαρφος for λεπτόκαρφος in *Dioſcor.* which is, hauing ſlender ſtalkes like ruſhes.

Androſæmon, or as ſome call it Aſcyron, is not vnlike to Hypericon, whereof I haue already ſpoken: but that the ſtalks be bigger, ſtand thicker together, and are more inclining to red: the leaues be white or grey, faſhioned like vnto thoſe of Rue: and the ſeed reſembleth that of black Poppie: cruſh or bruiſe the vpmoſt crops or heads therof, they yeeld from them a bloudy iuice:

C in ſmel it ſenteth like vnto roſin: and is found ordinarily growing in vineyards. The proper time to gather this herb is in mid Autumne, and ſo to hang it vp a drying. The manner is to ſtampe the herb, ſeed and all, for to purge the belly: wherof they drink either firſt in the morning or laſt after ſupper, the weight of two drams in mead, wine, or ſheere water, ſo that the whole draught of the potion be a full ſextar and not aboue. Properly it doth euacuat choler: and is principally good for the Sciatica: but the morrow after the patient ought to ſwallow down a dram weight of the Capers root mixed with roſin: and then after pauſing foure daies between, to do the like againe: after which courſe of purging, if the patient be of a ſtrong complexion, he may drinke wine; otherwiſe, thoſe of a weaker conſtitution ought to forbeare, and drinke water. Excellent good it is for all gouts of the feet, and for burns, if it be applied vnto the place, and a good vul-

D nerary herb beſides, and ſtancheth the bleeding of wounds.

Ambroſia is a name that keepeth not to any one herb, but is common to many. Howbeit, the true Ambroſia runneth vp from the root into one ſmall ſtem, which notwithſtanding brancheth thick, riſeth to the height of three ſpans or thereabout, and ordinarily is one third part, ſhorter than the root: and the leaues be like Rue. Toward the foot of the ſaid ſtem it bringeth forth certain little grapes with grain or ſeeds within, and thoſe haue a ſent of wine, and hang down from the branches of the ſaid herb: for which cauſe ſome there be who cal it Botrys, although others giue it the name Artemiſia. The people of Cappadocia vſe therwith to make themſelues chaplets to weare vpon their heads. This herb is much vſed in thoſe accidents that require to be diſſolued and ſent out by the pores of the skin.

E Anonis (which ſome chuſe rather to call Ononis) is an herbe full of branches like vnto Fenigreek, but that it ſpringeth thicker from the root, brancheth more, and is more hairy: of a pleaſant ſmell, and pricky, after the ſpring. Many vſe to keep it condite in pickle. Beeing applied to any vlcer whiles it is freſh and greene, it eateth away and conſumeth the excreſcence of proud fleſh in the brims or edges thereof. The root is good for the paine of the teeth, if it be ſodden in vineger and water mingled together, and the mouth waſhed withal: the ſame taken in drink with hony, expelleth grauell and ſtone: boiled in Oxymell to the conſumption of the one halfe, it is a ſingular drink for the falling ſickneſſe.

Reſta bouis. Reſt-harrow or petie Whin

Anagyros, which ſome call Acopos, is an hearbe which brancheth thicke, of a ſtrong and

F ſtinking ſmell: it beareth floures like vnto thoſe of Beets: in certaine cods like horns, which be of a good length: it bringeth forth ſeed reſembling kidnies in ſhape, the which in harueſt time becommeth hard: the leaues are ſingular good to be laid vpon impoſtumat ſwellings: they ſerue alſo for women which be in hard trauell with child, to be hanged or tied faſt about them; with this charge, that preſently they be remoued after they are deliuered. But if the child be dead & ſtick ſtil in the matrice, or in caſe the afterbirth tarry behind, & wil not come away after the in-

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fant is born: or if a woman deſire to ſee her monthly ſicknes, it is good to drink a dram weight of the leaues in wine cuit. And in that maner they are giuen to thoſe who be ſhort winded: but in old wine againſt the ſting of the venomous ſpiders Phalangia. The root is ſingular to be put to thoſe plaſters which either do reſolue or maturat any impoſtumed place. The ſeed chewed, ſtaieth immoderat vomits. G

* Some take it for Bugle or Sel c heale.

* Anonymos, finding no name to be called by, got therupon the name * Anonymos. a Plant this is brought out of Scythia to vs; highly commended by *Hiceſius* a Phyſitian of great name and authority, alſo by *Ariſtogiton*, for an excellent vulnerary, if it be bruiſed or ſtamped in water, and ſo applied; but taken inwardly in drinke, it is good for womens breaſts and the precordiall parts about the heart, if they haue gotten a ſtripe, or be bruiſed: alſo for ſuch as reach vp bloud. Some haue ordained a vulnerary drink to be made therof for thoſe that be wounded. But what is ſaid moreouer as touching this herb, I hold meere fabulous: and namely, that if two pieces of yron or braſſe be put into the fire and burn together with this herbe, freſh and new gathered, they will ſouder and joine againe. H

* Nameleſſe.

Chap. V.

¶ *Of Erith or Gooſe graſſe. Of the Clot-bur. Of * Ceterach: of Aſclepias and Aſter or Bubonium. Of Aſcyrum or Aſcyroides. Of Aphace, Alcibium, and Alectorolophus.*

* or *Scolopendrium.*

ERith is by ſome called in Greeke Aparine, by others Omphalocarpos and Philanthropos. An herb giuen to be full of branches, rough and prickly, carrying fiue or ſix leaues growing round together about the ſaid branches in order like a ſtar, and a prety diſtance there is between euery of theſe roundles. The ſeed is round, hard, hollow, and ſweetiſh. It groweth in corn fields, in gardens and medows: rough it is, that it is ready to * catch hold of folkes clothes as they paſſe by, and to ſtick vnto them. An effectuall herb againſt ſerpents, if a dram of the ſeed be drunk in wine: alſo for them who are pricked with the ſpiders Phalangia. The leaues haue a ſingular vertue to repreſſe the abundant flux of bloud out of wounds, if they be outwardly applied: like as the juice hath a ſpeciall property to help the infirmities of the ears, being dropped or poured into them. I

* Whereupon they cal it *Philanthropos*, i. a louer of man.

Arction, which ſome rather name Arcturus, is like in leaſe to the great Mullen or Taperwort, but that it is more rough: the ſtem tall and ſoft, and the ſeed reſembling Cumin. It grows ordinarily in ſtony grounds, with a root tender, ſoft, & ſweet. Being ſodden in wine, it eaſeth the tooth-ach, ſo that the patient hold the decoction in his mouth. For the Sciatica and ſtrangurie it is good to be taken at the mouth in wine; and outwardly applied, it healeth burns and cureth kibed heeles: in which caſes the root is much commended, if together with the ſeed it be ſtamped with wine, and a fomentation made with the decoction thereof. K

As touching Aſplenum, ſome there be who call it Hemionion: an herbe putting forth many leaues * foure inches long: the root is giuen to haue cranks and holes, and thoſe full of mud or durt: much-what do the leaues grow like to Fearn: the root is white and rough. It beareth neither ſtalk, ſtem, nor ſeed. It delighteth to grow among rockes and ſtones, vpon walls ſtanding in the ſhade, and in moiſt grounds. The beſt is that which we haue out of Candy. It is commonly ſaid, that if the decoction of the leaues boiled in vineger be drunke forty daies together, it waſteth the ſwelled ſpleen. The ſame may be applied in a liniment for that purpoſe, & ſo alſo they do ſtay the exceſſiue yex or hocket. This herb would not be giuen to women, for it cauſeth them to be barren. L

* *Trientalibus.*

Aſclepias beareth leaues reſembling Iuie, long branches, many ſmall roots, and thoſe odoriferous; howbeit the flours haue a ſtrong and rank ſtinking ſmell with them, the ſeed much like to the Axvitch. It loueth to grow vpon mountains. The roots of this herbe not only taken inwardly in drinke, but alſo applied outwardly in a liniment, do eaſe the wrings of the belly, and reſiſt the ſting of ſerpents. Aſter, is by ſome named Bubonium, for that it is a preſent remedy for the tumours ariſing in the ſhare. This herbe putteth vp a ſmall ſtemme, with two or three leaues ſomewhat long. In the top thereof it beareth certaine little heads inuironed with ſpokie leaues, and thoſe diſpoſed round in manner of a ſtarre. Taken in drinke, it is thought to be a preſeruatiue againſt the venom of ſerpents. But to make a medicine for the ſhare beforenamed, M

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A it muſt (they ſay) be gathered with the left hand: nd then kept faſt bound neere vnto the middle or girding place of the patient. And ſurely it helpeth the Sciatica, in caſe it be tied ſure to the affected place.

Aſcyron and Aſcyroides, be herbes reſembling one another, and both like vnto Hypericon: howbeit that which is named Aſcyroides, hath the bigger branches, and thoſe ſtreight and direct, much after the manner of Fenell and ſuch like, red throughout: and in the top thereof appeare little heads or knobs, of a yellow color. The ſeed contained in certain pretty cups, is ſmal, black, and gummie: bruiſe the ſaid tops or knobs between your fingers, they ſeem to ſtain them with bloud; which is the cauſe that ſome cal this herb * Androſæmon. The ſeed is ſingular for *i. Mans bloud*
B the Sciatica, namely if the patient drink two drams weight thereof in a ſextar of Hydromel, that is to ſay, mead or honied water: for it looſeneth the belly and purgeth choler. A liniment made therewith, is much commended for a burne.

Apace is an herb which hath very fine and ſmall leaues: and a little taller it is than the Lentill; but larger cods it beareth, wherin lie three or foure ſeeds, blacker, moiſter, and ſmaller than the grains of the ſaid Lentill. It groweth vpon corn lands. More aſtringent it is by nature than the Lentill, and bindeth ſtronger; for all other matters it worketh the ſame effects. The ſeed boiled, ſtaieth vomits and lasks.

Touching * Alcibion, what manner of herb it ſhould be, I neuer could yet finde in any wri- * *Pliny* hath forgotten himſelfe, conſidering that in the 22 booke, & 21 chapter, he deſcribes it (according to *Dioſcorides*) to be like in root and leafe to Orchanet, &c. and there hee nameth it *Arctbion.*
ter. But they giue direction to ſtamp the roots and leaues thereof, and ſo in a cataplaſme to ap-
ply them vnto any place ſtung with ſerpents, and to drink them alſo. Now they preſcribe for the
C drink, to take of the leaues one good handfull, and to ſtamp them, and ſo to giue them in three cyaths of meere wine ful of the grape: or of the root three drams weight, with the like meaſure of wine.

Alectorolophos in Greek, called by vs in Latine Criſta Galli, *i.* Cocks-comb, hath leaues for all the world reſembling the creſt or comb of a cock, and thoſe in number many: a ſlender ſtem and black ſeed, incloſed within certain cods. A ſoueraign herb it is for them that cough, if it be boiled with bruiſed beans, and taken in maner of an electuary with hony. It ſcattereth the clou-
dy films that trouble the eie-ſight; & the maner is to take the ſeed whole and ſound as it is, and to put it into the eie: it is nothing offenſiue nor troubleth that part one whit, but gathereth to it ſelfe all thoſe groſſe humors which impeached the ſight. And in very truth, this ſeed whiles
D it is within the eie changeth colour, and being black before, beginneth to wax white; it ſwelleth withall, and in the end commeth out of the eie by the owne accord.

Chap. VI.

¶ *Of Alum.*

THe herb which we name in Latine Alum, the Greeks call Symphytum Petræum, as if one would ſay, Comfrey of the rock: and verily like it is to wild Origan. The leaues be ſmall, and three or foure branches ſpring immediatly from the root: the tops whereof reſemble thoſe of Thyme. Much branched it is otherwiſe, odoriferous in ſmel, and ſweet in taſt: it draws
E down water into the mouth and cauſeth ſpitting. The root which it putteth forth is long & red. This herb taketh pleaſure to grow in ſtony places among rocks: in which regard it took the addition of the name Petræum. Singular good it is for the ſides and flanks, the ſpleen, reines, and wrings of the belly: for the breaſt, the lights, for ſuch as reject or caſt vp bloud, and are troubled with the aſperity and hoarſneſſe in the throat: for which infirmities, the root is to be ſtamped, boiled in wine, and ſo drunk; yea, and otherwhiles to be reduced into a liniment, and ſo applied. Moreouer, the chewing of it only, quencheth thirſt, and hath a principal vertue to coole the lungs. Being applied outwardly in the form of a cataplaſm, it knitteth diſlocations, helpeth convulſions, is comfortable to the ſpleen, & the bowels or guts, if they be fallen by any rupture.
F The ſame root roſted or baked vnder the aſhes, ſtaieth a lask, in caſe it be firſt ſhrigged from the hairy ſtrings thereof and pilled; and then after it is beaten into pouder, be drunk in water with nine Pepper corns. And for healing of wounds, ſo ſoueraigne it is, that if it be put into the pot and ſodden with pieces of fleſh, it will ſouder and reioine them, whereupon the Greekes impoſed vpon it the name Symphytum, *i.* Conſound: finally, it ſerueth to vnite again broken bones.

CHAP.

Chap. VII.

¶ *Of Reits or sea-grasse, and Wallwort. Of the wild vine, and Wormewood.*

The sea-weed that looketh red, named in Latine Alga, is very proper for the prick and sting of Scorpions.

Touching Wallwort, it hath leaues carrying a strong and stinking smell with them: the stems be rough and parted into ioints: the seed black like to that of the Iuy, saue that the berries containing the same be soft. This herb delighteth in shady, cool, rough, and watery places. Beeing giuen to the full quantity of one Acetabulum, it is singular for the inward maladies which be proper to women.

The wild Vine, called by the Greeks Ampelos-Agria, is an herbe (as I haue sufficiently described already in my Treatise of Vines planted and wel ordered by mans hand) which putteth forth hard leaues of Ash-colour, long branches and winding rods clad with a thicke skin, and the same be red, resembling the floure Phlox, which in the chapter and discourse of Violets, I called Iouis Flamma; and a seed it beareth much like vnto the graines within a Pomegranate. The root boiled in three cyaths of water and two cyaths of the wine comming out of the Island Coos, is a gentle emollitiue of the belly, and maketh the body soluble, in which regard it is giuen with good successe to such as be in a dropsie. A very good herb for women, as well to rectifie the infirmities of the matrice, as also to scoure and beautifie the skin of their face. Moreouer, for the sciatica it is good to stamp it leafe and all, and to annoint the grieued place with the juice thereof.

As for Wormewood, there be many kindes thereof. One is named Santonicum of a city in France called Saints: another, to wit Ponticum, taketh that name of the kingdome Pontus; where the sheep feed fat with it, which is the cause that they be found without gall: neither is there a better Wormwood than it: much bitterer than that of Italy, and yet the marow or pith within of that Ponticke Wormwood, is sweet to ours. Meet and requisite it is that I should set down the vertues and properties thereof, an herb (I must needs say) as common as any, and most ready at hand, howbeit, few or none so good and wholesome: to say nothing of the especiall account which the people of Rome make of it about their holy sacrifices and solemnities: for in those festiuall holydaies named Latinæ, at what time as there is held a great running with chariots for the best game, he that first attaineth to the goale and winneth the prise, hath a draught of VVormwood presented vnto him. And I beleeue verily, that our forefathers and ancestors deuised this honourable reward, for the good health of that victorious charioteer, as judging him worthy to liue still. And in truth, a right comfortable herb it is for the stomack, and doth mightily strengthen it: In which regard, there is an artificiall wine that carieth the strength and taste thereof, named Absinthites, according as I haue shewed heretofore: moreouer, there is an ordinary drinke made of the decoction of Wormwood boiled in water: for the right making whereof, take six drams weight of the leaues and sprigs together, seeth them in three sextars of raine water, and in the end put thereto a small quantity of salt; which done, the liquor ought to stand a day and a night afterwards to coole in the open aire, and then is it to be vsed: Certes, there is not a decoction of any herbe of * so great antiquitie as it, and knowne to haue beene vsed so long. Moreouer, the infusion of VVormewood is in great request, and a common drinke: for so we vse to call the liquor wherein it lay steeped a certain time. Now this would be considered, that be the proportion of water what it will, the said infusion ought to stand close couered for three daies together. Seldome or neuer is there any vse of wormewood beaten to pouder, ne yet of the juice drawn by way of expression. And yet those that presse forth a iuice, take the Wormwood when the seed vpon it beginneth to swell and wax full, and being newly gathered, let it lie soking in water three daies together: but if it were drie before, to steep it a whole seuen night: which done, they set it ouer the fire in a brasen pan, with this proportion, namely, ten hemines of the herbe, to fiue and fortie sextars of water, and suffer it to boyle vntill a third part of the liquor be consumed: after this the decoction must run through a strainer, with hearbe and all well pressed: then ought it to be set vpon the fire againe, and suffered to seeth gently and leisurely to the height or consistence of honey, much after the order of the syrrup made of Centaurie the lesse. But when all is done, this juleb or syrrup of VVormewood

* *Vetustissime in vsu est.* Some read *Vetus siue vsu est*, that is, If this drink be stale, and not vsed presently, it is good for nothing.

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A wood,is offenſiue to the ſtomack and head both;whereas that decoction firſt aboue-named, is moſt wholſome: for aſtringent though it be,and binding the mouth of the ſtomack aloft,yet it doth euacuat choler downward, it prouoketh vrine, keepeth the body ſoluble, and the belly in good temper,yea and if it be pained,giueth great eaſe:the worms ingendered therein, it expelleth:and being taken with Seſeli,and Celticke nard, ſo there be a little vineger put thereto, it diſpatcheth all ventoſities in the ſtomacke,and cureth women with child of that inordinat deſire and ſtrange longing of theirs: it clenſeth the ſtomack of thoſe humors which cauſe lothing of meat,bringeth the appetite againe and helpeth concoction:if it be drunke with Rue,Pepper, and ſalt,it purgeth it of raw humors & crudities occaſioned by want of digeſtion. In old time, Phyſitians gaue wormwood for a purgatiue;but then they tooke a ſextar of ſea water that had
B bin kept long,ſix drams of the ſeed,with three drams of ſalt,and one cyath of hony:and the better will this purgation worke,in caſe the poiſe of ſalt be doubled;but it would be puluerized as fine as poſſibly may be, to the end that it might paſſe away the ſooner, and worke more eaſily. Some vſed to giue the weight beforeſaid in a gruell of Barley groats,with an addition of Peniroyall:others againſt the Palſie:and others againe had a deuiſe to put the leaues of wormwood in figs,and make little children to eat them ſo,that they might not taſt their bitternes. Wormwood being taken with the root of Floure-de-lis, diſchargeth the breſt of tough fleagme, and clenſeth the pipes. For the iaundiſe,it would be giuen in drinke raw,with * Parſley or Maiden-
C haire. Supped hot by little and little in water,it breaketh wind and reſolueth ventoſities:and together with French Spikenard, it cureth the infirmities of the liuer: and taken with vineger, or ſome gruel,or els in figs,it helpeth the ſpleen: giuen in vineger, it helpeth thoſe that haue eaten venomous Muſhrums,or be poiſoned with the gum of Chamælion called Ixia. In wine if it be taken,it ſaueth thoſe who haue drunk Hemlock: it reſiſteth the poiſon inflicted by the ſting of the hardiſhrow,the ſea dragon, and ſcorpions. It is holden to be ſingular for the clarifyng of the ſight: if the eies be giuen to watering,it repreſſeth the rheum or flux of humors thither, ſo it be applied with wine cuit: and laid vnto contuſions, and the skin blacke and blew vnder the eies,with hony,it reduceth the place to the natiue colour againe. The vapour or fume of the decoction of wormwood receiued into the eares,aſſuageth their paine:or if they run with corrupt matter,it is good to apply the ſame,reduced into pouder and incorporat in hony. Take three or foure ſprigs of wormwood,one root of Nardus Gallicus,boile them in ſix cyaths of water, it is
D a ſoueraigne medicine to drinke for to prouoke vrine, and bring downe the deſired ſickneſſe of women: or beeing taken ſimply alone with hony, and withall put vp in a peſſarie made with a locke of wooll,it is of ſpeciall operation to procure their monthly terms: with honey and ſalnitre,it is ſingular for the Squinancie: it healeth chill-blanes,if they be bathed with the decoction thereof in water: applied vnto freſh or green wounds in a cataplaſme,before any cold water come vnto them,it healeth them: and beſides,in that manner,it cureth the ſcals in the head: being incorporat with * Cyprian wax or figges,and ſo applied to the flankes or hypochondrial
E parts,it hath a particular vertue by it ſelfe to helpe their griefes. Moreouer, it killeth any itch. Howbeit,this would be noted,that wormewood in no caſe muſt be giuen to thoſe that haue an ague. Let a man or woman vſe to drinke wormewood, they ſhall not be ſea-ſicke nor giuen to heauing, as commonly they be that are at ſea. If wormewood be worne in a truſſe to the bottome of the bellie, it allayeth the ſwelling in the ſhare. The ſmell of wormewood procureth ſleepe;or if it be laid vnder the pillow or bolſter, prouided alwaies that the patient be not ware of it. Either baſted within cloaths,or ſtrewed vpon them,it keepeth away the moth. If one rub his body therewith and oile together,it driueth gnats away ſo doth the ſmoke therof alſo when it burneth. If writing inke be tempered with the infuſion of wormewood, it preſerueth letters and bookes written therewith, from being gnawne by mice. The aſhes of wormewood burnt,
F and incorporate with oile Roſat to an ointment,coloureth the haire of the head black. There is yet another kinde of Sea-wormewood,which ſome call Seriphium: and excellent good is that which groweth about the city * Taphoſitis in Ægypt. Of this wormewood it is, that the prieſts of Iſis in their ſolemne marches and proceſſions, vſe to beare branches before them. The leaues be ſomewhat narrower than thoſe of the former, and the bitterneſſe not altogether ſo much. An enemy it is to the ſtomacke: howbeit, the belly it looſneth,and chaſeth worms out of the guts;for which purpoſe,it is good to drink it with oile and ſalt:or elſe the infuſion ther-
M of in a * ſupping or grewell made with the floure of the three moneth corne. To make the de-

* *Cum apio,*not *opio.*

* or the cerot, *Cypric*, after *Dioſcorides.*

* So called, becauſe *Oſyris* was enterred and his ſepulchre renewed there.

* Or rather, a kind of ſweet cuit called *Hepſema*, by *Dioſc.* which ſignifieth alſo a water gruell.

coction of wormwood well, there would be taken a good handfull of wormwood, and ſodden in G
a ſextar of water to the conſumption of the one halfe.

Chap. VIII.

¶ *Of ſtinking Horehound: of Mille-graine, or Oke of Ieruſalem: of Brabyla, Bryon, Bupleuros, Catanance: of Calla, Circæa, and Cerſium: of Crataogonon and Thelygonum: of Crocodilium and Cynoſorchis: of Chryſolachanon, Cucubalon, and Conſerua.*

STinking Horehound, which ſome Greeks call Ballote, others Melampraſion, *i.* Black Horehound, is an herbe tufted full of branches: the ſtems be black and cornered; the leaues wher- H
with they be clad and garniſhed, are ſomewhat hairy, reſembling thoſe of ſweet or white
* *Perri*: but it ſhould be *Marrubij*, according to the Greeke word μαρρ'ις not μαρρ. * Horehound, but that they be bigger, blacker, and of a ſtinking ſauor: but the leaues ſtamped and applied with ſalt, be very effectuall againſt the biting of a mad dog: alſo, if they be wrapped in a Colewort or Beet leafe, and ſo roſted vnder the embers, they are commended for the ſwelling piles in the fundament. This Horehound made into a ſalue with honey, clenſeth filthie vlcers.

Botrys is an herb ful of branches, and thoſe of a yellowiſh colour, and beſet round with ſeed: the leaues reſemble Cichorie. Found it is commonly growing about the banks of brookes and riuerets. Good it is for them that be ſtreight winded and cannot draw their breath but ſitting vpright. The Cappadocians call it Ambroſia, others Artemiſia.

As for * Brabyla, they be aſtringent in manner of Quinces. More than ſo, I find not any Au- I
thor to write thereof.

* Some take them for Damaſcen plums, or rather for Bullois, Skegs, or ſuch like wilde Plums. Bryon no doubt is a Sea-herbe, like in leaues to Lettuce, but that they be riuelled and wrinkled as if they were drawne together in a purſe: no ſtem it hath, and the leaues come forth at the bottom from the root: it groweth ordinarily vpon rockes bearing out of the ſea: and ye ſhall find it alſo ſticking to the ſhels of certaine fiſhes, eſpecially ſuch as haue gathered any mud or earth about them. The herbe is exceeding aſtringent and deſiccatiue, by vertue whereof it is a ſingular repercuſſiue in all impoſtumes and inflammations of the gout eſpecially, & ſuch as require to be repreſſed or cooled.

Touching Bupleuros, I read that the ſeed thereof is giuen againſt the ſting of ſerpents: and K
that the wounds inflicted by them, are to bee waſhed or fomented with the decoction of the herb, putting thereto the leaues of the Mulberrie tree, or Origan.

Catanance is a meere Theſſalian herb, and growing no where els but in Theſſalie; and foraſmuch as it is vſed only in amatorious matters, and for to ſpice loue drinks withall, I meane not to buſie my ſelfe in the deſcription therof: howbeit, thus much it would not be amiſſe to note, for to detect and lay open the folly and vanities of Magitians; namely, that they went by this conjecture onely, that it ſhould be of power to win the loue of women, becauſe forſooth when
* As if it would catch women and hold them faſt perforce. * χαμὸς or χαμὸς in Greeke ſignifieth a bridle or bit: and it is thought to be *Leontopodium*, *Dioſcor.* though others take it for Doder. it is withered, it draweth it ſelfe inward * like a dead Kites foot. For the ſame reaſon alſo, I will hold my tongue and ſay neuer a word of the herb * Cemos.

* Cala is of two ſorts: the one like to Aron, which loueth to grow in toiled and ploughed L
grounds: the time to gather this herb is before it begin to wither: the ſame operation it hath that Aron, and is vſed to the like purpoſes: the root thereof is commended to be giuen in drink for a purgation of the belly, and to prouoke the monethly termes of women: the ſtalkes boyled leafe and all together with ſome pulſe or other into a pottage, and ſo taken, cure the inordinate prouocations to the ſtoole, and ſtreinings therupon without doing any thing. The ſecond kind ſome call Anchuſa, others, * Rhinochiſia: the leaues reſemble Lettuce, but that they be longer, ful of plume or down; the root red, which being applied with the floure of barly groats, healeth ſhingles, or any other kind of S. *Anthonies* fire: but drunke in white wine, cureth the infirmities of the liuer.
* Or rather *Calix*.
* Rather *Orocleia*, out of *Dioſcorides*.

Circæum is an herb like to winter Cherry or Alkakengi, but for the flours which are black: M
the ſeed ſmall, as the graine of Millet, and the ſame groweth in huskes or bladders reſembling little hornes: the root is halfe a foot long, forked for the moſt part into three or foure grains or branches: the ſame is white, odoriferous and hot in the mouth: it loueth to grow vpon rockes and ſtonie grounds lying pleaſantly vpon the Sun. The infuſion of this root in wine, is good to

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A be drunke for the paine and other diſeaſes of the matrice: but of the ſaid root there ought to be taken three ounces ſtamped, and the ſame to ſteepe a day and night in 3 ſextars of wine, for to make the infuſion aboue-named. This portion alſo ſerues to ſend down the after-birth, if it ſtay behind. The ſeed of this herbe drieth vp milke, if it be drunke in wine or mead.

Cirſion commeth vp with a ſlender ſtalke two cubits high, and ſeemeth to be made 3 cornered triangle-wiſe: the ſame is beſet round about with prickie leaues: howbeit, the ſaid prickes are but tender and ſoft. The leaues in forme reſemble an oxe tongue or the herb * Langue-de-bœufe, but that they be ſmaller and ſomewhat white; in the top whereof there put forth purple buttons or little heads, which in the end turne to a plume like thiſtle down. Some writers hold,
B that this herb or the root onely, bound vnto the ſwelling veines called Varices, doth allay the paine thereof.

* Or Borage, called in Greeke *Bugloſſon.*

Cratæogonos ſpindleth in the head like vnto the eare of wheat, and out of one ſingle root ye ſhall haue many ſhoots to ſpring and riſe vp into blade and ſtraw, and thoſe alſo ful of ioints. It gladly groweth in coole and ſhadowie places: the ſeed reſembleth the grain of the Millet, which is very ſharp and biting at the tongues end. If a man & his wife before they company together carnally, drink before ſupper for 40 daies together the weight of three oboli of this ſeed, either in wine, or as many cyaths of water, they ſhall haue a man childe betweene them, as ſome ſay. There is another * Cratæogonos, called alſo Thelygonos; & the difference from the other may ſoon be known by the mildneſſe in taſte. Some authors affirme, that if women vſe to drinke the floures of Cratæogonos, they ſhal within 40 daies conceiue with child. But as well the one as
C the other applied with hony, do heale old vlcers: they incarnat and fill vp the hollow concauities of fiſtulous ſores: and ſuch parts as do miſlike and want nouriſhment, they cauſe to gather fleſh and fill the skin again: foule and filthy vlcers they mundifie, the flat biles and riſings called Pani they rarifie and diſcuſſe: gouts of the feet they mitigat; & generally all impoſtumations, in womens breſts ſpecially, they reſolue and aſſuage. *Theophraſtus* would haue a kind of tree to be called Cratægonos or Cratæogon, which here in Italy they call * Aquifolia.

* Some take this for our *Perſicorie*, or Arſ-mert.

Crocodilion doth in ſhape reſemble the thiſtly herbe or Artichoke called the blacke Chamæleon: the root is long and thicke in all parts alike, of an hard and vnpleaſant ſmel: it groweth ordinarily in ſandy or grauelly grounds. If one drinke of it (they ſay) it will ſet the noſe a bleeding, and ſend out a deale of thicke and groſſe bloud, that the ſpleene will diminiſh and
D weare away by that means.

* *i.* Holly or Huluer: nay rather, *Aquifolia* is *Agrid* in Greeke: and the *Cratægus* of *Theophraſtus*, which he meaneth here, is a kinde of Ceruoiſe tree now called *Torminalis.*

As touching Teſticulus Canis or Dogs-ſtones, which the Greeks cal Cynoſorchis, & others ſimply Orchis, it hath leaues like vnto thoſe of the oliue; ſoft & tender they are, and about halfe a foot long, and therfore no maruell if they lie ſpred vpon the ground: the root is bulbous and growing long-wiſe, in a double ranke, or two together: the one aboue, which is the harder, the other vnder it, and that is the ſofter: when they be ſodden, folke vſe to eat them after the manner of other bulbs: and lightly a man ſhall find them growing in vineyards. Of theſe two roots, if a man eat the bigger, it is ſaid, that he ſhal beget boies; and if the woman eat the ſmaller, ſhe ſhal conceiue a maiden childe. In Theſſalie, men vſe for to drinke in goats milke, the ſofter of theſe roots, to make themſelues luſtie for the act of generation; but the harder, when they would
E coole the heat of luſt: whereby we may ſee, that they be contrarie, and one hindereth the operation of the other.

Chryſolachanon commeth vp like a Lettuce, and commonly groweth in plots of ground ſet with Pines: the vertue of this herbe is to heale wounds of the ſinewes though they were cut quite aſunder, if it be preſently laied too. There is another kinde of * Chryſolachanon, bearing floures of a golden colour, and leafed like vnto the Beet: when it is boiled, folke vſe to eat it in ſtead of meat, and it looſeneth the belly as well as Beets, Coleworts, and ſuch like: and if it be true that is reported, whoſoeuer beare this hearbe tied faſt about any place of their bodies which is euer in their eie, ſo as they may ſee the ſame continually, it wil cure them of the jaun-
F diſe. Touching this hearb Chryſolachanum, well I wot that I haue not written ſufficiently, that men might know it by this deſcription, and yet could I neuer meet with any author who hath ſaid more, or deſcribed it better. This verily hath been the fault and ouerſight euen of our moderne Herbariſts of late daies, To write ſleightly of thoſe herbes and ſimples which they themſelues knew and were acquainted with, as if forſooth they had been knowne to euery man; ſetting downe onely their names and no more: which is euen as much as to tell vs a tale and ſay,

* I thinke he meaneth Otach.

that with the * rennet or rundles of the earth, one might stay a laske, or giue free passage to the vrine in the strangury, so it be drunke in wine or water. G

As for Cucubalum, they write of it, That if the leaues bee stamped with vineger, they heale the stings of serpents and scorpions. Some of them cal this herb by another name, Strumus, and others giue it the Greeke name Strychnos: and black berries (they say) it hath. The iuice thereof taken to the quantity of one cyath, with twice as much honied wine, is soueraigne for the loins or small of the back: likewise if it easeth the head-ache, if together with oile of roses it bee distilled vpon the head by way of embrochation. The herb it selfe in substance made into a liniment, healeth the wens called the kings euill.

Concerning the fresh water Spunge (for so I may more truly terme it, than either mosse or herbe, so thicke of shag haires it is and fistulous withal) it groweth ordinarily within the riuers that issue from the root of the Alpes, and is named in Latine * Conferua, for that it is good to conglutinat, in manner of a souder. Certes, I my selfe know a poore labourer, who as he was lopping a tall tree, fell from the top down to the ground, and was so pitiously bruised thereby, that vnneth he had any sound bone in all his body that was vnbroken: and in very truth, lapped he was all ouer with this mosse or spunge (call it whether you will) and the same was kept euermore moist and wet with sprinckling his owne water vpon it, whensoeuer it began to drie vpon him with the heat of his body: seldome was it vndone or remooued, and neuer but when of necessity for verie change fresh was laied too for default of the other: and by this manner of cure and no other, the poore wretch recouered perfectly, in so smal a time, that it was wonderful and almost incredible. H I

Coagulo terræ Some thinke in place vnperfect, but I gueſſe rather, that *Pliny* herein alludeth at the obſcuritie of their writings in theſe matters of ſimples, who put downe that herbe many names, which no man can make any ſenſe of no more than of *Coagula terræ*.

* *Conſerua quaſi conſolidando.*

Chap. IX.

¶ *Of the berrie called Coccum Gnidium. Of the Tazill, and Oke ferne. Of Dryophonon, and Elatine. Of Empetrum, otherwise named Calcifraga. Of Epipactis, or Elleborine. Of Epimedium, Cuneaphyllon, and Ferne. Of the herbe named Oxe-thigh. Of Galeopsis, otherwise Galeobdolon. Of Glaux, or Eugalactum.*

THe berrie Coccum Gnidium, in colour resembleth the Scarlet graine; in quantity a pepper corne, but that it is bigger: of an ardent and caustick quality it is, and therefore they vse to lap it in the soft crum or pith of a loaf of bread, and to swallow it, for feare it should burn the throat as it passeth down. A present remedy this is for those who are impoisoned with Hemlocke; and it hath a good propertie to stop a laske. K

* *Virga paſtoris* The Tazill, called in Greeke * Dipsacos, hath leaues much resembling Lectuce, sauing that in the mids of the back-part, there are to be seen certain bubbles as it were, or rifings, and those be prickly: the main stem which it beareth, is two cubits high, and the same armed with pricks: at euery ioint and knot whereof, it putteth forth two leaues which do compasse and inclose the same round about in maner of wings, making thereby a certaine * concauitie or hollow receptacle, wherein alwaies there standeth a * saltish dew or water. In the top of this maine stem and other branches proceeding from it, it beareth certaine burry heads, beset all ouer with sharpe pricks, like those of an Vrchin: and it loueth to grow in waterie places. This herb closeth vp and skinneth the fissures or chaps in the fundament: also the root boiled in wine, healeth fistuloes; but the same ought to be so tender sodden, as it may be wrought like wax, that a colyrie or tent made of it may be put into the concauitie of the sore. Moreouer, it cureth werts of all sorts: and some there be, who to take away werts, wash them with the liquor found in the hollow pith of the foresaid wings. The Oke fern named in Greek Dryopteris, is like to other fern, & groweth vpon trees, hauing leaues finely slit, and those somewhat sweet in tast: the root is rough and hairy: of a caustick and fiery nature is this herb; and therefore the root being punned, is a depilatory and fetcheth off haire: for which purpose, the manner is to apply it in manner of a liniment, vntill it procure sweat: which course would be re-iterated twice or thrice, during which time the sweat must not be wiped away. L M

* Thereupon it is called *Labrum Veneris*, *Venus* lauer.

* This water is not saltish: but because the name *Dipsacos* in Greek alludeth to thirst, & salt things cause thirstinesse. *Plinie* guessed this humour to be saltish.

Dryophonon is an herb much like to Dryopteris: the stems wherof be small, yet growing to the length of a cubit, & those be inuironed on both sides with leaues an inch broad: in shape much like to Bruscus or butchers-broom, called in Greek Oxymyrsine, but they be whiter and softer,

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A ſofter,bearing a white floure likewiſe in manner of the Elder. The young crops and tendrils of this herb,may be eaten when they are ſodden:and the ſeed is commonly vſed in ſtead of pepper.

Running Buckwheat or Bindweed,named in Greek Elatine,putteth forth ſmal leaues,round and hairy,much like to thoſe of Parietary of the wal;and immediatly from the root there ſpring fiue or ſix prety branches halfe a foot long,furniſhed well with leaues. This herb grows among corn: ſoure it is and harſh in taſt,wherupon it is taken to be very effectuall to repreſſe the fluxe of humors which cauſe watering eies, if the leaues be ſtamped with barley groats, and applied with a fine linnen cloath vnderneath. The ſame boiled together with Lineſeed,cureth the bloudy flix, in caſe the patient drinke the broth or decoction thereof.

B As for Empetron,which our countrymen in Latine name Calcifraga,it groweth vpon mountains regarding the ſea,and commonly vpon rocks and ſtony cliffes: the nearer it is to the ſea, the ſalter taſt it hath,by which means if it be taken in drink,it purgeth choler & fleam:the farther off that it groweth from the ſea,and the more terrene and earthly ſubſtance that it hath,the bitterer is it found to be,and this doth euacuat wateriſh humors:but the manner of taking it,is in ſome potage,or els in mead. Being long kept,it loſeth the force:if it be freſh and new gathered,and then either ſodden or ſtamped,it is diureticall and breaketh the ſtone. And verily they that promiſe thus much in the behalfe of Empetron,and would ſeem to juſtifie and make good their word,do affirme for the better credit thereof, That if ſtones doe boile with it in the ſame pan,they will burſt in pieces. * This *Empetrō* is thought to be our *Saxifrage.*

Epipactis,named by ſome Elleborine,is a little herb bearing ſmall leaues: ſoueraign for the
C diſeaſes of the liuer,and againſt all poiſons,if it be taken in drinke.

Epimenidion putteth forth no great ſtem,bearing ten or twelue leaues reſembling the Iuie, but it neuer ſheweth floure:the root is ſmal,black,and of a ſtrong and ſtinking ſmel:it groweth vpon moiſt grounds:of an aſtringent nature it is,and cooleth mightily: an hearbe that women * muſt beware of. The leaues ſtamped and applied to the paps of maides, keep them down that that they ſhall not grow. * For it hindreth conception.

Enneaphyllon hath long leaues, in number nine,neither fewer nor more, and thoſe be of a burning or cauſticke nature: a ſingular hearbe for the paines of loines,and the Sciatica, but it ought to be applied enwrapped well in wooll,for feare leaſt it burne the flankes, for preſently it raiſeth bliſters.

D Of Ferne be two kinds,and they beare neither floure nor ſeed. Some of the Greekes call the one Pteris,others Blechnon: from one root whereof there ſpring many branches repreſenting wings,and thoſe exceed two cubits in length,yeelding * no vnpleaſant ſauor;and this they ſuppoſe to be the male. The ſecond kind,the ſaid Greeks ſome call Thelypteris, others Nymphæa Pteris: this groweth ſingle, and brancheth not into many ſtems; ſhorter it is than the former, ſofter alſo,and thicker of leaues,and thoſe toward the root guttered and ſomwhat hollow:there is neither of them both,but their roots will feed ſwine fat: and the leaues of the one as well as the other,are diſpoſed on both ſides ſo,as they do repreſent birds wings,wherupon the Greeks gaue them the name * Pteris. The roots of both Fernes be long,and thoſe growing bias: in colour blacke,eſpecially when they be drie: and dried they ought to be in the Sunne. Fern grow-
E eth euery where,but their moſt delight is in a cold ſoile. The due time of digging them vp, is about the ſetting of the ſtar Virgiliæ. There is no vſe in Phyſicke of their roots,but when they be iuſt two yeres old;for both before & after the time,they ſerue for no purpoſe. Taken in this their ſeaſon,they do expell all kind of vermin out of the guts;with honey, if they be broad and flat wormes;but in ſome ſweet wine, for all the reſt,whether they be round or ſmall, ſo that the Patient continue this drink three daies together. Neither of them both, but are very contrarie and offenſiue to the ſtomack: howbeit,they purge the belly,and firſt euacuat choler,then ſoon after,wateriſh humors: but the better do they chaſe the foreſaid flat wormes out of the body in caſe they be quickened with the like quantitie of Scammonie. The root of Ferne taken to the
F weight of two oboli in water,cureth all rheums;but the Patient ought to faſt one whole day before,and likewiſe eat a little hony ſomewhat before that he take the ſaid drink. As for women, neither the male nor the female Fern would be giuen vnto them;for if they be with child,it wil driue them to trauell before their time,and ſlip an vntimely birth;and if they be cleare, it hindereth conception and cauſeth them to be barren. The pouder of Ferne roots, is ſingular to be ſtrewed or caſt vpon maligne vlcers;yea,and the farcins and ſores in horſe necks. The leaues of * *Non graui odore*: *Dioſcor.* ſaith, *Sub graues odore*, ſomwhat vnpleaſant in ſmell. * And in *Columella*, *Filix* is called *Auia.*

Ferne kill punaiſes or wallice, and a ſerpent they will not harbor; and therefore it is good for G
thoſe who are to lie in ſuſpected places, to make them pallets of Ferne leaues, or at leaſtwiſe to
lay them vnder their beds: the very ſmoke alſo of them when they be burned, do chaſe away ſer-
pents. Moreouer, Phyſitians haue made ſome difference and choice euen in this herbe alſo; for
the beſt is counted that of Macedony: and the next to it in goodneſſe, commeth from Caſſiope.

As touching the herb called in Latine Femur bubulum (*i.*) Ox-thigh, it is very good for the
ſinews, if being new gathered, it be ſtamped and incorporat in vineger and ſalt.

* Many take it for Archangell.

* Galeopſis, otherwiſe called by ſome Galeobdolon or Galion, hath a ſtem and leaues like to
the nettle, but that they are more ſmooth and mild in hand; which being bruiſed or ſtamped,
yeeld a ſtinking ſmell; and it beareth a purple floure; it groweth euery where about hedges and
path-waies. The leaues and ſtalks both, ſtamped and applied with vineger, heal all hard tumors H
and cancerous ſores: likewiſe the wens called the kings euill: they reſolue flat impoſtumes, and
the ſwellings behind the ears: now the manner is to foment the ſaid infirmities with their deco-
ction. Being laid too with ſalt, they heale vlcers tending to putrifaction, and gangrens.

As touching Glaux, in old time called Eugalacton, it is an herb in leafe reſembling Treetri-
folie, and the Lentill, but that the back part of the leafe in Glaux is whiter. The branches, that
be in number fiue or ſix, and thoſe ſpringing directly from the root, very ſmall, doe creepe along
the ground: the flours which it putteth forth be of a purple colour: and this herb is found grow-
ing ordinarily neare the ſea-ſide. Being boiled in a gruell made of fine wheat floure, it cauſeth
nources that drinke it, to haue plenty of milke in their breſts; but then they muſt preſently goe
to a baine or hot houſe. I

Chap. X.

¶ *Of Glaucion. Of Pæonie, and Cudweed or Cottonwort, called alſo Chamæzelon. Of Galedra-
gon, Holcus, Hyoſiris, Heloſteon, and Hippophæſton.*

GLaucion grows naturally in Syria and Parthia: a low herb, tufted thick with leaues, much
like vnto Poppie, but that they be ſmaller and looke more foule and greaſie; of an vnplea-
ſant and ſtinking ſmell; bitter alſo in taſt, ſtyptick, and aſtringent: graines it beareth of a
Safron colour, whereout is drawne the juice Memithra, called by the Greeks Glaucium alſo, as
wel as the herb. Now for to get this juice, they vſe to couer the graines in mud or clay, and put K
them in an earthen pot which they ſet in an ouen; where, after they are well heat, they vſe to
preſſe out of it the foreſaid juice. And not onely it, but the leaues alſo if they be ſtamped, are
much vſed for the flux of humors to the eies, eſpecially ſuch as fal together all at once in great
violence. And of this herb or juice there is a certaine collyrie compounded, which the Phyſiti-
ans call Diaglaucion: a good medicine alſo for nources to drinke in water, if they haue loſt
their milke and would recouer it againe.

Pæony, which ſome in Greeke call Glycyſide, others Pæonia, or Pentorobos, hath one main
ſtem two cubits high, & the ſame accompanied with two or three more leſſe ſtalks of a reddiſh
colour, and the rind reſembleth that of a Bay tree: the leaues be very like vnto Woad, were they
not fatter, rounder, and ſmaller: ſeed it beareth in certaine husks like grains, and thoſe be partly L
red and partly blacke Of Pæony there be two kinds; the female it is thought to be, to the root
whereof there ſticke eight long bulbes commonly, or ſix at leaſt: the male hath more of them
hanging to it, by reaſon it ſtandeth not vpon one ſingle and entire root onely, but of many, and
thoſe run downe a ſpan deep, and be white withall. Theſe roots are found to be aſtringent and
ſtypticke at the tongues end. As for the female, the leaues thereof do ſent of Myrrhe, and grow
ſomewhat thicker than thoſe of the male. They loue both to grow in woods. It is commonly
ſaid, That the roots muſt be digged vp in the night ſeaſon, for feare that the Wood-ſpeight or
Hickway ſhould ſee them: for in the day time the ſaid bird would flie in their faces that carry
it away, and be readie to job out their eies. In the very drawing alſo of thoſe roots out of the
ground, there is ſome danger, leaſt their fundament or tiwill fal out of their bodies who are im- M
ployed about that buſineſſe. But I ſuppoſe all this to be but a fabulous and vaine inuention, de-
uiſed onely to make folke beleeue it is an herbe of wonderfull operation. Moreouer, the grains
are diuerſly vſed: for the red, beeing taken to the number of fifteene or thereabout, in ſome
groſſe or hard VVine, doe ſtay the monethly fluxe of the reds in women: whereas the blacke

drunke

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A drunke to the ſame number in ſweet wine cuit or ſimple wine, cure the paſſions of the matrice, [and namely the riſing of the mother.] The root giuen in wine, appeaſeth all the paines of the belly, clenſeth the guts, cureth the convulſion or cramp which plucketh the neck & body backward, and the jaundiſe: it pacifieth alſo the griefes of the reins and bladder. As for the wrings of the matrice and ſtomack, the ſame boiled in wine, doth aſſuage them; the lask it ſtaieth: and being eaten with meat, it is good for thoſe that be troubled in their braines, or otherwiſe giuen to melancholy. But in theſe caſes foure drams is counted a ſufficient doſe. The black grains taken to the number abouelaid in wine, help thoſe that be ridden with the night-mare, and in danger thereby to haue their breath ſtopped. For the gnawing in the ſtomack, the ſame being either eaten or applied in a liniment, are ſingular good: impoſtumations likewiſe growing to ſuppuration, if they be taken betimes, may be reſolued with a plaſter made of the black berries, and ſay they were of long continuance, the red will do the deed. But as well the black as the red, are ſoueraigne for thoſe who be ſtung with ſerpents: as alſo for young children who haue the ſtone, and be entring into the ſtrangury, and piſſe drop-meale.

Cudwort or Cottonweed, ſome there be who call Gnaphalion, others, Chamæzelon. The white, ſoft, and delicat down of the leaues, many vſe in ſtead of flocks; and ſurely it is not much vnlike. This herb is good to be giuen in ſome auſtere and ſtyptick wine, for the bloudy flixe. It ſtaieth lasks, and reſtraineth the immoderat flux of womens fleurs. Being clyſterized, it is ſingular for the Tineſme, that is to ſay, the continual prouocations to the ſeege without any voidance of excrements. Laſt of all, in a liniment it ſerueth well to be applied in vlcers tending to putri-
B faction.

As touching Galedragon (an herb ſo called by *Xenocrates*) it reſembleth the Thiſtle named Leucacanthe [*i.* S. *Mary* thyſtle] and groweth full of ſharp pricks in moory grounds. The ſtem riſeth vp tall, in maner of Ferula or Fennell geant, in the very head and top whereof it beareth a thing reſembling an egge, in which there breed (they ſay) in proceſſe of time certain grubs or litle worms, which are excellent for to eaſe the tooth-ach, if they be kept in a box with bread, and as need requireth, tied faſt vnto the arm of the patient on that ſide where they ake; for it is wonderfull how ſoon the paine wil by this means ceaſe. Mary they ought to be changed euery yere, for after one yeare they be of no vertue in this caſe: and in any wiſe they muſt at no time touch the ground.

C As for Holcus, it groweth vpon ſtony grounds and thoſe that be dry. It riſeth vp with a ſtem like vnto the ſtraw of that Barly which ſpringeth euery yere without ſowing: in the top whereof it beareth ſlender ſpikes or eares. This herb bound about the head, or the arme, * draweth forth of the body any ſpils what ſoeuer: whereupon ſome name it Ariſtida.

* Hyoſeris reſembleth Cichory or Endive, but that it is leſſe, and in handling more rough: a ſoueraigne vulnerary herb, ſo it be ſtamped and laid to a wound.

D Holoſteon, which the Greeks ſo call by the * contrary, is an herbe without any hardneſſe at all, as if we ſhould terme * [Gall] by the name of [Sweet.] So ſmall and ſlender it groweth, that a man would take it to be all hairs; foure fingers long, in manner of quich-graſſe or ſtitchwort. The leaues be narrow, and haue an aſtringent taſt. It commeth vp ordinarily vpon banks & hil-
E locks, which be all earth and nothing ſtony. Being drunke in wine, there is great vſe thereof for convulſions, ſpreins, and ruptures. It is a great healer beſides, and skinneth greene wounds: and experience hereof may be ſoone ſeene: for if it be put among pieces of fleſh in the pot whileſt they boile, it will cauſe them to grow together and vnite.

Hippophæſton is a certain pricky buſh growing by the ſea-ſide, wherewith * Fullers and Diers fil their leads & coppers; without ſtem, without floure: it bringeth forth certain little knobs or buttons only, & thoſe hollow: leaues alſo it hath ſmal, and many in number, of a graſſe green colour: the roots be white and tender; out of which there is a juice drawne by way of expreſſion in Summer time, which is ſingular good for to purge the belly, if it be taken to the weight of three oboli; and principally helpeth thoſe that be ſubject to the falling ſickneſſe, trembling of
F the members, and the dropſie: it cureth alſo thoſe that be giuen to the ſwimming and dizzines of the braine, to ſtraitneſſe of winde, and who cannot breath but vpright; and laſt of all, to ſuch as be entering into a palſie.

* And therfore it is called *Holcus*, ἀπὸ τῆς ἕλκεσι.

* As one would ſay, ſwines Endive or cichory

* χολιαπόφασιν: for the word ſignifieth, All bone.

* So in Greeke χολὴ [*i.* fell] is called χλωρὸν, as in ſome part of France (as *Dalechamp.* noteth) Gallis named *le doux*.

* Some reade βαφίων, *i.* Diers: others, ταφίων, *i.* Fullers.

CHAP.

G

Chap. XI.

¶ *Of Hypogloſſa and Hypecoon, Idæa, Iſopyron, Lathyris, Leontopetalon, Lycopſis, Lithoſpermon. The vulgar ſtone. Of Limeum, Leuce, and Leucographis.*

Bistingua. Horſe-tongue, or Double-tongue.

HYpogloſſa hath leaues faſhioned like vnto Butchers broome, and thoſe turning hollow, and pricky: within which concauities there come forth certaine little leaues reſembling tongues. A garland or chaplet made of theſe leaues, and ſet vpon the head, eaſeth the pain thereof.

Hypecoon groweth amongſt corne, and is leafed like vnto Rue. It hath the ſame nature and H
properties that Opium or the juice of Poppie.

As for the herb Idæa, the leaues therof reſemble thoſe of ground-Myrtle or Butchers broom: vnto which there grow cloſe certaine tendrils, and thoſe carry floures. It ſtoppeth a lask, ſtaieth the immoderat flux of womens moneths, and ſtancheth all vnmeaſurable bleeding: for by nature aſtringent it is and repercuſſiue.

Iſopyron, ſome there be who call it Phaſiolum, becauſe the leaf (otherwiſe like vnto Anniſe) doth turne and writh like vnto the tendrils of Phaſils. In the top of the ſtemme it beareth ſmall heads or buttons full of ſeed, reſembling Nigella Romana. A ſoueraigne hearbe, taken either in hony or mead, againſt the cough and other infirmities of the breaſt: likewiſe for the accidents of the liuer. I

* Lathyris. * For the milky juice haply. For *Dioſcor.* ſaith *amygdalæ*, *i.* of the Almond tree. * *Purgata facilia.* Some thinke gentle purgatiues.

* Spurge hath many leaues reſembling * Lectuce: beſides which, it putteth forth as many other ſlender and ſmall branches, containing in little tunicles or husks certain ſeeds in manner of capers: which being dried and taken forth, reſemble for bigneſſe corns of Pepper, white in colour, ſweet in taſt, & eaſie * to be clenſed from their husk. Twenty of theſe ſeeds drunk either in cleare water or mead, do cure the dropſie: beſides waterſh humors, they euacuat choler. They that deſire to be throughly purged & would haue them to work ſtrongly, vſe to take them husk and all; but certainly ſo taken, they hurt the ſtomack: and therfore there is a deuiſe of late found out to giue them either with fiſh, or els in ſome broth of a cock or capon.

Leontopetalon, which ſome cal Rhapeion, carſeth leaues like to Coleworts, and a ſtalk halfe a foot high, garniſhed with many branches reſembling wings: and ſeed it beareth in the head K
contained within cods, after the maner of ciches. The root is made much after the faſhion of a rape or turnep, big and black withall. This herb groweth in corne grounds. The root is a ſingular counterpoiſon to be giuen in wine againſt the ſting or venome of any ſerpents; and verily there is not in the world a more ſpeedy remedy. Very good it is for the Sciatica.

* Some take it for a kind of Orchanet, others for Hounds-tongue.

* Lycopſis hath leaues like to Lectuce, but that they be longer and thicker: it riſeth vp with a long ſtem, and the ſame hairy, with many branches growing thereto of a cubit in length: and beareth little Purple floures. It loueth to grow vpon champion plaines. A liniment made with it and barly meale, is good for the ſhingles and S. *Anthonies* fire. In agues it procureth ſweat, ſo that the patient drink the juice thereof mingled with hot water.

But of all herbes that be, there is none more wonderful then Greimile: ſome call it in Greek L
Lithoſpermon, others Ægonychon, ſome Dioſpyron, and other Heracleos. It groweth ordinarily * fiue inches high: and the leaues be twice as big as thoſe of Rue. The foreſaid ſtalks or ſtems be no thicker than bents or ruſhes, and the ſame garniſhed with ſmall and ſlender branches. It bringeth forth cloſe ioining to the leaues, certain little beards one by one, & in the top of them little ſtones white and round in manner of pearls, as big as cich peaſe, but as hard as very ſtones. Toward that ſide where they hang to their ſteles or tailes, they haue certain holes or * concauities containing ſeed within. This herb groweth in Italy, but the beſt in the Iſland Candy. And verily of all the plants that euer I ſaw, I neuer wondred at any more: ſo ſightly it groweth, as if ſome artificiall goldſmith had ſet in an alternatiue courſe and order, theſe prety beads like orient pearls among the leaues: & ſo rare a thing it is & difficult to be conceiued, that a very hard M
ſtone ſhould grow out of an herb. The Herbariſts who haue written thereof, do ſay that it lieth along and creepeth by the ground: for mine owne patt, I neuer ſaw it growing in the plant: but ſhewed it was vnto me plucked out of the ground. This is for certaine knowne, that theſe little ſtones called Greimile ſeed, drunke to the weight of one dram in white wine, breake the ſtone,

* *Quincuncialiſsimè*: others read *Quinque caulibus ferè*, *i.* commonly it beareth fiue ſtalkes. * This ſome take to bee meant of that Greimile called *Iobs* teares.

expell

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A expell the ſame by grauell, and diſpatch thoſe cauſes that be occaſions of ſtrangurie. Certes, a man no ſooner ſeth this hearb, but he may preſently know the vertues thereof, and for what it ſerueth in Phyſicke; a thing that he ſhall not obſerue again in any other whatſoeuer: for at the very firſt ſight of theſe little ſtones, his eie will tell him what it is good for, without information from any perſon at all. There be common ſtones found about riuers, bearing a certain drie hoary moſſe vpon them. Rub one of theſe ſtones againſt another, hauing ſpit firſt therupon, and then therewith touch the tettar or ringworme in any part of the body, it will kill the ſame: but the party muſt as he toucheth it, vtter this charme following:

* φεύγετε Κανθαρίδες, λύκος ἄγει ὕμας διώκων.

B That is to ſay,

Cantharides flie apace: for a wilde Wolfe followeth in chaſe.

* He termeth tetta or ringwormes Cantharide, and the latter ſtone, the wild Wolf.

The French-men haue a certaine herbe which they call Limeum, out of which they draw a venomous juice, named by them Stags-poiſon, wherewith they vſe to envenome their Arrow heads when they go to hunt their red Deere: Take of this as much as goeth to the poyſoning of one arrow, and put it in three meaſures or Modij of a maſh wherewith they vſe to drench cattel: and make ſops thereof, and conuey them down the throat of ſick oxen or kine, it will recouer them. But preſently after the receit of this medicine, they muſt be tied vp ſure vnto their bouſies vntill the medicine haue done purging: for the beaſts commonly fare all the while that it is C in working, as if they were wood. In caſe they fall a ſweating vpon it, they muſt be waſhed all ouer with cold water.

* Leuce is an herbe like vnto Mercury; but it tooke that name by reaſon of a certaine white ſtrake or line that runneth croſſe through the mids of the leafe, for which cauſe ſome cal it Meſoleucas. The iuice of this herbe healeth fiſtuloes: and the ſubſtance of the herbe it ſelfe ſtamped, cureth cancerous ſores. It may be peraduenture the ſame herb which is named Leucas, that is ſo effectuall againſt all venomous ſtings proceeding from any ſea-fiſhes. The herbariſts haue not deſcribed this herb otherwiſe than thus, That the wild kind thereof with the broader leafe, is more effectual in the leaues; and that the ſeed of the garden kind, hath more acrimony than the other.

* *Menth Saracenica.*

D Touching Leucographis, what manner of herbe it ſhould be, I haue not found in any writer: and I wonder thereat the rather, becauſe it is reported to be ſo good for them that void & reach bloud vpward, namely, if it be taken to the weight of three oboli with Safron: likewiſe ſtamped with water and ſo applied, it is ſingular good againſt thoſe fluxes that proceed from the imbecility of the ſtomacke: ſoueraigne alſo for to ſtay the immoderat flux of womens termes. And it entereth into thoſe medicines which are appropriate for the eies, yea and into incarnatiues, ſuch eſpecially as be fit to incarnat thoſe vlcers which are in the moſt tender and delicat parts of the body.

Chap. XII.

E ¶ *Of Medium, Myoſota, Myagros, Nigina, Natrix, Odontitis, Othonne, Omoſma, Onopordos, Oſyris, Oxys, Batrachion, Polygonon, Pancration, Peplos, Periclymenos, Laucanthemon, Phyteuma, Phyllon, Phellandrion, Phalaris, Polyrrhizon, and Proſerpinaca: of Rhacoma, Reſeda, and Stœchas.*

MEdion hath leaues like vnto * garden Floure-de-lis. A ſtem three foot * high, garniſhed with faire large floures, of purple colour, and round in forme: the ſeed is ſmall, and the root halfe a foot long: it groweth willingly vpon ſtony grounds lying in the ſhade The root taken in a liquid electuary or lohoch made with hony to the quantity of 2 drams, for certaines together, ſtaieth the immoderat flux of womens monethly termes. The ſeed alſo reduced F into pouder and drunke in wine, repreſſeth their extraordinary ſhifts.

* *Iridis ſativæ:* others read *Seridis i.* Endiue. * *Tripedalem.* But *Dioſcor.* ſaith *Tricubitalem.i.* three cubits high.

* Myoſota, otherwiſe called Myoſotis, is a ſmooth herbe, ſhooting forth many ſtems from one ſingle root, and thoſe in ſome ſort of a reddiſh colour, and hollow: garniſhed with leaues, which toward the root be narrow, long, and blackiſh, hauing their backe part ſharpe and edged: which leaues grow along the ſtems two by two together: and out of the concauities or armpits

* Mouſe eare.

be-

between the ſtalk and them, there put forth other ſmall branches with a blew floure. The root is G
of the thickneſſe of a mans finger, bearded with many ſmall ſtrings reſembling hairs. This root is of a corroſiue nature, fretting and exulcerating any place wherunto it is applied: in which regard it healeth vp the fiſtulous vlcers called Ægilops, growing between the noſe and angles of the eies. The Ægyptians are of opinion, that if vpon the 27 day of that moneth which they call Thiatis (and which anſwereth very neare to our moneth Auguſt) a man or woman do annoint themſelues with the juice of this herb in a morning before they haue ſpoken one word, he or ſhe ſhall not be troubled with bleared eies all that yeare long.

Myagros is an herb growing vp with ſtems in manner of Fenell geant, in leaues reſembling Madder, and riſeth to the height of 3 foot. The ſeed which it beareth is oleous, & out of it there is an oile drawne, which is good for the ſores in the mouth, if they be annointed therewith. H

The herbe called Nigina, hath three long leaues like vnto thoſe of Succorie; wherewith if ſcars (remaining after vlcers and wounds) be rubbed, it will reduce them to the natural color of the other skin.

There is an herb, which in Latine is named Natrix, the root whereof being pulled out of the ground, hath a rank ſmell like vnto a Goat; with this herbe they vſe in the Picene countrey to driue away thoſe hob-goblins which they haue a maruellous opinion to be ſpirits, called Fatui: but for mine own part, I am verily perſuaded they be nothing elſe but fantaſticall illuſions of ſuch as be troubled in mind and beſtraught, the which may be chaſed and rid away by the vſe of this medicinable herbe.

Odontitis may be reckoned among the kinds of hey-graſſe, putting forth many ſmall ſtems I
growing thicke together from one root, and thoſe knotted and ful of ioints, triangled and blackiſh withall: in euery ioint ſmall leaues it hath, reſembling thoſe of knot-graſſe, howbeit ſomwhat longer: in the concauities between the ſaid leaues and the ſtem there is contained a ſeed like vnto Barly corns: the floure is of a purple colour, and very ſmall. It groweth ordinarily in medow grounds. The decoction of the branches and tender ſtalks of this herb, to the quantitie of one handful, boiled in ſome aſtringent wine, cureth the toothach, if the patient hold the ſame in the mouth.

Othonne groweth plenteouſly in Scythia, like vnto Rocket: the leaues be full of holes, and the floure reſembleth Safron: which is the cauſe that ſome haue called it Anemone. The juice of this herbe entreth very well into thoſe medicines which are appropriate to the eies; for it is K
ſomewhat mordicatiue, and heateth gently: beſides exiccatiue it is, and by that meanes aſtringent. It clenſeth the eies of thoſe films and clouds which darken the ſight, and remoueth whatſoeuer hindereth the ſame. Some ordain for this purpoſe that it ſhould be waſhed firſt, and after it is dried againe made into certain balls or troſchisks.

Onoſma beareth leaues wel-neare three fingers long, and thoſe lying flat vpon the ground: three in number, and indented or cut after the manner of Orchanet, without ſtem, without flour, without ſeed. If a woman with child eat thereof, or do but ſtep ouer it, ſhe ſhal caſt her vntimely birth out of her wombe.

As for Onopordon, they ſay if Aſſes eat thereof, they will fall a fizling and farting. Howbeit of vertue it is to prouoke vrine, and the monethly ſickneſſe of women: to ſtop a laske, to diſcuſſe L
and reſolue impoſtumes, and to heale them when they be broken and do run.

* Linaria or Toads flax. * According to *Dioſcorides:*

* Oſyris putteth forth ſmall branches of a browne colour, ſlender, pliable, and eaſie to wind; the ſame be garniſhed with leaues * reſembling thoſe of Line or flax, of a dark & duskiſh green at firſt, but afterwards changing colour, and inclining to a red colour, and the ſeed is contained in thoſe branches. Of theſe leaues are made certain waſhing balls, to ſcoure womens skin, and make them look faire. The decoction of the root being drunk, cureth thoſe that haue the jaundiſe. The ſame roots, gathered before the ſeed be ripe, cut into roundles, and dried in the Sun, do ſtop the laske: but drawn after that the ſeed is ripe, they repreſſe all catarrhes and fluxes of the belly, if the patient drink the ſupping wherein they are boiled. Alſo ſtamped ſimply, and ſo giuen in rain water, they haue the ſame effect. M

* Cuckowes meat, or Wood-Sorell.

* Oxys beareth three leaues and no more. This herb is ſingular to be giuen for a feeble ſtomack which hath loſt all appetite to meat. They alſo who haue a rupture, and whoſe guts be fallen down, eat thereof to very good ſucceſſe.

Polyanthemum, which ſome call Batrachion, hath a cauſticke quality, whereby it doth bliſter

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A ſter any vnſeemly ſcars, by means whereof, reduceth them to their freſh and former colour: the ſame alſo applied, ſcoureth away the morphew, and bringeth the skin to the natiue hue, anſwerable to the reſt of the body.

Knot graſſe is that herb, which the Greeks name Polygonon, and we in Latine, Sanguinaria: in leaf it reſembleth Rue, in ſeed common quich graſſe, & riſeth not from the ground but creepeth along: the juice of this herb conueied vp into the noſthrils, ſtancheth bleeding at the noſe. They who ſet down many kinds of Polygonon, do hold that this is to be taken for the male, and by reaſon of the multitude of ſeed which it beareth is called * Polygonon: or for that it groweth ſo thick in tufts, Calligonon. Others name it * Polygonaton, for the number of * knots or
B knees which it carrieth. There be again, who giue it the name Theuthalis: ſome cal it Carcinetron, others Clema, & many Myrtopetalon: and yet I meet with ſome writers, who ſay this is the female knot-graſſe: and that the male is the greater, and not altogether ſo dark of colour, growing alſo thicker with knots, & ſwelling with ſeed vnder euery leaf: wel, howſoeuer it is, the property of them both, the one as well as the other, is to bind and coole: and yet their * ſeed doth looſen the belly; which if taken in any great quantity, is diuretical and repreſſeth any rheums, prouided alwaies that the patient be troubled therwith, otherwiſe it doth no good. The leaues are ſingular good to be applied vnto the ſtomack, for to aſſuage the heat thereof: in a liniment they mitigat the griefe of the bladder, and ſtop the courſe of thingles and ſuch like wilde-fires. The juice is ſoueraigne to be dropped alone by it ſelfe into the eares that run, and into the eyes to abate their pain. It is vſually giuen to the quantity of 2 cyaths in tertian Agues, and Quar-
C tans eſpecially, before the fit commeth: likewiſe for the feebleneſſe of the ſtomack when it will keep nothing: for the bloudy flix, and the rage of cholerick humors both vpward and downward A third kind there is, which they cal *Oreon, growing vpon the mountains, reſembling a tender reed: riſing vp in one ſingle ſtem, but full of little knees or knots, and thoſe * couched & thruſt together. Leafed it is like the Pitch tree: the root needleſſe, and of no vſe: and generally the whole herb of leſſe ſtrength and operation than the former. Howbeit, this ſingular propertie hath it, to help the ſciatica. A fourth Polygonum there is, called the wild; and this buſheth like a ſhrub or a prety tree rather: the root is of a wooddy ſubſtance, & the ſtock or plant of a reddiſh colour, reſembling the Cedar: it beareth branches much like to Spart or Spaniſh broome, two ſpans long, iointed into three or four knots, and thoſe of a blackiſh colour. This alſo hath an a-
D ſtringent nature, and taſteth in the mouth like to a Quince. The decoction thereof in water, till the third part be conſumed, or the pouder of it dried, is commended for the ſores in the mouth, and for any part that is fretted and galled. And the very ſubſtance thereof is good to be chewed in caſe the gums be ſore. It repreſſeth the malignity of eating corroſiue vlcers and cankers: and in one word, ſtaieth the malice of all ſores that run on end, and be vntoward for to be healed: but a peculiar property it hath by it ſelfe to cure any vlcer occaſioned by the ſnow. Our Herbariſts vſe this kind much for the ſquinancy; and to eaſe the head-ach, make a garland thereof, appointing it to be ſet vpon the head: but to repreſſe any violent catarrhs, they preſcribe to weare it about the neck. In Tertian agues, ſome giue direction to pluck it out of the ground with the left hand, and then to tie it to the arm or other part of the patient. And there is not an herb or plant
E that they be more careful to keep dry and to haue alwaies ready at hand, than Polygonon, for to ſtanch any iſſue or flix of bloud whatſoeuer.

Pancration, which ſome chuſe rather to cal the little Squilla or ſea-onion, beareth leaues reſembling the white Lilly, but that they be longer and thicker; with a great bulbous root; & the ſame in color red. The juice of it taken with the floure of Eruile, maketh the belly laxatiue: and outwardly applied, mundifieth vlcers. For the dropſie and hardneſſe of the ſpleene, it is giuen with hony in maner of a ſyrrup. Some take the root and boile it in water vntill the liquour be ſweet, which they poure forth; and then ſtamp the ſaid root, and reduce it into bals or troſches, which they lay to dry in the Sun: and vſe them afterwards as occaſion ſerueth for the skals or
F vlcers of the head, and all other ſores that require mundification. Semblably, they giue thereof as much as one may take vp with three fingers in wine, for the cough, and in a liquid electuarie or lohoch for the pleuriſie and peripneumonie. They preſcribe it likewiſe to be drunke in wine for the Sciatica: to allay alſo the gripes and wrings of the belly, and to procure the monethly termes of women.

* Peplos, called by ſome Syce, by others Meconion * Aphrodes, from one ſmal root buſheth into

* of πολὺς many and γόνυ knees.

* And yet *Scribonius* ſaith it is called Polygonō, becauſe it groweth euery where ſo common.

* For γόνυ ſignifieth a knee or knot.

* *Aluum ſoluunt.* If the place be not corrupt, as I doubt it is.

* *Oreon, ab ὄρος,* a mountaine. Some reade ὠρεῶν, *i.* faire: others, ὄρεος, for that it growes like to an horſe-taile, or the herbe Hippuris.

* *In ſefarciis.*

* A kind of Eſula.

* *i.* Frothie Poppie.

into many branches ; the leaues be like vnto Rue, but that they be ſomewhat broader : the ſeed G
appeareth vnder the leaues round,& (but that they be ſmaller) not vnlike to the white Poppie.
Ordinarily it is found among Vines,and they gather it in harueſt time. They hang it forth ſeed
and all together a drying,ſetting water vnderneath,that the ſaid ſeed or fruit may fall down in-
to it. If it be taken in drinke, it purgeth the belly, and doth euacuat both choler and fleagme.
The meaſure of one acetable is counted an ordinary and indifferent potion to be drunk in three
hemines of mead or honied water. With this ſeed they vſe to pouder meats and viands, thereby
to keep the body ſoluble.

*Wood-bind. * Periclymenos is alſo a buſhie plant,and loueth to branch much: it beareth whitiſh & ſoft
leaues,diſpoſed two by two at certain ſpaces & diſtances very orderly. In the top of the bran-
ches it beareth hard ſeeds between the leaues,which hardly may be plucked off. It groweth in H
tilled corn fields & hedges,winding about euery thing that it can catch hold of, for to ſupport
and beare it vp. The ſeed after it is dried in the ſhade, folk vſe to pun in a morter,and ſo to make
it vp into trochiſks. In caſe that the ſpleen be ſwollen or hard, they take of theſe troſches, and
after they be diſſolued,giue thereof a ſufficient quantity in 3 cyaths of white wine for 30 daies
together:which drink is of ſuch operation, that it will waſt and ſpend the ſpleen,partly by vrine
which wil appeare bloudy,and partly alſo by ſeege:and this will be perceiued ſenſibly by the
tenth day of the cure. The leaues alſo be diureticall,and a decoction made with them,prouokes
vrine. The ſame likewiſe are good for thoſe that cannot draw their wind but ſitting with their
body vpright. Being drunk in like manner, they help women who are in ſore trauell, to ſpeedie
deliuerance,and fetch away the after-birth. I

*Some take it for *Securidaca*, i. Axfitch. As touching * Pelecinum,it groweth as I ſaid before among corn,branching thick,and gar-
niſhed with leaues like vnto the cich peaſe. It beareth ſeed in certain cods,which crook in man-
ner of little horns,and thoſe be four or fiue in number together. The ſaid ſeed reſembleth Gith,
ſo far as euer I could ſee,and is bitter,but good for the ſtomack:one of the ingredients that goe
into antidotes and preſeruatiues againſt poiſon.

Polygala reacheth vp with a ſtem a ſpan high,in the top wherof it beareth leaues reſembling
the Lentils,of an aſtringent taſt,which being drunk,cauſeth nources to haue plenty of milk in
their breaſts.

Poterion,or as ſome call it,Phrynion or Neurada,brancheth and ſpreadeth much:armed it is
with ſharp pricks,and beſides,full of a kind of thick down : the leaues be ſmall and round : the K
branches ſlender,long,ſoft,and pliable:the floure in form long,of a graſſe green color. The ſeed
is of no vſe in Phyſick,but of a quick and ſharp taſt,odoriferous alſo,and pleaſant to the ſmell.
It is found growing as well in watery places,as alſo vpon little hils. Two or three roots it hath,
which run down two cubits deep into the ground ful of cords or ſinews,white,and of a firm and
hard ſubſtance. About Autumne they vſe to dig round about it, hauing before cut the plant it
ſelfe aboue ground, which yeeldeth thereby a juice like vnto a gum. The root is (by report) of
wonderfull operation in healing wounds,and eſpecially of ſinews cut in ſunder,if it be applied
thereto in a liniment. Alſo the decoction thereof drunke with honey in manner of a ſyrrupe,
helpeth the feebleneſſe and diſſolution of the ſinewes ; and namely, when they bee wounded
and cut. L

Phalangites by ſome is called Phalangion,by others Leucanthemon,or,as I find in ſome co-
pies,Leucacantha. Little branches it putteth forth,neuer fewer than twaine, and thoſe tending
directly a contrary way. The floures white,faſhioned like the red Lilly : the ſeed blacke,broad,
and flat,ſhaped after the manner of halfe a Lentill, but much leſſe : and the root is of a gree-
niſh colour. The leaſe,floure,and ſeed of this herbe is a ſingular remedie againſt the venomous
ſting of ſcorpions,the ſpiders Phalangia, and ſerpents ; alſo for the wringing torments of the
belly.

As for Phyteuma, ſomewhat els I haue to do rather than to deſcribe it, conſidering there is
no vſe of it but in amatorious medicines to procure womens loue.

There is an herbe called by the Greekes Phyllon, growing vpon ſtony mountaines ſtanding M
much vpon a rocke. The female of this kinde is of a deepe greene colour, the ſtem is ſlender,
the root ſmall, the ſeed round, and like vnto that of Poppie. This herbe ſerueth for the get-
ting and conceiuing either of boyes or girles, according as the male or the female is vſed :
which differ only in ſeed or fruit,which in the male reſembleth an oliue that is new come forth

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A and biginneth only to ſhew. But both of them are for the ſaid purpoſe to be drunke in wine.

Phellandrion groweth in moory grounds, and in leaſe commeth neere vnto garden Parſley: the ſeed thereof is good to be drunke for the ſtone, and the infirmities incident to the bladder.

As for Phalaris, it hath a long ſlender ſtem like vnto a reed, in the top whereof it beareth a floure bending downward; and the ſeed reſembleth that of Seſama: and this alſo breaketh the ſtone, if it be drunke in wine or vineger, or otherwiſe with milk and honey. The ſame cureth the accidents of the bladder.

Polyrrhizon is leafed like vnto the Myrtle, and hath many roots, which being bruiſed, are giuen in wine againſt the poiſon of ſerpents; not only if men but alſo if fourfooted beaſts be ſtung
B by them.

* Proſerpinaca likewiſe, being otherwiſe a common herb, is counted a ſoueraigne remedy againſt ſcorpions: the ſame ſtamped and incorporat with fiſh-pickle and oile, is (by report) a ſingular medicine againſt the prick of ſcorpions. Ouer and beſides, it is ſaid, that if it be but held vnder the tongue, it refreſheth thoſe who be ouertrauelled or any waies wearied, ſo as they haue loſt their ſpeech with very faintneſſe: but in caſe it be ſwallowed downe the throat, it procureth vomit, which alwaies is good and wholſome for the Patient.

* Thought to be the ſame that *Polygonū* or Knot graſſe abouenamed.

As touching Rhacoma, it is brought vnto vs out of thoſe countries which are beyond the kingdome of Pontus: a root it is much reſembling the black Coſtus, but that it is ſmaller and ſomewhat redder; alſo without any ſmell; hot at the tongues end and aſtringent: being punned, it is of a wine colour inclining to ſafron: a liniment made of this root, doth mitigate all impo-
C ſtumes and inflammations; healeth wounds, and appeaſeth the violence of any rheums taking a courſe to the eies, eſpecially if it be applied with cuit: al marks remaining after ſtripes, & other places of the skin black and blew, it taketh away, if they be annointed with it and vineger together: the pouder thereof is good to be caſt vpon old morimals and vlcers vntoward to be healed: & being to the weight of one dram taken in water, it is ſingular for them that caſt vp bloud: moreouer, in caſe of the dyſentery and the flux proceeding from imbecility of the ſtomacke, it is an excellent medicine to be taken in wine, if the Patient bee free of the ague; otherwiſe, it would be giuen in water. For to pun or ſtamp this root more eaſily, it had need to lie and ſoke in water ouernight: the decoction thereof is giuen to drinke in double meaſure or quantity for thoſe that be plucked with the cramp, burſen, & bruiſed, or to ſuch as haue tumbled down from
D ſome high loft. In pains of the breſt, there had need ſome Pepper and myrrh to be put thereto: in caſe the ſtomack be feeble and clean done, it ought to be taken in cold water: and whether it be giuen inwardly or applied outwardly, it helpes all thoſe that void vp filthy matter from the parts beneath: likewiſe it cureth ſuch as haue weak liuers, hard or ſwelled ſpleens, and the Sciatica: it healeth the infirmities of the kidnies, ſhortneſſe of wind, & ſtraitneſſe of breath, namely, when a man is driuen to ſit vpright for it. The hoarſneſſe and roughneſſe of the throat it cureth, if either the pouder be taken to the quantity of 3 oboli in cuit, or the decoction drunk. The filthy tettars called Lichenes it ſcoureth away, applied vnto them in a liniment with vineger. In drink, it diſſolueth ventoſities, riddeth away through-colds, and namely the ſhiuerings and ſhakings in cold agues: it repreſſeth the yex or hicquet, appeaſeth the wrings of the belly, cleareth
E the windpipes, diſpatcheth the poſe, the murre, and heauineſſe of the head, ſtilleth the dizzines of the head and turning of the brain occaſioned by melancholy humors: and finally aſſuageth all painfull laſſitudes, and is ſingular good for cramps or convulſions.

About the towne Ariminum there groweth an herb commonly knowne by the name of Reſeda: it reſolueth and diſcuſſeth all impoſtumes: it reduceth alſo into temperature any inflammation. But they that vſe to cure with this herb, muſt when they lay it to the place, ſay withall theſe words following; *Reſeda, morbos Reſeda, ſciſne ſciſne, quis hic pullos egerit? Radices nec caput nec pedes habeant.* That is to ſay, *Reſeda, cauſe theſe maladies to ceaſe: knoweſt thou, knoweſt thou, who hath driuen theſe pullets here? Let the roots haue neither head nor foot.* This charm (I ſay) they muſt pro-
F nounce three times ouer, and ſpit vpon the ground as often.

To conclude, Stœchas groweth in thoſe Iſlands onely which carry that name and be called Stœchades: an odoriferous herb it is, bearing leaues like vnto hyſſop, and is bitter in taſt: taken in drink, it procureth womens moneths, and doth mitigat the pains of the breſt. Alſo it is one of the ſpecies or ingredients entring into the preſeruatiue compoſitions called Antidotes.

Chap. XIII.

¶ *Of Nightſhade: of Smyrnium, and Telephium. Of Trichomanes, Thalictrum, and Thlaſpi. Of Tragonia, Tragonis, Tragum, Tragopogon, and Spondylis, Alſo, that ſome diſeaſes are not incident to certaine countries.*

NIghtſhade, called in Latine Solanum, the Greeks name Strychnos, as ſaith *Cornelius Celſus*; an herbe this is which hath a vertue repercuſſiue and refrigeratiue.

Loueach, named otherwiſe Smyrnium, hath a ſtem like vnto Perſley, and the leaues be larger: it putteth forth many ſions or imps from about the ſtem: and out of their concauities there ſpring certain fatty leaues, & thoſe hanging as if they were broken, toward the ground; hauing an aromaticall ſmel, joined with a certain acrimony which is not vnpleaſant: of a colour inclining to a weak and faint yellow. The ſtem beareth in the head certain round ſpoky tufts in manner of Dill. The ſeed round and black, which waxeth to be dry in the beginning of ſummer: The root is likewiſe redolent; but in taſt quick and biting, full of juice, ſoft and tender: the rind of which root, is black without, but pale within; the odour which it hath, teſtifieth the qualitie of myrrh, whereupon it took the name * Smyrnium. This herb groweth vpon hills, as well ſuch as be rocky as thoſe that be altogether earthy. The nature of it generally, is to heat and extenuat. The leaues and root both prouoke vrine, and the monthly terms of women: the ſeed knitteth the belly, and ſtaieth a lask. The root vſed in a liniment, diſcuſſeth all impoſtumes, as well broken as not broke, ſo that they be not inueterat and of long continuance: and in one word, reſolueth all hardneſſe in the fleſh. Soueraigne it is againſt the prick of the venomous ſpiders Phalangia, and the ſting of ſerpents, being drunk in wine with Cachrys, Polium, or Baulm; with this charge, That if it be taken peece meale: for if it were taken entire and whole, it would prouoke vomit: and for this cauſe otherwhiles it is giuen with Rue. The ſeed or root, chuſe whether you will, cureth the cough and difficulty of breath, when the Patient cannot take his breath but ſitting vpright. In like manner, it helpeth thoſe who are diſeaſed in the cheſt, ſpleene, reines, and bladder. The root hath a particular property to heale ruptures and convulſions: the ſame giues ſpeedie deliuerance to women in trauell of child, and expelleth the after-birth: alſo for the ſciatica it is giuen in wine together with Creſtmarine, otherwiſe called Sampier: it prouoketh ſweat, breaketh wind vpward, and cauſeth rifting; whereby it riddeth the ſtomack of the ventoſities that trouble it: it healeth wounds and bringeth them to cicatrice or skin again. Out of the root there is a juice alſo preſſed, good in womens infirmities, and in the maladies incident to the cheſt and precordiall parts; for it clenſeth, increaſeth naturall heat, and helpeth digeſtion. The ſeed hath a ſpeciall operation to cure them that haue a dropſie, giuen in drink; like as the juice alſo applied in a liniment; and the rind of the foreſaid root dry, incorporate in an emollitiue cataplaſme. Moreouer, it is much vſed in meats together with honied wine, oile, fiſh ſauce named Garum, but principally if fleſh meats be boiled together therewith. It helpes concoction in the ſtomack, as hauing a ſauor and taſt much like vnto pepper. The ſame is right effectuall to allay the paine of the ſaid ſtomacke.

* For *Smyrna* in Greeke is myrrhe.

As touching * Telephium, it is an herb in leaf and ſtem reſembling Purcellane: immediatly from the root there ſpring ſeuen or eight ſmall ſhoots or branches, and thoſe garniſhed with groſſe & fleſhy leaues. It loueth to grow in toiled grounds, but principally among vines: whiles it is green, it ſerueth in a liniment to fetch out ſpots and freckles in the viſage: for which purpoſe alſo, it is good dry, being brought into pouder: it mundifieth the skin alſo from the morphew, ſo that the place be annointed therewith euery day or night ſix houres together, for the ſpace of three moneths, and afterwards well rubbed with barly meale. It healeth all wounds beſides and cureth fiſtuloes.

* Orpine.

The Maidenhaire called in Greek Trichomanes, is like vnto Adiantum, only it is more ſlender and blacker: the leaues grow thicke in manner of Lentils, one ouer-againſt another, and the ſame be bitter in taſt. The decoction of this hearbe ſodden in white wine, and ſo drunke with wine or ruſticke cumin, cureth the ſtrangurie: the juice keepeth the haire on the head, which is ready to fall off; or if it be ſhed already, cauſeth new to come vp againe in the place. The ſame beeing beaten to powder and incorporate with oile into a liniment, maketh the haire to grow thicke,

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A thicke,where it is thin by occaſion of the infirmity Alopecia. If it be taſted at the tongues end it prouoketh ſneezing.

Thalictrum[otherwiſe named Thalictrum]hath leaues made like vnto Coriander,ſaue that they be ſomwhat fattier,and in the ſtem reſembleth Poppy: it liketh any ground,but loueth eſpecially to grow vpon plains: the leaues incorporat with hony,heale any vlcers.

Thlaſpi or Thlaſpe,is of two kinds:the one with narrow leaues,a finger long,and as broad as a finger breadth:the ſame grow inclining toward the ground,and in the head diuided or ſlit:the ſtem is but ſlender and halfe a foot high, howbeit not altogether naked and without branches. In form,the fruit or cod reſembleth a buckler,incloſing ſeed within not vnlike in ſhape to Len-
B tils, but that it ſeemeth cruſht and broken, whereupon the plant took the name Thlaſpi: the floure which it beareth is whitiſh. This herb groweth ordinarily about common foot-paths & in hedges. The ſeed in taſt is hot and vnpleaſant,working vpon choler and fleam,which humors it doth euacuat vpward and downward:the right doſe wherof is the meaſure of one acetable for a potion. Good it is alſo for the Sciatica,being miniſtred in a clyſtre vntil it bring away bloud. Moreouer,it procureth women their deſired ſickneſſe;but if they be with child, it killeth that which they go withal. The ſecond Thlaſpi,which ſome cal the Perſian*Napi,hath broad leaues and great roots:this herb alſo is good to be clyſterized for the Sciatica: and as well the one as the other is ſoueraigne for the tumors or riſings in the ſhare: but the party who gathereth it muſt haue in charge to pluck it vp with one hand,and ſay withall,That he taketh it for the botches in the ſhare,for all impoſtumes and wounds.

* or rather *Sinapi*,*i*. Scnvic.

C As for Trachinia,I find not in any writer what manner of herb it ſhould be:and verily,I cannot beleeue that *Democritus* reporteth truly of it as he doth: for monſtrous it is and incredible which he promiſeth of it,namely,That in three daies it will waſt the ſpleene,if the patient doe but weare it tied to any part of the body.

Tragonus or Tragion groweth vpon the ſea-coaſts of the Iſland Candy only:an herb,in ſeed, leafe,and branch,very like vnto the Iuniper:a iuice or liquor it yeeldeth reſembling milk,which gathering thick to the conſiſtence of a gum,with once laying too, draweth forth arrow heads, thorns,or whatſoeuer ſticking within the fleſh:for which purpoſe,it ought to be ſtamped green, and ſo made into a liniment with wine;or elſe the pouder of it drie,muſt be incorporat with hony. The ſame cauſeth nources to haue good ſtore of milk in their breſts,and is beſides an excel-
D lent medicine for the ſores and diſeaſes incident to that part.

There is another hearbe called Tragos, which ſome name alſo Scorpion: it groweth halfe a foot high, putting forth many ſhoots and branches, but without leaues; in ſtead whereof you ſhall ſee pretty little berries, or grapes (as it were) of a ruddy colour, of the bigneſſe of wheatcorns,and pointed ſharp in the head. This herb likewiſe groweth by the ſea-ſide. Of theſe berries,ten or twelue kernels dried and beaten into pouder,and ſo taken in wine,do helpe the fluxe proceeding from a weak and feeble ſtomack; in like manner thoſe alſo that haue a bloudy flix, and that reach vp bloud. They cure likewiſe women of the extraordinary ſhifts of their monthly fleurs.

Moreouer,there is an herb called Tragopogon, which others name Come:the ſtem thereof
E is ſmall,the leaues like vnto thoſe of Safron,the root long and ſweet;bearing aloft vpon the top of the ſtem a certain cup,which is broad and large,with black ſeed within it. In rough places it groweth commonly,amongſt greeues and buſhes; but goodneſſe there is little or none at all in it.

Thus much verily as touching herbs,I thought memorable and worth the writing,which either I haue ſeen my ſelfe,or learned from others;howbeit,for a farewell to this treatiſe,I think it not amiſſe to aduertiſe the reader thus much more concerning herbs, that ſome of them keep their ſtrength and vertue longer than others;for,as I haue before noted,Elaterium continueth a world of yeres:the black Chamæleon laſteth 40 yeares good: but Ceutaury will not indure a-
F boue twelue: Harſtrang, Ariſtolochia, and the wilde Vine,may be preſerued ſound one yere in the ſhade. Moreouer,this would be obſerued, That of the herbs aboue named, there is not a liuing creature whatſoeuer will touch the roots,vnleſſe it be Spondylis(and that is a kind of ſerpent)which indeed ſpareth none.

As for this one point,namely,that the roots of herbs be leſſe in force and of weaker operation, in caſe the ſeed bee ſuffered to ripen vpon the plant, no man maketh any doubt: as alſo

that their ſeeds be nothing ſo effectuall, if inciſion were made in the roots for to draw juice out of them, before the ſaid ſeed is fully ripe. G

Furthermore, this is known & found by experience, that the ordinary vſe of all ſimples doth alter their properties and diminiſh their ſtrength; inſomuch, as whoſoeuer is daily accuſtomed vnto them, ſhall not find when need requires, their vertue powerfull at all, either to do good or to work harme, as others ſhall who ſeldome or neuer were acquainted with them.

Ouer and beſides, all herbs be more forcible in their operations, which grow in cold parts, expoſed to the Northeaſt winds, likewiſe in dry places, than in the contrary.

Alſo there is no ſmall difference to be conſidered betweene nation and nation: for, as I haue heard them ſay who are of good credit, as touching worms and ſuch like vermin, the people of Egypt, Arabia, Syria, and Cilicia, be troubled & infeſted with them: wheras contrariwiſe, ſome H Græcians & Phrygians haue none at all breeding among them. But leſſe maruel there is of that conſidering how among the Thebans and Bœotians (who confine vpon Attica) ſuch vermine is rife and common; and yet the Athenians are not giuen at all to ingender and breed them: the ſpeculation whereof, carrieth me away again vnto a new diſcourſe of liuing creatures, and their natures; and namely, to fetch from thence the medicins which Nature hath imprinted in them, of greater proofe and certainty than any other for the remedy of all diſeaſes. Certes, this great Mother of all things, entended not that any liuing creature ſhould ſerue either to feed it ſelfe only, or to be food for to ſatisfie others; but her will was and ſhe thought it good, to inſert and ingraffe in their inward bowels, wholſom medicines for mans health, to counterpoiſe thoſe medicinable vertues which ſhe had ingrauen and beſtowed vpon thoſe furd and ſenceleſſe herbes: I nay her prouidence was ſuch, that the ſoueraigne and excellent means for maintenance of our life, ſhould be had from thoſe creatures which are indued with life; the contemplation of which diuine myſterie, ſurpaſſeth all others, and is moſt admirable.

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THE TVVENTY EIGHTH BOOK OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I. L

¶ *The medicinable vertues of liuing creatures.*

HAuing diſcouered as well all thoſe things which are ingendred between Heauen and Earth, as alſo their natures; there remained nothing for me to diſcourſe of, ſaue only the Minerals digged out of the ground; but that this late Treatiſe of mine, as touching the medicinable properties of Herbs, Trees, and other plants draweth me quite aſide from my purpoſe, and haleth me back againe, to conſider the foreſaid liuing creatures themſelues (euen the ſubject matter of Phyſicke) in regard of greater meanes found out euen in them, to aduance Phyſicke and cure diſeaſes. For, to ſay a truth, ſince I haue deſcribed and pourtraied both Herbes and Floures, ſince I M haue diſcouered many other things, rare and difficult to be found out; ſhould I conceale ſuch meanes for the health of man, as are to be found in man himſelfe? or ſhould I ſuppreſſe other kind of remedies which are to be had from creatures liuing amongſt vs, as wee doe, if they may benefit vs? eſpecially ſeeing that our very life is no better than torment and miſerie, vnleſſe

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A we be free from paine and ſickneſſe? No verily; and far be it from me that I ſhould ſo do. But on the contrary ſide, I will do my beſt indeuor to performe and finiſh this task alſo, how long and tedious ſoeuer it may ſeem to be: for my full intent and reſolution is, ſo I may benefit poſteritie and doe good to the common life of man, the leſſe to reſpect the pleaſing of fine eares, or to expect thanks from any perſon. And to bring this my purpoſe about, I mean to ſearch into the cuſtomes of forrein countries, yea and to lay abroad the rites and faſhions of barbarous nations, referring the readers who ſhal make ſcruple to beleeue my words, vnto thoſe Authors whom I alledge for my warrant. And yet herein, this care I haue euer had, To make choice in my reports of ſuch things as haue bin held and in manner adjudged true, by a generall conſent & ap-
B probation of all writers; as coueting to ſtand more vpon the choice of ſubſtance, than the variety and plenty of matter. But before I enter into this argument, I thinke it very neceſſary to aduertiſe the Reader thus much, That whatſoeuer I haue heretofore written of liuing creatures, concerneth the inſtinct of Nature wherewith they be indued, and certain ſimples whereof they haue giuen vs the knowledge (for ſurely, as much good haue they done vnto vs by the medicinable herbs by them found out, as poſſibly they can by the remedies which themſelues do afford from their own bodies:) But now it remaineth to ſhew ſimply the medicinable & helpful properties in themſelues, which notwithſtanding in the former treatiſe were not altogether left out and paſſed ouer. And therefore this my preſent diſcourſe of thoſe creatures, how ſoeuer it is in nature different, yet it dependeth of the other. Begin then I will at Man himſelfe, to ſee what Phyſick there may be found in him to help his neighbor. In which firſt entrance of mine,
C there preſenteth it ſelfe vnto mine eie, one obiect that troubleth and offendeth my mind exceeding much: for now adaies you ſhal ſee them that are ſubiect to the falling euil, for to drink the very bloud of fencers and ſword-plaiers as out of liuing cups: a thing, that when we behold within the ſame ſhew-place, euen the tygres, lyons, and other wild beaſts to do, we haue it in horrour as a moſt fearfull and odious ſpectacle. And theſe monſtrous minded perſons are of opinion, That the ſaid bloud forſooth is moſt effectuall for the cure of that diſeaſe, if they may ſucke it breathing warme out of the man himſelfe; if they may ſet their mouth (I ſay cloſe to the veine, to draw thereby the very heart bloud, life and all: how vnnaturall ſoeuer otherwiſe it be holden for a man to put his lips ſo much as to the wounds of wild beaſts, for to drinke their bloud: nay,
D there be others that lay for the marow bones, the very braine alſo of young infants, and neuer make ſtrange to find ſome good meat and medicine therein. Ye ſhall find moreouer among the Greeke writers not a few, who haue deciphered diſtinctly the ſeuerall taſtes as well of euery inward part, as outward member of mans body; and ſo neare they haue gone, that they left not out the paring of the very nailes, but they could pick out of them ſome fine Phyſicke: as if health conſiſted in this, That a man ſhould become as bloudie as a ſauage beaſt; or that be counted a remedy, which indeed is cauſe of a miſchiefe and malady. And wel deſerue ſuch bloud-ſuckers and cruell leeches to be fruſtrat of their cure, and thereby to worke their owne bane and deſtruction; for if it be held vnlawfull and abhominable to prie and look into the entrails and bowels of a mans body, what is it then to chew and eat them? But what monſter was hee, who firſt broched this geare, and deuiſed ſuch accurſed drugs! Ah wicked wretch, the inuenter and artificer
E of thoſe monſtroſities; thou that haſt ouerthrowne all law of humanity; for with thee wil I haue to do, againſt thee will I whet my tongue and turne the edge of my ſtyle, who firſt didſt bring vp this bruitiſh leech-craft, for no other purpoſe but to be ſpoken of another day, and that the world might neuer forget thy wicked inuentions. What direction had he who thus began to deuoure mans body lim by lim: nay, what conjecture or gueſſe moued him ſo to do? what might the originall and foundation be, whereupon this diueliſh Phyſick was grounded? what ſhould he be that bare men in hand, and would perſuade the world, That the thing which is vſed as a poiſon in witchcraft and ſorcerie, ſhould auaile more to the health of man, than other knowne and approued remedies? Set caſe that ſome barbarous people vſed ſo to do: ſay that ſtrange na-
F tions and far remoued from all ciuility, had theſe manners among them, muſt the Greekes take vp thoſe faſhions alſo, yea and credit them ſo much as to reduce them into a method, amongſt other their goodly Arts? And yet ſee what *Democritus* one of them haue done? there be extant at this day books of his inditing and penning, wherein you ſhal reade, That the ſcul of a wicked malefactor, is in ſome caſes better than that of an honeſt perſon; and in other, That of a friend and gueſt, preferred before a ſtranger. As for *Apollonius*, another of that brood, hee hath writ-

ten, That if the gums be ſcarrified with the tooth of a man violently ſlain, it is a moſt effectuall G
and preſent remedy for the tooth-ach. *Artemon* had no better receit for the falling ſickneſſe, than to draw vp water out of a fountaine in the night ſeaſon, and to giue the ſame vnto the Patient to drink it in the brain-pan of a man who died ſome violent death, ſo he were not burnt. And *Antheus* took the ſcull of one that had bin hanged, and made pills thereof, which he miniſtred vnto thoſe who were bitten by a mad dog, for a ſoueraigne remedy. Moreouer, theſe writers not content to vſe theſe ſorceries about men, imploied the medicines alſo of the parts of man to the cure of foure footed beaſts; and namely, if kine or oxen were dew-blowne or otherwiſe puffed vp, they were wont to bore holes through their horns, & ſo to inlay or interlard them (as it were) with mens bones: finally, when ſwine were diſeaſed, they tooke the fine white wheat Siligo, being permitted to lie one whole night in the very place where ſome men were killed or burnt, H
and gaue it them to eat. As for me, and all vs that are Latine writers, God forbid we ſhould defile our papers with ſuch filthineſſe: our intention is to put downe in writing, thoſe good and wholſome medicines which man may affoord vnto man, and not to ſet abroad any ſuch deteſtable and hainous ſorceries: as for example, to ſhew what medicinable vertue there may be in breſt-milke of women newly deliuered; what healthfull operation there is in our [faſting] ſpittle; or what the touching of a man or womans body may auaile in the cure of any malady; and many other ſemblable things ariſing from naturall cauſes. For mine owne part verily, I am of this mind, That we ought not ſo much to make of our health or life, as to maintain and preſerue the ſame by any indirect courſe and vnlawful meanes: And thou, whoſoeuer thou be, that doeſt addict thy ſelfe to ſuch villanies whiles thou liueſt, ſhalt die in the end a death anſwerable to I
thy beaſtly and execrable life. To conclude therefore, let euery man for to comfort his heart, and to cure the maladies of his mind, ſet this principle before his eies, That of all thoſe good gifts which Nature hath beſtowed vpon man, there is none better than to die in a fit and ſeaſonable time: and in ſo doing, this is ſimply the beſt, * That in his power it is, and the meanes hee hath, to chuſe what death he liſt.

* Look for no better diuinitie in *Plinie* a meere Pagan, Epicurean, and profeſſed Atheiſt.

Chap. II.

¶ *Whether Words, Spels, or Charmes, are auaileable in Phyſicke. Alſo whether wonders and ſtrange prodigies may be either wrought and procured, or put by and auoided by them, or no.* K

THe firſt point, concerning the remedies medicinable drawn from out of man, which mooueth the greateſt queſtion, and the ſame as yet not decided and reſolued, is this, Whether bare Words, Charms and Inchantments, be of any power or no? If it be granted Yea, then no doubt ought we to aſcribe that vertue vnto man. But the wiſeſt Philoſophers and greateſt Doctors, take them one by one, doubt thereof, and giue no credit at all thereto. And yet go by the common voice of the whole world, you ſhall find it a generall beleefe, and a blinde opinion alwaies receiued, whereof there is no reaſon or certain experience to ground vpon. For firſt and formoſt we ſee, that if any beaſt be killed for ſacrifice without a ſett forme of praier, it is to no purpoſe, and held vnlawfull: ſemblably, if theſe inuocations be omitted, when as men ſeeke to L
any Oracles, and would be directed in the wil of gods by beaſts bowels or otherwiſe, all booteth not, but the gods ſeem diſpleaſed thereby. Moreouer, the words vſed in crauing, to obtaine any thing at their hands, run in one form; and the exorciſmes in diuerting their ire, & turning away ſome imminent plagues, are framed after another ſort: alſo there be proper termes ſeruing for meditation only and contemplation. Nay, we haue ſeene and obſerued, how men haue come to make ſuit and tender petitions to the ſoueraign and higheſt magiſtrats, with a preamble of certain ſet prayers. Certes, ſo ſtrict and preciſe men are in this point about diuine ſeruice, that for fear leaſt ſome words ſhould be either left out, or pronounced out of order, there is one appointed of purpoſe as a prompter to read the ſame before the prieſt, out of a written booke, that hee miſſe not in a tittle; another alſo ſet neare at his elbow, as a keeper to obſerue and mark, that he M
faile not in any ceremony or circumſtance; and a third ordained to goe before and make ſilence, ſaying thus to the whole aſſembly & congregation, *Fauete linguis*, [*i.* ſpare your tongues and be ſilent:] and then the fluits and haut-boies begin to ſound and play, to the end that no other thing be heard for to trouble his mind or interrupt him the while. And verily, there haue

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A been memorable examples knowne of ſtrange accidents inſuing both waies, namely, as often as either the vnlucky foules by their vntoward noiſe * haue diſturbed and done hurt, or if at any time there haue bin error committed in the preſcript prayer & exorciſme: for by this means it falleth out oftentimes, that all on a ſudden as the beaſt ſtandeth there in place to be ſacrificed, the maſter veine in the liuer, named the head thereof, is found miſſing among other entrails, and the heart likewiſe wanting: or contrariwiſe, both theſe to be double, and appeare twain for one. And euen at this day there remaineth a moſt notable precedent and example to all poſterity, in that preſcript forme of exorciſme, whereby the two *Decij*, both the father and ſonne, betooke themſelues to all the helliſh furies and fiends infernall: moreouer, the imprecation of the veſtall Nun *Tuccia*, when ſhee was put to proue her virginity, continueth extant vpon record; by

B vertue of which charme ſhe carried water in a ſiue without ſhedding one drop: which happened in the yeare after the foundation of Rome city 609. And verily, no longer ago than of late time in our own age, we ſaw two Græcians, to wit, a man and a woman; yea, and ſome of other nations, with whom in thoſe daies wee maintained warres, buried quicke within the beaſt-market in Rome: in which maner of ſacrifice, whoſoeuer readeth the prayer or exorciſme that is vſed, and which the VVarden or Principall of the colledge of the Quindecemvirs is woont to reade and pronounce to the exorciſt; he would no doubt confeſſe, that ſuch charmes and execrations be of great importance: and namely, ſeeing they haue bin all approoued and found effectuall by the experience and euents obſerued for the ſpace of * eight hundred and thirtie yeares: As for our veſtall virgins in theſe our daies, we are certainely perſuaded and beleeue, that by the vertue of

C certaine ſpels and charmes which they haue, they be able to arreſt and ſtay any fugitiue ſlaue for running one foot farther; prouided alwaies that they be not gone already without the pourpriſe and precinct of the city wals. Now if this be receiued once as an vndoubted and confeſſed truth, and if we admit that the gods do heare ſome praiers, or be moued by any words; then ſurely we may reſolue at once of theſe conjectures; and conclude affirmatiuely of the maine queſtion. Certes, our anceſtors from time to time haue euermore beleeued and deliuered ſuch principle, yea, and that which of all other ſeemeth moſt incredible, they haue affirmed conſtantly, That by the power of ſuch charmes and conjurations, Thunder and Lightening might be fetched downe from aboue (as I haue formerly ſhewed.) *L. Piſo* reporteth in the firſt booke of his Annals or yearely Chronicles, That *Tullus Hoſtilius* king of Rome, was ſtricken dead with Light-

D tening, for that when hee went in hand to call *Iupiter* downe out of heauen, by vertue of a ſacrifice which king *Numa* was woont to vſe in that caſe, hee had not obſerued exactly all the exorciſmes and ceremoniall words contained in thoſe bookes of king *Numa*, but ſwarued ſomwhat from them. And many other writers do teſtifie, that by the power of words and oſſes, the deſtinies and prodigies of great importance preſaged to one place, haue bin cleane altered and tranſferred to another: as it was like to haue happened to the Romanes, at what time as they laied the foundation of *Iupiters* Temple vpon the mount or rocke Tarpeius. For when they digged there for the foundation of the ſaid Temple, and chanced to finde within the ground a mans head: the Senate of Rome ſent certaine Embaſſadours of purpoſe to the Sages and VViſards of Tuſcane, to know the ſignification of this ſtrange ſight and miraculous occurrent. VVhere-

E of *Olenus Calenus* (who was reputed the moſt famous diuinor and prophet of all the Tuſcanes) hauing ſome intelligence, and foreſeeing the great felicity and happineſſe that it imported and preſaged, intended by ſubtill interrogatiue to tranſlate the benefit thereof to his owne native countrey of Tuſcane. Hauing therefore firſt with a ſtaffe ſet out and deſcribed (as it were) the modell and forme of a Temple, vpon the ground which lay before him; hee came about the Roman Embaſſadors beforeſaid, and queſtioned with them in this wilie manner: Is it ſo, Romans, as you ſay? and are theſe your words indeed? There muſt be a Temple here of *Iupiter* that moſt gracious and mighty god: we haue light here vpon a mans head. Vnto which interrogation of his, the ſaid Roman Embaſſadours according to the inſtructions which they had receiued beforehand from the VViſard or Diuinors ſonne, anſwered in this manner: No, not here in this

F very place, but at Rome (we ſay) the head was found. And verily, our antient Chronicles doe all of them moſt conſtantly affirm, that had they not been thus forewarned and taught what to ſay, but had ſimply anſwered Yea, here we haue found a head, &c. The fortune of the Roman State and Empire had gone quite away to the Tuſcans, and been eſtabliſhed among them. The ſame had like to haue happened a ſecond time, as we may ſee in the Records and Monuments of old

date,

*Which is called *Obnũtiatio dicarum*, as we may reade in *M. Tull. de Diuinatione*, 1.

*In which yere it ſeemeth *Plinie* wrote this worke.

date,when as a certain chariot with foure horſes, made of clay, and prepared for to be ſet vpon G
the louver or lantern of the ſaid temple, chanced as it lay baking in the furnace, to grow into an extraordinary bigneſſe. For the foreſaid Wiſe men of Tuſcan being asked what the ſaid prodigy ſhould betoken,practiſed the like,as *Olenus* did:but the Romans being wiſe & wary in their words,ſaued and retained the ſame fortune ſtill for the behoofe of Rome, which was preſaged vnto them by that happy foretoken. Theſe examples may ſuffice to ſhew & prooue euidently, that the vertues and ſignifications of theſe ſignes and preſages do lie in our own power:and are no otherwiſe of force and effect, but according as euery one of them is ſo taken * and accepted. True it is,and held for an vndoubted principle in the Augures diſcipline & learning, That neither curſed execrations, ominous and vnlucky birds, nor any other preſage by their flight ſinging and feeding,can touch thoſe perſons who take no heed of them,and do proteſt plainly,that H
they regard them not,what buſineſſe ſoeuer they go about and be entering into: a greater gift than which,and teſtimony of the diuine indulgence and fauor of the gods to vs, we cannot haue, thus to ſubiect their ſecrets to our puiſſance. Moreouer,in the laws and ordinances of the 12 tables here at Rome,are not in one place theſe very words to be found, *Qui fruges occentaſſit*, [*i. whoſoeuer ſhall enchant or fore-ſpeake any corne or fruits of the earth:*] and in another place, *Qui malum carmen incantaſſit*, [*i. What perſon ſoeuer vſeth pernicious charmes to the hurt or miſchiefe of any creature?*] Ouer and beſides, *Verrius Flaccus* doth affirm vpon the credit of certain Authors which he alleadgeth and beleeueth, That the firſt thing which the antient Romans were wont to doe at the ſiege and aſſault of any towne or city, was by their prieſts to conjure and call forth that god or goddeſſe which was the patron or patroneſſe therof; and withal to promiſe vnto the ſaid I
god or goddeſſe, either the ſame place againe,or elſe a greater and more ſpacious ſeat; yea, and the like diuine worſhip, or better, among the Romanes: and euen at this day our Pontifies or Biſhops haue the charge of this ſacred ceremony amongſt other functions belonging to their miniſtery. And hereupon well known it is,that for this cauſe and nothing elſe, it was neuer diuulged obroad,what god was the protector and patron of Rome city,for feare leaſt ſome of our enemies ſhould aſſay to coniure him forth,and deale by vs as we do by them. Furthermore,who is there that is not afraid of all maledictions and curſed execrations; and eſpecially when the * names of the infernall fiends or vnluckie foules are vſed in ſuch bannings? For feare likewiſe of ſome harme,ſee we not that it is an vſuall thing to * cruſh and break both egge and fiſh ſhels, ſo ſoon as euer the meat is ſupped and eaten out of them;or els to bore the ſame through K
with a ſpoone ſtele or bodkin? From hence came thoſe amatorious eidyls and eclogues of *Theocritus* among Greek Poets,of *Catullus* and *Virgil* among vs,full of amorous charmes,in imitation of ſuch exorciſmes and coniurations indeed. I aſſure you many folke there be of this beleefe, That by certaine ſpells and words,in manner of charmes, all the pots and veſſels of earth baking in a furnace,may be cracked and broken, without touching them at all. And there are not a few who are perſuaded for certaine,that euen the very ſerpents as they may be burſt by inchantment,ſo they can vnwitch themſelues: and that as brutiſh otherwiſe and earthly as they be,yet in this one thing they haue a quicke ſence and vnderſtanding,inſomuch,as at the charms of the Marſians they will ſhrink from them and draw in their bodies round into a knot,though L
it were in the night ſeaſon when they lie aſleepe. Some there be alſo that when a skare-fire hath taken an houſe,write certaine * words vpon the walls, and thereby limit and confine the fire,that it ſhall go no farther. Certes,I am not able to ſay,whether ſtrange,forraine, and ineffable words hard to be pronounced,are more auailable to the effecting of theſe incredible things, or our Latin words,comming out at a venture vnlooked for and ſpoken at randon: which muſt needs ſeem ridiculous in our judgement, ſeeing that the ſpirit and mind of man, expecteth alwaies ſome great and mighty matter in theſe coniurations and exorciſmes, which may carry a majeſty therewith to incline and moue the gods to mercy and fauour, or rather indeed to command their heauenly power perforce. But to proceed, *Homer* the Poet hath written, that prince * *Vlyxes* being wounded in the thigh,ſtanched the bloud with a charme. And *Theophraſtus* teſtifieth,that there be proper ſpels to cure the Sciatica. *Cato* hath left in writing, that there is a M
ſpecial charm for diſlocations,wherby any bone put out of ioint may be ſet again. And *M. Varro* reporteth the like vertue of certain good words for the gout. As for *Cæſar* the Dictatour, it is commonly ſaid of him, that hauing beene once endangered with the fall or ouerthrow of his coach wherein he rode,would neuer afterwards ride in coach againe,vnleſſe ſo ſoone as euer hee had

* Whereupon it was thought materiall to ſpeake in this manner *Accipia omen*. For otherwiſe it auailed not.

* As in ſaying thus, The Deuill take thee, or,the Rauens peck out thine eies,or I had rather ſee thee Pie pekt: and ſuch like.

* Becauſe afterwards no witches might pricke them with a needle in the name and behalfe of thoſe whom they would hurt and miſchiefe,according to the practiſe of pricking the images of any perſon in wax; vſed in the witchcraft of theſe daies.

* That is to ſay, *Arſe verſe*, out of *Afranius*. as Feſtus noteth,which in the old Tuſcane language ſignifieth *Auerte igneum*, *i.* Put backe the fire.

* or rather the ſonnes of *Autolicus*: in his *Odyſſea*.

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A had taken his place,and before that he ſet forward vpon his way, he had pronounced a certaine charm that he had in ſtore: and perſuaded he was,that if he ſaid it ouer three times together,he ſhould come by no miſchance in his iourney,but trauel in ſecurity. A thing that I know many now adaies to practiſe ordinarily as well as he. But for farther prooſe and confirmation of this opinion,I report me to euery mans conſcience and knowledge;to that(I ſay)which there is not one but knoweth: What is the cauſe I pray you,that the * firſt day of euery yeare we ſalute one another for luck ſake,with wiſhing a good new yere? What is the reaſon,tel me, that in all our publick proceſſions and generall ſolemnities euery fifth yeare for the health and good eſtate of the city,they * made choice of ſuch perſons for to lead the beaſts appointed to ſacrifice,whoſe *names were good and fortunat?or how commeth it about,that for to preuent or diuert witch-
B craft and ſorcery,we obſerue a peculiar adoration,and inuocat vpon the Greekiſh[goddeſſe of vengeance]*Nemeſis*;in which regard onely,we haue her ſtatue or image ſet vp in the Capitoll, notwithſtanding we know not yet what name in Latine to giue her? How is it, that in making mention of thoſe that be dead, we ſpeake with reuerence and proteſt that we haue no meaning to diſquiet their ghoſts thereby,or to ſay ought preiudiciall to their good name and memoriall? If there be nothing in words,how hapneth it,I would fain know,that we haue ſuch an opini-
on of odd numbers,beleeuing that they be more effectuall in all things than the euen?a matter I may tell you of great conſequence,if we do but obſerue the criticall daies in feuers. Alſo in the gathering of our firſt fruits,be they Pears,Apples,Figs,&c.wherfore vſe we to ſay,Theſe be old,God ſend vs new? What moueth vs to with health and ſay,God helpe, or bleſſe,when one
C ſneezeth? for euen *Tiberius Cæſar*,who otherwiſe was known for a grim ſir,and the moſt vnſociable and melancholick man in the world, required in that manner to be ſalued and wiſhed well vnto,whenſoeuer he ſneezed,though he were mounted in his chariot. And ſome there be who in this caſe do ceremoniouſly ſalute the party by name,and thinke there is a great point of religion lies in that. Moreouer,is not this an opinion generally receiued,That when our ears do glow and tingle,ſome there be that in our abſence doe talke of vs! *Attalus* auoucheth for a certainty, that if a man chance to eſpie a ſcorpion,and do no more but ſay this one word * Duo[*i.*two]the ſerpent wil be ſtil & quiet,and neuer ſhoot forth his ſting. And now ſeeing by occaſion of mentioning a ſcorpion,I am put in mind of Africk,you ſhal vnderſtand thus much,that throughout all that country there is not one goeth about to do any thing,but before he begins he ſaith this
D word * Africa*i.* Africk. As for other nations,in euery enterpriſe that men take in hand,they vſe the name of their gods,& pray ordinarily,that it would pleaſe them to giue a grace and bleſſing to their attempts. As for this ceremony,namely,when the table is ſpread and furniſhed with viands,to lay a ring from the finger vpon it,we ſee it commonly & orderly practiſed;and that it is of force to put by many ſcrupules aud religious doubts it is very euident. You ſhall ſee ſome men to take the ſpittle out of their mouths,and conuey it with their fingers end behind the ear, for to reioice the heart & driue away all penſiueneſſe and melancholick fanſies that trouble the mind. And to bend or bow down the thumbs when we giue aſſent vnto a thing,or do fauor any perſon,is ſo vſuall,that it is growne into a prouerbiall ſpeech,to bid a man put down his thumb in token of approbation. In adoring the gods and doing reuerence to their images, wee vſe to
E *kiſſe our right hand and turne about with our whole body: in which geſture * the French obſerue to turne toward the left hand; and they beleeue that they ſhew more deuotion in ſo doing. As touching the maner of worſhipping and adoring flaſhes of lightening, all nations with one accord and conformity do it with a kind of * whiſtling or chirping with the lips. If there be mention made of ſcare fires at the table as we ſit at meat,we hold it ominous,but we turn away the perillous preſage thereof, by ſpilling and caſting water vnder the bourd. When one riſeth from his meat and is ready to depart,if they of the houſe go in hand preſently for to ſweep the floore and make all cleane: as alſo to take away diſhes,trenchers,&c.vpon the bourd; or to remoue the cupbourd of plate,& liuery table,whiles one of the gueſts is a drinking, are thought to be moſt vnfortunat tokens,and to preſage much harm. *Seruius Sulpitius* a principal perſon of
F our city,hath written a treatiſe of this argument,wherein he giueth a reaſon why we ſhould not leaue or ſhift our trenchers at euery courſe or change of diſhes;for in thoſe daies there were no more allowed than there ſat gueſts at the tables,and thoſe were ſerued but once for all. If one chance to ſneeze after repaſt, the order is to call for a diſh of meat and a trencher againe to be ſet vpon the bourd: and in caſe he taſte not of ſomwhat afterward,it is thought a moſt fearefull and

i. The firſt of March.

* *Dicis cauſa*, *i.pro forma:*
* As *Valeſius*, *Lucius*, *Salvius Statorius*, *&c.* which are ſignificant, and import by the very letter., ſome happines and proſperity

*Which faſhion was afterwardstaken vp in doing reuerence to princes and great perſons.
*whereas other nations obſerued to turn to the right hād, as appeareth by *Plautus*, *Quo me vertā nſcio, B. Si deos ſalutas, Dextrorſum cenſeo.*
Poppyſmus, in ſetting our lips cloſe together, and drawing the breath inward, as our manner is in playing with a tame Sparrow, or chearing vp and making much of an horſe.

and curſed preſage on this behalf: like as to ſit at the table and eat nothing at all. * See how ceremonious thoſe men were, and what preciſe ordinances they inſtituted, who were of beleef, that in all our affaires and actions, and at al times, the diuine power of God was preſent: and that by theſe means they left them pacified for all our ſins and vices. Neither is there an end here: for ouer and beſides it hath been marked, that many times all the table is huſht, and there is not a word heard from one end to the other: but this is noted neuer to happen but when the gueſts make a juſt euen number. But what doth this ſilence preſage? Surely, euery one of them * ſhall be in danger to loſe or impaire his credit, good name, and reputation. Moreouer, if a peece of meat chanced to fall out of the hand down to the floore, it was taken vp and deliuered vpon the boord again, where it paſſed from one to another, and went through the table: but in any wiſe they were forbidden to blow therupon, for to clenſe it from the duſt or filth that it caught. Furthermore, they haue proceeded thus far, as to gather preſages from ſuch things as happen juſt at the time whiles one either ſpeaketh or thinketh of the ſame. But of all others, this was counted a moſt execrable token, in caſe it chanced that the Pontifie or high Prieſt ſitting at the table *pro forma*, and for order ſake, at any ſolemne feaſt or ſacrifice, let fall a morcel of meat: but if the ſame were laid vpon the boord again, and afterwards burnt and ſacrificed to the familiar gods of the houſe *Lares*, it was thought a ſufficient expiatory ſatisfaction. Semblably, men are of opinion, That if any medicines purgatiue or others, fortune to be ſet vpon a table before they bee giuen to the patient for to drink, they wil do no good at all, but loſe their operation. Alſo there is a ſuperſtitious ceremony in paring the nailes of the fingers, during the market daies held at Rome, with this charge, that the party hold his tongue and be ſilent all the while, & bigin at the fore-finger; and this forſooth concernes the mony of many a man. Likewiſe, as great a matter as that, lieth in ſtroking or handling the haire of the head, either on the 17 day after the change of the Moon, or the 29: for a ſpecial means this is to keep the haire on, which is giuen to fal, as alſo to eaſe the head-ach. Moreouer, the peaſants in the country obſerue this cuſtome in many mannors and farmes of Italy, to forbid their wiues and women to ſpin as they walke vp and downe abroad in the ſtreet or any common way of paſſage, or to carry their rockes and diſtaues vndizened or bare; for this opinion they haue, that in ſo doing they preiudice the hope of al fruits, and the corne eſpecially growing in the field for that yeare. Not long ſince, *M. Seruilius Nonianus*, (who in his time was a principal citizen of Rome) to preuent the bleardneſſe of his eies which he feared, before that either any man elſe foretold him of that diſeaſe, or himſelfe once named it, took a little piece of paper, and wrote therein theſe two capital Greek letters P and A, which he lapped round & faſt tied with a linnen thred, and ſo wore it hanging at a lace about his neck vnder his throat. *Mutianus* (who had bin thrice Conſull of Rome) obſerued the ſame effect by wearing a flie aliue within a little rag of white fine linnen cloth: and both of them did highly commend theſe medicines of theirs; reporting, that by thoſe meanes they were free from bleared eies. Finally, we read of certain charms and ſpels againſt ſtorms of hail: againſt ſundry ſorts of diſeaſes, and namely for any part that is burnt or ſcalded, and verily ſome of them haue been proued by experience to be effectuall. But for mine own part abaſhed I am and aſhamed to put them downe in writing, conſidering how diuerſly men are affected in minde. And therefore to conclude this matter, I leaue euery man to himſelfe to giue credit or otherwiſe vnto them at his owne pleaſure and diſcretion.

* Of the ſpeciall prouidence of God: *Plinie* ſpeaketh like himſelfe, a heathenish Infidell.

* *Fama labor eſt.*

* Which anſwer to our R and A.

G H I K L

Chap. III.

¶ *Remedies proceeding from man, for the cure of diſeaſes.*

IN my former Treatiſe as touching ſtrange and wonderfull nations, I ſpake of certaine races of men which were of a monſtrous nature, and carried a venomous regard and looke in their very eies: beſides many other properties of beaſts, which here to repeat were needleſſe. Howbeit, in this place I think it not amiſſe to note, that ſome people there be whoſe bodies be from top to toe all medicinable and wholſome to others. As for example, the men of thoſe families which do terrifie ſerpents, and driue them away with their very preſence: who alſo are of this nature, that they be able to cure and eaſe ſuch as are ſtung already either by touching only, or elſe by a medicinable ſucking of the place: of which kind are the Pſylli and Marſi: thoſe alſo in the Iſland * Cyprus, whom they call Ophugenes: and of this race and houſe there came an Embaſſadour

M

* Or *Pares.*

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A ſador out of the ſaid Iſland, whoſe name was * *Exagon*, who by the commandement of the Conſuls was put into a great tun or pipe wherein were many ſerpents, for to make an experiment and trial of the truth: and in very deed the ſaid ſerpents licked his body in all parts gently with their tongues, as if they had bin little dogs, to the great wonder of them who beheld the manner of it. A man ſhall know thoſe of this family (if any of them remain at this day) by this ſigne, that they breath a ſtrong and ſtinking ſent from them, eſpecially in the Spring ſeaſon. Now, theſe people beforenamed had not only a gift to cure folk with their ſpittle, but their very ſweat alſo had a medicinable vertue againſt the ſting of ſerpents. For as touching thoſe men who are born and bred in Tentyrus (an Iſland lying within the riuer Nilus) ſo terrible they be vnto the Crocodiles, that they wil not abide ſo much as their voice, but flie from them ſo ſoon as they heare
B it. Moreouer, it is knowne for certaine, that all the ſort of theſe people, who haue their bodies thus priuiledged by that ſecret antipathie in nature between them & ſerpents, are able to eaſe thoſe who are ſtung, if they do but come in place where they be: like as a wound will be more angry and ſore, if they come neare who at any time before haue been hurt by ſting of ſerpent or tooth of mad dog: ſuch alſo carry about with them in their bodies ſo venomous a quality, that their onely preſence is enough to marre the egs that a brood-hen ſits vpon, and make them all addle, yea, and to driue ewes and other cattell to caſt their yong before the time: ſuch a virulent property remaineth ſtill behind in their bodies who haue bin once ſtung and bitten, that notwithſtanding they be cured thereof, yet venomous they are now and hurtfull to others, who beforetime were poiſoned themſelues. But the only way to remedy this inconuenience, is to cauſe
C them to waſh their hands before they enter into the roome where the patients lie, and with the ſame water to beſprinckle and waſh them who are to be cured. Againe, this is to be obſerued, that whoſoeuer at any time haue bin pricked with a ſcorpion, ſhal neuer afterwards be ſtung by hornets, waſpes, or bees. A ſtrange thing this is no doubt, howbeit, no great wonder vnto them who know, that a garment or cloth which had bin vſed at funerals, wil neuer be afterwards moth eaten: and how that ſerpents hardly can be plucked out of their holes, vnleſſe it be by the left hand.

* *Euegon.*

Chap. IIII.

D ¶ *Of certaine Sorceries: and the properties of a mans ſpittle. Alſo againſt Magitians.*

THe inuentions of *Pithagoras* as touching numbers, beare a great ſtroke in theſe matters, and lightly miſſe not: but principally in this, That the ſaid Philoſopher would giue iudgment by the vowels contained in the proper name of any perſon, concerning their fortunes, for in caſe the vowels were in number odde, he pronounced, that if the party euer proued lame of a lim, loſt an eie, or met with any ſuch like accidents, the ſame ſhould happen vpon the right ſide of the body: but contrariwiſe, if the number of vowels were euen, then theſe infirmities ſhould befall the left ſide. Furthermore, it is commonly ſaid, that if one take a ſtone, dart, or inſtrument of ſhot, wherewith a man hath killed theſe three liuing creatures, a man, a wilde Bore,
E and a Bear, one after another, & that with one ſingle ſtroke to euery one of them, and fling the ſame clean ouer an houſe where there is a woman in hard trauell of child-birth, ſo as it light on the other ſide without touching any part thereof, the woman ſhal preſently be deliueed. More reaſon there is that a * light jauelin or Pertuiſan ſhould do this feat, which had bin drawn forth of a mans body, ſo as it neuer touched the ground after; for do but bring this murdering jauelin into the place where a woman is in labor, it wil forthwith procure her deliuerance. *Orpheus* and *Archelaus* do write much after the ſame maner of arrows pulled out of men bodies, namely, that if care be had that they touch not the earth, & then be laid vnder the bed where man or woman lieth, they wil cauſe the parties to be enamored vpon them that beſtowed the ſaid arrows there: and theſe authors report moreouer, that the veniſon of any wild beaſt killed with the ſame weaF pon which was the death of a man before, is ſingular to cure the falling ſickneſſe.

* *Veliterk haſt*, which alſo wa called *Veliburn.*

As ſome men there be whoſe bodies all throughout be medicinable, ſo there be others who haue certain parts onely of the ſame vertue, according as I haue written already concerning the thumbe of king *Pyrrhus*. In the citie Elis alſo the inhabitants were wont to ſhew as a wonderfull monument the rib of *Pelops*, which they auouched to be all of Iuory. And euen at this day,

many

many there are who make great ſcruple to ſhaue or clip the haire growing in any molle or wert G.
vpon the face. As touching the faſting ſpittle ſpecially of man or woman, I haue ſhewed alreadie how it is a ſoueraigne preſeruatiue againſt the poiſon of ſerpents. But that is not all: for in many other caſes it is found by daily experience to be of great operation, and to worke effectually. For firſt and formoſt, if we ſee any ſurpriſed with the falling ſickneſſe, we ſpit vpon them, and by that means we are perſuaded, that we our ſelues auoid the contagion of the ſaid diſeaſe. *Item*, an ordinary thing it is with vs to put by the danger of witch-craft, by ſpitting in the eies of a witch: ſo do we alſo, when we meet with one that limpeth, and is lame of the right leg. Likewiſe when we craue pardon of the gods for ſome audacious and preſumptuous praiers that wee make, we vſe to ſpit euen into our boſoms. Semblably, for to fortifie the operation of any medicines, the manner is to pronounce withal a charm or exorciſme three times ouer, and to ſpit vp- H
on the ground as often; and ſo we doubt not but it will do the cure and not faile. Alſo when we perceiue a fellon or ſuch like vncom ſore a breeding, the firſt thing that we doe, is to marke it three times with our faſting ſpittle. I will tell you of a ſtrange effect, and whereof it is no hard matter ywis to make the triall. If one man hath hurt another, either by reaching him a blow neare at hand, or by letting flie ſomwhat at him farther off, & repent him when he hath ſo done; let him preſently ſpit juſt in the midſt of the palm of that hand which gaue the ſtroke, the party immediatly that was ſmitten, ſhall be eaſed from pain, and take no harm thereby. And verily we find this to be ſo, by experiments oftentimes made vpon the bodies of fourfooted beaſts: for let them be ſwaied in the back, or hipped by ſome ſtripe giuen them with ſtone or cudgel, do no more then but ſpit into that hand which did the deed, & ſtreightwaies they will goe vpright a- I
gain vpon all foure. Contrariwiſe ſome there be, who before they either ſtrike or diſcharge any thing from them againſt another, after the ſame manner firſt ſpit into the bal of their hands, and ſo they make account to do a greater diſpleaſure, & to hurt more dangerouſly. But this we may aſſure our ſelues, that there is not a better thing in the world for to kil tettars, ringworms, & the foule leprie, than to rub and wet them continually with our owne faſting ſpittle: likewiſe to annoint therewith euery morning our eies, keepeth them from being bleared: alſo cankerous ſores are cured with the root of Sowbread, which we call the earth-apple, if the ſame be wrought into a ſalue with our faſting ſpittle. Moreouer, if a man haue a cricke and ach in the nape of his neck, let him take the ſpittle of a man that is faſting, ſome in his right hand, and there with anoint the ham of his right leg; and the reſt with his left, and do the like to the left leg: and thereupon hee K
ſhall find eaſe. If an earwig or ſuch like vermin be gotten into the eare, make no more ado but ſpit into the ſame, and it will come forth anon. Among countercharms, & preſeruatiues againſt forcerie, theſe be reckoned, namely, that a man ſpit vpon his own vrine as ſoon as he hath deliuered it out of his body; likewiſe to ſpit into the ſhooe that ſerueth his right foot, before he put it on in a morning; alſo whenſoeuer he goeth ouer or paſſe by a place where ſometime he was in danger, to remember that he ſpit vpon it. *Marcion* of Smyrna, who wrote a Treatiſe of the vertues and effects of ſimples, reporteth, that the Scolopendres of the ſea will burſt in ſunder if one ſpit vpon them: and ſo will hedge toads and other venomous frogs. *Ophilius* writeth, that ſpittle wil do the like by ſerpents, if one ſpit into their mouths as they gape. As for the learned *Salpe*, ſhee L
ſaith, that if one perceiue any member or part of the body be aſleep and benummed, there is not a better thing to recouer the ſence thereof, than to ſpit into the boſome, or to touch the vpper eielids with faſting ſpittle. Now, if we beleeue theſe things to be true, we may as well giue credit to all that which followeth. Wee ſee it is an ordinary thing, that if a ſtranger come in place where a babe lieth in the cradle, or look vpon the ſaid infant whiles it is aſleep, the nource vſeth to ſpit thrice: although I am not ignorant that there is a religious opinion of this ſillable* Mu, that it is able to defend ſuch yong ſucklings; as alſo of the fooliſh puppet *Faſcinus*; both which are of power to put back any witchcraft from them, and returne the miſchiefe vpon the eie-biting witch. And ſince I am light vpon this name, I muſt let you vnderſtand that this *Faſcinus* is holden to be a god forſooth, the gardian & keeper not of infants only, but of great captains and M
braue generals of the field; who hath diuine ſeruice done to him at Rome among other gods, and that by the veſtall Nuns; for the manner was to hang this ridiculous puppet vnder the chariots of noble victorers riding in triumph, not onely to defend them by a medicinable power againſt the venome of enuious and ſpightfull tongues, but alſo to returne all enuie vpon them, & bid as it were to take it among them: the like vertue is in the tongue, beſeeching fortune to bee pro-

* *Mututatur*, As *Turnebius* found it in an old copie. And conſiderig the fooleries both before & after mentioned, this will ſort well ynough with ſuch ſtuffe: & namely their *Faſcinus* in the old time (which was *turpiculares, quale membrũ virile*) hanging about childrens necks to withſtand the miſchiefe that might come by the eye, called in Latin *Faſcinum* alſo: for a witch would not willingly ſettle her eye long vpon ſuch a beaſtly and filthie obiect.

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A propitious and fauorable vnto them: Fortune (I ſay) who ordinarily commeth after to whip and
punish them, as the ſcourge and tormentreſſe of glory and honour. Ouer and beſides, the tooth
of a man, eſpecially when he is mad, is reckoned to be as dangerous and pernicious a biting as
any other. The excrement found in mans ears, called ear wax, is thought in this caſe to be ſoue-
raigne: and let no man maruell thereof, conſidering how it will heale the ſting of Scorpions and
ſerpents alſo, if it be applied to the place preſently: but it is the better and more effectuall, if it
be taken out of the Patients own ears, who is thus wounded: and in that ſort it healeth alſo the
whitflaws and impoſtumations that breed about the naile roots. Moreouer, take a mans or wo-
mans tooth, and ſtamp it into pouder, it is thought good for the ſting of a ſerpent. The haire of
B yong boy-children which is firſt clipped off, is held to be a ſingular remedy for to aſſuage the
painful fits of the gout, if the ſame be tied faſt about the foot that is grieued: & generally their
haire, ſo long as they be vnder 14 yeres of age, eaſeth the ſaid anguiſh, if it be applied vnto the
place. Likewiſe, the hair of a mans head cureth the biting of a mad dog, if it be laid to the place
with vineger: it healeth alſo the wounds in the head, applied with oile or wine. But if it were
plucked from his head whiles he hangeth vpon the gallows, then is it ſoueraign for the quartan
ague: but we may chuſe whether we will beleeue it or no. Certainly the haire of the head burnt
to aſhes, is known to be very good for a cancerous vlcer. If a woman take the firſt tooth that a
yong child caſt, ſet it in a bracelet, and ſo weare it continually about her wreſt, it will preſerue
her from the pains & grieuances of her matrice and naturall parts. Tie the great Toe and that
which is next vnto it together, you ſhall ſee how it will allay any riſings & tumors in the ſhare.
C Bind gently the two middle fingers of the right hand, with a linnen thred, marke of what force
this remedy is to repreſſe the rheum falling into the eies, and how it wil keep them from being
bleared. If all be true that is commonly ſaid, the ſtone that one hath voided & thruſt out of the
body, eaſeth all others that be pained with the ſtone, if the ſame be kept faſt tied to the ſhare:
alſo it doth mitigat the griefe of the liuer, and procureth ſpeedy deliuerance to women in tra-
uel with child. *Granius* affirmed moreouer, that in all theſe caſes it would do the better, if one
were cut for it, & that it were taken forth of the bladder by way of inciſion. If a woman be neere
her time, and looks euery day to fal to labour & cry out, let the man come by whom ſhe is with
child, and after he hath vngirt himſelfe, gird her about the middle with his own girdle, and vn-
looſe the ſame againe, ſaying withall, this charme, *I tied the knot, and I will vndo it againe*, & there-
D with go his waies, ſhe ſhall ſoone after fall to her buſineſſe and haue more ſpeedy deliuerance.
Orpheus and *Archelaus* both, do affirme, That if the ſquinancy be anointed with man or womans
bloud (it skilleth not out of what vein or part of the body it iſſued) it is an excellent remedy for
that diſeaſe. The like effect it hath, if their mouthes be rubbed with the ſaid bloud, who being
ouertaken with the epilepſie, are falne down; for immediatly thereupon they will riſe and ſtand
vpon their feet. Some write, That if the great toes be pricked vntill they bleed again, the drops
that come forth worke the like effect in the falling ſickneſſe, ſo that the face of the Patient be
ſprinkled or beſmeared therewith: or if a maiden touch the parties face that lieth in a fit of the
ſaid diſeaſe, with her bare thumbe or great toe, he ſhall come againe to himſelfe and recouer. By
which experiment Phyſitians going by coniecture, are of opinion, That ſuch perſons ſubject to
E that diſeaſe, ſhould feed of the fleſh of * ſuch beaſts as neuer were with yong. *Æſchines*, a Phy- * *Virgines car-*
ſitian of Athens, was wont to cure ſquinſies, the inflammations of the amygdals, the infirmities *nes.*
of the uvula, and all cancerous ſores, with the aſhes of a man or womans body burnt: and this
medicine he called Botryon.

Many maladies there bee, that goe away the firſt time that either a man hath carnall know-
ledge of a woman, or that a maid ſeeth her monthly ſickneſſe: but if they end not at ſuch a time,
commonly they proue chronicke diſeaſes and continue a long time, and eſpecially the falling
ſickneſſe. It is ſaid moreouer, That the company of a woman caſeth them very much who are
ſtung with a ſcorpion: but women in the ſame caſe catch harme by that means. Some ſay alſo,
F that if the eies be dipped three times in that water wherein a man or woman hath waſhed their
feet, they ſhall be troubled neither with bleardneſſe nor any other infirmity. And others there
be who affirm, that the wens called the Kings euil, the ſwelling kernels alſo behind the ears, and
the ſquinancy, are cured with touching the hands of them that haue died a violent & vntimely
death. Some ſtand not ſo much vpon that point, but ſay, That the backe of the hand of any one
that is dead (it skills not how nor by what means) if it touch the grieued part, wil work the like

effect,ſo that the dead party & the Patient be both of one ſex. As for the tooth-ach,it is a com- G
mon ſpeech, That if one bite off a peece of ſome tree that hath been blaſted, or ſmitten with lightning,prouided alwaies that he hold his hands behind him at his back in ſo doing, the ſaid morſell or peece of wood will take away the toothach if it be laid vnto the tooth. Some there be who giue direction to take the perfume of a mans tooth burning in the fire, for to eaſe the tooth ach of a man;and ſemblably of a womans tooth to help women in the ſame caſe. Others you ſhall haue,that preſcribe to draw one of the eie-teeth, called in Latine Canini, out of the head of man or woman lying dead and not yet enterred,and to wear the ſame againſt the tooth-ach. It is a common ſpeech, That the earth found in or about a man or womans ſcull, is a ſingular depilatory,and fetcheth away the haire of the eiebrows. As for the graſſe or weed that grows therein (if any ſuch may be found) it cauſeth the teeth to fall out of the head with chewing on- H
ly. As alſo that no vlcer wil ſpread farther but keep at a ſtay,if there be a circle drawne about it with the bone of a man or womans body. As touching the cure of a tertian ague, ſome there be who lade vp water out of 3 pits,as much out of one as another, and mingle all together; which done,they put the ſaid water into a new earthen pot that neuer was occupied before,& begin to the Patient out of it,giuing the reſt vnto him or her for to drink,when the fit commeth. But for the quartan ague,they get me a broken fragment of a wooden pin which held the ſides & croſſe peece of a paire of gallows together,wrap it within a lock of wool,and ſo hang it about the Patient:or els they take a peece of the halter or rope from the gallows, and vſe it in like maner for the foreſaid purpoſe:but wot ye what? when the patient is by this meanes rid of the feuer, the ſaid parcel of wood or cord they vſe to bury or beſtow cloſe in ſome hole within the ground, I
where the Sun may neuer ſhine on it,& then the acceſſe wil neuer return more. See the toies & vanities of theſe Magitians!and yet theſe be not all;for they run on ſtil and ſay,that if one take a whetſtone which hath ſerued a long time to whet kniues & other edge tooles on, and lay the ſame vnder the boulſter or pillow where one lieth that is ready to faint and giue vp the ghoſt vpon ſome indirect means,by ſorcery,witchcraft, or poiſoning (but this muſt be done without the knowledge of the ſaid party) you ſhal from the very mouth of the patient hear,what poiſon was giuen,in what place,& at what time;but who it was that gaue it, he or ſhe ſhal not be able to name. Moreouer,this is known for a truth,that if one be ſtrucken ſpeechleſſe with lightning, and then the body be bent and turned toward the wounded place,the party ſhal recouer preſent- K
ly and ſpeak again. Some there be,who to driue back and keep down the biles and botches that riſe in the ſhare,take the thred or yearn out of the weauers loome which ſerue for the ſelvedge or liſt,making ſeuen or nine knots,and in the knitting of euery one of them name ſome widow or other,and then tie it faſt about the grieued place. Alſo for to aſſuage the paine of any wound, they giue order, that the wounded party take a naile or ſome other thing that one hath troden vnder foot,and to weare the ſame tied about the neck,arme, or other part of the body. For to be rid of warts,ſome chuſe a time to pluck them vp by the roots,when the Moone is twenty daies old at leaſt,and then lay themſelues along vpon their backs in ſome ordinary high way,looking fully vpon the Moone, and ſtretching their armes backeward as farre as they can beyond their heads,and looke what they can catch hold of with their hands,therewith they rub the place. If one cut and pare an agnell or corn in any part of the body,obſeruing a time when a ſtar ſeemeth L
to ſhoot or fall,they ſay, it wil quickly weare away and be healed for euer. They would beare vs in hand, That if a man poure vineger vpon the hooks and hindges of doors,and make a liniment with the durt that commeth of the ruſt thereof,and therewith annoint the forehead, it will aſ-ſuage the head-ach. They promiſe alſo to do as much with a wyth or halter that a man is hanged withall vpon a gibbet,in caſe it be done about the temples of the head in manner of a fron-tall. Moreouer,if any fiſh-bone ſtick in the throat and will not remooue, it ſhall incontinently goe downe, if the party ready thus to bee choked withall, put his feet into cold water: but if ſome peece of any other bones be ready to choke one,make no more adoe, but take ſome other little ſpils of the ſaid bone and lay them vpon the head,you ſhall ſee it paſſe away and doe no harm. If a peece of bread haue gone wrong or lie in the way readie to ſtop the breath, take the M
crums of the ſame loafe and put them into both the eares,you ſhall ſee it will ſoon be gon and do no further harme. Furthermore,the Grecks (who were giuen much to make money of euerie thing,and namely of their publicke places of bodily exerciſe) made great account of certaine excrements that came from mens bodies,as ſingular remedies for many diſeaſes: for the filth

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A that was ſcraped & rubbed from the bodies of wreſtlers,&c. ſerued to mollifie, to heal, reſolue, and incarnat; a medicin conſiſting of ſweat & oile tempered together: with it they vſed to cure the inflammations, contractions, diſtortions, and riſings of the matrice, by application outwardly: therwith they would draw down the monthly fleurs of women; lenifie the intemperat heat, and diſſolue piles and ſwelling bigs in the ſeat or fundament: they vſe the ſame alſo to aſſuage the griefe of the ſinews, to rectifie diſlocations & ſet the bones in ioint, and to diſcuſſe the nodoſities of the ioints. Howbeit, the ſcrapings that come of ſweating in banes and hot-houſes, be counted of greater validitie in all theſe infirmities, and therefore no maruell if they enter into the compoſition of maturatiue emplaſters, and which bring an impoſtume to ſuppuration: as
B for the foreſaid medicines which ſtood vpon ſweat, oile wherewith wreſtlers were anointed, and ſome vrine mingled among, they be good onely to mollifie the nodoſities of the ioints: for as they heat and reſolue more effectually, ſo in the other reſpects nothing ſo forcible they are as thoſe that be gathered out of ſtouves & bains. Verily a man would not beleeue to what ſhameleſſe and impudent curioſity ſome authors are grown vnto (and euen thoſe of all others who be moſt renowned) who baſh not with open mouth to commend vnto vs that, for a ſingular remedy againſt the prick of ſcorpions, which I am not willing to name, euen the filthy ſperme that paſſeth from a man by his priuities. Neither could they ſtay there, but to cauſe barren women for to teem and beare children, they haue found out a proper peſſarie to be put vp into their ſecret parts, made forſooth of the ordure that commeth away from infants ſo ſoone as they be out of their mothers womb: and this medicine they haue a pretty name for, & call it Meconion. More-
C ouer, the Greeks haue gone ſo neare, that they haue ſcraped the very filth from the wals of their publicke halls and places of wreſtling, and ſuch like exerciſes; and the ſame (ſay they) hath a ſpeciall excalfactory vertue, whereby it diſcuſſeth and reſolueth the biles and impoſtumes called Pani; and ſerueth as a ſoueraigne liniment to heale the vlcers in the bodies of children and old folk, yea & to skin any place that is galled, raw, & bliſtred with burning. Lo what remedies haue bin found in the body of man? And ſurely ſince I haue taken the pains to put them down, I may not omit thoſe voluntary medicines which depend vpon his minde, & proceed from his will and vnderſtanding. In the firſt place, you ſhall haue ſome that wil faſt and forbeare al kinds of meat; others drink not at all; one while they abſtaine from wine onely, another while from all fleſh meats; and you ſhall ſee diuers men neuer come vnto bathe or baine, euery one according
D as their ſicknes doth require. And this kind of abſtinence or regiment of themſelues, they hold to be the readieſt and ſureſt means to recouer their health. In the rank of theſe remedies, are reckoned bodily exerciſe, ſtraining of the voice, vnction, ſcratching, and rubbing, as need and occaſion requireth; for hard and vehement friction doth conſtipat and bind the body: contrariwiſe, gentle and ſoft frictions do mollifie and open the pores; and, as much rubbing taketh down the body and cauſeth leanneſſe, ſo that which is moderat ſetteth it vp and encreaſeth fatneſſe: but nothing is there more wholſome than walking and geſtation; which is an exerciſe performed many waies. If the ſtomacke be weake, and the legs feeble, riding on horſeback is an excellent exerciſe: for the phthyſicke or conſumption, nothing ſo good as to ſaile or be rowed vpon the
* water: but in caſe there be a long diſeaſe hanging vpon a man, what better thing in the world * Specially vpon the ſea.
E than to change the aire, and remoue from place to place? In like manner to procure ſleep, by lying in ſome pretty bed that may be rocked too and fro, is oftentimes good for a mans health: as alſo to vomit now and then, but in no wiſe to vſe it ordinarily. Lying in bed vpon the backe, is commended for the infirmities of the eies; but vpon the belly, for the cough. To lie vpon the ſides ſhifting from one to the other, is held to be ſingular againſt rheums and catarrhs. *Ariſtotle* and *Fabianus* do ſay, That we be giuen to dreame at the Spring and Fall, more than in the other ſeaſons of the yere: alſo, moſt when we lie with our face vpward, but neuer groueling. And *Theophraſtus* affirmeth, That ſleeping vpon the right ſide, helpeth forward the concoction of meat in the ſtomacke; whereas they that lie vpon their backe ſhall not haue ſo quicke digeſtion. The
F manner of bathing alſo and vſing the baine and hot houſe, (which is one of the chiefe and principall means of our health) is in a mans power to order as he liſt himſelfe: like as he may chuſe what kind of friction he will in the ſtouve or hot-houſe; either to be rubbed with linnen cloths, or well curried and ſcraped with kombes. *Item*, it is knowne to bee verie good and wholeſome, to waſh ones head with hot-water, before hee enter into the baine or hot-houſe; and after that he is out of it, to doe the like with cold water: as alſo to take a draught of cold water

immediatly before meat, and to do as much between meals: likewiſe to drink the ſame to bed- G
ward, yea, and otherwhiles in the very night, ſo as we ſleep both before and after; where, by the way this would be noted, That no liuing creature elſe but man alone, delighteth to drinke any drink hot, know then hereby, that ſuch kind of drinks be not natural. Finally, to waſh the mouth with wine before one goeth to bed, for a ſweet breath: likewiſe ſo ſoon as he is vp betimes, with cold water againſt the tooth-ach, ſo as he do it three or fiue times together, or at leaſt-wiſe obſeruing ſuch an odde number; as alſo to bath the eies in a morning with Oxycrat (*i*) with vineger and water mingled together, to preſerue them for being bleared, are ſingular and approoued experiments.

Chap. V. H

¶ *Obſeruations as touching Diet, and the manner of our feeding, for the regiment of Health.*

LIke to the former rules is this alſo, as touching our Diet, That it be not too preciſe, but ſo as we may feed indifferently of all viands, and acquaint our bodies with variety of meats; which is obſerued to be the beſt way to maintain our health; and in very truth, *Hippocrates* ſaith, That to eat but one meale a day (*i*) to forbeare dinners, is a diet that will drie vp a mans body within, and bring them ſoon to age and decay. But this aphoriſm of his he pronounced as a Phyſitian to reclaim vs from that hungry and ſparing diet, and not as a patron and maintainer of full feeding and gourmandiſe: for I aſſure you, a temperat and moderate vſe of our meats, is I
the wholſomeſt thing that is for our bodily health But *L. Lucullus* was ſo ſtrict herein, that hee ſuffered himſelfe to be ordered and ouer-ruled by his owne ſeruant, who would not let him eat but as he thought good: in ſuch ſort, that it was no ſmall diſgrace vnto him in his later daies thus to make his man his maſter, and to be gouerned by him rather than by his * own ſelfe: for was it not (think you) an approbrious and ſhamefull ſight, to ſee a * ſlaue and no better, to put his lords hands from a diſh of meat, beeing an aged gentleman as he was, and who in times paſt had rode in triumph; to gage him thus (I ſay) and keep him ſhort, though hee were ſet amongſt great ſtates at a roiall feaſt within the capitoll of Rome?

* For euery man is to be his owne Phyſitian: whereupõ might riſe this prouerbe, *A foole or a Phyſitian.*

* Thought to be *Caliſthenes* his Phyſician: for in thoſe days Phyſicians were reckoned but ſeruants to ſuch perſons as *Lucullus* was.

Chap. VI. K

¶ *Of Sneezing: the vſe of Venerie: and other means which concerne mans health.*

SNeezing diſchargeth the heauineſſe of the head, and eaſeth the poſe or rheum that ſtuffeth the noſe: and it is commonly ſaid, That if one lay his mouth to the noſthrils of a mouſe or rat and touch the ſame, it wil do as much. To ſneeze alſo, is a ready way to be rid of the yex or hicquet. And *Varro* giueth counſell, to ſcrape a branch of a * Date tree with one hand after another by turnes, for to ſtay the ſaid hicquet. But moſt Phyſitians giue direction in this caſe, to ſhift a ring from the left hand to the longeſt finger of the right; or to plunge both hands into very hot water. *Theophraſtus* ſaith, that old men doe ſneeze with more paine and difficulty than others. L

As touching carnall knowledge of man and woman, *Democritus* vtterly condemned it: and why ſo? Becauſe (quoth he) in that act, one man goeth * out of another. And to ſay a truth, the leſſe one vſeth it, the better it is for body and mind both: and yet our profeſſed wreſtlers, runners and ſuch gamſters at feats of actiuity, when they feele themſelues heauy or dul, reuiue and recouer their liuely ſpirits again by keeping company with women. Alſo this exerciſe clenſeth the breſt and helpeth the voice, which being ſometime before cleare and neat, was now become hoarſe and ruſty. Moreouer, the temperat ſports of *Venus*, eaſeth the pain of the reins and loins, mundifie and quicken the eieſight, and be ſingular good for ſuch as be troubled in mind and giuen ouermuch to melancholy.

Moreouer, it is held for witchcraft, to ſit by women in trauell, or neare vnto a Patient who M
hath a medicine either giuen inwardly or applied vnto him, * with hand in hand, croſſe-fingered one between another: the experience whereof was well ſeene (by report) when lady * *Alcmena* was in labour to be deliuered of *Hercules*. And the worſe is this peece of ſorcery, in caſe the party hold the hands thus joined a-croſſe one finger within another about one or both knees. Alſo

* *Palma alterna manu ſcalpere:* vnleſſe hee meaneth [to ſcratch the palm or inſide of the hand, &c.] which anſwereth ſomewhat to the remedies next following.

* *Homo alius exiliret ex homine:* which *Dalecampius* expounds thus, For that a man in that action, goeth beſide himſelfe.

* For it holdeth women in pain ſtill, & hindreth the operation of Phyſicke.

* There was an old witch that by this meanes kept her in a long and tedious trauaile.

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A to ſit croſſe-legged, with the ham of one leg riding aloft vpon the knee of the other, and that by turns ſhifting from knee to knee. And in very truth, our anceſtors time out of mind, haue expreſly forbidden in all councels of State, held by princes, potentats, and Generals of the field, to ſit hand in hand or croſſe-legged; for an opinion they haue, That this manner of geſture hindereth the proceeding and iſſue of any act in hand or conſulted vpon. They gaue out likewiſe a ſtrait prohibition, That no perſon preſent at any ſolemnity of ſacrifices or vows making ſhould ſit or ſtand croſſe-legged or hand in hand in manner aforeſaid.

As for veiling bonnet before great rulers and magiſtrats, or within their ſight, *Varro* ſaith, it was a faſhion at firſt not commanded for any reuerence or honour thereby to be done vnto go-
B uernors, but for healths ſake; and namely, that mens heads might be more firm & hardy, by that ordinary vſe and cuſtome of being bare.

When a mote or any thing els is falne into one eie, it is good to ſhut the other hard. If there be water gotten into the right eare, the maner is to jump and hop with the left leg, bending and inclining the head toward the right ſhoulder; ſemblably, if the like happen to the left eare; to do the contrary. If one be falne into a fit of coughing, the way to ſtay it is to let the next fel low ſpit vpon his forehead. If the uvula be falne, it will vp again, if the Patient ſuffer another to bite the haire in the crown of his head, and ſo to pull him vp plumb from the ground. Hath the neck a crick or a pain lying behind, what better remedy than to rub the hams? Be the hams pained? do the like by the nape of the neck: ſay the cramp take either feet or legs, plucking & ſtretching the ſinewes when one is in bed, the next way to be vſed, is to ſet the feet vpon the floore or the
C ground where the bed ſtandeth: or put caſe the crampe take the left ſide, then be ſure with the right hand to catch hold of the great toe of the left foot: and contrariwiſe, if the cramp come to the right leg, do the like by the right foot. If the body fall a ſhaking and quiuering for cold, or if one bleed exceſſiuely at the noſthrils, it is paſſing good to bind ſtrait and hard the extreame parts; to wit, hands and legs, yea and to plucke the eares alſo. It falleth out oftentimes, that one cannot lie dry nor hold his water, but it commeth from him euer and anone; what is then to be done? mary tie the foreskin of his yard with a linnen thred or a papyr ruſh, & withall, binde his thighs about in the middle. If the mouth of the ſtomacke be ready to turne, and will neither receiue nor hold any thing, it is good to preſſe hard and ſtraine the feet together, or els to thruſt both hands into hot water.

D To come now vnto our ſpeech and exerciſe of the tongue: in many caſes and for diuers cauſes it is wholſom to ſpeak but little. I haue head ſay, that *Mecænas Meſſius* inioined himſelfe three yeres ſilence, and during that time neuer ſpake word, for that in a fit of a conuulſion or crampe, he had beforetime caſt vp bloud. In caſe any thing be ready to fall or ruſh violently againſt vs, and that we be in danger of ſome ſtroke, ſay that we be climbing vp hill, or turned downe backward, or lying along, there is not the like meanes againe to preſerue our bodies, as to hold our winde: and this inuention we had from a bruit and dumbe beaſt, according as I haue ſhewed before.

Moreouer it is ſaid, that to ſtick down a ſpike or yron naile in that very place where a man or womans head lay during the fit of the falling ſickneſſe, at the very firſt time that hee or ſhe fell,
E ſecureth the party that ſo doth, for euer being troubled with that diſeaſe. Alſo it is holden for a ſingular thing to mitigat the intollerable torments of the reins, loins, and bladder, to piſſe with the body bending forward and groueling in the bathing tubs within the baines. As for greene wounds, it is wonderfull how ſoon they will be healed, in caſe they be bound vp and tied with a * *Hercules* knot: and verily it is thought, that to knit our girdles which we weare about vs euery day with ſuch a knot, hath a great vertue in it, by reaſon that *Hercules* firſt deuiſed the ſame.

* Wherein no ends are to be ſeene, they are ſo cloſe couched, & therefore hardly to be vnlooſed.

Demetrius, in a treatiſe that he compiled as touching the number of foure, affirmeth that it is of great efficacy; and he alledgeth reaſons why it is not good to preſcribe in any medicine to be drunke, the quantitie of foure ſextars or foure cyaths. To rub the ears behind, is ſuppoſed to be
F very good for them that are giuen to be bleare-eied: like as to rub the forehead, for weeping or watering eies.

Concerning the ſigns of life & death which may be found in man, this is one, That ſo long as the Patients eie is ſo cleare that a man may ſee himſelfe in the apple of it, wee are not to deſpaire of life.

As for the Vrine of mankind, diuers authors haue treated of it; who as I find, haue not onely

ſet downe their reaſons in nature as touching the vertue thereof, but alſo haue bin very ceremonious and ſuperſtitious in handling that argument; yea, and they haue written diſtinctly of the ſeuerall kinds of vrine digeſted into certain principal heads. And among other things, I remember, that they ſet down the vrine of * men that are vnable for generation, to be ſingular good by way of injection, to make women fruitfull. But to ſpeak of ſuch remedies as we may be bold to name with honeſty: the vrine of yong children who be not yet vndergrowne nor 14 yeres of age, is good againſt the venomous humor of the Aſpides or Adders which the Greeks name * Ptyades, for that they ſpit their poiſon vpon the eies and faces of men and women. Alſo the ſame is held to be ſingular for the pearle, the cataract, the filmes, the pin and web in the eies; like as for the eie-lids alſo, and the accidents happening vnto them. Being incorporate with the floure of Eruile, it is good for ſun-burnings: ſodden alſo with bolled leeks to the conſumption of the one halfe in a new earthen pot which was neuer occupied, it is excellent to mundifie the eares that run with matter, or that haue any worms or vermin within them: and verily a ſtouph made with the vapour of this decoction, bringeth downe the deſired ſickneſſe of women. Dame *Salpe* ordaineth to foment the eies with the ſaid decoction, for to fortifie the ſight, and to ſtrengthen them that they fal not out of the head: ſhe appointeth to make a liniment with it and the white of an egge, but principally if it be of an oſtrich, and therewith to annoint the skin that hath bin tanned and burnt in the Sun, for the ſpace of two houres together: with it a man may waſh away any blots or blurs of ink. Mans vrine is much commended for the gout in the feet, as wee may ſee by Fullers, who neuer be goutie, becauſe ordinarily their feet are in mens vrine. Stale chamber-lie or vrin long kept and incorporat together with the aſhes of oiſter ſhels, cureth the red-gomb in yong infants, and generally in all running vlcers: the ſame ſo prepared, ſerueth in a liniment for eating cankers, burns and ſcalds, the ſwelling piles, the chaps and rifts in the ſeat and feet, alſo for the ſting of ſerpents. The moſt expert and skilfull midwiues haue pronounced all with one reſolution, that for to kill an itch in any part of the body, to heale a ſcald head, to ſcoure away dandruffe and ſcurfe in the head or beard, and to cure the corroding vlcers in any place, but in the priuy members eſpecially, there is not a liquor more effectuall than vrine, with a little ſal-nitre put thereto. But ſurely, euery mans own water (if I may for reuerence of manhood ſo ſay) is ſimply beſt; and namely, if the Patient that is bitten with a dog, do ſtraightways bath the place therewith; or in caſe there be any prick of vrchin, hedghog, or ſuch like ſpill ſticking in the fleſh, to apply the ſame thereto in ſpunges or wooll, and ſo let it lie on. But ſay it was a mad dog that bit the Patient, or that he be ſtung with a ſerpent, it is good to temper it with aſhes and lay it vnto the ſore. For as touching the vertue thereof againſt Scolopendres, it is wonderfull what is reported, namely, That whoſoeuer be hurt by them, if they doe wet the crown of their heads but with one drop of their own vrine, it will preſently cure the ſame, ſo as they ſhall feele no more pain nor harm thereby. Ouer and beſides, by the ſpeculation of our vrine, we are able to giue iudgement and pronounce of health and ſickneſſe; for if the firſt water made in a morning be white and cleare, and the next after it higher coloured and inclining to a deep yellow, the former ſheweth that concoction was then begun, and the ſecond is a ſigne that digeſtion is now perfect. A red vrine is naught, but the black is worſt of all: likewiſe if it be ful of bubbles and froth aloft, and be withal of a groſſe and thick ſubſiſtence, the ſame is but a bad water. If the Hypoſtaſis or Sediment which ſetleth heauy to the botom, be white, it ſignifieth that there is ſome pain and grieuance like to inſue about the joints or principall parts within the body. Doth an vrine look greeniſh? it betokeneth ſome obſtruction or diſeaſe already in the noble bowels and inwards: is it of a pale hew: it ſaith that choler aboundeth in that body: If it look red, the bloud be ſure is predominant and diſtempered. The vrin is not to be liked but preſageth danger, wherin there appeare certain contents like brans & blackiſh clouds: alſo, a white thin, and wateriſh vrine is neuer good: but in caſe it be thick and of a ſtinking ſmell withall, it is a deadly ſigne, and there is no way but one with the Patient. As for children, if their water be thin and wateriſh, it is but ordinary and naturall.

The Magitians expreſſely forbid in making water, to lay bare the nakedneſſe of that part againſt Sun and Moon, or to piſſe vpon the ſhadow of any perſon. And therefore *Heſiodus* giueth a precept, to make water againſt a wall, or ſomething ſtanding full before vs, for feare leaſt our nakedneſſe being diſcouered, might offend ſome god or Angell. To conclude, *Hoſthanes* doth vpon his warrant aſſure vs, That whoſoeuer droppeth ſome of his owne vrine euerie morning

* *Spadonum.*

* Απο τῦ πτύειν, à ſputando, i. of ſpitting.

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A morning vpon his feet, he ſhal be ſecured againſt all charms, ſorceries, and deadly poiſons whatſoeuer.

Chap. VII.

¶ *The remedies that womens bodies do miniſter.*

THe medicines which are ſaid to proceed from the bodies of women be ſuch, and the operations ſo miraculous, that they come nearer to the nature of monſtrous wonders than true reports of natural works: to ſay nothing of much miſchiefe and many wicked parts committed by the means of their vntimely births and infants ſtil born, which haue bin diſmembred and cut in pieces for ſome abhominable practiſes: to let paſſe the ſtrange expiations wrought
B by their monthly terms, and a thouſand more deuiſes which haue bin deliuered and ſet abroad not only by midwiues, but alſo by ſecret harlots that haue ſlipt their conceptions, and bin deliuered in corners. But to ſpeak of the foreſaid remedies which are in vre, and commonly known. The perfume that the hairs of a womans head make whiles they burn, chaſeth away Serpents. The ſmell thereof alſo raiſeth and reuiueth women, who in a fit of the mother lie ſpeechleſſe and breathleſſe. The aſhes verily of the ſaid hairs burnt in ſome earthen pan or fiſh-ſhell, being applied alone or with litharge of ſiluer, is a ſingular medicine for the aſperity of the eies, & the itch. *Item*, It taketh warts away, and cureth the red gum and ſores that infants be ſubiect vnto, if it be vſed with hony. The ſame aſhes mingled with Hony and Frankincenſe, healeth wounds in
C the head, and doth incarnat or fil vp with good fleſh hollow vlcers what ſoeuer they be. And incorporat with ſwines lard, it is good for the broad biles called Pani, for the gout, and S. *Anthonies* fire: it ſtaieth alſo any bleeding preſently, and ſtoppeth the running of ring-wormes and ſuch like.

Touching womens milke, it is holden by a generall accord, of all other to be ſweeteſt & moſt delicat: whereupon it is preſcribed by Phyſitians vnto thoſe that haue lien of a long & languiſhing feuer; as alſo to ſuch as be troubled with a fluxe occaſioned by a feeble ſtomacke: but in theſe caſes, that milk is reputed moſt wholſom which a nurce giueth that hath newly weaned her child: beſides, when the appetite of women is giuen to an inordinate longing after ſtrange things, in agues alſo, in gnawings and frettings of the ſtomacke, it is found by experience to be
D moſt effectuall. Likewiſe, being incorporat with Frankincenſe, it is ſingular good for the impoſtumes breeding in womens breſts. If the eies be bloudſhotten vpon any ſtripe, if they be in pain or troubled with a violent rheum falling into them, let a nource milk it in them, they ſhall find very much eaſe thereby: howbeit for the accidents abouenamed, it is held to be more ſoueraign, in caſe it be applied to the place together with hony & the iuice of the daffodil, or els with the pouder of frankincenſe: where by the way this would be obſerued, that for what vſe ſoeuer milk is imploied, that is ordinarily of more force which a woman giueth that bare a man child: but if ſhe was brought to bed of two twins, both boies, then it is beſt and moſt effectuall; prouided alwaies, that the mother her ſelfe do forbeare drinking of wine, & eat no meat or ſauces that be ſharp. Moreouer, this is knowne for certaine, that if womans milk be incorporat with the liquid
E white of an egge, and ſo applied to the forehead with wooll wet in the ſaid liquor, it ſtaieth the flux of humors into the eies. Moreouer, a ſoueraign remedy is milk againſt the venomous ſlime or ſpittle of toads, in caſe they piſſe or ſpurt into our eies. Alſo if they haue bitten one, there is not a better thing either to be drunk or dropped vpon the ſore, than breſt milk. It is a common ſaying, That whoſoeuer can meet at one time together with the milk of mother and daughter both, ſhall neuer need to feare all their life long any infirmities of the eies, ſo they be annointed or bathed therewith. Semblably, womens milk is ſingular for to cure the accidents befalling to the eares, if it be dropped in with a little * Opium put thereto: but if ſo be the eares are pained * *Modice admiſto opio.*
by reaſon of ſome ſtripe that they haue receiued, the ſaid milke would haue ſome Gooſe greaſe mixed with it, and ſo be inſtilled warme. And ſay that they haue a ſtrong and ſtinking ſmell
F with them, as commonly it falleth out in all long diſeaſes, there is nothing better than to put wooll into them, which is ſoked in breſt milk and hony together. If it happen that the eies look ſtill yellow after the jaundiſe, it is good to drop milk into them with the iuice of the wild Cucumber. This peculiar vertue it hath ouer and beſides thoſe abouenamed, if it be taken in drink, to help thoſe that haue bin poiſoned with the ſea-Hare, the worme Bupreſtis, and as *Ariſtotle* ſaith

ſaith,with the deadly Dwale called Dorycnion. In this maner alſo it cureth thoſe who ſe brains G
be troubled and intoxicat with drinking Henbane. Phyſitians likewiſe haue preſcribed to make a liniment with milk and Hemlock for to be applied vnto the gout. And ſome there be who vſe it in that caſe,together with Oeſype (*i*) the ſweat or fattineſſe of vnwaſhed wooll, and Gooſe-greaſe: in which manner it ſerueth in a peſſary to be put vp in the naturall parts of women, to aſſuage the pain of the matrice. To drink breſt milk is a good meane to ſtop a laske, as *Rabirius* writeth,& yet the ſame doth prouoke the monthly courſe of womens fleurs: what is to be ſayd now of a womans milk who hath born a maid child? ſurely it is better than the other in theſe caſes only;to wit,in ſcouring the skin of the face,and taking away the pimples,ſpots and freckles, which be therein. But I muſt not forget,that any breaſt-milke whatſoeuer,cureth the maladies incident to the lights: and if there be tempered therewith the vrine of a yong lad not ful four- H
teen yeares old,and Attick honey,ſo there be of each one ſpoontull, I find it to be an excellent remedy for to rid away the ringing end thumping within the ears. And to conclude,it is a generall ſpeech, That if dogs do lap and taſt the milke of a woman which hath borne a maid child, they will neuer run mad.

As touching the faſting ſpittle of a woman, it is judged to be a proper medicine for bloud-ſhotten eies;alſo for the rheum that hath taken a courſe thither, if ſo be the corners of the eyes be euer and anone bathed and wet therewith when they be hot and inflamed;but more effectually will this remedy work,in caſe the woman forbeare all meat and wine the day before. I read moreouer in ſome Authors, That if the head be bound vp with a womans haire-lace or fillet, it
eaſeth the pain thereof. And thus much in ſome good ſort as touching the medicines proceeding from women. As for the reſt that are written and reported,they exceed all reaſon,and there is no end of them. I

For firſt and formoſt it is ſaid,that if a woman whiles her monthly ſickneſſe is vpon her, bee ſet into the wind abroad with her belly naked,ſhe will ſcar away haileſtorms,whirlewindes, and lightenings,yea,and auert any violence of the weather whatſoeuer. And at ſea verily, any woman ſtanding openly againſt the weather bare,although ſhe haue not her fleurs,is enough to ſecure the ſailers and paſſengers from all tempeſts. As for the very monthly flux it ſelf of women, (a thing in other reſpects and at all times,as I haue ſhewed before,of a monſtrous nature) there be writers who tell and preſage wonders thereof, ſuch as be horrible, abhominable, and indeed not to be ſpoken:and yet ſome of theſe things I hold it no ſhame to deliuer in writing;namely, K
If it fall out juſt in the eclipſe of Sun or Moon,that a woman hath her ſickneſſe come down,the ſame is a peſtilent quality,and apt to breed diſeaſes incureable. Likewiſe, if haply the time of the change,when the Moon is in coniunction with the Sun,and thoſe things concurre together, the man who medleth with her during that time,ſhall not auoid his bane but it will bring vpon him ſome peſtilent malady remedileſſe. Moreouer,the venome thereof is ſo ſtrong at that time eſpecially more than at any other,that the preſence or breath only of a woman then, will infect and ſtaine any purple cloth. And yet bad enough it is at all times: for whenſoeuer they are in their fleurs,it skills not in what quarter of the Moone, if they goe about any field of corn with their nakedneſſe vncouered, yee ſhall ſee the canker-wormes, caterpillers, beetles, and all ſuch L
wormes and hurtfull vermine,to fall from the corn as they paſſe along. This inuention by the ſaying of *Scepſius* and *Metrodorus*,came from the Cappadocians,who being infeſted with a number of thoſe green flies called Cantharides,deuiſed this means to be rid of them; for they cauſed their women at the time of their monthly terms (ſauing the reuerence of womanhood be it ſpoken) to go through the ſtanding corne,with their cloths tuckt vp round about their waſt,and all bare beneath. In other countries yet they are more mannerly, and in a better reſpect to the honor of women,put them only to go barefoot for this purpoſe,with their haire hanging looſe about their eares,vngirt,vnlaced,and vnbraced. Howbeit, great heed muſt be taken, that they walke not thus at the Sunne-riſing,for then ſurely all the crop vpon the ground will wither and dry away to nothing. Alſo if a woman during her natural courſes doe but touch any yong vines, M
it is enough to marre them for euer. As for Rue and Iuie,Plants otherwiſe of themſelues moſt medicinable,and indued with ſingular vertues againſt poiſon,they will preſently die with their touch. Much I haue already ſaid of this ſtrong and peſtiferous venome,and yet I haue not written all. For ouer and beſides,certaine it is that if a menſtruous woman doe no more but touch a Bee-hiue,all the Bees will be gone and neuer come to it againe. Alſo if at ſuch a time ſhe han-

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A dle any skains or ſlips of linnen yearn and ſet them ouer the fire to ſeeth, they will in the boiling turn black. Let her but take a barbers raſor in her hand, the edge wil turn and become blunt: nay if ſhe do no more but touch any braſen veſſel, it is wonderfull what a ſtrong ſauor it wil caſt, and how it wil ruſt and canker therupon; and the rather, if this fall out to be in the decreaſe or wane of the moon. Doth a woman at ſuch a time touch a mare that is in fole, it is enough to make her caſt the ſame before due time. And not onely ſo, but the very ſight of women in that caſe, although they be a great way off, is able to do much harm; but principally the firſt time that they haue the ſaid fleurs after the loſſe of their maidenhead; or otherwiſe during their virginity, when they firſt come down by courſe of nature of the owne accord. The malignitie of this venomous humor is ſo great, that the ſlime ingendred within the lake of Sodome in Iury, as viſcous as it is
B otherwiſe, will forgoe all that tenacity, and diuide in ſunder by nothing els but a thred infected with the ſaid menſtrual bloud, according as I haue declared heretofore. So forcible it is beſides that the very fire, which is of power to ouercome all things and change their nature, is not able to conquer and alter this: for burne or calcine it to aſhes, and ſtrew neuer ſo little thereof vpon any cloths that are to be waſhed or ſcoured in the Fullers mill, it wil change their color, though they were of purple, and cauſe any die whatſoeuer to loſe the freſh luſtre. And more than that, ſo pernicious is the quality of this venome, that as naturall otherwiſe as it is to women, it is no better than a poiſon to thoſe of their own ſex: for in caſe one woman with child be annointed about her naturall parts, with the foreſaid bloud of another, or do but ſtep ouer the place where it is, ſhe will immediatly fall to labour, and ſlip an abortiue birth. As for the famous curtizans,
C *Lais* and *Elephantis*, who haue written ſo contrary one to the other of this argument, and namely, as touching abortions, and of what efficacy the cole of Colewort, Myrtle, or Tamariske root is, after it hath bin quenched in the ſaid bloud; as alſo, how ſhe. Aſſes will not conceiue for ſo many yeres as they chance to eat Barly corns infected therewith; beſides other ſtrange deuiſes that they haue ſet abroach; I think them incredible, & I would not haue any credit at all giuen vnto their writings, conſidering the monſtruoſities & contrarieties which they haue put down; whiles the one preſcribeth medicines for to make fruitful, & the other ordaineth the very ſame, to hinder conception and cauſe them to be barren. Moreouer, *Bythus* of Dyrrhachium ſaith, that for to make a mirror or looking glaſſe cleare againe, which was dusked and dimmed by the aſpect of a menſtruous woman, the next way is to cauſe her to caſt her eies backward and to look
D ouer her ſhoulders vpon it again; he ſaith moreouer, that if women in that caſe haue about them the fiſh called a Barbill, they ſhal not by that means infect or do hurt at all, but the ſame menſtruous bloud ſhall loſe all the foreſaid ſtrength.

Well, as hurtfull and miſchieuous as it is otherwiſe, yet many there be who affirm it to be in many diſeaſes medicinable; and namely, for the gout, if the place be annointed therwith: as alſo if women while their monethly ſickneſſe is vpon them, doe handle the wens named the Kings euil, the ſwelling kernels behind the ears, the broad tumors or biles called Pani, ſhingles, S. *Anthonies* fire, felons, or violent flux of humors to the eies or other parts, there wil inſue much eaſe therupon. *Lais* and *Salpe*, two notable ſtrumpets, haue left in writing, That if the foreſaid menſtruous bloud beſtowed within a little locke of wooll that came from a blacke Ram, be worne
E incloſed within a ſiluer bracelet, it is a ſoueraigne remedy againſt the biting of mad dogs, and for Tertian and Quartan agues. *Diotimus* of Thebes reporteth, That any little peece or rag of cloth, yea, though it were but a thred ſtained therein, and ſo ſet handſomly into a bracelet, is ſufficient to do as much. *Sotira* the renowned midwife affirmed, That there was not in the world ſo good a thing againſt the Tertian & Quartan, as to rub & anoint therwith the ſoles of the patients feet: but much more effectualy would it do the deed, in caſe the woman her ſelf had the doing of it with her own hand, ſo as the ſick party know not thereof in any hand. And this (quoth ſhe) is a ſoueraigne medicine to raiſe them out of a fit of the Epilepſie, who are ſurpriſed and fallen therewith. *Icetidas* a worthy Phyſitian among the Greeks, aſſureth vs vpon his word, That Quartane agues will make an end and go away by the act of generation, at what time onely as a
F woman beginneth to enter into her fleurs. But this is agreed vpon by all authors profeſſed and ſeen in this theam, that if one be bitten with a mad dog, and ſo far gone, that he is * afraid of wa- * ὑδροφοβεῖν
ter, ſo as he dare not ſee it or drink at all, do but put a clout or ſhred of cloth dipped in the ſaid menſtruall bloud vnder the cup whereout hee is to drinke, hee ſhall immediatly be deliuered from that feare: And this commeth by that powerfull and predominant Sympathie, whereof

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the Greeks write ſo much, between mad dogs and the ſaid bloud, conſidering, as I haue before- G
ſaid, that they begin firſt to run mad by taſting therof. This is known for certain, that the aſhes of a burnt cloth infected therewith, or of the bloud it ſelf calcined, is a ſingular pouder to heale the farcins or ſores of horſes and all ſuch laboring beaſts, ſo it be mixed with the ſoot of chimny or furnace, and al incorporat together with wax. Now ſay there be any garment or cloth polluted therewith, there is not any thing will take out the ſtaine, but the vrine onely of the ſame woman. The aſhes beforeſaid tempered alone with oile of Roſes into a liniment, and ſo applied in maner of a frontal to the forehead, allaieth the headach of women ſpecially. This alſo would be noted, That for the firſt yeare after a woman hath known a man, and ſo parted from her virginity, her fleurs are moſt ſharp, mordant, and fretting. Furthermore, this alſo is reſolued clearly among all writers, That there is no charme or enchantment whatſoeuer, of any validity to doe H
harm to that houſe where the ſide poſts or dore cheeks are ſtriked lightly ouer with menſtruous bloud: an argument I aſſure you, that conuinceth notably the folly of theſe Magitians, the vaineſt people vnder heauen, and ouerthroweth all their art: and a point that pleaſeth me very wel, & which for mine own part I am right willing to beleeue: and ſince I am light thus vpon them, I care not much, if to detect their vanities, I ſet downe one of the moſt modeſt receits that they haue giuen their word for, and which may ſeem to carry ſome ſhew of truth or probability. For thus they preſcribe with great warrantize, To take al the nail-parings of toes and fingers of man or woman lying ſick of an intermittent feuer, and to mix or incorporat them with wax, ſo as the party in the doing herof do ſay theſe words, *I am about a remedy for the Tertian, Quotidian, or Quartan ague* (according as the patient is troubled with the one or other of theſe feuers) which done I
and ſaid, to ſtick vp the ſaid wax vpon the dore of another man or womans houſe that is not ſick at all, and that before the Sun be riſen; which no doubt (as they ſay) wil cure the ſick perſon, and ſet the ague vpon another that was well before. Now would I gladly know what greater vanitie and folly there can be, if this medicine miſſe and do not the feat? or what more villany and miſchiefe, than thus to transfer and remoue diſeaſes from thoſe that be ſick already, vnto ſuch as be ſound and think no harme? To conclude, ſome of theſe Magitians are ſo far gone, that after all the foreſaid nailes of fingers and toes be pared, they ordaine them to be thrown into Ant-holes, and to obſerue that Emmet that firſt bigins to draw one of them into her neſt, to catch her vp quickly, and hang her about the necke of any one that is ſick of an ague, and ſo the patient *pro certo*, ſhall ſhake off the diſeaſe and be quite rid of it. K

Chap. VIII.

¶ *The medicines that are found in diuers ſtrange and forrain beaſts, as namely, the Elephant, Lion, Cammell, Hyæna, Crocodile, Chamæleon, Skinke, Water-horſes, and Ounces.*

THeſe be the remedies which the bodies of men and women do affoord: as many I meane as I may with ſome honeſty relate: and yet ywis many of them be ſuch as are not to be read out and vttered, but with leaue and patience firſt craued, for the reuerence that we owe to
chaſte eares. I know ful wel there is a great deale more behind that I haue not touched, but ſuch L
ſtuffe I aſſure you as is deteſtable and not fit to bee ſpoken or committed to writing, which makes me rather to make haſt and leaue the diſcourſe of Man and Woman, and ſo to proceed to the ſingular vertues and operations of bruit beaſts.

And to begin with the Elephant, The bloud of that beaſt, eſpecially the male, ſtaieth all fluxes of humors, which the Greeks cal Rheumatiſmes. The ſhauings of yvory (which is the Elephants tooth) incorporat with Attick hony, ſcatter (as folk ſay) the duskiſh ſpots that appeare in the viſage: like as the duſt thereof, which the file or ſaw doth make, cureth the whitflawes or impoſtumations breeding at the naile roots. The trunk or muffle of an elephant if it be but touched only, allaieth the head-ach; & the more effectuall it is, in caſe ſneezing come withall. It is
ſaid moreouer, if one take a piece of the right ſide of the ſame trunke, & carry it faſt about him M
with the red ocre of Lemnos (called Terra Sigillata) it will incite him mightily to carnal luſt. The bloud of an elephant is ſingular good for thoſe that be in a conſumption & waſt away: like as the liuer helpeth ſuch as be giuen to the falling ſickneſſe.

The greaſe or fat of a Lion tempered with oile of Roſes into an vnguent, preſerueth the skin of

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A of the face from all ilfauord ſpots,and keepes it white and ſmooth. The ſame ointment healeth th skin that is ſcorched and pilled with cold,by trauelling ouer mountains charged with ſnow; yea,and abateth the tumors & nodoſities vpon the ioints. Now, if we liſt to beleeue the fooleries of Magitians,they would bear vs in hand,that whoſoeuer be anointed all ouer with the ſaid greaſe,ſhall be gracious with princes and kings,yea,and win much fauor among the people,and any ſtate or nation where they ſhall converſe;but principally it muſt be the fat in the forehead between the eie-brows(where indeed it is vnpoſſible to find any at all.) The like effects they do promiſe of the Lions teeth,and thoſe eſpecially of the right ſide;like as of the ſhag haire (forſooth) that ſhould hang vnder their nether jaw. Indeed the gal of a Lion mixed with water,clarifieth the eieſight,in caſe the eies be bathed therwith:the ſame tempered with the own greaſe,
B diſpatcheth as they ſay the falling ſicknes,in caſe the patient taſt neuer ſo little of it,& ſo ſoon as he hath taken it,run a while for to digeſt the ſame. A Lions heart cureth a Quartane ague,if the ſick perſon do eat thereof;and their fat is a ſoueraigne remedy for the feuer Quotidian,if it be vſed with oile roſat. There is not a beaſt ſo fel and ſauage,but it wil run away from them that be anointed with Lions greaſe:and it is thought to be a ſingular preſeruatiue for to preuent any ſecret ambuſhes or practiſes intended againſt one.

As touching the Cammell, his braine (by report) is excellent good againſt the epilepſie or falling ſic kneſſe,if it be dried and drunk with vineger;ſo doth the gall likewiſe taken in drinke with hony:which alſo is a good medicine for the Squinancy.It is ſaid that a Cammels tail dri-
C ed cauſeth looſneſſe of the belly:like as the dung reduced into aſhes and incorporate with oile, doth curle and frizle the haire of the head. The ſaid aſhes made into a liniment and ſo applied, yea,and taken in drink as much as a man may comprehend with three fingers, cureth the dyſentery : ſo doth it alſo the falling ſickneſſe. Cammels piſſe(they ſay) is paſſing good for Fullers to ſcour their cloth withal:and the ſame healeth any running ſores which be bathed therein. It is well known that the barbarous nations keep this ſtale of theirs vntil it be 5 yeres old,and then a draught thereof to the quantity of one hemine, is a good laxatiue potion : likewiſe that the heire of their tails,twiſted into a wreath or cord,and ſo worn about the left arme in manner of a bracelet,cureth the Quartane ague.

As for the Hyæna,there is not a wild beaſt of the field that the Magitians haue ſo much in
D admiration as it:for they hold that in the Hyæna it ſelfe there is a certaine magicall vertue, attributing a wonderfull power thereto,in tranſporting the mind of man or woman,and rauiſhing their ſences ſo,as that it will allure them vnto her very ſtrangely. Concerning the rare property of theſe beaſts to chaunge the ſex each other yeare(*i.*) to be male this yeare, and female next; as alſo touching other monſtrous qualities obſerued in their nature;becauſe I haue diſcourſed already of them, it remaineth now that I proceed to ſhew the medicinable vertues that are reported to be found in them : wherof this may be counted for one of the chiefe,that conſidering they be ſo terrible * to Panthers,that they dare not quetch nor make head againſt them : who- *i. Luzernes,
ſoeuer hath about him but a piece of the Hyænes skin may be ſure that a Panther will not ſet vpon him,nor once come neere. And that which is a wonderfull thing to be ſpoken, in caſe the
E hides of them both be hung vp one againſt another,the haire of the Panther will fall off. When the Hyænaes flie before the hunter and would not be taken,they wind with a cariere out of the way toward the right hand,and wheele about vntil the man be gotten before them;& this they do,becauſe they would meet with his tracts and footing;which if they happen vpon,and get behind him,you ſhall ſee the hunter incontinently to be ſo intoxicat in his brain,that he is not able to beare his head nor ſit his horſe,but to fall from his back. But in caſe that they turn on the left hand,it is an euident ſigne that they be ready to faint,and then will they quickly be taken. The ſooner alſo and with more eaſe be they caught (if we may beleeue art Magick) if the hunter tie his girdle about his middle with 7 knots,and the cord of his whip likewiſe wherwith he ruleth and jerketh his horſe,with as many. But ſee how ſubtil and cunning theſe Magitians bee
F to cloke and colour their vanities and deceits, with ſuperſtitious circumſtances! This chaſe forſooth after the Hyæne,muſt be iuſt at the very point when the moon is paſſing through the ſign Gemini:and then if they be taken,the huntſman muſt be ſure to ſaue euery haire of their skins, and miſſe not one,ſo medicinable they are. By their ſaying alſo the skin that grows to the head of the Hyæne,if it be applied in manner of a frontall,is ſingular good for the headach : the gall of the Hyæne cureth bleared eies,if the forehead be anointed therwith:but if the ſame bee ſod-

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den with three cyaths of Attick hony and one ounce of Safron, to a liniment, it is an excellent G
preſeruatiue to keep one from euer being blear-eied, if ſo be the eies be annointed with it. The
ſaid compoſition likewiſe is ſingular for to rid away the cloudy films and catarracts that breed
in the eie. But for to clear the ſight & quicken it, the older this medicine is, the better they hold
it to be. And kept it muſt be in a braſen or copper box; which eie-ſalue they ſay, ſerues alſo for
the mailles or ſpots, for the aſperities, excreſcences, cicatrices, dents, & excauations remaining
in the eies. The grauie or dripping likewiſe of the Hyænes liuer, newly taken out of the body
and roſted, being incorporat with clarified hony into an vnguent, riddeth away the red film that
ouercaſteth the apple of the eie and darkneth the ſight thereof. They will make vs beleeue, that
the Hyænes teeth are good for the tooth-ach, if the pained teeth be but touched therwith, or if
the ſaid teeth be arranged in order, and ſo applied faſt vnto the patients teeth, as they may fit e- H
uery tooth in his head. The ſhoulders alſo of the Hyæne are proper to eaſe the paines that lie
in our ſhoulders and arms both, ſo they be ſet likewiſe orderly and hanged cloſe to the grieued
parts. The teeth of rhe ſaid Hyæne plucked out of the left ſide of the chaw, and bound vp ſure
within a piece of a ſheep or goats skin, is right ſoueraigne to be worn in manner of a ſcutcheon
or ſtomacher for to eaſe the intollerable paines of the ſtomacke. A diſh of meat made of their
lungs and eaten, is ſoueraigne for the flux proceeding from a feeble ſtomack. But if the ſame be
burnt and reduced into aſhes, and ſo brought into the form of a liniment with oile, and applied
accordingly, it comforteth the ſtomack mightily. The pith or marrow taken out of the backe-
bone along, and incorporat with old oile and * gall, is paſſing good for the nerues. The liuer of
the Hyæne driueth away Quartan agues, in caſe the patient take three bits thereof one after a- I
nother before the acceſſe. Take the aſhes of the Hyænes ridge bone, the tongue and right foot
of a Seale, put thereto a Buls gall, ſeeth them all together and make a cataplaſme thereof, ſprea-
ding the ſame vpon a piece of a Hyænes skin, and apply it accordingly, you ſhall ſee how it will
eaſe the pain of the gout. The very gal likewiſe of this beaſt mixed with the pouder of the ſtone
Aſius, is commended by them for to cure the ſaid malady. They that are ſubiect to trembling
and to the cramp, ſuch alſo as be giuen to leap out of their beds, or are troubled with the bea-
ting and panting of the heart, ought to take and boile the heart of the Hyæne, and eat one part
therof, and with the other being burnt to aſhes and with the brains of the ſaid Hyæne together
reduced into a liniment, to annoint the grieued part. This compoſition likewiſe ſerueth to take
away the hairs of any place, if it be annointed either with it alone, or els with the gall, & in caſe K
one would not haue them euer to come vp againe, they ought to be plucked vp before, and then
the place to be annointed. Thus they vſe to rid away the haires of the eie-lids that be trouble-
ſome. In like manner for the pains of the loins, the fleſh about the Hyænes loines is preſcribed
to be eaten, and therwith oile together, and the place alſo is to be rubbed well and beſmeared.
They ſay moreouer, that if a woman which is barren, eat the eie of a Hyæne with Liquorice and
Dill, ſhe ſhall proue fruitful: and ſo neare they go, as to promiſe ſhe ſhal conceiue within three
daies after. And (by their report) whoſoeuer are haunted with ſprites in the night ſeaſon, and be
affrighted with ſuch bugbears, let them but take one of the maſter teeth of the Hyæne, & weare
it about them tied by a linnen thred, they ſhall be freed from all ſuch fantaſtical illuſions: theſe
Magitians alſo giue direction to thoſe that be out of their wits and gon beſides themſelues, to L
haue a perfume made with the ſmoke of thoſe teeth, and to weare one of them hanging before
the breſt, with the fat growing about the kidnies, or els with the liuer or the skin. If a woman be
with child, and would gladly go out her full time, let her take a peece of the white fleſh of this
beaſt, and 7 haires, neither more nor leſſe, together with a ſtags pizzle; bind them all faſt within
the skin of a Buck or Doe, and ſo weare them hanging about her necke juſt againſt her breaſt,
ſhe ſhall not ſlip an vntimely fruit. Furthermore they promiſe in the behalfe of this beaſt, that
if a man or woman do eat the genitall member of a Hyæne, according to their ſex, they ſhall be
prouoked to fleſhly luſt, how cold ſoeuer the man were before, and could not abide to imbrace a
woman. Ouer and beſides, if the ſaid pizzle and ſhap of this beaſt be kept in any houſe, together
with a joint of the ridge bone, skin & al as it groweth too, the whole family ſhal agree together M
well, and liue peaceably; now this ioint or knot aboueſaid they call Atlantion, and it is the very
firſt ſpondyle of them all. The ſame alſo they make no ſmall reckoning of, but hold it for a ſpe-
ciall remedy for the falling ſickneſſe. Fry the greaſe or fat of an Hyæne, the fume therof (by re-
port) wil chaſe away ſerpents: a piece of the chawbone beaten ſmal to pouder & eaten together
with

* *Felle*: ſome read *melle*, i. Honey.

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A with aniſe ſeed, doth mitigat the quiuering & quaking in a cold ague fit. A ſuffumigation made therwith, draweth down womens ſickneſſe, if we may beleeue magitians; who are grown to this paſſe in their vanity, that they auoueh for certain, that if an archer do bind vnto his arm a tooth of an Hyæne, growing on the right ſide of the vpper chaw, hee ſhall ſhoot point blanke and neuer miſſe his mark. Take the palat or rouſe of the mouth of this beaſt dried and made hot together with Ægyptian Alumne, put the ſame into the mouth and change it three times for new ſtil, they promiſe it ſhal correct a ſtinking breath, and heale any vlcers or cankers in the mouth. And as for thoſe that weare vnder the ſoles of their feet within the ſhoo, a Hyæns tongue, there is not a dog will be ſo hardy as to bay or bark at them. The brain of the Hyæne lying in the left ſide of the head, eaſeth any deadly diſeaſes of man or beaſt, if the noſthrils be annointed there-
B with. The skin of the forehead ſerueth as a countercharm againſt all witch-craft and inchauntments. The fleſh growing to the nape of the necke, being dry and made into pouder, appeaſeth the pain in the loins of the backe, either eaten or drunk, it skils not whether. For the griefe of ſinews, they giue order to make a ſuffumigation with the nerues of Hyæna, which run along the ſhoulders and back. And the hairs growing about the muzzle of this beaſt, haue an amatorious vertue with them, to make a woman loue a man, in caſe her lips be but touched therewith. The liuer of the Hyæna giuen in drink, cureth the cholique and ſtone. As for the heart, be it taken in meat or drink, it eaſeth all the pains of the body: the milt cureth the ſpleen: the kell with the fat about it, helpeth any inflammation of vlcers if it be applied with oile: the marrow within the
C bones, appeaſeth the griefe of the backbone and ſinews; and finally, doth recouer and refreſh the wearineſſe of the reins and kidnies. The ſinews of this beaſt drunk in wine with frankincenſe, reſtore women to the fruitfulneſſe of the wombe, eſpecially when by indirect meanes of ſorcery they are become barren and vnapt for conception. The matrice of the female Hyæne giuen in drink with the rind of a ſweet pomegranat, is a very comfortable medicin for that part in a woman. A ſuffumigation made with the fat taken from the hetchfill piece or loines, is ſingular for thoſe women that be in hard trauell of childe, and procureth them ſpeedy deliuerance: the marow or pith out of the ridge bone whoſoeuer carrieth about them, ſhal find help againſt vain illuſions and fantaſticall imaginations. The pizzle of the male Hyæna, if it be burnt, caſteth a fume which is good for them that haue any ſinews pluckt with the cramp. Saue the feet of this
D beaſt, and the very touching of them is ſoueraigne for bleared eies, for ruptures, & inflammations: but this regard muſt be had, that the left foot be applied to thoſe griefes in the left ſide, and the right to the contrary. But wot ye what? if the right foot of the Hyæna chance to be carried ouer a woman whiles ſhe is in labour of childbirth, ſhe ſhall ſurely die of it; but contrariwiſe, let it be the right foot, ſhe ſhall haue a quick diſpatch and be deliuered with eaſe. The skin or purſe that holdeth the gall, beeing either drunke in wine or taken with meat, helpeth thoſe that for weakneſſe of ſtomack be apt to faint and fall into cold ſweats: and the bladder taken with wine, cureth thoſe that cannot hold their water. Now look what vrine is found within the bladder of this beaſt, you muſt thinke it is an excellent drink if it be mixed with oile, Seſame ſeed, and hony, for any old griefe whatſoeuer. The firſt rib and the eighth wil make a perfume, which
E is paſſing good for thoſe who are burſten: the ſpondyles or ioints of the ridge-bone, are as conuenient for women in trauell of child-birth: and the Hyæns bloud taken inwardly with fried barly meale, doth mitigat the wrings and gripes of the belly. If the ſide poſts or dore cheeks of any houſe be ſtriked with the ſaid bloud, whereſoeuer Magitians are buſie with their feats and jugling caſts, they ſhall take no effect, whether they be charms, exorciſmes, or inuocations: inſomuch as they ſhall not be able to raiſe vp ſpirits, nor haue any conference with familiars by any means of conjuration, whether it be by torch-lights, by baſon, by water, by globe, or otherwiſe. The fleſh of this beaſt eaten, is very effectuall againſt the biting of a mad dog; and yet the liuer is of greater efficacy in this caſe. If there chance either fleſh or bone of man or woman whom this beaſt hath killed and deuoured, to be found in the maw, ſurely the perfume thereof is a preſent remedy for the gout, as theſe Magitians would ſeeme to perſuade vs. But how if there be
F found the nails of man or woman there? then wo be to all thoſe that were at the hunting and taking of this beaſt, for it preſageth that one of them is ſure to die for it. Beſide all this, they do affirme, That either the excrements or bones which the Hyæna diſchargeth out of the belly at the time that ſhe is killed, ſerue for countercharms or preſeruatiues againſt ſorceries and practiſes of Magitians. As for the ordure or dung which is found within her guts, being dried and ta-

ken in drinke, is auaileable againſt the dyſentery: and the ſame reduced into a liniment with G
gooſe greaſe and ſo applied, helpeth thoſe that by ſome poiſon are infected all the body ouer.
The greaſe likewiſe of this beaſt vſed as an ointment, hath a ſingular property to cure the biting of a dog, ſo that the patient be couched vpon the skin of the ſaid Hyæna, as ſay our Magitians: who affirm moreouer, that a decoction made with the aſhes of the paſtern bone of the left leg, boiled together with the bloud of a weazil, cauſeth as many as be anointed all ouer therewith, to be odious in the eies of all men. The ſame effect do they attribute to the decoction of the eie. But of all the fooleries that they haue broched as touching the Hyæna, this paſſeth and may go for the chiefe, That the hindmoſt end of the gut in this beaſt is of vertue, that no captain, prince, or potentat, ſhall be able to wrong or oppreſſe thoſe who haue but the ſame about them: but contrariwiſe aſſureth them of good ſpeed in all their petitions, and of happy iſſue in H
all ſuits of law and trials of iudgements. The concauity or wrinckle thereof, if a man do weare faſt tied about his left arme, is ſo forcible to charme a woman, that if he do but ſet his eie vpon her, ſhe will leaue all and follow him preſently. The aſhes of the haire growing therabout made into a liniment with oile, and applied accordingly, cauſeth thoſe men who before were giuen to lewd wantonneſſe and liued in bad name, not onely to become chaſt and continent, but alſo to put on grauity and grow ſtaid in their behauiour. Thus much of Hyæna.

For fabulous tales, the Crocodile may challenge the next place: a beaſt this is which naturally doth liue as well on land as in water: for two kinds there be of them; whereof the former (keeping thus in both elements) hath this eſpeciall vertue, if we may beleeue theſe Magitians, To prouoke vnto carnal luſt, if the teeth which grew in the right ſide of the chaw, be hanged faſt I
likewiſe to the right arme of man or woman. The eie-teeth of the ſaid Crocodile, filled vp with frankincenſe (for hollow they be) and tied to any part of the body, put by thoſe periodicall feuers which vſe to return at ſett and certaine hours; but then the patient muſt not for fiue dayes together, ſee the party who faſtened the ſame about him. And they report likewiſe, that the little grauel ſtones taken out of their belly, be of the ſame vertue to driue away the ſhaking fits of agues when they are comming; which is the cauſe that the Ægyptians vſe ordinarily to anoint their ſick folke with the fat of this beaſt. The other Crocodile reſembleth this in forme; but far leſſe he is, and keepeth only vpon the land, liuing vpon moſt ſweet and redolent flours. In which regard, much ſeeking there is after his guts, for the pleaſant ſenteurs and odors wherewith they be ſtuffed ful: this dung they cal Crocodilea, a ſingular remedy for all the diſeaſes of the eies, K
and namely againſt cataracts, ſuffuſions, and miſtie films, if they be anointed with an eie-ſalue, made of it and the iuice of Porret mixed together. The ſame brought into a liniment with the oile Cyprinum, ſerueth to take away all pimples that riſe in the face, and clenſeth the skin from thoſe ſpots that blemiſh the viſage. But if it be incorporat with water, it ſcoureth what ſoeuer accidents be apt to run ouer the face, and reduceth the skin vnto the natiue color; for it riddeth freckles, moles, and generally any ſpots or flecks that marre the beautie or fauour. The ſame is good to be drunke in oxymell to the weight of two oboli for the falling ſickneſſe: and applied in forme of a peſſarie, it prouoketh womens fleurs. Now if you would chuſe the beſt Crocodilea, take that which is whiteſt, brittle, or eaſie to crumble, leaſt weighty in hand, and withall L
ſwelling in manner of a leuaine, if it be rubbed between the fingers. The manner is to waſh it, as they do white lead called Ceruſſe. Sophiſticated it is with amyll, or the ſcouring Fullers clay & Tuckers earth called Cimolia; but principally with the dung that ſterlings meut, which are of purpoſe caught and fed only with rice. Now there is not a better thing in the world (ſay theſe Magitians) for the cataract, than to anoint the eies with it and honey together. And if a man may beleeue their words, there is a ſoueraigne perfume made of the guts and the whole body beſides, for women who are ſicke of the mother, or otherwiſe diſeaſed in the matrice, if they ſit ouer it whiles it ſmoketh. In like manner, it doth them good to be lapped round about with wooll that hath bin ſo perfumed. The aſhes of the Crocodiles skin, as well the bigger as the leſſe, brought into a liniment with vineger, and applied vnto thoſe parts of the body which M
had need to be cut away or diſmembred, cauſeth the patient to haue no ſenſe or feeling at all either of ſaw or launcer. The very ſwoke alſo of the ſaid skin burning, doth the ſemblable. The bloud of both Crocodiles mundifieth the eies, and cauſeth them to ſee cleare which are annointed therewith, remouing the films and diſpatching the ſpots that impeach the ſame. The very body or fleſh it ſelfe of the Crocodile, all ſaue head and feet, is good meat ſodden, for

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A thoſe who bee troubled with the Sciatica: the ſame cureth an old cough, eſpecially the chin-cough in children; and aſſuageth the paine of the loins. The Crocodiles haue a certaine fat in them that is depilatorie; for no ſooner is the hare rubbed therewith, but preſently it ſheddeth. The ſaid fat or greaſe preſerueth thoſe who be anointed therewith, from the danger of the Crocodiles, and is excellent good to bee melted and dropped into the wounds made by their bit. The Crocodiles heart wrapped within a lock of wooll which grew vpon a black ſheep, & hath no other color medled therewith, ſo that the ſaid ſheep were the firſt lambe that the dam yeaned, is ſaid to driue away quartane agues.

To this diſcourſe of Crocodiles, wee ſhall not doe amiſſe if we annex other beaſts in ſome
B ſort reſembling them, and which be likewiſe ſtraungers as well as they. And to begin with the Chamæleon, *Democritus* verily made ſo great reckoning of this beaſt, that hee compiled one entire booke expreſſely of it, and hath anatomized euery ſeuerall member thereof: and certes, I cannot chuſe but take great pleaſure therein, knowing as I do by that meanes how to deſcicipher and deliuer abroad the loud lies of vaine Greekes. This Chamæleon for ſhape & bigneſſe, is much anſwerable to the Crocodile laſt named, differing onely in the curbing or crookedneſſe of the ridge-bone, and largeneſſe of the taile. There is not a creature in the world thought more fearefull than it; which is the reaſon of that mutability whereby it turneth into ſuch varietie of colours: howbeit of exceeding great power againſt all the ſorts of hawkes or birds of prey; for by report, let them fly and ſoare neuer ſo high ouer the Chamelæon, there is an attractiue vertue that will fetch them downe, ſo as they ſhall fall vpon the Chamelæon and
C yeeld themſelues willingly as a prey to be torne, mangled, and deuoured, by other beaſts. *Democritus* telleth vs a tale, That if one burn the head and throat of the Chamæleon in a fire made of oken wood, there will immediatly ariſe tempeſts of rainy ſtormes and thunder together: and the liuer will do as much (ſaith he) if it burne vpon the tiles of an houſe. As for all the other vertues which the ſaid author aſcribeth to the Chamæleon, becauſe they ſmell of witch-craft, and I hold them meere lies, I will ouerpaſſe them all, vnleſſe they be ſome few, for which he deſerueth well to be laughed at, and would indeed be reproued by no other means better: namely, That the right eie of this beaſt if it be pulled out of the head whiles it is aliue, taketh away the pearl, pin and web in man or womans eies, ſo it be applied therto with goats milk. The tongue likewiſe plucked forth quicke, ſecureth a woman from the danger of childbirth, if ſhee haue it
D bound to her body whiles ſhee is in trauell. If there be found by chance a Chamæleon in the houſe where a woman is in labor, ſhe ſhall ſoon be deliuered in ſafety: but if ſuch an one bee brought thither of purpoſe, the woman is ſure to die. Alſo, the Chamæleons tongue pulled out of the head whiles the Chamæleon is quicke, promiſeth good ſucceſſe in iudiciall trials. The heart bound within black wooll of the firſt ſhearing, is a moſt ſoueraigne remedy againſt quartan agues. The right forefoot hanged faſt to the left arm within the skin of a Hyæna, is ſingular againſt the perrils and dangers by theeues and robbers; as alſo to skar away hobgoblins and night ſpirits. In like manner, whoſoeuer carry about them the right pap of this beaſt, may bee aſſured againſt al fright and feare. But the left foot they vſe to torrifie in an ouen with the herb called alſo Chamæleon, and with ſome conuenient ointment or liquor to make in certaine
E troſches, wherof if a man do carry any in a box of wood about him, he ſhal go inuiſible, as ſayth *Democritus*, if we were ſo wiſe as to beleeue him: who affirmeth moreouer, That whoſoeuer hath about him the right ſhoulder of the Chamæleon, ſhall bee able to ouerthrow his aduerſarie at the barre, and to vanquiſh his enemie in the field: but firſt, hee muſt be ſure to caſt away and make riddance of the ſtrings and ſinewes belonging thereto, and to tread them vnder-foot. As for the left ſhoulder, I am aſhamed to relate, vnto what monſtrous ſpirits hee doth conſecrate it; and namely how by the vertue thereof, a man may cauſe what dreames and fantaſticall illuſions hee liſteth, yea, and make thoſe whome hee will himſelfe, to imagine the ſame apparitions. As alſo, how the right foot of the ſaid beaſt driueth away all ſuch ſtrange viſions; euen as
F the lethargie will goe away by the meanes of the left ſide of this beaſt, which lethargie was occaſioned by the right. Touching head-ache, hee ſayth plainely, that the next way to cure it, is to beſprinckle and wet the ſame with wine, wherein either of the two ſides were ſoked. Take the aſhes (quoth hee) of the left thigh or foot, chuſe you whether, incorporate the ſame with the milke of a Sow, and therewith annoint the feet, it wil be an occaſion, ſpeedily to bring the gout vpon them. But of the Chamæleons gall, for the moſt part, folk are in manner verily perſuaded,

that it will rid the pin and web, the cataract also of the eies, with three daies anointing; chase away serpents if it be dropped into the fire; gather al wezils in a country together, only by throwing it into the water; and fetch off haire if the body be anointed therewith. It is a common saying also, That the liuer of this beast is of the same effect, in case it be brought into a liniment with the lights of a hedge land-tode: like as, that all amatorious drinks & loue-charms become void and of none effect by the said liuer. As for those who be troubled in mind & giuen to melancholy, they find remedy, if out of this beasts skin they drink the juice of the herb Chamæleon. Furthermore, the guts, and the dung therein contained (and that is worthy to be noted, considering this beast liueth vpon no meat at all) being striked vpon the dore of an enemies house, together with the vrine of apes, cause him to be hated of all the world. The like wonders they report of the Chamæleans taile, namely, how it wil stay any violent streame of riuer; stop the course and inundations of waters; and withall, bring asleep and mortifie serpents. The same being aromatized or spiced with Cedar and myrrh, and tied fast to a branch of the Date tree growing double or forked, wil diuide the waters that be smitten therewith, so as a man may see whatsoeuer is in the bottome. And would God *Democritus* himselfe had met with one crop of this branch, to haue made him hold in so many lies as he hath told, considering hee hath reported this quality of it among other, namely, to represse intemperat speech and inordinat walking of the tongue: But euident it is, that the only reason why *Democritus* faulted that way (being otherwise a man of a singular wit and wholly addicted to the good of mankind) was an excessiue and extraordinary zeale that he had to profit and benefit the whole world. G H

Much like to this kind is the Skink (whom some haue named the land Crocodile) saue that the skin is whiter & more fine. But the principal difference is this, for that the bristles or scales are couched so, as they tend from the taile vpward to the head; whereas in a crocodile the same are set contrary. The biggest of this sort, be those of India: the next be they which are brought out of Arabia; & transported they be to vs salted. The muffle & the feet giuen to drink in white wine, do inflame the heat of lust; but especially when they be mixt with Satyrion and Rocket seed, of each one dram, mingled with two of pepper; and when they be wrought into troches weighing euery one a dram, one of them must be taken at once. But the very flesh of the Skinks sides, drunk to the quantity of 2 oboli, with myrrh and pepper in like proportion, are supposed to be more effectuall for this purpose. The same (as *Apelles* reporteth) taken both before & also after meat, is a singular preseruatiue against invenomed arrows. Besides, it is one of the ingredients which go to the noble compositions that be called Antidots. Howbeit, *Sextus* is of opinion and doth write, that if a man drink aboue one dram weight of it in a hemin of wine, it is enough to indanger his life. Moreouer, the iuice or broth of the Skinks flesh boiled and taken with hony, is thought to keep downe th flesh and to coole lust. I K

As touching the riuer-horse called Hippopotamus, there is a great affinity or kindred rather between him and the crocodile, in regard that they both do haunt the same riuer, and participat both of land & water. This beast (as I haue shewed hertofore) deuised first the practise of phlebotomy or bloud-letting. Great store there be of them beyond the Seignory Saitica in Ægypt. Take the ashes of this beasts hide, and reduce them with water into a liniment, it is singular to cure the broad biles or apostemations called Pani. The grease, and likewise the dung, is good against the cold fits of agues, if the patient receiue the perfume thereof. The teeth which grow on the left side of the mouth, do ease the tooth-ach, if so be the gums be scarified therewith: the skin taken from the left side of the forehead, laid vnto the share and kept fast thereto, staieth the prouocations to venery. The ashes of the same doth cause the hair to grow again thick in those places, where by disease it is shed. Take of the genetoirs of this water-horse, the poise of one dram, and drink it in water, it is a good counterpoison against the venome of serpents. As touching their bloud, it serueth painters in good stead. L

The Onces be likewise taken for strange and forrein, and of all foure-footed beasts they haue the quickest eie and see best: by the testimony of all writers, there is in the Island Carpathos, a singular kind of ashes made of their houfs, burnt together with their hide: and they hold, that if men drink therof, they will become chast, were they neuer so licentious and libidinous before: again, let women cast the same vpon their nature or priuie parts, it will coole their appetite of mans companie; yea and kill the itch in any part of the body, if it be rubbed therwith. And the vrine of this beast helpeth the Strangurie, to wit, the infirmitie of the bladder when the water M

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A paſſeth by drop-meale: which propertie they being by a naturall inſtinct aware of, ſo ſoone as euer they haue piſſed, do hide and couer the vrine with mould, which with their feet they raiſe juſt ouer it, as it is commonly reported. The ſame vrine is preſcribed for a good remedy in the pain or griefe of the throat. Thus much may ſuffice as touching forrein beaſts: returne therfore now I will to thoſe in this part of our world; and firſt declare the vertues and properties medicinable which are found common in al liuing creatures, yet making choiſe of thoſe that be ſingular aboue the reſt.

Chap. IX.

B ¶ *The common and ordinary medicines drawne as well from wild beaſts as thoſe which be tame of the ſame kind. The vſe of milk in Phyſicke, with the obſeruations belonging thereto. Alſo of Cheeſe, Butyr, the greaſe alſo and tallow of beaſts.*

AND to begin with Milk: theſe points following are to be obſerued: *Imprimis*, Each liuing creature liketh beſt and findeth moſt good by the own mothers milk. *Item*, For nources to conceiue with child whiles they giue ſuck, is a moſt hurtful thing to their babes: for after ſuch a time, their milk will thicken and cruddle in manner of a cheeſe (a dangerous matter for ſucking infants) who thereupon be called Coloſtrati. Now the beeſtings, called in Latine Coloſtra, is that thick and ſpungeous milk which is drawne firſt from the teat after the birth of the
C yong, be it in woman or beaſt. Alſo, there is no milk ſo nutritiue as that of a woman, what ſoeuer it be: next vnto which, goats milk is thought to nouriſh moſt: whereupon haply aroſe the fable that Poets fained, who deuiſed, that *Iupiter* was ſuckled therewith. Howbeit, letting womans milke aſide, the ſweeteſt of all other is that which the Camels giue: but aſſes milk is ſuppoſed to haue moſt vertue and efficacie in it. Moreouer, this is to be noted, that the bigger bodied beaſts be more glad-milch, and their milk ſooner paſſeth away through the belly and is eaſier digeſted than that of the ſmaller kind. Goats milk agreeth beſt with the ſtomack; the reaſon is this, becauſe they brouſe rather than graze: but cow milk is held to be more aromaticall and medicinable; howbeit ewes milk is the pleaſanter, & yeeldeth more nouriſh nent; notwithſtanding it be not ſo wholſom, for that it is more fatty and groſſe than any other. And generally,
D the milke which any beaſt giueth in the Spring, is more wateriſh & fuller of whey than in ſummer time: like as the milke of any young thing is thinner than other. But ſimply the beſt milk is that held to be, which ſticketh to ones naile and wil not run off. Milk is leaſt offenſiue and hurtfull when it is ſodden, eſpecially with little grauell ſtones among. Cow milk of all other is thought meeteſt for to make the body ſoluble. But what milk ſoeuer it be, leſſe ventoſities it ingendreth boiled than raw. In ſum, this property hath milk in generall, To heal all inward vlcerations, but chiefely of the kidnies, bladder, guts, throat, & lungs: applied outwardly, after a ſpare diet or abſtinence from meat, it cureth the itch of the skin; & any wheals & breakings forth occaſioned by phlegmatick humors. As for the diet drink made of cow milk (which they vſe in Arcadia for the phthyſick or conſumption of the lungs, for thoſe that be giuen to
E colliquations and to weare away, as alſo in caſe of miſliking when the habit of the body receiueth no benefit by food) I haue written already in my treatiſe of herbs. We ſhall find vpon record in the Chronicles, diuers who by drinking aſſes milk, haue bin deliuered from the gout, as wel of hands as feet. The Greek Phyſitians, beſides the generall kinds of milk, haue made mention of one more, which is artificiall, and they name it Schiſton: the maner of making it is thus: Take what quantity you will of any milke, but let it be of a goat eſpecially, if you can come by it, ſeeth the ſame in a new earthen pan neuer occupied before, with certaine branches of fig-tree, ſuch as be freſh and new gathered; but you muſt put to euery hemine of milke, one cyath of mead or honied wine: while it doth ſeeth, keepe it from running ouer the veſſell, by plundging
F into it a ſiluer gobblet or boll full of cold water, and take heed that none thereof doe run out: after it is throughly ſodden take it from the fire; for when it is cooled, you ſhall ſee how the parts therof wil diuide, and the whey depart from the milky ſubſtance. Some there be, who take the very whey againe, being now very ſtrong of the mead or Muſt aboue ſayd, and boile the ſame vntill a third part thereof be conſumed, and then ſet it a cooling abroad in the open ayre: The vſe heereof is very effectuall and commodious, if for fiue daies ſpace together, the Pa-

tient take at times, with ſome reſt between, one hemine thereof in a day; but after the drinking G
of this whey, if ſome exerciſe by geſtation be preſently vſed, it will haue the better operation.
This drinke is vſually giuen to thoſe that be ſubiect vnto the falling ſicknes, the paſſions of melancholy, and the palſie; alſo for the leproſie, elephanſie, and all gouts or diſeaſes of the ioynts.
But to returne againe vnto milk: a clyſtre made therewith, is excellent good againſt any inward
gnawings and frettings occaſioned by the taking of ſome ſtrong purgatiue medicines. Alſo in
caſe of the dyſentery, or hot exulceration of the bowels, the decoction of milk ſodden together
with the grauell ſtones about the ſea-ſide, or with barly ptiſan, is paſſing good to be clyſterized;
but for the corroſian of the guts, the milke of kine or ewes is better than any other. Alſo for the
dyſentery or bloudy flix, the milk that is injected by way of clyſtre, would be freſh and newly
drawne from the vdder: for the cholique, it ought to be miniſtred raw without any boiling: in H
like maner is it to be vſed raw, for the diſeaſes of the matrice, the ſting of ſerpents, the phthyſick
the poiſons of the Cantharides, Salamander, Bupreſtis, & Pityocampe. But to grow vnto more
particulars, cow milk is ſingular for them who be poiſoned with drinking Colchicon, hemlock,
Dorycnium, or the venome of the Sea-hare. As for aſſe-milk, it is ſoueraign good for thoſe who
haue taken inwardly, any plaſter ceruſe, * brimſtone, or quick ſiluer: alſo to looſen the belly that
is coſtiue in a feuer: moreouer, if the throat be exulcerat within, it is an excellent thing to gar-
garize therewith. The ſame is a very good reſtoratiue for them to drink, who after great weaknes
are vpon their recouerie and would gather ſtrength againe: ſuch alſo as the Greekes call Atro-
phos, who haue no feeling nor benefit of their meat: alſo it may be allowed in an ague, ſo that
the patient haue no head-ach. It was held in old time for a notable ſecret in Phyſick, to giue vn- I
to children before meat one hemine of aſſes milke; or at the end of a meale, if they felt any fret-
ting or gnawing occaſioned by their meat: but for default hereof, they vſed goats milke in ſtead
of the other. The whey of cow-milke is aboue all, ſoueraigne for thoſe that be troubled with
ſtraitneſſe of breath, ſo as they cannot fetch their wind but ſitting vpright, if there be put to it
a little creſſes: alſo it is good therewith to anoint bleared eies, adding to euery hemine of milk
foure drams of Seſame beaten to pouder. Goats milk cureth the hardneſſe and ſwelling of the
ſpleen, eſpecially if the goats being kept from meat two daies, were the third day fed with Ivy;
of which milk the patient muſt drink three daies together, and forbeare all other food: and yet
milk otherwhiles is contrary to thoſe who be giuen to head-ach, ſubiect to the debility of the
liuer, and the opilation of the ſpleen; to ſuch as haue the ague, occaſioned by ſome infirmitie of K
the ſinews; or be troubled with dizineſſe, with the murre, poſe, and ſtuffing in the head; with the
cough alſo, and bleared eies; vnleſſe it be giuen as a purgation. Sows milk is of al other moſt ex-
cellent for the inordinat deſire to the ſtoole, and ſtraining thereupon without doing any thing;
for the bloudy flix alſo, and the phthyſicke or conſumption of the lungs. And ſome Authors
there be, who affirme, that it is moſt wholeſome for a woman to drink in any of the afore-named
infirmities.

* Sulphur: I marvaile hereat, conſidering that brimſton may be taken inwardly with ſafety. I ſuppoſe therefore that for Θεῖον, which is Solanũ manicon, i. deadly dwale, (a peſtiferous and venomous herbe) he read Θεῖον, i. brimſtone, in the author whom he followed.

Of Cheeſe, and the ſundry kinds thereof, I haue ſpoken ſufficiently in that diſcourſe wherein
I treated of Vdders, and the ſeuerall parts or members of liuing creatures. And verily *Seſtius* at-
tributeth the ſame effects to the cheeſe made of mares milk, as he doth to that which is gathe-
red of cow-milk: that kind of cheeſe he calleth Hippace. Generally, all cheeſe vnſalted (*i*) freſh L
and greene, is good for the ſtomack. Old cheeſe ſtoppeth a laske, abateth fleſh and maketh the
body lean, yea, & is * hurtfull to the ſtomack. In ſum, all ſalt meats take down thoſe that be cor-
pulent, whereas ſoft and tender viands do feed and nouriſh the body. Freſh cheeſe applied with
hony, reduceth the skin which is black and blew by reaſon of ſtripes, to the freſh and naturall
color againe. * Old cheeſe maketh the body coſtiue, and aſſuageth the torments of the belly, if
it be made into troſches, and thoſe ſodden in ſome ſtyptick or auſtere wine, and afterwards fri-
ed in a pan again with hony, and ſo applied. There is a kind of rotten & putrified cheeſe, which
the Greeks call Sapron: the ſame being punned with ſalt and drie Seruoiſes, and ſo giuen in
wine to drinke, cureth the flux of the belly cauſed by the infirmitie of the ſtomack. The cheeſe
made of goats milke, ſtamped into a cataplaſme and ſo applied, healeth the carbuncles engen- M
dred about the priuy parts; ſo doth the ſoure cheeſe alſo with oxymell. The ſame reduced into
a liniment with oile, taketh away all ſpots in the skin, if the body be therewith annointed in a
ſtouph or hot-houſe.

* Inutiliores: ex Dioſcor. χειροβρωτα.

* Vetus.

As touching Butyr, it is made likewiſe of milk, and among barbarous nations is held for the
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A daintieſt meat,and which doth diſtinguiſh the * rich and better ſort from the poore commons. The milk of kine yeeldeth moſt butyr, whereupon it tooke that name: but the fatteſt Butyr is made of Ewes milke. Alſo there is a kind of Butyr gathered of Ewes milke: but in Winter the milke ought to be heated: whereas in ſummer time there needs no more to do but to preſſe it forth from the milk after much ſhaking & often agitation in cerrain long veſſels (called cherns hauing in the very mouth,a little narrow hole to receiue aire and giue vent to that within,or els otherwiſe ſtopped cloſe, and bound vp with ſome cloth. Now in the cherning, they vſe to put thereto a little water, to the end that the milke may ſoure the ſooner. After this beating and working of the milk, the thickeſt part [which is Butyr] floteth aloft, & is naturally of an oily ſubſtance. The reſt they vſe to boile in certain pans,& that which ſwims aboue,they take from
B the other,& putting ſalt to it, they cal it Oxygala.* Buttyr the ſtronger ſent or ſmacke that it hath,the better it is eſteemed to be:& in very truth,ſtale butyr that hath bin long kept, is mingled in many compoſitions:for by nature it is *aſtringent,emollitiue, incarnatiue,& mundificatiue. Moreouer,there is another way to make Oxygala,namely,to put ſour milk into the freſh and ſweet which you would haue to be ſoure,and this kind of chern milk,ſour-milke,or buttermilk,call it what you will,is thought to be moſt wholſom for the ſtomacke. But the properties and effects thereof I will ſet down in another place.

Among the medicinable parts which be common to all liuing creatures, their fat deſerueth greateſt commendation:buteſpecially ſwines greaſe,which in old time they vſed with great ce-
C remony and religion. Certes,euen at this day there is a ſolemne ceremony,that the bride newly wedded,as ſhe entreth into her husbands houſe, ſhould ſtrike the ſide poſts therewith for good luck ſake. Hogs lard or greaſe may be kept two maner of waies,either with ſalt, or as it is of it ſelfe vnſalted:and indeed,the older,the better. The * Greeks in their books called it Axungia. But that there ſhould be ſuch ſtrength in ſwines greaſe,it is no maruell:for the reaſon is plain, becauſe it is a beaſt that feedeth much of herb roots. Which is the cauſe alſo that their dung is much vſed for a number of purpoſes. And therefore take my words thus,that I meane no other ſwine but ſuch as * feed and root in the field: among which, the female,eſpecially a guelt that neuer farrowed,is more effectuall than a [tame]bore,barrow hogge,or a breeding ſow. But the greaſe and dung both,of the wild bore,is preferred before al. Swines greaſe then is imploied to
D mollifie,to heat,to diſcuſſe and mundifie. And ſome Phyſitians there be who preſcribe for the gout an ointment made of it,with gooſe greaſe,buls tallow,and the greaſie ſweat of wooll called Oeſypus. But in caſe the pain continue ſtill,they giue direction to vſe it with wax, myrtle, roſin,and pitch. Hogs greaſe alone vnſalted and ſimply as it is,healeth burns and ſcaldings,yea, though one were ſcortched and ſendged with ſnow. It cureth alſo kibed heels,if it be tempered with the aſhes of burnt barly and gall nuts pulverized, of each a like quantity, and ſo reduced into a ſalue. Alſo it is good to anoint merigals therwith,namely, when one part of the body is fretted & chafed againſt another:likewiſe it refreſheth thoſe that be weary & tired with much trauell:for an old cough, ſeeth of freſh hogs greaſe, that is ſweet,the quantity of three ounces in as many cyaths of wine,putting hony thereto,and let the patient drinke it. Old ſeame alſo that
E is tried and kept vnſalted,made into pils and taken inwardly,cureth the phthiſick & conſumption of the lungs. For ſurely if it haue taken ſalt once, there is no vſe therof,vnleſſe it be to mundifie and cleanſe,or els before the part is exulcerat. Some there be who ordaine to ſeeth hogges lard & hony,of each three ounces,in three cyaths of wine,for a medicine to cure the conſumption of the lungs: with this charge,that the fift day after the patient take a quantity of tarre in a rere egge,hauing his ſide,breaſt,and ſhoulders well ſwadled before and emplaſtered with the ſaid compoſition:for ſo forcible it is,that if a plaſter thereof be but bound to the knees,the very ſent thereof will come vp to the mouth, and cauſe a kind of ſaliuation, whereby the patient ſhal ſeeme to ſpit it vp againe. The greaſe of a young guelt which neuer had pigs,is a very proper medicine for women,to make their skin ſupple and euen without wrinckles. But any hogs
F ſeam tempered with beaſts tallow or ſuet,to the qnantity of a third part,& ſome pitch, all melted together,& made ſomwhat hot,is ſoueraigne for ſcabs. Swines greaſe that is pure and vnſalted,if it be put vp beneath in manner of a collyrie or peſſary,giueth comfort to the infant within the mothers wombe, which otherwiſe would haue bin ready to ſlip forth before-time, and proue an abortiue fruit. The ſame being tempered with ceruſſe or litharge of ſiluer,into a ſalue, and ſo applied,reduceth any skars to the naturall colour of the other skin about them. But with brim-

* Either for that the rich onely are allowed to feed vpon butyr, or becauſe they haue plenty thereof, and raiſe a yearely reuenue for that commoditie,whereas the reſt can ſpare none from their own bellies:

* *Quo magis virus reſipit.* Some would amend this place,and for [*magis*] put in [*minus*] in a contrary ſence: but I ſuppoſe he writeth in regard of barbarous people who make more account of ſuch ranke butyr: like as the vnciuill Iriſh in theſe daies.

* *Natura eius adſtringere*, ſome reade *digerere*,i. it is digeſtiue.

* And yet it is a Latine name of *axis & ungo*: becauſe they vſed to greaſe axeltrees therwith.

* Not thoſe that be frankted or kept in ſtie.

brimſtone it cureth the raggedneſſe of the nails: it ſtaieth likewiſe the haire of the head which G
is giuen to ſhed: alſo if it be mixed with a fourth part of gall-nuts, it healeth the vlcers in a womans head: but if it be well ſmoked, it helpeth to preſerue the haires of the eie-lids. An ounce weight thereof boiled in one hemine of old wine, vntill there be three ounces and no more of the whole remaining, is giuen (an ounce at once) to thoſe who are in aphthy ſick. Some appoint a little hony to be put thereto. The ſame together with Quick-lime reduced into a liniment, is ſingular for the biles and impoſtumes called Pani, as alſo for felons and the hard tumors of womens paps: it ſerueth beſides to cure inward ruptures and convulſions, ſpaſmes, crampes, and diſlocations. Being applied with white Ellebore, it healeth corns, agnels, fiſſures, chaps and calloſities. But incorporat with the pouder of a ſaltars pot-ſhard, it heales the ſwelling impoſtumes behind the ears, as alſo the wens called the Kings euil, being ordered in like manner. If the bo- H
dy be well rubbed and annointed therwith in the baine or hot-houſe, it taketh away all itch, red pimples & wheals riſing in the skin. Moreouer, prepared after another ſort, to wit, with old oile together with the ſtone called by the Greekes Sarcophagus, beaten to pouder, adding thereto the herb Cinquefoile ſtamped in wine either with Quicklime or with aſhes, and ſo reduced into a liniment, it is very good for thoſe that be troubled with the gout. Thereof alſo is made a ſingular plaſter againſt inflammations, in this wiſe, Take of the ſaid greaſe the weight of fourſcore and fiue pound, of white litharge of ſiluer one hnndred pound weight, mix them both together. As for Bores greaſe, if there be a liniment made of it and roſin, it is thought to be excellent good for to anoint therwith vlcers that be corroſiue and giuen to ſpread farther. [In old
time men vſed it moſt about the axletrees of their carts and wagons, anointing them therwith, I
that the wheels might turn about more eaſily: whereupon it took the name Axungia.] And being emploied in this maner, it ſerueth for a medicin to cure the vlcers of the ſeat & priuy members ſeruing to generation, by reaſon that it is mixed and coloured with the ruſt of the yron incorporat into it. The antient Phyſitians made moſt account alwaies of the ſaid hogs greaſe, by it ſelfe, which was plucked from the kidnies, for after it was clenſed from the ſtrings, veins, and skins, they waſhed it often and rubbed it well in rain water; which done, they ſod it in new earthen pots, ſhifting it out of one into another many times; and beeing thus tried and clarified, they kept it for their vſe. Howbeit, all are agreed, that when it hath taken ſalt, it is a greater emollitiue, it heateth alſo, diſcuſſeth and reſolueth more: yea, & being waſhed in wine, it is much better than otherwiſe. K

As touching the fat or greaſe of a Wolfe, *Maſſurius* writeth, that in old time it was eſteemed before any other, & had the price aboue all. And he ſaith, that new wedded wiues were wont vpon their mariage day to anoint the ſide poſts of their husbands houſes therwith at their firſt entrance, to the end that no charms, witchcrafts and ſorceries might haue power to enter in: thus much of greaſe. Look what vertue greaſe hath, the ſame, be ſure, is the ſuet and tallow endued with which commeth from thoſe beaſts that chew cud: and although it may be handled & dreſſed otherwiſe, yet in force it is nothing inferior. But what talow ſoeuer it be, the beſt way of preparing it, is after the skins or veins be rid away, to waſh it firſt either in ſea water or ſalt brine, and then within a while to ſtamp it in a mortar, eftſoons ſprinkling it with ſea-water: after which L
it ought to be ſodden in many waters, vntill it haue loſt all the ſauor & rank taſt that it had: and then at laſt by ſetting it in the Sun continually, it wil be reduced to a perfect whiteneſſe: moreouer, this is to be noted, that the beſt ſuet is that which groweth about the kidnies. But ſay that old tallow is called for, and to be vſed in any cure, it ought firſt to be melted, and then anon to be well and often waſhed in freſh cold waters; which done, it muſt be liquified a ſecond time, caſting and pouring thereupon eftſoons the beſt odoriferous wine that may be gotten: after which maner they vſe to ſeeth it again and again, and neuer giue ouer, vntill the rank ſmell and ſent thereof be clean gone: and verily many are of opinion, that particularly the fat of Buls, Lions, Panthers, and Cammels ought thus to be ordered and prepared. As for the vſes & properties of theſe Pomonades, I will treat thereof in conuenient place.

Concerning marrow, it is a thing common to all creatures, like as the fat aboueſaid. All the M
kinds thereof are emollitiue and incarnatiue: they dry alſo & * heat the body. The beſt marrow ſimply is that of Deere, as well red as fallow: next to it in goodneſſe is calues marrow: and then in a third rank follow kids and goats marrow. Prepared they ought to be and dreſſed, before Autumne, when they be new and freſh waſhed, and dried in the ſhadow. But afterwards they muſt be

*If they come from beaſts of hot nature: for o herwiſe they be temperat.

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A be melted again and run through a finer ſercer or preſſed through linnen ſtrainers, which done, they ſhould be put vp in earthen pots, and ſet in a cold place.

But of all thoſe things which are generally to be found in euery liuing creature, the gall is that which is of greateſt efficacy in operation: for power it hath naturally to heat, bite, cut, draw, diſcuſſe and reſolue. The gall of ſmaller beaſts is taken to be more ſubtill and penetratiue than that of the greater, and therfore ſuppoſed to be the better for to go into eie-ſalues. Buls gall is thought to haue a ſpeciall faculty aboue all others, principally in ſetting a golden colour vpon skins, & braſſe. What gall ſoeuer it be, in the preparation therof for any vſe, regard muſt be had, that it be taken freſh and new, and then the orifice of the burſe or bag wherein it is contained, ought to be tied faſt with a good round packthred; thus being bound vp cloſe, it muſt be caſt in-
B to boiling water, and there remain halfe an hour, within a while after, ſo ſoon as it is dried (out of the Sun) it ought to be preſerued and kept in hony. The gal of horſes only is vtterly condemned, & reputed as a very poiſon: which is the cauſe that the arch-Flamin or principall ſacrificer is forbidden by law expreſſely to touch an horſe, notwithſtanding that in Rome it is an ordinary thing to ſacrifice euen horſes publickly: and not their gall alone but alſo their bloud, is corroſiue by nature, and putrifactiue. The bloud of Mares milke likewiſe, vnleſſe they be ſuch as were neuer couered nor bare foles, doth corrode: in which reſpect it is good to eat away ſcurfe about the brims of ſores and vlcers: and verily * Buls bloud freſh running out of the body, is reckoned no better than venom: and yet I muſt except Ægira, a city in Achaia, where the prieſt-
C reſſe of the goddeſſe * *Ops*, at what time as ſhe is to propheſie and foretel things to come, vſeth by drinking buls bloud to prepare her ſelf before ſhe goeth down into the vault or ſhrouds out of which ſhe deliuereth her propheſies: ſo forcible is that ſympathy, wherof we ſpeak ſo much, that otherwhiles it is occaſioned either by a religious opinion & deuotion in mens mindes, or els by the nature of ſome place. *Druſus* ſomtimes a Tribune of the commons in Rome, drank (as it is reported) Goats bloud, to make himſelfe look pale & * wan in the face, at what time as he meant to charge *Q. Cæpio* his enemy with giuing him poiſon. And verily, the bloud of a buck goat is ſo ſtrong, that there is not any thing in the world wil either ſharpen the edg of any yron tools ſooner, or harden the ſame when it is keen, than it. And as for the ruggednes of any blade, it wil take it away more effectually and poliſh it better than the very file. Conſidering then this
D diuerſity which is ſeen in the bloud of beaſts, I cannot write thereof in ſuch generall termes as of a thing indifferently common to euery one of them, but I muſt be forced to ſpeak particularly of their ſeuerall effects. In which regard I will treat reſpectiuely of beaſts, according as they do yeeld remedies againſt this or that malady: and firſt as touching thoſe which are aduerſe vnto Serpents.

* *Themiſtocles* ther with poiſoned himſelf.

* *i. Tellus* or *Terra* the earth.

Invidia, for *Liuor*.

To begin then with Stags and Hinds: no man there is ſo ignorant but he knoweth, that they plague ſerpents to the very death, for they pluck them forth of their holes, and eat them when they haue don. And not only whiles they be aliue do they war againſt ſerpents with the breath of their noſthrils, but alſo when they be dead, euery member and piece of their body is contrary vnto them. Burn a piece of an Harts horne, you ſhall ſee how the ſmoke and ſmell thereof will cha ſe away ſerpents, as I haue obſerued hertofore: & yet they ſay that the perfume of the bones
E which are about the throat of a Stag, hath a contrary property, to gather them together. Let a man lay vnder him Stags skins in ſtead of a mattrace, he ſhall ſleep ſecurely, without any feare that ſerpents will approch to do him harm. The rennet in their maw, or the rede it ſelfe, if it bee drunk with vineger, is a ſoueraigne antidot againſt their venomous ſting: and look what day one do but handle it, he ſhall be ſure and ſafe fiom any danger by them. The genetoirs of a Stagge kept vntill they be dry, like as the pizzle alſo made into pouder and taken in wine, is a ſingular counterpoiſon, reſiſting the venome of Serpents. Euen as the rim of the paunch, which is called in Latine Centipellio. Whoſoeuer haue about them ſo much as the tooth of an Hart, or be annointed with the marrow or ſuet of a Stag, Buck, or Hind-calfe, need not to fear any ſerpents, for
F they will flie from them. But aboue all remedies, there is none like to the rennet of a Fawne or Hind-calfe, ſuch a one eſpecially as was ripped out of the dams belly, as I haue ſhewed heretofore. If together with Deeres bloud there be burned the herbe Dragon, baſtard Mariaram, and Orchanet, in a fire made with Lentisk wood, Serpents (by report) will gather round together into an heap: take away the ſame bloud and put into the fire the root of * Pyrethrum, they will ſcatter aſunder againe.

* *i* Pelitary of Spaine.

Ireade

I read in Greek writers of a certain beaſt leſſe than a Stag, but like in haire, called Ophion, G which folk ſay is wont to be found only in the Iſle Sardinia: but I ſuppoſe that the race of them is vtterly extinct and gone. Wherefore I will forbeare to write of the medicinable properties reported by that beaſt.

Chap. X.

¶ *The medicines (againſt Serpents) found in the wild Bore, in Goats, and wild horſes. Alſo of other remedies which diuers beaſts do yeeld againſt all diſeaſes.*

THe brains of a wild Bore is highly commended againſt the ſting and venome of ſerpents. H So is the bloud likewiſe. Semblably, is the liuer kept and preſerued long with Rue, if the ſame be drunk in wine. In like maner the fat of the wild bore incorporat with hony & roſin. Alſo the liuer of a tame bore being clenſed from the filaments and ſtrings therein, taken to the weight of foure oboli, or the very brains drunke in wine.

If a man burn the horn or haire of goats, the fume therof driueth away ſerpents, as it is commonly ſaid: and the aſhes that come thereof either drunke inwardly or applied in a liniment without, are of great force againſt their ſtings. Moreouer, a draught of Goats milke taken with the grape of the vine Taminia, or of their vrine drunk with ſquilliticke vineger. Furthermore, it is ſaid, that cheeſe made of Goats milk together with Origan vſed in a cataplaſme, or their tallow incorporat with wax, worketh the like effect. A thouſand medicines beſides are reported to I be drawn from this beaſt, as ſhall hereafter appeare: whereat for mine own part I much maruel, conſidering, it is commonly ſaid that he is neuer out of a feuer. The wilde of this kinde doe affoord medicines more effectuall than the tame, and thoſe as I haue ſaid multiplie exceedingly. As for the Bucks or male Goats, they haue medicinable properties apart by themſelues. And *Democritus* ſaith, That the Buck which the dam bare alone, is of greater efficacy than any other: who affirmeth moreouer, that it is very good to anoint the place ſtung with ſerpents, with Goats dung ſodden in vineger: alſo with the aſhes of the ſaid dung freſh made, and tempered with wine into a liniment. In ſum, as many as hardly are cured of ſerpents ſtings, recouer therof paſſing wel, if they ordinarily haunt Goat-pens and ſtals where they be kept. But ſuch as would haue a more ſpeedy & aſſured cure, take the panch cut out of a Goat newly killed, together with K the dung found therein, & preſently bind the ſame faſt to the place affected, ſo ſoone as they be ſtung. Others perfume the fleſh newly hurt, with kids hair burnt: & with the ſame ſmoke chaſe away ſerpents: they vſe alſo to apply their skin newly flaied, to the wound: like as the fleſh and dung of a horſe that lieth out and feedeth abroad in the field: the rennet likewiſe of an Hare in vineger againſt the prick of a ſcorpion and the venomous tooth of an hardiſhrew. Moreouer, it is ſaid, that as many as rub and anoint their bodies with hares rennet, need not feare their ſtinging. If any be hurt by a ſcorpion, Goats dung helpeth them; but the better, if it be boiled in vineger: and in caſe one be poiſoned with ſwallowing down thoſe venomous flies called Bupreſtes, he ſhall find great help by eating lard and drinking the broth or decoction thereof. Furthermore, if a man round an aſſe in the eare, and ſay cloſely, That he is wounded by a ſcorpion, L the pain and grieuance thereof will immediatly paſſe away: yea and any venomous thing whatſoeuer, will flie from the fume of his lungs as it burneth: alſo it is good for thoſe who are ſtung by ſcorpions, to be perfumed with the ſmoke of calues dung. If a man be wounded by the biting of a mad dog, ſome there be who cut round about the place to the very quick, laying therto the raw fleſh of a calfe, and then giue the patient to drink the broth of the ſaid fleſh boiled, or els hogs greaſe ſtamped with quick-lime. Others highly praiſe the liuer of a buck Goat, affirming that if it be once applied, he ſhall not fall into that ſymptome of hydrophobie or fearing water, incident to thoſe that be bitten with a mad dog. They commend alſo a liniment made of goats dung and wine or hony tempered together: like as the decoction of a grey or badger, of a cuckow and a ſwallow, taken in drink. For the biting of other beaſts, it is an ordinary practiſe M to lay vnto the ſore, dry cheeſe made of goats milk, together with origan, but they giue direction to drink the ſame in ſome conuenient liquor: in caſe one be bitten by a mans tooth, they preſcribe bœufe ſodden and applied; howbeit the fleſh of a calf is more effectual; with this charge, that this cataplaſm be not remoued before the fift day. It is a common ſaying, that the muffle or

ſnout

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A ſnout of a Wolfe kept long dried, is a countercharm againſt all witchcraft and ſorcery; which is the reaſon that they vſually ſet it vpon gates of countrey ferms. The ſame force the very skin is thought to haue which is flaied whole of it ſelf, without any fleſh, from the nape of the neck. Aud in truth, ouer and aboue the properties which I haue reported already of this beaſt, of ſuch power and vertue it is, that if horſes chance to tread in the tracts of a Wolfe, their feet will be immediatly benummed and aſtonied. Alſo their lard is a remedy for thoſe who are empoiſoned by drinking quick-ſiluer. Aſſes milke if it be drunke, doth dull and mortifie the force of any poiſon: but more particularly, if any haue taken Henbane, the viſcous gum of the herb Chamæleon, Hemlock, the ſea-Hare, the iuice of Carpathum, the poiſon Pharicum, or Dorycnium: al-
B ſo in caſe that crudled milk haue done harm to any; for ſurely it is no better than poiſon, eſpecially the firſt beeſtings, if it quaile and cruddle in the ſtomacke. To conclude, Aſſes milke hath many other medicinable properties which we will ſpeake of hereafter. But remember alwaies to vſe this milke whiles it is freſh and new drawne out of the vdder, or els not long after, & then it muſt be warmed: for there is not any milk that ſooner loſeth the vertue. Moreouer, the bones of an Aſſe well broken, bruiſed, and ſodden, are giuen for a counterpoiſon againſt the venome of the ſea-Hare. And for all theſe purpoſes beforeſaid, the milke and bones of the wild Aſſes be thought more effectuall.

As touching wild horſes, the Greeks haue written nothing, becauſe throughout all Greece there are none of them to be ſeene. Howbeit, whatſoeuer medicinable vertues be attributed to horſes, the ſame we muſt think more forcible in the wild than in others. Neither had the Greeks
C any experience of thoſe Neat or Buffles called Vri and Biſontes: & yet the foreſt of India be ful of wild buls & kine. Now by good reaſon and proportion, we are to think, that whatſoeuer commeth from them, is more auaileable in Phyſicke, than from the tame of that kind. And verily, Cow milk is ſaid to be a generall counterpoiſon, able to kill any of thoſe venoms abouenamed. Ouer and beſides, if the dangerous Lilly called Ephemerum Colchicum, be taken inwardly and ſetled in the ſtomack, or if the greene flies Cantharides haue bin giuen in drink, the ſaid milke will ſend vp all againe by vomit. And as for the Cantharides, the broth of Goats fleſh will doe the like. Againſt thoſe corroſiue poiſons which kill by exulceration, the tallow of a calfe or any Bœufe, is a ſoueraigne medicine. As for the danger that commeth by drinking Horſe-leaches,
Butyr made of Cows milk, is a ſingular remedy, if it be taken with vineger, heat with a gad of
D ſteele. The ſame alone without any other thing is a good counterpoiſon, for if oile be wanting, butter may ſerue the turn as well. Being ioined with hony, it healeth the ſores occaſioned by the biting of the Porcelets called Multipedæ. The broth made of their tripes, if it be drunke, is thought to kil any poiſon abouenamed: and beſides, the Aconite and Hemlock: ſo doth the ſuet of a Calfe. Greene cheeſe made of Goats milk, is good for them that haue drunk the venomous viſcoſitie iſſuing out of the herb Chamæleon, called Ixias: but their milke is a remedy againſt the flies Cantharides and the venomous hearbe Ephemerum, if it bee drunke with the grape Taminia. Goats bloud ſodden together with the marrow, is taken againſt the poiſons called Toxica; and kids bloud againſt the reſt. The rennet found in the maw of a kid, hath a peculiar vertue to mortifie the venom of the foreſaid viſcous gum Ixia, as alſo of the herb it ſelf, Cha-
E mæleon the white, yea, and Buls bloud: for which the rennet of an Hare with vineger, is a ſingular defenſatiue. Againſt the venomous Raie or Puffen called Paſtinaca Marina: the pricke or ſting alſo of any ſea-fiſh, the ſaid rendles of an Hare, Kid, or Lamb, is a ſingular antidot, taken to the weight of one dram in wine. As for the rennet of an Hare, it is one of the ordinary ingredients that go to the compoſition of all preſeruatiues and counterpoiſons.

There is a kind of Butterflie that vſeth to fly about candles as they are burning, which is reckoned among poiſons. The aduerſatiue remedy againſt it, is a Goats liuer: like as their gal is ſoueraigne againſt any venomous drinkes made of the ruſticke weazill.

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Chap. XI.

¶ *Receits and remedies for many kinds of maladies, taken from ſundry beaſts.*

BVt now will I returne to the remedies appropriate to diſeaſes reſpectiue to the particular members of the body: and firſt to begin at the head: Bears greaſe mixed with Ladanum, and that kind of Maidenhaire which is called Adiantum, retaineth the haire of the head which

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is giuen to fall off: alſo the places that be already bare, it repleniſheth again with new haire: the G
ſame being incorporat with the fnngous excreſcence growing about the candle-ſnuffe, as alſo
with the ſoot found ſticking to the ſockets of lamps and candleſtickes, cauſeth the haire of the
eie-lids to come thick. Mixed with wine, it is good againſt the skurfe and dandruffe among the
hairs: for which purpoſe ſerueth the aſhes of Harts-horn burnt and applied with wine: the ſame
alſo preſerueth the haire from breeding lice and nits. Likewiſe, Goats gall mixed with Fullers
*Creta Cimolia * earth and vineger, if the head be waſhed withall, ſo as the hairs may dry againe by little & lit-
* Hircinum. tle. Semblably, the gall of * Buck-goats tempered with Buls ſtale, killeth lice: now if the ſayd
Some reade Scrofinum, gall be old, adde thereto brimſtone, and it ſcoureth beſides the dandruffe. It is thought, that the
* Swines gall. aſhes of an aſſe pizzle will make the haire to grow thick, and preſerue them from being grey, if
the place be firſt ſhauen and well rubbed therewith, or anointed with the liniment made of it H
and oile, punned together in a leaden morter. Likewiſe, the vrin of a yong Aſſe fole is ſuppoſed
to thicken the haire: but there would be mixed ſome Spiknard with this waſhing lie, to rectifie
the ſtrong ſent of the ſaid vrine. Buls gall mixed with Ægyptian Allum, ſerueth for a liniment
to make the haire come again, if the bald place be anointed therwith warm. As for the running
skals of the head, there is not a better thing to cure them than Buls vrine: ſo doth ſtale chamber
lie, if there be put to it Sowbread and brimſtone: howbeit, Calues gall is of greater efficacy in
this caſe, which if it be mingled with vineger, and the head rubbed therwith hot, riddeth nits al-
ſo. Calues ſuet ſtamped with ſalt and reduced into a liniment, is ſingular good for the ſores in
the head. In theſe caſes great account is made of Fox greaſe, but eſpecially of their gall and
dung, tempered with an equall portion of Senvy and ſo brought into an ointment. Take the I
pouder or aſhes of Goats horn, but principally of the Bucke, put thereto ſal-nitre and the ſeed
of Tamarisk: incorporat all with butter and oile into an vnguent. It is wonderfull effectuall in
keeping haire from ſhedding, ſo that the head be firſt ſhauen. Semblably, the aſhes of a dogge
burnt, & made into a liniment with oile, cauſeth the haire of the eie-brows to look black: goats
milk by report taketh away nits. An ointment made with their dung & hony together, cauſeth
the hair to grow thick, in places deſpoiled thereof by occaſion of ſome diſeaſes. Likewiſe the
aſhes of their houfs incorporat with pitch, keep the haire on which is about to ſhed.

As touching the pain of the head, the aſhes of an Hare burnt, mixed with oile of Myrtles, al-
lay the ſame: ſo doth the blown water which is left in the trough after that a bœufe or Aſſe hath
done drinking, if the patient take a draught of it: and if we may beleeue it, the genitall member K
of a he-Fox, worne about the head in maner of a wreath, cureth the head-ache. The aſhes of a
Harts horn brought into a liniment with vineger, oile roſat or oile of Ireos, hath the like effect.
For watering eies there is a ſingular ointment made of bœufe tallow boiled together with oile.
And the aſhes of Harts horn ſerueth by way of iniunction to cure their aſperity and roughnes:
for which purpoſe the very tip and points of the knags are thought more effectuall. The ex-
crements or dung of a Wolfe are good to anoint the eies for the cataract. The ſame reduced to
aſhes and made into a liniment with the beſt Attick honey, is ſingular for thoſe whoſe ſight is
dim and troubled, ſo that the eies be anointed therewith: in which caſe, Beares gall is excellent.
The greaſe of a wild Bore incorporat with oile roſat, is ſingular good for the bloudy fals or chil-
blanes called Epinyctides. L

The aſhes of an Aſſes houſe mixed with Aſſes milke, taketh away the cicatrices of the eies,
together with the films and pearls that trouble the ſight, if they be annointed therewith. The
marrow of a Beefe taken forth of the right leg before, punned with ſoot, and ſo incorporat toge-
ther in manner of a liniment, rectifieth the diſordered hairs, and other accidents of the eye-lids
and corners of the eies: but for to haue an excellent ſoot, proper to make a ſalue for to beautifie
the eies, it ought to be gathered from a wieke or ſnuffe made of Papyr reed, and burning with
Seſame oile, in ſuch ſort as the ſame may be wiped away with a wing into a new earthen pot
that neuer was vſed: & verily, this is a ſoueraigne ſoot to hinder the growth again of haires after
they be once plucked vp from the eie-browes. Of an Oxe gall tempered with the white of an
egge, are made eie-ſalues reduced into rolles, which beeing diſſolued in water, ſerue to annoint M
the eyes for foure daies together. Calues ſuet with Gooſe greaſe and the iuice of Baſill, is ſin-
gular for all the accidents whereto the eie-lids be ſubiect. The marrow of a Calfe, incorporate
with equall weight of wax and common oile or oile Roſat, together with an egge, maketh a ſo-
ueraigne liniment for the Stian or any other hard ſwellings in the eie-lids. The violent rheums

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A that fall into the eies,are repreſſed and allaied with a cataplaſm of tender cheeſe made of goats milke ſoked in hot water,and ſo laid too:and if there be any tumor or ſwelling riſen by occaſion of ſuch a flux, it would be applied with hony : and both of them,as well with ſwelling as without,ought to be fomented with warme whey. But ſay the eies be inflamed and bleered onely, without any * extraordinary moiſture appearing in them, the little muſcles lying within the loins of a ſwine,roſted and afterwards punned to a cataplaſme,and ſo applied,do quite rid away the ſame bleeredneſſe. It is commonly ſaid,that goats be neuer troubled with bleered eies, nor yet roe-bucks or does,by reaſon of certain herbs which they feed vpon : and for that their ſight is as good by night as day,therfore certain pils be ordained for the infirmities of the eies,made of their dung,inwrapped within wax, for to be ſwallowed at the change of the Moone. Many

B there be who are of opinion,that ſuch as be dim-ſighted and ſee little or nothing toward night (whom the Greeks call * Nyctalopes) are cured with goats bloud, eſpecially the male : alſo with the liuer of a goat ſodden in ſome auſtere or hard wine. Some giue direction, to annoint the eies all ouer with the grauie or dripping of the ſaid liuer roſted, or elſe with the gall of a goat,and to feed of the ſaid fleſh;with this regard, That whiles the ſame is a ſeething, the eyes may receiue the vapor and ſteem thereof. And of this opinion they be, that the ſaid medicine will do the better,if the goat be of a bright ruddy colour. Moreouer,they would haue the eyes of the patient to be fomented with the vapor and fume that riſeth from the decoction of the liuer whiles it boileth:but others there be,that preſcribe to take the ſmoke thereof as it roſteth or

C frieth. As for goats gall,there be that vſe it many waies prepared;ſome with hony, againſt the fumoſities that trouble and dim the eie-ſight:others,with a third part of white Ellebore,for the pin and web : others againe with wine,againſt cicatrices,pearles,obſcurity of ſight, filmes and ſpots. But for the eie-lids,after the haire which pricked and offended the eie is pulled out,they applie it with the iuice of Beets,ſuffering the ſaid liniment to dry vpon the eie-lids. If any tunicles of the eie be broken, they take womans milk to apply vnto it. In ſum,for al infirmities of the eies whatſoeuer,they hold a goats gall which is old and hath bin long kept, to be more ſoueraigne and effectuall in operation than any other. Neither doe they reiect the dung of this beaſt,but repute a liniment made of it and honey,to be as good for waterie eyes, as the marrow for the paine thereof : likewiſe the lungs of an hare. And verily the gall of an hare(as it is com-

D monly reported) incorporat with cuit or honey,and ſo applied, helpeth thoſe that be dim-ſighted. Furthermore they ordaine,to rub and annoint the eies againſt their inflammation and bleeredneſſe,either with woolues greace,or elſe with ſwines marrow. And no maruell, for they ſay, That whoſoeuer vſe to carry about them in a bracelet a foxes tongue, ſhall neuer be troubled with ſore eies.

For the pain & infirmities incident to the ears,there is not a better nor more excellent thing than the vrin of a wild bore ſaued and kept in a glaſſe:the gall likewiſe of a wild bore or ſow,as alſo of a bœufe,mixt with Cicinie oile and oile Roſat,in equall quantity,is a ſingular remedy : but eſpecially buls gall, dropped into the ears warm with the iuice of Porret;or els with hony, in caſe they be impoſtumat within and run with water. The ſame alone by it ſelfe warmed in the rind of a pomegranate,is excellent to take away the ranke and ſtrong ſauour of the eares : and

E if any part within be broken,the ſaid gall inſtilled with womans milke, healeth it effectually. Some there be, who ordaine the eares to be well waſhed with it ſo prepared, for to remedy the difficulty and hardneſſe of hearing : others vſe to put into the eares wooll,waſhed before in hot water,and incloſe therewith a peece of a ſerpents ſlough,with vineger : but if the deafeneſſe be the greater,they infuſe the ſaid gall into the eares,tempered with Myrrhe and Rue,and ſo made hot all together in the pill of a Pomegranate. Fat lard alſo is good for this purpoſe : and the greene dung of an Aſſe inſtilled with oile Roſat;prouided alwaies, that all theſe medicines be warme when they be dropped into the eares. But the ſome that a horſe doth froth,is better than all theſe : or the aſhes of horſe dung freſh made and burned, mixed with oile of Roſes. In this caſe likewiſe are commended bœufe ſuet, gooſe greaſe, and freſh butter. The vrine of a Goat

F or bull, yea and ſtale chamber-lie which fullers vſe,made hot, and the vapour thereof receiued into the eare,at the narrow mouth or necke of a bottle,cureth the deafeneſſe thereof. Some put thereto a third part of vineger,and a quantitie of the piſſe of a calfe which is yet a ſuckling and neuer taſted graſſe:yea and others there be,which put thereto the dung mixed with the gall of the ſaid calfe. The skin or ſlough alſo which ſnakes caſt off, is very good to be applied vnto the

* Κηγωπαλωπέκα.

* *Nyctalopes,* are they alſo called,who ſee better in the night than by day:according as the word importeth.

eares,but they ought to be well chaufed and ſet into an heat before. Now are theſe medicines to G
be incloſed within wooll,and ſo applied. Moreouer, calues tallow, with Gooſe greaſe and the
juice of Baſill,is good for the hearing:alſo calues marrow incorporat together with the pouder
of cumin,and ſo powred into the eares. The ſlimy ſperme of a bore which paſſeth from the ſhap
of a ſow after ſhe is brimmed,if it may be gotten before it touch the ground, is ſingular for the
pain of the eares. If the eares be crackt and hang flagging down,there is nothing better than glue
made of calues pizzles,if the ſame be diſſolued in water. For other impediments of the eares,the
fat of foxes is very good. In like manner, Goats gall, with oile of Roſes warme, or the juice of
leeks: or if there be any rupture within the eares,the ſaid gall muſt be applied with breſt-milke.
For thoſe who be hard of hearing, or haue their eares running and ſuppurate within, it is not a-
miſſe to drop into them a beaſts gall, with the vrine of a ſhee-goat or of the male, it makes no H
matter. But theſe medicines howſoeuer they are to be vſed,are thought to be more effectual by
far,in caſe they were put into a goats horne, and ſo hung in the ſmoke for the ſpace of 20 dayes
together. Alſo there is great commendation of the rennet of an hare, if there be one third part
of a Roman denarius thereof,and halfe a denare weight of gum Sagapene,concorporat in Ami-
nean wine. As for the ſwelling impoſtumes behind the eares,bears greaſe repreſſeth and keepeth
them downe,if there be a cerot made thereof, together with the equall weight of wax and bulls
tallow:ſome there be who put Hypoquiſtis thereto:and butter alone is good to annoint them
with,ſo that they were fomented before with the decoction of Fenigreeke. Howbeit, of much
better opperation it would be,in caſe Nightſhade were added thereto. The ſtones of a fox,buls
bloud alſo dried and reduced to powder,be commended in this caſe. Moreouer,the vrin of a ſhe I
goat made warm,and ſo dropped into the eares:the dung likewiſe brought into a liniment with
hogs greaſe is very good.

To come now to the infirmities of the teeth:if they be looſe and ſhake in their ſockets,the a-
ſhes of harts horn will ſettle them firme and faſt again:if they ake,the ſame aſhes are verie good
to eaſe the paine, whether the teeth be rubbed or waſhed therewith. But ſome are of opinion,
that the pouder of the ſaid horne not burnt at all,is far better than the aſhes in theſe caſes:how-
beit,there be dentifrices made both of the powder and alſo of the aſhes. Moreouer, the aſhes of
a wolues head is thought to be a ſoueraigne remedy for the pains incident to the teeth. Now it
is well knowne,that among the excrements of a wolfe,there be many times bones found,which
if they be hanged about the necke,arme,or other parts of the body, haue the ſame effect. Like- K
wiſe the crudled rendles of an hare infuſed into the eare, are ſingular for the tooth-ache: the a-
ſhes alſo which come of the head burnt, is a pretty dentifrice for to rub the teeth withall: but
if you put Nard thereto, it doth correct and palliat a ſtinking breath. But ſome there be, who
chuſe rather to mingle therewith,the aſhes of mice and rats heads. There is found in the ſide
* Βλωνιδιὸν ὀστοῦν. of a hares head a certaine * ſharpe bone like vnto a needle;herewith,Phyſitians giue counſel to
ſcarrifie the teeth and let the gums bloud,for the tooth-ache. Take the bone of a beaſt, ſet it on
fire,and when it is red hot,hold it cloſe to the teeth that be looſe and ake withall,it wil ſet them
faſt againe: the ſame being reduced into aſhes,and tempered with myrrhe,is a proper dentifrice
to blaunch the teeth. The bonie ſubſtance likewiſe of hogs cleyes burnt and calcined, is of the
ſame force and operation: alſo the hollow hetchill or whirlebones of their hips, about which L
their bucklebones turne,worke the like effect if they be brought into aſhes. Well knowne it is,
that if the ſame be conueighed downe by a horne into the throat of horſes and ſuch like beaſts,
they will cure the wringing torments of the botts that fret and gnaw them in the bellies: and
beeing burnt, they are ſingular good to confirme and faſten the teeth that bee looſe and doe
ſhake. Alſo if the teeth be payned by occaſion of ſome blow giuen vnto them, Aſſes milke
helpeth them: ſo do the teeth of the ſaid beaſt,if they be calcined and reduced into aſhes: this
infirmitie is helped alſo with the rough wert or corne of an horſe if it be infuſed into the eares
with oile: this bunch is called by the Greekes Lichen: and it is not that which is named Hip-
pomanes,whereof I haue no purpoſe to ſpeak(conſidering it is a hurtful and venomous thing)
but a certaine excreſcence growing about Horſe knees, and aboue their houfes. Moreouer,in M
the heart of an Horſe there is found a bone, like for all the world to the eye-teeth of a dogge:
this they hold to be a very ſoueraigne thing for to ſcarrifie the teeth when they ake. Alſo if
one take a tooth out of one of the chawles of a dead horſe, it will eaſe his owne that aketh. ſo
it be correſpondent in place and number to that which is in paine. The ſperme that paſſeth
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A from the mature of a mare after ſhe hath been couered by a ſtallion, if the wieke of a candle or lamp be therewith beſmeared and ſet a burning, doth repreſent a moſt ſtrange and monſtrous ſight of horſe heads, as *Anaxilaus* hath reported: euen ſo will that of the ſhee Aſſe, make a ſhew and apparition of Aſſe-heads. As for Hippomanes beforenamed, it is ſo ſtrong and forcible a venome, eſpecially to incite and ſtirre vnto luſt, that being vpon a time poured into the braſen mettall that was caſt into the forme and ſimilitude of a mare at Olympia, the ſtone-horſes which came neare vnto the ſaid image, were ſet into ſuch a heat and ſo farre inraged, that they could not by any means be held back but they would needs couer the ſaid braſen mare. Moreouer, the glew that Carpenters and Ioyners vſe, cureth the tooth-ache, if the ſame be boyled in water, and the teeth annointed therewith; but the ſame within a little while after muſt be remo-
B ued, and the mouth preſently waſhed with wine, wherein were ſodden the pill of ſweet pomegranats. Furthermore, if the teeth be ill affected, a collution made with goats milke, or buls gal, is thought to be a remedy of great efficacy. Finally, the aſhes of the ankle bones of a female Goat whiles they be freſh and new, are counted an excellent dentifrice to whiten the teeth: ſo are the ſaid bones of all other four-footed beaſts, reared or nouriſhed about a ferm houſe, if they be in like manner calcined: which I note but once for all, becauſe I would not repeat one thing ſo often.

C

Chap. XII.

¶ *Remedies obſerued out of the bodies of beaſts, for the accidents that befall to the viſage, necke, and breaſt.*

IT is thought generally, that the skin of the face may be made ſmooth and without wrinckles, tender and delicat, yea and be kept faire and white, with aſſes milk: for well knowne it is, that ſome dainty dames (forſooth) there be, that keep and maintain daily in ordinary to the number juſt of 500 ſhe Aſſes for this purpoſe: according to the firſt example of the Empreſſe *Poppæa*, wife to *Nero* the Emperor; for ſhe vſed commonly to bath in Aſſes milk, and deuiſed whole baines to ſwim therewith: and euer as ſhee rode in progreſſe, or remooued from place to place, ſhe had her cuirie of ſhe Aſſes in her traine attending vpon her for no other intent, but onely to
D waſh and bath her body in their milke. As for the pimples and wheales that breake out in the face, if they be annointed with butter, they will weare away and be gone; and the ſooner, if Ceruſſe or Spaniſh white be tempered therewith: but pure butter alone without any thing elſe mingled with it, killeth any fretting humors in the face that be corroſiue, if ſo be that preſently after the inunction, barly meale be caſt vpon the place. The gleane of a Cow hauing newly calued, taken whiles it is moiſt and ſo applied, is good for any vlcers of the viſage. There is another receit made for this purpoſe, which may ſeeme but a fantaſtical and fooliſh thing, howbeit, for to ſatisfie and pleaſe in ſome ſort, our fine dames that are deſirous of ſuch deuiſes, I am content to ſet downe: They ſay (forſooth) that the paſterne bones of a young white bulkin or ſteere, ſodden for the ſpace of 40 daies and nights together, vntill ſuch time as they be reſol-
E ued into the liquor, if the face be wet with a fine linnen cloth dipped in the ſaid decoction, it cauſeth the skin to looke cleare and white, and without any riuels or wrinckles; but the ſaid liniment muſt be kept all night to the face in manner of a maske. Moreouer, they ſay, that bulls ſherne is an excellent complexion forſooth, to ſet a freſh roſat or vermilion colour in the ball of the cheeke: and the liniment Crocodilea, made of Crocodiles ordure, doth it no better: but then they giue order, that the face be waſhed with cold water both before and after this dreſſing. The dung of a calfe tempered and wrought in ones hand with oile & gum, is ſingular good to take away ſun-burning, or any thing whatſoeuer whereby the colour is decaied and loſt. As touching the vlcers and chaps appearing in the lips or face, the ſuet of a Calfe, or beaſts tallow, incorporat with Gooſe greaſe and the juice of Baſill, maketh a ſingular pomado to amend and
F and rectifie thoſe defects and imperfections. There is another compoſition alſo for this purpoſe; to wit, calues ſuet and deeres marrow mixed together, with the leaues of the white Saint *Mary* thiſtle, punned all together and reduced into a liniment. The ſame operation hath any marow, though it be of a cow, and the broth of cow bœufe. The tettars and wild-fires breaking forth about the mouth and noſe, there is not the like medicine againe to be found, to kill and

extinguiſh,than a glew made of a calues genetoirs, diſſolued in vineger with quicke brimſtone, G
and mingled together with a fig-tree branch; with this charge, that when it is freſh made, the
place affected be anointed twice a day therewith. This glew boiled in hony and vineger, is ſin-
gular for the leproſie:which diſeaſe,the liuer alſo of a calfe applied hot,doth cure: like as goats
gal healeth the foule white lepry called Elephantiaſis:but an oxe gall and ſal-nitre mixed ther-
with taketh away the lepry and the filthy dandruffe appearing in the skin. The vrine of an aſſe
taken about the riſing of the Dog-ſtar, clenſeth the face from all ſpots: ſo doth the gall as well
of an aſſe as a bull,vſed alone by it ſelfe,after it hath bin well broken and tempered in water,and
the old skin of the face taken off; but then the patient muſt forbeare to goe abroad either into
the Sun or wind. The like effect hath buls tallow or calues gall,incorporat with the ſeed of Sa-
uorie and the aſhes of an Harts horne, if the ſame be burnt at the beginning of the Dog-daies. H
Aſſes greaſe is a ſoueraigne thing to reduce vnto a freſh and natiue colour, any skars or places
of the skin blemiſhed with the ſtooles remaining of ringworme,tettar,and leproſie. The gal of
a buck-goat incorporat with cheeſe, ſulphur viſ, and the aſhes of a ſpunge, and brought to the
conſiſtence and thickneſſe of honey,taketh away moles and pimples. Some make choiſe rather
of old galls which hath been long kept to vſe in this caſe, mingling therewith hot brans to the
weight of one obolus, and four times as much of hony;but firſt the ſaid ſpots and ſpecks ought
to be plied well with chauſing and rubbing. The ſuet of the ſame Goat, tempered with Gith
or Nigella ſeed, Brimſtone, and Floure-de-lys root, is verie effectuall for this purpoſe. Sem-
blably,it is good for the chaps in the lips, if it be incorporate with Gooſe greaſe, Deeres mar-
row,roſin,and vnquencht lime. I finde it recorded in ſome Authors, that they who are giuen to I
haue red pimples appearing in their face,are diſabled for exerciſing any ſacrifices belonging to
Art Magicke.

If the tonſils,throat,and windpipe,be either inflamed or exulcerat, they finde much eaſe by
cow milke,or goats milke, ſo the patient gargarize therewith warme as it commeth new from
the beaſt,or otherwiſe made warme againe afterwards:but goats milk is the better of the twain,
if mallows be ſodden therein, and a little ſalt. For bliſters in the tongue and throat, the broth
made of tripes is very good to be gargariſed:and more particularly, for the inflammations and
ſores incident to the tonſils or almonds of the throat, the kidnies of a fox dried are ſingular, if
they be beaten into pouder and reduced into a liniment with honey. The gall of a bull or goat
mixed with hony,ſerueth right well for the ſquinancy. The liuer of a grey or badger tempered K
with water and made in manner of a collution, rectifieth a ſtrong and ſtinking breath: the can-
kers alſo and ſores in the mouth,are healed with butyr. If a thorne, fiſh-bone,or any other ſuch
thing ſticke in the throat,take the dung of a cat,rub & annoint the place wel without-forth,the
ſame(by report)will thereupon come vp againe,or paſſe downeward. As for the ſwelling wens
called the kings euill,either the gall of a bore doth ſcatter and diſpatch; or elſe of a bœufe, if
the place affected be annointed therewith warme:for hares rendles tempered with wine and put
into a linnen cloth, is good to be applied vnto the ſame onely when they be ſore and run. The
aſhes alſo of the houſe both of horſe and aſſe, incorporat with oile, water, and hot vrine, into a
liniment,& ſo applied,doth reſolue them before they be broken. Of the ſame effect is the aſhes
of an Oxe or Cowes clee,applied vnto the place with water: as alſo their dung laid too very hot L
with vineger. In like manner Goats ſewet with quicke-lime, or their dung ſodden in vineger
and the genetoirs of a fox. For this purpoſe, there is much good done with ſope: an inuention
deuiſed by the French for to colour the haire of the head yellow:made it is of tallow and aſhes:
the beſt of all other is that which they make of Beech-wood aſhes and Goats ſuet; and the
ſame after two manner of waies; either thicke and hard, or elſe liquid and ſoft: but the one as
well as the other is verie much vſed in Germanie, and a great deale more indeed by men than
women.

The crickes and pains in the neck,are much aſſuaged by rubbing the nape of the necke with
butter or beares greaſe:if the ſame be ſtark and ſtiffe, there is nothing in the world better than
beaſts tallow, the which, together with oile, is very good for the kings euill beforeſaid. The M
* Supinus & poſterganeus, raptus. Aureliano. * painfull cramp that draweth a man back,ſo as he cannot bow his head forward (which convul-
ſion the Greeks name Opiſthotonos) is much eaſed by infuſing into the eares the vrine of a ſhee
goat,or with a liniment made with their dung and bulbe roots.

If the nailes be bruiſed, it is paſſing good to tie about them the gal of any beaſt whatſoeuer.

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A As for the riſings and ſore excreſcences about their roots, bulls gall diſſolued in hot water, and ſo applied, eaſeth that grieuance: ſome there be who put thereto brimſtone and alumne, of each a like weight.

Moreouer, it is ſaid, that a wolues liuer taken in a draught of wine warme, cureth the cough: alſo a bears gall mingled with hony: or the aſhes made of the vppermoſt tips of a beaſts horne: likewiſe the froth or ſlauer of an horſe mouth: and ſome ſay, that be the cough neuer ſo bad, it will make an end thereof in three daies drinking. Semblably, the lights of a ſtag, together with the throat dried in the ſmoke, and afterwards puluerized and brought into a loch or liquid electuary, is good for the cough, to be taken ordinarily euery day: and for this purpoſe, the lungs of the ſpitter in this kind of red deere, is thought to be more effectual. In caſe a man ſpit bloud,
B the aſhes of Harts is much commended: and the rendles of an hares maw taken in drinke to the weight of a third part of a denier, with Terra Samia and Myrtle wine, cureth it perfectly. The aſhes likewiſe of Hares dung drunk in wine late in an euening, ſtaieth the cough which is buſie in the night ſeaſon: alſo a perfume made with the hair of an hare, diſchargeth the lungs of thoſe tough and viſcous humors which ſtick vnto them, and are not otherwiſe eaſily remooued. The purulent vlcers in breſt and lungs, remaining after a pleuriſie or peripneumony: the ſtrong and ſtinking breath alſo proceeding from the lights, are cured moſt effectually with an electuarie made of butter, boiled with a like quantity of Attick hony, vntill it look reddiſh; if the patient take thereof euery morning the meaſure of one ligula or ſpoonfull: ſome in ſtead of hony, chuſe
C rather to put thereto the * roſin of the Larch tree. If one do reach or caſt vp bloud, it is ſaid, that cowes bloud, taken moderatly and with vineger, is of great force and efficacy to ſtay the ſame: but to think that this is meant of buls bloud, were great folly and raſhneſſe. Howbeit the ſtrong glew that is made of a buls skin, taken to the weight of three oboli in warm water, is ſoueraigne for an old infirmity of reaching and fetching bloud vpward.

* Which is our Turpentine.

Chap. XIII.

¶ *Receits for the paine of ſtomacke and loines: alſo for the infirmities of the reins.*

D IF there be an vlcer growne in the ſtomacke, drinke the milke of an Aſſe or Cow, and it will heale it. Stew a peece of bœufe in wine and vineger among, the broth thereof is ſingular for the gnawing and fretting in the ſtomacke: the aſhes of an Harts horne is verie good to drie vp rheumes and catarrhes, that haue taken a courſe thither. As for thoſe that caſt vp bloud, the freſh bloud of a Kid taken to the quantity of three cyaths, with the like proportion of ſharpe vineger, and ſo drunke as hot as may be: the rendles alſo of the ſaid Kid drunke with vineger, ſo as there be two third parts of the vineger to one of the rundles, is a ſingular remedy for the ſaid infirmities.

For the griefe of the liuer, cauſed by obſtructions, the liuer of a wolfe dried and taken in honied wine, is a proper receit. So is the liuer of an Aſſe being dried and brought into pouder with
E two parts of ſtone parſley, and ſo incorporat with three nut kernels and hony; which compoſition, the patient muſt vſe to eat. In which caſe, goats bloud is highly commended, if it be prepared ſo as it may be taken with meat.

Moreouer, it is ſaid, that for them who be ſhort winded, there is nothing ſo good as to drink the bloud of wild horſes. In the next place to it, great account is made of Aſſes milke warme, or ſodden together with bulbe roots, ſo that the patient drinke the whey that commeth thereof, putting to three hemines of the bloud one cyath of white garden creſſes, infuſed firſt in water, and then tempered with hony. The liuer alſo or lungs of a fox, taken in ſome groſſe wine like Alegant: or a bears gall in water, doth open the wind-pipes ſtuffed with fleame, and giueth free liberty for the wind to go and come.

Furthermore, Bears greaſe is exceeding good for the paines in the reins of the backe, yea and
F for any place els that hath need of emollitiues, in caſe it be wel rubbed therewith. Alſo in theſe caſes, it is thought meet, to take the aſhes either of a bores or ſowes dung which hath bin long made, and therewith to ſpice a cup of wine.

But before I proceed any farther, it is to be noted, that Magitians alſo haue medled with this part of Phyſicke, and haue deuiſed ſtrange medicines, drawne from the parts and members of

beasts. And first of all they would make vs beleeue, that be a buck-goat neuer so much inraged, G
do but stroke him by the beard, he will come into good order and be quiet againe: cut and lop
the same off with a paire of sheers, he will not stray away nor depart to another flock. But to re-
turn to the griefe of the reins: the Magitians adde to the foresaid medicine, goats dung, which
being put into a linnen cloth, and the same well greased, they giue direction to hold in the hol-
low ball of the hand, as hot as may be indured; with this regard, that if the paine be in the left
side, this medicine be made in the right hand, and so contrariwise. Moreouer, the dung or tred-
dles which must serue this turn, they giue order, that it be gathered and taken vp with the point
of a brasen needle or bodkin. Now the foresaid medicine must be held in the hand so long, vntil
the patient perceiue that the vapor thereof do pierce as far as the loines: which done, they ap-
point afterwards to anoint the head with the iuice of leeks stamped: to rub the loines also with H
the said dung tempered with hony: giuing counsell, to eat the stones also of an Hare, for to ap-
pease the said pain. As for those that be troubled with the Sciatica, they ordaine a cataplasme
of oxe or cow dung, to be laid vpon the grieued place; but it ought first to be lapt within some
leaues, and so made hot in the embers. For the pain in the kidnies, they giue order to swallow
downe the kidnies of an Hare raw, or at leastwise sodden, yet so, as the patient touch them not
with his teeth. Ouer and besides, they do say, that whosoeuer haue about them the ankle bone of
an Hare, shall not be grieued with the belly ach. As touching the paine of the spleene, the gall
of a swine, be it Bore or Sow, taken in drink, or the ashes of Harts horn in vineger, assuageth the
same. But the most effectuall and soueraigne remedy of all other, is the milt of an Asse which
hath bin long kept; for within one three daies the benefit thereof will be felt, and the patient I
shall find ease. Also, for the disease of the spleen, they vse to giue in oxymell, the ordure of an
asses sole, which first came from it after it was soled (and this dung the Syrians call Polea:) fur-
thermore, for this infirmity the tongue of an horse which hath bin kept dry a long time, giuen
in wine, is a present remedy: and this is a secret which *Cæcilius Bion* reporteth that he learned of
the Barbarians, whiles he conuersed among them. In like manner, a beasts milt whether it bee
cow or oxe, hath the same operation, if it be vsed in that manner: but say it be fresh and new ta-
ken out of the beast, then it ought to be either rosted or sodden, and so taken as meat. Ouer and
besides, take 20 heads of garlick, pun them all, and after they be bruised, put them into a beasts
bladder with a sextar of vineger; apply the same to the region of the spleene, it assuageth the
pain. And if all be true that these Magitians say, the milt of a calfe is singular good for the ma- K
lady of the spleen; but then it must be bought at the same price that the butcher setteth first vp-
on it, without hucking and beating it lower for to haue any thing abated; because in their opi-
nion (so ceremonious they be) therin lieth a great matter. Now when it is thus bought, it would
be slit through the length in two parts, & both pieces attached to the shirt of the patient; with
this charge, That when he is about to put on his other cloths and make himselfe ready, he suffer
the said pieces to drop down to his feet, and then take them vp again, and so dry them in the sha-
dow: for in thus doing, the diseased spleen of the sick party will likewise fall and settle down, so
as the patient shal sensibly perceiue himself to be deliuered of that infirmity. Finally, the lungs
of a Fox dried in the ashes and so drunk in water, is good for the spleen: as also the milt of a kid, L
applied to the grieued part accordingly.

Chap. XIIII.

¶ *For to stop a lask and knit the belly: for the flux proceeding from the imbecilitie of the stomacke: for the dysenterie or bloudy flix: for the ventosities and inflation of the belly: for ruptures: the straining vpon the seege without doing any thing: for the wormes in the guts, and for the cholique.*

TO stay the running out and extraordinary loosnesse of the belly, these medicines follow-
ing be conuenient: *Imprimis*, the bloud of a stag: *Item*, the ashes of an harts horne: the li-
uer of a bore fresh and without any salt at all, taken in wine: likewise the liuer of a sow ro- M
sted, or of a male goat sodden in one hemine of water: the crudled rennet in a hares maw, drunk
in wine to the quantity of a cich-pease; or in water, in case the patient haue an ague. Some there
be, who put gall nuts thereto; others content themselues with Hares bloud alone sodden with
milke. Also the ashes comming of horse dung drunke in water: the ashes of that part of an old
bulls

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A bulls horne which groweth next to the head, ſtrewed into a draught of water. In like manner, Goats bloud ſodden vpon coles. A Goats skin or fell, haire and all boiled together, yeeldeth a decoction which is good in this caſe to be drunke.

Contrariwiſe, to looſe the belly: the runnet found in a Colts maw: the bloud of a femal goat, or els hermarrow or liuer, are thought conuenient laxatiues. *Item*, a plaſter made with a wolues gal, together with the juice of a wild Cucumber, and applied to the nauil. Alſo a draught either of Mares or Goats milke, taken with ſalt and hony. The gall of a ſhe-Goat is good for this purpoſe, if it be taken with the iuice of Sowbread and a little Allum. But ſome there be who think it better to put thereto ſalnitre and water. Buls gall ſtamped and incorporat with Wormwood,
B made into a round ball, and ſo put vp in ſtead of a ſuppoſitorie, will giue a ſtoole, and make the body ſoluble.

Butter eaten in any great quantity, is good for thoſe who haue a flux occaſioned by the weakneſſe of the ſtomack, and a dyſenterie or bloudy flix: ſo is a Cowes liuer: the aſhes of an Harts-horn, taken to the quantity of as much as three fingers will comprehend, in a draught of water: likewiſe the rennet of an Hare wrought in dough for to make bread: or if the patient do voyd bloud withall, the ſame ought to be incorporat in parched Barley meale. The aſhes of a Bores, Sowes, or hares dung, is good to ſpice a warme potion of wine in theſe infirmities. Moreouer, an ordinary Veale broth, as it is commonly giuen, is counted one of the remedies for theſe kind of fluxes abouenamed, whether they come of feeble ſtomacke or exulcerat guts. But if the patient drink Aſſes milk for this purpoſe, it will be the better, if hony be put thereto. Furthermore, the
C aſhes of an Aſſe dung taken in wine, is as effectual in operation as the reſt, for both diſeaſes. As alſo the firſt ordure of the Aſſe fole, which we termed Polea in the former chapter. The cruds or rennet of an horſe fole maw, called by ſome Hippace, is ſoueraign for ſuch lasks, yea, though the patient did ſhere bloud vpon the ſtoole. The aſhes alſo of horſe dung, and the pouder of Horſe teeth is ſaid to be ſingular: yea, and Calues milk ſodden and ſo drunke. But if the flux do proue to be a dyſentery, Phyſitians giue aduiſe to put thertoa little hony: if gripes come thick, they preſcribe the aſhes of Harts horn, or buls gall tempered with Cumin ſeed: and the fleſhy ſubſtance of a Gourd, to be laid in maner of a cataplaſme to the nauill. The tender cheeſe curd of Cowes milke clyſterized, is paſſing good both for the ſtomack flux, and alſo for the bloudie flix. In like ſort the butter made of Cows milk taken to the quantity of foure hemins with two
D ounces of right Terpentine, either in the decoction of Mallowes or oile of Roſes. The ſuet of a Calfe, or beaſts tallow, is likewiſe an ordinary remedy in theſe caſes. But diuers there be who ſeeth the marrow forth as well of the one as the other, with meale, wax, and a little oile, yet ſo, as the broth be clear, that it may be ſupped off. Their marrow alſo is vſually incorporat in the paſt whereof bread is made, and ſo taken with great ſucceſſe. Goats milke ſodden vntill the halfe be conſumed, is reputed alſo a proper medicine. And in caſe the guts beſides be wrung & griped, there would be put thereto a little vnpreſſed wine of the firſt running, called Mere-goutte: howbeit, ſome there be who think it ſufficient for to appeaſe the torments of the wombe, to drinke Hares rennet but once in a draught of wine warm: but the wiſer ſort and thoſe that deale more warily, think it good withall to make a liniment of goats bloud, incorporat with barley meale
E and roſin, & therewith to anoint the belly. And they alſo aduiſe their patients for any violent flux of the belly whatſoeuer, to apply thereto ſoft cheeſe: but if the flux be from the ſtomack, or dyſentericall, they preſcribe old cheeſe to be grated and giuen to the patient in wine, with this proportion, that in 3 cyaths of wine there be a third part of cheeſe. Goats bloud boiled with this marrow, is ſingular good for the dyſentery or bloudy flix. The liuer of a female goat roſted, is a ſoueraign medicine for the fluxions of the ſtomack, but it were better if the male Goats liuer were taken in drinke after it hath bin ſodden in ſome green and auſtere wine, or with oile of Myrtles reduced into a cataplaſme, and ſo laid to the nauill: ſome ſeeth the ſame in water, from ſix ſextars to one hemine, and put Rue thereto. Others roſt the milt of a goat, male or female (it
F skilleth not) and vſe it for the ſame purpoſe, or elſe they take the ſuet of a buck goat with bread that hath bin baked on the harth vnder the embers. But aboue all they hold, that the ſuet taken from the kidnies of a ſhe goat, & ſo drunk alone by it ſelfe, is a ſingular remedy for theſe infirmities: but they inioin the patient preſently therupon to drink a little cold water. Yet there be others who ordain the ſame ſuet to be boiled in water with fried barly groats, Cumin, Dill, and vineger mixt all together. And they giue order to ſuch as haue the ſtomack flux to anoint their

bellies

bellies with Goats dung ſodden with honey. And for both theſe fluxions, as well from the ſtomack as the vlcer of the guts, they preſcribe the rennet of a Kid to the quantity of a Beane for to be drunk in Myrtle wine: alſo a pudding made of the bloud thereof, which kind of meat we call in Latine * Sanguiculus. Moreouer for the dyſenterie, they ordaine to iniect into the guts by a clyſtre, Buls glue reſolued in hot water. G

*i. a blouding.

For any ventoſities, Calues dung is holden to be ſingular good for to reſolue them, if it be ſodden in wine and the decoction thereof vſed. But if the guts be diſeaſed any waies, the rennet of red Deere is very effectuall, ſodden with Lentils and Beets, and ſo eaten with meat. Likewiſe the aſhes of the haire of an Hare boiled with hony. Alſo to drink Goats milk ſodden with Mallowes and a little ſalt put thereto, is good for the ſaid infirmities: but if the rendles be mixed therewith, the opperation wil be the better. Of the ſame vertue is Goats ſuet, taken in any warm ſupping; with this charge, that the Patient drinke preſently vpon it cold water. Moreouer, it is ſaid, that the aſhes of a kids hanch hath a wonderfull vertue to ſouder the rupture, whereby the guts are ſalne downe. Likewiſe, Hares dung ſodden with hony, and taken euery day to the quantity of a Beane, is a medicine for a rupture, ſo ſoueraigne, that it hath bin knowne to cure them who were paſt all hope of remedy. Much commended alſo is the decoction of a Goats head ſodden, haire and all together. H

The diſeaſe called Teneſmos, which is a deſire to go often to the ſtoole without doing any thing, is cured by drinking of Aſſes and Cowes milke.

All the ſort of worms bred in the guts, the pouder of Harts horn taken in drink, doth expell.

There be, as I ſaid before, certaine bones found among the excrements of a Wolfe, which if they be hanged about the arme, do cure the Collicke; if this regard were had before, that they neuer touched the ground. As for Polea (whereof I made mention before) which is the firſt ordure of an Aſſes ſole, it is ſingular good in that caſe. Likewiſe the pouder of a Sows dung taken in the decoction of Rue ſodden in water, with Cumin, is ſingular for the collicke. Finally, the aſhes of a yong Harts horne while it is new come vp and tender, incorporat with the ſhell fiſhes of Barbary, ſtamped ſhels and all together, and ſo taken in a draught of wine, is highly commended for the paſſion of the cholicke. I

Chap. XV.

¶ *For the dolorous torments of the bladder: for the ſtone and grauell. The remedies for the infirmities of the members of generation, of the fundament and the ſhare.* K

THe vrine of a Bore helpeth thoſe who be tormented with the paine in the bladder, and the ſtone: yea, and the very bladder of the Bore eaten as meat, is ſingular good in that reſpect. Howbeit, if the one and the other were permitted to be confected before in ſmoake, you ſhould ſee a greater operation. Now the ſaid bladder ought to be firſt ſodden & then eaten: and if a woman be troubled with the ſaid griefs, ſhe is to chuſe the bladder of a wild ſow. There be found alſo in the liuers of Swine certain little ſtones, or els hard calloſities like vnto ſtones, and white of colour, ſuch as we may ſee daily in our tame ſwine: which being beaten into pouder and drunk in wine, do expell the ſtone and grauell within our bodies. And verily the Bore feeleth himſelfe ſo far forth charged with his own vrine, that vnleſſe hee be deliuered thereof before, he is not able to flie before the chaſe, but ſuffereth himſelfe to be taken as if he were incloſed and faſt bound within net and toile: and they ſay that his vrine doth burne him within. The kidnies of an Hare kept vntill they be dry, then made into pouder and drunk in wine, doe thruſt forth the ſtone. In the peſtle and gammond both of a ſwine, there be certain ioint whirlbones as I haue ſaid before, which if they be ſodden, do yeeld a broth that is very good for the eaſie paſſage of vrine. Likewiſe, the reins of an Aſſe dried, pulverized, & giuen in pure wine of the grape, do cure the diſeaſes of the bladder. The ſurots or rugged werts in horſe legs & the corns about their houf called Lichenes, drunk either in ſimple wine or meath for the ſpace of 40 daies together, do expel the ſtone and grauell engendred in the body: the aſhes alſo of an horſe houſe, taken in wine or water, is good in that caſe. In like maner Goats dung drunk in honied wine, is ſingular for thoſe accidents; but eſpecially that of the wilde Shamois is much more effectuall. Moreouer, the aſhes of Goats haire is thought to auaile much in theſe diſeaſes. L M

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A As touching the botches and carbuncles which ariſe in the priuie members; the brains and bloud of a Bore or Sow are thought to be proper remedies for them: and ſay there be ſome cankerous or corroding vlcers in thoſe parts, the liuer of a Bore or ſwine burned in a fire made principally of Iuniper wood, together with the Papyr reed and Arſenicke, doth heale the ſame: ſo doth the aſhes of their dung. Or els take a Cow or Oxe gall and Ægyptian Allum, wrought and incorporat together with * Myrrh, to the conſiſtence of honey. Beets alſo ſodden, yea, and their ſleſh boiled in wine and ſo applied as a cataplaſme. In caſe they be running ſores: the ſuet and marrow of a calfe boiled in wine, or Goats tallow tempered with hony and the iuice of the brier, are reputed to be ſoueraign. Now if the ſaid ſores ſpread farther ſtil, it is ſaid, that their dung B incorporat with hony or vineger, doth much good: as alſo butter and nothing els ſimply applied to the grieued place. If the cods do ſwell, the ſuet of a calfe made into a liniment, with ſal-nitre put thereto, keepeth downe the tumour. Of the ſame operation and effect is the dung alſo of a Calfe boiled in vineger.

* Some read *Muria*, i. in pickle or brine.

Such as cannot hold their vrine, but that it paſſeth from them againſt their wills, finde great helpe by eating of a Bores bladder roſted or broiled. And verily the aſhes of a Bores or Sowes cleyes, is ſingular good againſt the involuntary ſhedding of vrine, if a cup or drinke be ſpiced therewith for the patient to take. Likewiſe, the bladder of a Sow burnt and giuen to drink, ſerueth well in this infirmitie: ſo doth the bladder of a kid, or the lungs in that manner vſed. Furthermore, it is ſaid, That the brains of an Hare taken in wine, is ſingular to helpe this infirmity. Semblably, the ſtones of an Hare broiled and eaten, or the rennet in the Hares maw, incorporat C with Gooſe greaſe in Barley groats. The kidnies beſides of an Aſſe, reduced into pouder and drunk in pure wine of the grape. The Magitians haue a deuiſe by themſelues, and they affirme, That for to hold ones vrine, it is paſſing good to drink the aſhes of a Bores pizzle in ſweet wine: but they inſtruct the patient withall, to make water in a dogs kenel, and in ſo doing, to ſay theſe words, *I do this, becauſe I would not piſſe my bed as the dog doth his couch*. Thus much for the incontinency of vrine. Now if one be pent and would gladly void vrine, let him take the bladder of a Swine, ſo that it neuer touched the ground, and apply the ſame to the ſhare, for it will prouoke the water to paſſe.

But to come vnto the diſeaſes of the * ſeat: there is nothing ſo good for them as Bears gall, incorporat together with their greaſe. Some put thereto litharge of ſiluer and Frankincenſe: in D which caſes butter is very good, if with Gooſe greaſe and oile of Roſes it be reduced into a liniment: the conſiſtence or thickeneſſe of which compoſition, muſt be ſuch as the grieued place will admit; namely, that it be gentle and ſmooth, ſo as there be no paine in the anointing. Alſo Buls gal is a ſoueraigne medicine applied therto vpon ſoft lint: for it wil quickly skin the chaps and clefts in the fundament. If that part be ſwelled, the ſuet of a Calfe is very good to anoint it therewith: but if the tumors appeare about the ſhare, then there would be Rue ioined therto: as for other infirmities incident to thoſe parts, nothing better than Goats bloud, tempered with parched Barly meale. In like manner, for the hard knobs in the ſeat called Condylomata, Goats gall by it ſelfe is a ſpeciall remedy: ſo is the gall of a Wolfe tempered in wine and ſo applied.

* That is to ſay, *Piles*, blind hemorrhoids, chaps, fiſſures, and ſwelling biggs.

For the biles and impoſtumes riſing in any place therabout, there is not a better medicine to E ſcatter and diſſolue them, than Bears bloud or Buls bloud, dried firſt and ſo beaten to pouder. But the ſoueraigne remedy of all others, is the ſtone which a wilde Aſſe is ſaid to void with his vrine, at what time as he is killed in chaſe: which ſtone as it commeth firſt forth of his body, ſeemeth very liquid and thin, but being ſhed once vpon the ground it groweth thicke and hard of it ſelfe. This ſtone tied to the twiſt or inward part of the thigh, is ſaid to diſpatch all collection of humors that might ingender biles and botches; or at leaſtwiſe ſo to reſolue them, that they ſhall neuer impoſtumat and come to ſuppuration. This ſtone is very rare and hard to be found, for it is not in euery wild aſſe: but ſurely famous it is and much ſpoken of by reaſon of this medicinable property that it hath. Moreouer, the vrin of an Aſſe together with Nigella, otherwiſe F called Gith, is ſingular good in theſe caſes. Likewiſe a liniment made with the aſhes of an horſe houſe incorporat together with oile and water: ſo is the bloud of any horſe, but eſpecially of a ſtallion: the bloud alſo and gal of a Cow or Oxe. Their fleſh moreouer, which we cal bœuf, hath the ſame effect, if it be laid warme vnto the place. The aſhes alſo of their cleies tempered with water and hony. The vrine of ſhe Goats; the fleſh of the male Goats boiled in water. In like maner their dung ſodden with hony. Bears gall or the gall of a bore: laſt of all, the vrine of a Sow

applied

applied vnto the place with wooll. As touching the galls, which by ouermuch riding on horſe- G
back be incident to the twiſt and the inner parts of the thigh, as euery man knoweth full well, which do burne and chaufe the skin in thoſe parts; the fomie ſlime which a horſe yeeldeth, as well from his mouth as his cullions, is ſoueraigne therefore, if the place be annointed therwith.

It falleth out many times that there ariſe ſwellings in the very ſhare and groine, by occaſion of ſome ſores or vlcers in other parts of the body; for the repreſſing of which, there is a preſent remedy, namely, to take three horſe hairs, and to tie them in as many knots, and ſo conuey them into the ſaid vlcer which is the cauſe of ſuch tumors.

Chap. XVI.

¶ *Proper remedies for the gout: the falling ſickneſſe: for ſuch as be taken or ſtrucken with a Pla-* H
net or dead palſie: for the laundiſe, and fractures of bones.

A Cerot made of Beares greaſe, Buls tallow, and wax, of each an equall quantity, is ſingular good for the gout in the feet. And yet ſome there be who adde vnto them Hypoquiſtis and gall nuts. Others preferre a male Goats tallow, together with the dung of a female goat, Saffron, or Muſtard ſeed; and the branches of Yvie ſtamped with Parietary alſo of the wall; or els the floures of the wilde Cucumber, reduced all into the forme of a cataplaſme and ſo applied. In like manner, others vſe a pulteſſe made of beaſts dung & the mother of vineger tempered together. Some magnifie & highly commend in this caſe the dung of a calfe, which hath not as yet taſted of graſſe, or Buls bloud alone without any other thing: likewiſe a wolfe ſodden I
quicke till all the fleſh be gon and nothing but bones remaining: or els a liue Wolfe ſodden in oile til the ſaid oile be gellied to the height or conſiſtence of a cerot. Semblably, there is good account made of the tallow of a hee goat, with as much Parietary of the wall, and a third part of Senvy: as alſo of the aſhes of Goats dung incorporat with hogs greaſe: moreouer, it is ſaid, that the beſt thing that the patient can do for to haue eaſe of the Sciatica, is to endure the ſaid dung as hot as poſſibly he can, vnder his great toes, till it be ready to burne them. For all other joint-gouts as well in feet as hands or elſewhere, the gall of a Beare is a ſoueraigne medicin: as alſo a Hares foot bound faſt to the place affected. And ſome are of this opinion, that the gout of the feet will be aſſuaged, in caſe a man cut off the foot of a quick hare, & carrie it about him continually. As touching kibes, bears greaſe cureth them: ſo it healeth alſo the chaps in the feet: but K
more effectual it is, in caſe there be allum put therto: for which purpoſe Goats ſuet is commended: the pouder alſo of horſe teeth: the gall of a bore or ſow: the lights likewiſe of a ſwine, together with the fat laid to the place. Now if the feet be ſurbatted, galled, and bruiſed in the ſole by treading or ſtumbling againſt that which offendeth them, the ſame medicines be very good: but ſay they are benummed and frozen with cold, the aſhes of Hares haire bringeth them into order again. The lungs alſo of an Hare ſlit and skiced & ſo laid too, is good for any bruiſe or contuſion in the feet; or the aſhes of the ſaid lungs applied thereto. Contrariwiſe, if they be ſcorched and burnt with the heat of the ſun, they find a moſt ſoueraign cure by the greaſe of an aſſe: likewiſe by bœufe tallow & oile of roſes mixed together. The corns, agnels, chaps, & calloſities of the feet, the freſh dung of a bore or ſow doth heal, if it be applied therto in form of a cataplaſm, L
and not remoued before the third day. Of the like efficacy are the aſhes of a ſwines ankle bones, the lungs of a bore or ſow, or of a ſtag. If one haue galled his feet by the fretting & ſtubbornnes of hard ſhoes, the vrin of an aſſe together with the mire that is made of the ſame vrine vpon the ground, doth heal if it be applied to the place: the corns or agnels find much eaſe by bœufe ſuet & the pouder of frankincenſe reduced into a liniment. But kibed heels are beſt healed with the aſhes of lether burnt, eſpecially if it were an old ſhoe. Again, if the feet haue bin wronged by ſtrait ſhoes, take the aſhes of a goats skin tempered with oile. As for the painfull ſwelled veins, named in Latin Varices, there is a ſoueraign cataplaſm to aſſuage their griefe, made with the aſhes of calues dung boiled with lilly roots, & a little hony put therto: the ſame is ſingular for al impoſtumat inflammations that tend to ſuppuration. This medicin is good alſo for the gout in M
the feet, & for all diſeaſes of the ioints, if ſo be the ſaid dung came from an ox calf. The ioints if they haue gotten a ſprein by any ruſh, find remedy by the dung of bore or ſow, if it be laid to hot in a linnen cloth. The dung alſo of a calf that yet ſucks & neuer did eat graſſe, hath the ſame effect: euen as goats dung boild with hony in vineger: the raggednes of nails haue a proper remedy

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A of calues dung, of goats treddles likewiſe, if there be red Arſnick or Orpinent mixed therwith.

As touching werts, there is not a better thing to take them away than the aſhes of Calues dung tempered with vineger, or the durt that is made by the vrine of an Aſſe.

For thoſe that be ſubiect to the falling euill, it is ſingular good to eat the genetoirs of a bear, or to drinke the ſtones of a Bore either out of Mares milk or plain water: alſo the vrine of a bore mingled with oxymell. But more effectuall in operation is that vrin which hath bin ſuffered to dry as it lieth in the own bladder. The ſtones likewiſe of a ſow which are taken from her when ſhe is ſplaied, if they be kept vntill they be dried, and ſo brought into pouder, are excellent in this caſe taken in the milk of a ſow, with this charge, that the patient abſtain from wine for certain daies together, both before and after the receiuing of this medicine. For this infirmity alſo

B they vſe to giue the lungs of a hare poudred or kept in ſalt, with a third part of frankencenſe in white wine for 30 daies together. Alſo the rennet or cruds found in the maw. The braines of an Aſſe firſt dried in the ſmoke * within certain leaues, drunk to the weight of half an ounce euery day in honied water; or the aſhes of the ſaid beaſts houſe, taken to the quantity of 2 ſpoonfulls daily for a months ſpace, are appropriat medicines for this malady. In like manner, their ſtones preſerued dry and reduced into pouder, ſerue to ſpice their drink, whether it be the milk of Aſſes (which is the beſt) or ſhere water: the pellicle wherein the yong fole was lapped in the dams womb, ſpecially if it were a male that was foled, is of great force to withſtand this diſeaſe, if the patient do but ſmell thereto when the fit is comming. Some giue counſell to eat the heart of a black he aſſe, together with bread: but in any wiſe it muſt be done abroad in the open aire, and

C when the moon is but one or two days old at the moſt. Others preſcribe to eat the fleſh; & there be againe who aduiſe to drink their bloud dilaied with water for 40 daies together. Some take horſe ſtale, mingling it with ſmiths water freſh out of the forge for the ſaid purpoſe: & with the ſaid drink cure thoſe that be lunatick & mad at certain ſeaſons. Mares milk is ordinarily giuen with good ſucceſſe to thoſe that be troubled with the falling euill: ſo are the rugged * werts growing vpon horſe legs to be drunk in oxymel. And to this effect the Magitians would haue a diſh of meat made with goats fleſh roſted againſt a funeral fire, where ſome dead corps is burnt: who ordain beſides their tallow and buls gall, of each an equall weight, to be ſodden, and then to be put vp again into the bladder or burſe of the ſaid gall, that it touch not the ground in any caſe; and being thus prepared, the patient forſooth muſt drink it in water ſtanding vpon the dore

D ſill, and vnder the very lintell thereof. Now, if you would know whether a man be ſubiect to this ſicknes or no, do but burn before him either a Goats or Stagges horne, the very ſmoke or fume thereof will bring the fit vpon him, if he be tainted therewith.

Concerning thoſe that be ſuddenly taken with a dead palſie of the one ſide of their body, it is ſaid that the vrin of an Aſſe-fole incorporat with Spikenard into the form of a liniment, is very good for them, if the inunction therewith be vſed.

For the jaundiſe, Harts horn burnt and reduced into aſhes, is a very proper medicine: ſo is the bloud of an aſſe fole drunk in wine. Likewiſe the * dung of an aſſes fole which came firſt from it after it was foled, giuen to the quantity of a bean in a draught of wine, cureth the iaundiſe within three daies. The ſame operation and effect there is in the firſt ordure that a colt maketh after

E it is come into the world.

If any bone be broken or bruſed, there is not a more preſent remedy than the aſhes of a cheek either of a wild bore or tame ſwine. In like maner, their lard ſodden & tied round about the broken bone, doth conſolidat and ſouder it again wondrous ſoon. And verily if there be any ribs in the ſide broken, the ſoueraigne and only remedy commended, is goats dung tempered with old wine, for it openeth, draweth, and healeth the fracture throughly.

As touching feuers, the feeding vpon the veniſon of red Deere driueth them all away, as I haue before ſhewed: but more particularly, if it be any of theſe Typicke and Periodicall agues, which be intermittent and return by fits, there is not a better thing, if we may beleeue Magitians, than to take the right eie of a wolfe, ſalt it, and ſo tie it about the necke or hang it faſt to any

F part of the patient. Of theſe feuers, there is one called a quotidian, which the Greeks name Amphemerinos; & from it (by their ſaying) a man ſhal be throughly rid, in caſe he let an aſſe bloud in the eare vein, and drink three drops thereof iuſt in 3 hemines of water. But againſt the Quartan ague, the Magitians giue order to weare about the neck or hanging to the arme cats dung, together with the claw or toe of a * ſeriche Owle, but ſo as they may not fall off nor be remoued

* *In ſolis*: ſome reade *ſoiis*, i. in the baines or ſtouues.

* *Lichenes*: ſome take them for the Malanders

* Called before *Volea*.

* *Bubonis*

moued before ſeuen fits be paſt. Now tell me(I pray you) what was he that could find out this G
ſecret firſt? Gladly would I learne what reaſon there is in this mixture, and why an owles claw or toe was choſen aboue all other for this purpoſe? Certes, there be ſome of them yet more modeſt than their fellows: and they haue giuen out, That the liuer of a Cat killed in the wane of the Moone, laid vp in pouder with ſalt, is to be giuen in a draught of wine a little before the acceſſe or fit of a Quartan. And theſe magitians haue yet another prety receit againſt ſuch agues: for they take the aſhes of a Cow or Oxe mucke, and ſprinkle it wel with the vrin of a yong boy; wherewith they annoint the toes of the patient: but to his hands or arms they bind the heart of an Hare; which done, they ordain alſo to giue him before the fit, the Hares rennet in a draught of drinke. To conclude, they ſay, that a freſh greene cheeſe made of Goats milke, out of which the whey hath bin well preſſed, is ſingular to be giuen in hony. H

Chap. XVII.

¶ *Proper remedies againſt the trouble of the braine by reaſon of Melancholy; againſt the lethargie, dropſie, ſhingles, and S.* Anthonies *fire. Alſo for the paine of the ſinewes.*

THe dung of a Calfe ſodden in wine, is an excellent remedy for thoſe who are giuen to melancholy. For to raiſe and awaken them that are in a lethargie, there is not a bettter thing than the rough werts growing vpon an Aſſes leg, if the ſame be tempered with vineger into a liniment, and the noſthrils anointed therewith: alſo the perfume of the horne or haires of a I
Goat: yea, and a bores liuer: which is the cauſe that it is giuen ordinarily to thoſe that haue the drowſie diſeaſe, and be alwaies ſleepie.

For the phthyſick, the liuer of a wolfe ſodden in wine is very good: likewiſe the lard of a lean running ſow feeding only vpon graſſe: as alſo Aſſe fleſh ſodden and eaten with the broth: and verily in Achaia this is the principall courſe they take for the cure of that diſeaſe. Moreouer, it is ſaid, that to receiue through a pipe or reed the ſmoke of the dry dung made by Cow or Oxe lying forth and feeding only vpon green graſſe, is very wholſome for thoſe that haue the phthiſick or conſumption of the lungs. Alſo there be who calcine the tips of Bœufs horns, & taking the meaſure of two ſpoonfuls of the aſhes, incorporat the ſame with hony, make it vp into pills, and ſo ſwallow them down for the ſaid malady. Many there are who affirm, That the phthyſicke K
and cough be cured by eating a kind of pottage made with Frumenty corne and goats ſuet: and they hold opinion, That the ſaid ſuet taken freſh and ſweet and ſo diſſolued in mead; with this proportion, that to euery cyath of the mead there be put an ounce of ſuet, and that order be taken to mingle them throughly well, with a branch or ſprig of Rue among, is a ſoueraigne medicine for thoſe infirmities. There is one writer of good credit & authority, who vpon his certain knowledge doth auouch, That there was one ſo far gone in a phthyſicke, that he was giuen ouer by the Phyſitians, & yet he recouered by drinking the ſuet of a Shamois or wild goat, together with milk, of each one cyath at a time. Others ſay, that much good hath bin found by drinking in ſweet cuit, the aſhes of ſwines dung, as alſo by the lungs of a red Deer, eſpecially the Spitter of that kind, dried in the ſmoke, reduced into pouder and ſo drunke in wine. L

In caſe of the dropſie, the vrin of a Bore found in his bladder giuen to the patient in drink by little and little, helpeth very much: but of greater efficacy it is, if the ſame be permitted to drie within the bladder. Furthermore, the aſhes of Harts dung, & namely of that Deer which is called the Spitter: as alſo of Neats dung, ſuch I mean as go abroad and feed with the heard (& that they call by a peculiar name * Bolbiton) is a ſoueraigne remedy for the dropſie. Mary, if the patient be a woman, there muſt be choiſe made of cow dung; but if a man, the dung of the other ſex is to be taken: and this I may tel you is ſuch a ſecret myſtery, that the Magitians would not haue to be reuealed & made known. Many other medicines there be for the dropſie, to wit, the dung of a Bull calfe vſed in a liniment: the aſhes of a calues dung drunk in wine, with an equall quantity of the wild parſnep ſeed: goats bloud together with the marrow, eaten with meat: it is M
thought that this bloud will worke the better, if it be taken from the male Goats; prouided alwaies, that they feed vpon the Lentisk tree, and then no doubt it will do the deed ſurely.

* i. Sherne.

As touching S. *Anthonies* fire, the ſhingles, &c. the meanes to quench the ſame, is to annoint the place with Bears greaſe, and eſpecially the fat that is found about the kidnies: alſo with the

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A greene dung of a calfe,cow,or oxe. Some vſe hard cheeſe made of goats milke and porret together: alſo the fine ſcrapings of a ſtags skin fetcht off with a pumiſh ſtone & brought into pouder,and ſo applied with vineger. For the redneſſe of the skin with much itching, the ſome of an horſe mouth,or the aſhes of his houſe,is a ſingular medicine. If there be any wheals or ſmall pox proceeding of fleam,do annoy the skin,no better thing than a liniment made of aſſe-dung aſhes incorporat in butyr: ſay theſe wheals or pimples appear blackiſh and ſwert by reaſon of melancholy,dry cheeſe made of goats milk brought into an ointment with hony and vineger, is good to rub the body withall in a bain or hot houſe,without any vſe of oile at all. For bliſters and angry meazils,the aſhes of ſwines dung are thought to be very meet:as alſo the aſhes of harts horn, ſo that the place be rubbed with them and water together. If there be any diſlocation or bone
B out of ioint,the green dung of a bore or ſow is good to be applied:ſo is that of a calfe: the ſome frothing from a bore,laid to the place with vineger:and goats dung with hony.

There is not a better thing to bring down any ſwelling,than a cataplaſm of raw beefe:and as for any hard tumors,ſwines dung made hot and dried in an earthen pot-ſheard,or vpon a tile, is excellent to diſcuſſe and reſolue them:the greaſe of a wolfe is exceeding good to break any impoſtumation that is grown to ripeneſſe: ſo is neats dung made hot vnder the embers: or goats treddles ſodden in wine or vineger:as touching fellons & ſuch like apoſtumations,bœuf tallow with ſalt is much commended for to reſolue them:& if the place be much pained,it were good to dip the ſaid tallow in oile,and to melt the ſame without any ſalt: and in like manner is goats
C ſeuet to be vſed. For a burn or ſcald,there is a proper ſalue made of bears greaſe and lilly roots: for which purpoſe,the dung of bore or ſow that hath bin long kept,is very good:ſo is the aſhes of their briſtles (ſuch as pargettars whiting bruſhes be made of) wrought and incorporate with greaſe:alſo the aſhes of a beaſts ankle or paſtern bone tempered with wax and the marow either of a deere or bul:like as the dung of an hare. And verily,goats treddles are ſo accommodate to this cure,that (by report) they will heal a burn without any skar at all. The moſt excellent glew is made of the ears and pizzles of buls:and there is not a better thing in the world than it,for to heal any place burnt or ſcalded;but nothing is ſo much ſophiſticate, what with other old skins and hides,and what with old ſhoes and ſuch like lether,boiled again and made into glew. The moſt faſt and ſtrongeſt glue which a man may truſt vnto,is made at Rhodes,and that is it,which
D painters & phyſitians moſt vſe:the whiter that the ſame is,the better is it eſteemed:that which looketh black,and is hard withall and brittle like wood,is reiected.

It is thought,that for the pain of the ſinewes,goats dung boiled in wine with honey is ſoueraigne,yea though a nerue began to putrifie: convulſions,crampes,and ſpreines of nerues vpon ſome violent ſtroke,are cured with bores dung gatherd in the ſpring & ſo dried. After the ſame manner,ſuch as be ouerſtrained and plucked with the draught of any charriot,or wounded with the wheels going ouer them;and generally,how ſoeuer the bloud be ſetled black vnder the skin by contuſion or bruiſe,if the places be anointed with the ſaid dung, though it were greene and freſh,much eaſe and help inſueth therupon:howbeit,ſome think that it were better to ſeeth the dung firſt in vineger:and others reduce the ſame being drie into pouder,and promiſe them that
E be either burſten,wounded and bruiſed inwardly,or haue bin ouerthrown and faln from on high if they drink it in vineger,that they ſhall haue help thereby. But the better, and thoſe that loue not to make the greateſt boaſt of their medicines,vſe the aſhes thereof with water. And verily it is ſaid,that the Emperor *Nero* was wont in this kind of drink to take great pleaſure, and with it to refreſh himſelfe,when his purpoſe was by that means to win a name,and approue himſelfe a doubtie wight,in running with coaches in the great cirque or ſhew place. To conclude, next to the dung of a bore, is commended that of a ſow or any other hog, and thought to be in a ſecond place of operation.

Chap. XVIII.

F ¶ *Medicines to ſtanch bloud: to heale vlcers,cancerous ſores,and the wild ſcab: alſo what medicines they be that draw thorns,pricks,or whatſoeuer ſticketh within the fleſh. Finally,proper receits to cicatrize and skin a wound or ſore.*

THe rennet of any Deere or a Hare, vſed in vineger, ſtancheth bloud. The aſhes alſo of the haire of an hare: likewiſe of Aſſes dung: yea and the very aſhes of their haire made into a liniment with any conuenient liquor,hath the ſame effect:but if you would haue it work

more effectually, chuſe theſe excrements of the male aſſe, mix the ſame with vineger, and apply G
it with wooll; for it will ſtay any flux of bloud whatſoeuer: likewiſe if it be of the haire which
is curried from the horſehead or buttock when he is dreſſed: or els the aſhes of calues dung tem-
pered with vineger, and ſo applied vnto the place. In like manner the aſhes of the goats horn or
dung, with vineger: and yet the bloud that iſſueth out of a buck-goats liuer when it is ſliced and
cut in ſunder, is more effectuall: but the aſhes of them both, as wel the male, as female; the liuer
and the bloud drunke in wine, or applied vnto the noſthrils with vineger, is of vertue to ſtaunch
bloud. Moreouer, the aſhes only of a leather wine bottle made of a male goats skin, mixed with
an equall quantity of roſin, doth not only ſtop an iſſue of bloud, but alſo conglutinat and heale
a wound. Furthermore, the rennet of young kids, with vineger; the aſhes alſo of their haunches
burnt, is thought to haue like operation in ſtanching of bloud. If there be any vlcers vpon the H
ſhins or any part of leg & thigh; bears greaſe & red oker incorporat together into a ſalue, doth
heale the ſame: but in caſe the ſaid ſores be corroſiue and eat farther, the gal of a bore with roſin
and ceruſe, cureth the ſame: ſo doth the aſhes of a bores or ſows cheek: likewiſe ſwines dung dri-
ed and applied to the grieued place: as alſo goats treddles warmed well ouer the fire with vine-
ger, and laid too accordingly. But for to mundifie and incarnat all other ſores, they vſe butter;
the aſhes of a ſtags horn, or the marow of red deere; buls gall likewiſe with the oile of the plant
Cypros; or els the dung of a goat, male or femal it skils not whether. If there be a wound made
by ſword or edged weapon, there is good means to heal it with the freſh dung of ſwine, or els the
pouder thereof being long kept and dried, if the place be dreſſed therewith. In caſe there be an
vlcer that eateth deep to the very bone, or an hollow fiſtula, it is good to iniect into it with a ſy- I
ringe, a buls gall, with the juice of leeks or breſt milk: or els to dreſſe the ſame with the pouder
of his bloud dried, incorporat with the herb called Vmbilicus Veneris. Is the ſame cancerous?
the rennet of a leueret with the herb Capers, taken of ech a like quantity, & ſprinkled with wine
doth cure it. If it grow to mortification & proue a gangrene, it is good to anoint the place with
bears gall, with a feather. As for corroding vlcers which ſpread ſtill farther, no better thing to
repreſſe them, than to ſtrew vpon them the aſhes of an aſſe-hoofe. The bloud of an horſe is cor-
roſiue, by vertue whereof it doth eat away and conſume the excreſcence of proud fleſh; ſo doth
the cinders of old horſe dung burnt: as for thoſe kind of fretting cankers which the Greeks call
Phagedænæ, the aſhes of a bœufe hide mingled with hony, doth cure and heale perfectly. The
application of raw veale vnto a green wound, keepeth it from ſwelling: and a cataplaſm of beaſts K
dung and hony together, doth the like. But ſay the vlcers be maligne and filthy morimals, ſuch
as the Greeks call Cacoëthe, the aſhes of a leg of veale incorporat with womans milk, do heale
vp cleane. Freſh wounds occaſioned by ſword or edged weapon, buls glue diſſolued or melted, &
ſo applied, doth cure very wel, ſo it be not remoued vntil the third day. If a ſore need to be clen-
ſed, dry cheeſe made of goats milk, tempered with vineger & hony, is a ſingular mundificatiue.
An vlcer giuen to go farther, and to eat as it goeth, is repreſſed by applying tallow thereto and
wax incorporat together: put to it pitch and ſulphur, it will heale and skin the ſame throughly.
In like manner, for the vnto vard morimals beforeſaid, which they call Cacoëthe, it is very good
to lay a pultus made with the aſhes of a kids leg and breſt-milke. As for carbuncles, take the
brains of a tame ſow, roſt the ſame and apply it vnto the ſores, it is a ſoueraigne remedy. Tou- L
ching the ſcabs that men be ſubiect vnto, there is not the like medicine for killing the ſame, to
the marow of an aſſe: & a liniment made with the vrin of the ſaid beaſt together with the earth
vpon which he hath ſtaled. Butyr likewiſe is very good in that caſe, as alſo for the farcins, ſullan-
ders, and mallanders in horſes, if it be applied thereto with roſin made hot: ſo is ſtrong buls glue
diſſolued in vineger, with quick lime put thereto: alſo goats gall tempered with the aſhes of a-
lume calcined. For the red bliſters and meazils likewiſe, there is not a better medicine than the
dung of a cow or oxe; and therupon they tooke the name of Boæ. The mange in dogs, is healed
with beaſts bloud, ſo they be bathed therewith whiles it is freſh and warm; and after the ſame is
dried vpon the body, to follow it a ſecond time the ſame day: & the morrow after to waſh them M
throughly with lie made of ſtrong aſhes.

If rhorns, ſpills, bones, and ſuch like things haue gotten into the fleſh and there ſticke, cars
durg is very good to draw the ſame forth: likewiſe the treddles of a goat with wine. Any rendles
alſo, but eſpecially that which is found in an hares maw, ſerue in that caſe, reduced into a ſalue,
with the pouder of frankincenſe and oile; or elſe with the like quantity of birdlime, or the ce-

reous

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A reous matter in the Bee-hiue called Propolis.

Furthermore, the greaſe of an aſſe is ſingular to reduce any ſwert ſploches and black skars to a freſh and natiue colour; which, if they ouergrow the skin about them, are brought downe and made more euen and ſubtill, by an inunction of calues gall: but the Phyſitians prepare the ſayd gall with an addition of myrrh, hony, and ſafron, and then put it vp in a braſen box for their vſe: yet ſome there be, who mingle with the reſt verdegris or the ruſt of braſſe.

CHAP. XIX.

¶ *Receits appropriat to the maladies of women, and the diſeaſes of ſucking babes: alſo remedies for them that are vnable to performe the act of generation.*

B TO begin with the naturall courſe of womens purgation: the gall of a bul or oxe, applied to their ſecret parts in vnwaſhed greaſie wooll, is very effectuall to bring the ſame down. The skilfull midwife of Thebes, *Olympias*, vſed to put thereto * hyſſope and ſal-nitre. For this purpoſe, harts horne burnt to aſhes is very good to be taken in drinke. But if the matrice be out of order and vnſetled, it is not amiſſe to apply the ſame aſhes vnto the naturall parts: yea and buls gall together with * Opium to the weigh of two oboli; or elſe perfume their ſecret parts with a ſuffumigation of deers hair. Moreouer, it is ſaid, that the hinds when they perceiue themſelues to be in calf, ſwallow down a little ſtone; which is ſingular good for women with child to C carry about them, that they may go out their full time: and therefore much ſeeking there is after this ſtone, which is commonly found among their excrements at ſuch a time; or elſe in their womb, if haply they be killed with calfe, for then it is to be had there alſo. Moreouer, there are found certain little bones in the heart and matrice of an hinde, and thoſe bee paſſing good for great bellied women, and ſuch as be in trauel of child-birth. As for that ſtony ſubſtance reſembling a pumiſh, which in like manner is found in the wombe of kine, I haue ſpoken already in my diſcourſe or Kine, and their nature. If the matrice of a woman be growne hard, and haue a ſcirrhe in it, the fat of a wolfe will mollifie it: if it be grieued with paine, the liuer of a wolfe aſſuageth the ſame. When women be neare their time, and ready to cry out, it is good for them to eat wolues fleſh: or if when they fall firſt to trauell, there be but one by them who hath eaten D therof: & this is ſuch an effectuall thing, that if they were foreſpoken, or indirectly dealt withall by ſorcery & witchcraft, this is thought to eaſe them of paine, and procure them ſpeedy deliuerance. But in caſe ſuch a one as hath eaten wolues fleſh, chance to come into the chamber when a woman is in the mids of their trauell, ſhe ſhall ſurely haue a hard bargaine, and die of it. Moreouer, great vſe there is of the hare in all womens infirmities; for the lungs of an hare dried, made into pouder, and taken in drinke, is comfortable to the matrice, and helpeth it in many accidents thereof: the liuer drunk with Samian earth in water, ſtaieth the exceſſiue flux of their fleurs: the rennet of their maw fetcheth away the after-birth when it ſtaieth behind; but then in any wiſe the woman muſt not bathe or ſweat in bain theday before: the ſame rennet appliedas a cataplaſme vpon a quilt of wooll, with Safron & the juice of porret, forceth the dead infant E within the mothers wombe to come forth. Many are of opinion, that if a woman eat with her meat the matrice of an hare, ſhe ſhall thereupon conceiue a man child if ſhe company with her husband. And ſome ſay, that the genetoirs of the male hare, yea & the rendles, are good for that purpoſe. And it is thought, that if a woman who hath giuen ouer bearing children, doe eat the young leueret taken forth of the dams belly when ſhe is newly bagd, ſhe wil find the way again to conceiue & breed freſhly as before: but the magitians do preſcribe the husband alſo to drink the bloud of an hare, for ſo (ſay they) he ſhall ſooner get his wife with child. And they affirme moreouer, that if a maiden be deſirous her breſts or paps ſhould not grow any more, but ſtand alwaies at one ſtay, knit vp round and ſmall, ſhe is to drink 9 treddles or grains of hares dung: and for the ſame intent, they aduiſe a virgin to rub her boſom with a hares rennet & hony together: F alſo to anoint the place with hares bloud, where the haire is plucked off, if they be deſirous that it ſhould not grow again. As touching the ventoſities and inflation of the matrice, it is good to vſe thereto a liniment made of bores or ſwines dung, incorporat with oile: but in this diſeaſe, it were better for to repreſſe the ſaid windines & flatuoſity, to ſpice a cup with the pouder of the ſame dung dried, & giue it to the woman to drink; for whether ſhe be vexed with wrings whiles

* *Hyſſopum*, ſome read *Oeſypum*, which the Apothecaries call *Hyſſopus humida*: & is nothng els but the greaſy filth & ſweat tried out of the wool growingin ſheeps flanks.

* *Opio*, ſome read *Apio*, i Perſley.

ſhe is with child, or pained with afterthrows in childbed, ſhe ſhall find much eaſe by that poti- G
on. Furthermore it is ſaid, that ſows milk giuen with honied wine to a woman that is in labour, helps her to ſpeedy deliuerance. Let a woman newly brought to bed drink the ſame milk alone ſhe will proue a good milch nource, and haue her breſts ſtrut with milke: but let her breaſts be annointed al ouer with the bloud of a ſow, they will grow the leſſe by that means. If the paps do ake and put the woman to paine, a draught of aſſes milke aſſuageth that griefe: put thereto a quantitie of hony, it will bring down the deſired purgation of a woman. The greace of the ſame beaſt, which hath beene tried and long kept, healeth the exulceration of the matrice: and being applied to the natural parts with a lock of wool in forme of a peſſarie or otherwiſe, it mollifieth the hardnes of that place. The ſame freſh, or long kept (it makes no matter whether) is depilatorie; for look what part is annointed with it & water together, the haire wil come no more there. H
The milt of an aſſe kept vntil it be dry, and tempered with water into a liniment for the breaſts, cauſeth them to grow, and bringeth ſtore of milke into them: and if the matrice be vnſetled and turned aſide any way out of order, it reduceth it into the place again. If a woman ſet ouer a ſuffumigation of an aſſes houſe, and receiue the fume vp into her body, ſhe ſhall haue quick ſpeed of childbirth; for ſo ſtrong it is, that it wil cauſe abortion and put her to a ſlip before the time: and therefore it is not to be vſed vnleſſe a woman haue gone her full time, or that the child be dead in her wombe; for ſurely it is able to kill the child within her body, without great heed and careful regard. Alſo it is ſaid, that the dung of this beaſt, if it be applied freſh & green, is of wonderfull operation to ſtop the extraordinarie flux of bloud in women: ſo is the aſhes of the ſame dung, which being laid vnto their naturall parts, is a ſoueraigne remedy for the accidents therto I
belonging. Moreouer, take the ſome or froth of an horſe mouth, and let the place be annointed
* Some read, fortic. therewith for * twenty daies together, either before the haire do come, or when it beginneth to ſpurt, it will keepe them for euer being vndergrown: of the ſame operation is the decoction of a harts horne; but it will do the feat the better, in caſe the ſaid horne be new and green. If the matrice be ſyringed and waſhed with mares milke, it will find much comfort and eaſe thereby. If a woman perceiue the infant to be dead in her body, let her take the powder of the rugged werts vpon a horſe leg, call Lichenes, in freſh water, it will exclude the ſaid dead fruit of the wombe: the perfume alſo of the houſe will do as much, or the dung dried. If the matrice be falne or ſlipt out of the body, an injection of butter by the metrenchyte, ſtaieth the ſame and keepeth it vp. If
there be any hardnes grown in that part, whereby it is ſtopped, a beaſts gall mingled with oyle K
of roſes & turpentine, and ſo applied outwardly in a lock of wool, openeth the ſaid obſtruction.
It is ſaid alſo, that a ſuffumigation made of ox dung, ſtaieth the matrice vp when it is readie to fall, yea and helpeth a woman in labour to ſpeady childbirth: but if ſhe vſe to drink cows milk, ſhe ſhal be the better diſpoſed & prepared to conceiue with child. Moreouer, this is a thing for certain known, that there is nothing bringeth a woman ſooner to barrennes, than hard trauaile in childbearing. But to preuent this inconuenience, *Olympias* the expert midwife of Thebes, affirmeth, that there is nothing better than to annoint the naturall parts of a woman with ox gall, incorporat in the fat of ſerpents, verdegrece, and hony mixed therwith, before that ſhe medleth with a man in the act of generation. Likewiſe, if a woman which is giuen to haue thoſe naturall
parts ouer-moiſt and ſlippery, by reaſon of humours purging immoderately that way, do apply L
vnto the neck of the matrice a calues gall, a little before ſhe mind to admit the carnal company of a man, ſhe will be the more apt to conceiue: and in very truth, the inunction therewith doth mollifie the hardneſſe of the bellie; repreſſeth outragious fluxions, if the nauell be annointed therwith: and in one word, is good euery way for the matrice. Howbeit in the vſe of this gal, they ordain a proportion, to wit, that to euery denier weight of the ſame, there be put a third part of
* *Apÿ*, ſome read *Opÿ*, *i.* the iuice of poppy. * perſly ſeed, with as much of the oile of almonds as is thought ſufficient to incorporat them into a liniment; and this they put vp with wooll in manner of a peſſarie. The gall of an ox calfe tempered with halfe as much hony, is a medicine ordinarily kept in readines for the diſeaſes of the matrice. Some make great account of veale, and doe promiſe, that if women about the time that they conceiue doe eat it with the root of Ariſtolochia, *i.* Birthwort, they ſhall bring forth M
boies. As for the marow of a calfe, ſodden in wine & water together with the ſuet, & ſo conveied vp in a peſſary, healeth the exulceration of the matrice. So doth fox greace & the dung of cats; but this ought to be applied with roſin and oile roſat. It is thought, that there is not ſo good a thing for the matrice, as to ſit ouer a ſuffumigation made of goats horn. The bloud of the wild goat

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A goat or ſhamois tempered with the * ſea-ball, ſerueth to take away haires: but the gall of other goats that be tame, mollifieth the callositie in the matrice, if a peſſarie be ſtrewed withall, and cauſeth a woman to be meet for conception, if ſhee vſe it preſently vpon the purgation of her monethly terms. Alſo the ſame hath a depilatory vertue, if a liniment be made therewith, and vſed to the place where the haire is plucked forth already, and kept thereto three daies together. Furthermore, our midwiues do warrant, that if a woman drink goats vrine, it will ſtop all fluxes of bloud be they neuer ſo immoderat, ſo ſhee apply alſo outwardly the dung of the ſaid beaſt. The pellicle or glean wherein a kid was infolded within the dams wombe, kept vntill it be drie, and drunk in wine, putteth forth the after-birth in women. And they are of this opinion, that a ſuffumigation of kids haire, is very good to cauſe the matrice to return when it was falne down:

B alſo, that to drink their rennet, or to apply outwardly henbane ſeed, is ſingular for to ſtay any iſſue of bloud. *Oſthanes* ſaith, that if the loins or ſmall of a womans backe, be annointed with the bloud of a tike taken from a blacke Bull or Cow that is of a wilde kinde, it will put her out of al fanſies of venereous ſports. He affirmeth moreouer, that if ſhe drink the vrin of a male goat, with ſome ſpikenard among to take away the lothſome taſt thereof, ſhe will forget all loue that ſhe bare to any man before.

To come now vnto little infants: there is not a more proper thing for them than butyr, either alone by it ſelfe, or with hony: and to ſpeak more particularly, it helpeth them when they breed teeth, or haue their gums ſore, or mouth exulcerat. If there be hung about the neck of a little infant, the tooth of a wolfe, it keepeth them from ſtarting or skriching in their ſleep for feare, and

C allaieth the pain which they feele in toothing: the ſame doth alſo a wolues skin. And verily the great maſter teeth and grinders of a wolfe, beeing hanged about an horſe necke, cauſe him that he ſhall neuer tire and be weary, be he put to neuer ſo much running in any race whatſoeuer. Let a nurce anoint her breſt with the rennet of an hare, the babe that ſhe giueth ſucke vnto ſhall by that means be knit in the belly and not be troubled with the laske. The liuer of an Aſſe with a little of the herb Panax mingled withal, dropped into the mouth of an infant, preſerueth it from the falling ſicknes and other dangerous diſeaſes; but this (they ſay) muſt be don for forty daies together. If a child be lapped in a mantle or bearing-cloth made of an aſſe skin, it ſhall not be affrighted at any thing. The colts teeth that firſt fall from an horſe-fole, if they be hung about yong childrens necks, eaſe them much of the pain that they haue in breeding teeth: but more ef-

D fectuall they be, in caſe they neuer touched the ground. The milt of a bœuſe eaten with honey, and the ſame reduced to a liniment and applied accordingly, is good for the pain of the ſpleen: put hony thereto, it healeth the running skals that trouble children. The milt of a calfe ſodden in wine, ſtamped and brought into a liniment, healeth the cankers or little ſores in the mouth that yong infants be ſubiect vnto. The Magitians haue a deuiſe, to take the brains of a female goat, & let it paſſe through a gold ring, & to drop the ſame into the mouth of infants new born, before the teat be giuen vnto them: which (they ſay) is ſingular good againſt the falling ſicknes, and other infirmities that to ſuch babes are incident. Goats dung wrapt within a piece of cloth and ſo hanged about a yong child, ſtilleth it, being neuer ſo froward or vnquiet, and a girl eſpecially. The gums of yong babes waſhed with goats milk, or annointed with hares braines, cauſe

E them to haue great eaſe in toothing. *Cato* is of opinion, that whoſoeuer vſeth to eat hares fleſh, ſhall ſleep well. And the common ſort of people are perſuaded, that the meat of this kind of veniſon, cauſeth them that feed vpon it to look fair, louely, & gracious, for a week together afterwards. For mine own part, I think verily it is but a toy and meere mockery; howbeit there muſt needs be ſome cauſe & reaſon of this ſetled opinion which hath thus generally caried the world away to think ſo: the magitians affirm for certain, that if the eies be anointed with the gal of a female goat (ſuch only as had bin offred in ſacrifice) or laid vnder the pillow in bed, it wil procure them to take their repoſe who were far out of ſleep: the aſhes of a goats horn incorporat into an vnguent with oile of myrtles, keeps thoſe from diaphoretical ſweats who are anointed therwith. A liniment made of bores gall, prouoketh vnto carnal luſt: the ſame effect there is of that viru-

F lent ſlime, which *Virgil* the Poet deſcribeth to drop from * a mares ſhap, againſt the time that ſhe is to be couered: alſo the ſtones of an horſe ſo dried that they may be reduced into pouder, for to be put in drink: moreouer, the right genetoir of an aſſe drunk in wine as need requireth, or tied in a bracelet faſt to the arme, inciteth to venerie: furthermore, the frothie ſperme that an aſſe ſheddeth after he hath couered the female, gathered vp in a peece of red cloth, and incloſed within

* *Pila myrtea.* Dioſcorides ὀσφρᾶσθαι. Galen. lib. 2. Simpl.

* *Ad coitum equi:* not according to the meaning of *Virg.* 3. *Geor.* in theſe words, *Scilicet ante omnes furor eſt inſignis equarū &c.* & a little after: *Hinc demum Hippomanes, &c. Lentè deſtillat ab inguine virus.*

within ſiluer & ſo caried about one, is of great power in this caſe, as *Oſthanes* mine author ſaith. G
But *Salpe* (a famous courtizan) giueth direction to plunge the genitall member of this beaſt ſeuen times together in hot oile, and with the ſaid oile to anoint the ſhare and parts therabout. *Bialcon* aduiſeth to drink the aſhes of the ſaid member, or the ſtale of a bull preſently after hee hath done his kind to a cow, and with the earth that is moiſtened and made mire with the ſaid ſtale, to anoint the priuy parts. Contrariwiſe, there is not a thing that cooleth the luſt of a man more, than to annoint the ſaid parts with the dung of myce and rats. To conclude, for to auoid drunkenneſſe, take the lungs of an hog, be it bore or ſow it matters not; in like manner of a kid, and roſt it, whoſoeuer eateth thereof faſting, ſhall not be drunke that day, how liberally ſoeuer he take his drinke.

H

Chap. XX.

¶ *Strange and wonderfull things obſerued in beaſts.*

THere be other admirable properties and vertues reported of the ſame beaſt, ouer & beſides thoſe before rehearſed; for it is ſaid, that whoſoeuer do find and take vp an horſe ſhoe ſhaken from the houſe (an ordinary thing that happeneth vpon the way when a horſe caſteth his ſhooe) and lay the ſame vp, they ſhall find a remedy for the yox, if they do but call to mind and thinke vpon the place where they beſtowed the ſame. Alſo, that the liuer of an Hare is in this regard for curing of the hicket, like to an horſe ſhooe. Moreouer, if an horſe doe follow in chaſe after a wolfe, and chance to tread vpon the tracts where the wolfe hath run, he will be broken winded and burſt, euen vnder the man vpon his backe. It is thought moreouer, that the ankle-bones of ſwine, haue a property to make debate and quarrels. Alſo, when any ſheep-pens or oxe-ſtals be on a fire, if ſome of the dung be caſt forth, the ſheepe and oxen that be within will ſooner be gotten and drawne forth, and neuer come thither again. Furthermore, that goats fleſh will haue no ranke ſmell or taſte, if ſo be the ſame day that they were killed, they did eat barley bread, or drinke water wherein Laſer was infuſed. Beſides, that no fleſh which is powdred well with ſalt in the wane of the moone, ſhall euer corrupt and be ſubiect to worme or maggot. But ſee how diligent and curious our anceſtors haue bin in ſearching out the ſecrets of euery thing; inſomuch as we find obſerued by them, That a deafe Hare will ſooner feed and grow fat, than another that heareth. I

And to come vnto leechcraft belonging to beaſts: it is ſaid, that if an horſe void bloud exceſſiuely, it is good to poure or iniect into the body, hogs dung with wine. As for the maladies of kine and oxen, tallow, ſulphur-vif, crow garlick, a ſodden [hens] egge, are ſingular good medicines to be giuen euery one of them beaten together in wine: the fat alſo of a fox is good in that caſe. If ſwine be diſeaſed, the broth made of horſe-fleſh ſodden, is very good to be giuen them in their waſh to drinke. And in what diſeaſe ſoeuer it be of all four-footed beaſts, there is not a better remedy than to ſeeth a goat all whole, in the very skin, and a land toad together. Alſo it is ſaid, that a fox will not touch any cockes, hens, or ſuch like pullen, that haue eaten (before) the dried liuer of a Reinard; nor thoſe hens which a cock hauing a collar about his necke of a Fox skin, hath troden. The like effects are reported of a weazils gall: as alſo that kine and oxen both K
in the Iſle Cyprus, when they are troubled with the belly ach, cure themſelues with eating the excrements of a man: that the cleyes of kine and oxens feet will not weare to the quick nor be ſurbated, if their horns before were anointed with tar: That wolues wil not come into any lordſhip or territory, if one of them be taken, and when the legs are broken, be let bloud with a knife by little and little, ſo as the ſame may be ſhed about the limits or bounds of the ſaid field, as he is drawne along, and then the body be buried in the very place where they began firſt to dragge him. Others take the plough-ſhare from the plough wherewith the firſt furrow was made that yeare in the field, and put it in the fire burning vpon the common hearth of the houſe, and there let it lie vntill it be quite conſumed: and look how long this is in doing, ſo long ſhal the wolfe do no harm to any liuing creature within that territorie or lordſhip. Thus much by way of digreſſion: now it is time to return to the diſcourſe of thoſe liuing creatures which be raunged in M
their ſeuerall kinds, and ſuch as are neither tame nor ſauage.

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THE TWENTY NINTH BOOK OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

CHAP. I.

¶ *The Originall of Physicke. When Physitians began to visit the sicke in their houses. When came vp first The manner of* curing diseases by outward application of Ointments and by fricatiõs. Of* Chrysippus *and* Erasistratus. *Of the * Empirick practise of Physicke. Of* Herophilus *and other famous Physitians. How many times the order of Physick hath bin changed. Who was the first professed Physitian in Rome, and when he began to practise. What opinion or conceit the antient Romanes had of Physitians. Finally, the imperfections and defaults in this art of Physicke.*

This course in practise was called *Clinice*, κατ' ἐξοχὴν, i. à lecto, i. the bed or bed-chamber.

* *Iatraleptice*, κατ' ἐξοχὴν ἰατρικὴ ἡ ἀλείφειν, *vel* ἀλοιφὴ, *quasi medicina unguentaria.*

* *Empirice*, κατ' ἐμπειρίαν. *i. Experimenta.* When Physitians cure by experiments only of medicines, without regard of the cause of the disease or nature of the patien.

THe admirable nature of a number of medicines, as wel those which I haue already shewed, as those which remain as yet to be handled, forceth me to write yet more of Physicke, and to sound to the very depth and bottome: albeit I know full well, that there is not a Latine writer who hath trauelled hitherto in this argument; and am not ignorant how tickliſh and dangerous a point it is at first to set abroch any new matters, especially such, whereby a man is sure to reape but small thanks, and in deliuerie whereof, is to make account of a world of difficulties. But forasmuch as it is very like that those who are well acquainted with this study, will muse how it is come about, that the remedies drawn from simples, so easie to be found and so accommodat to maladies, are cast behind and grown out of vse in the practise of physick; it cannot be, but withall they must maruell much, and think it a great indignity, that no science and profession in the world hath had lesse solidity in it and bin more vnconstant, yea, and how it daily changeth still, notwithstanding there is not any other more profitable and gainfull than it.

But to enter into the discourse thereof, First and formost, the inuention of this Art hath been fathered vpon the *gods, such I mean as are canonized gods in heauen: yea, and euen at this day we haue recourse stil vnto diuine Oracles for many medicines. Moreouer, the fabulous tales deuised by Poets haue giuen a greater name and reputation thereto, in regard of the offence committed by *Æsculapius* in raising prince **Hippolytus* again to life: for which bold part of his, *Iupiter* being highly displeased, smote him dead with lightning. And yet for al this, Antiquity hath not staid there, but made relation of others, who were reuiued by the means of the said *Æsculapius* or his art: which during the * Trojan war, whereof the fame and bruit is more certain, grew into much request and estimation: and yet in those daies there was no other part of Physicke professed and practised, but Chirurgery; and that in the cure of wounds only. But in the age insuing, and for many a yeare after, wonderful it is, in what obscurity this noble science lay dead, and as it were buried in darknesse and obliuion, euen vntill the famous Peloponesiacke war: for then arose *Hippocrates*, who reuiued and set on foot againe the antient practise of *Æsculapius*, so long forelet: and being borne in Coos, a renowned and wealthie Island, altogether deuote and consecrated to *Æsculapius*, he made an extract of al the receits, which were found written in the temple of the said god (for the maner was in that Island, that whosoeuer were cured and deliuered of any disease, registred there vpon record, the experiments of medicines whereby they had remedy;

*to wit, *Apollo* & *Æsculapius*.

* Tyndaridem: but out of *Plutarch*, & a manuscript old copy, it should be read *Thesidem*, the son of *Thesus* which was *Hippolytus*

* At what time and who, his 2 sons, *Podalyrius* and *Machaon* practised Chirurgerie.

remedie, to the end, that afterward they might haue help again by the ſame in like caſes) & ther- G
upon (as our countreyman *Varro* is perſuaded) after that the ſaid temple was burned, hee profeſ-
*i. Chamber-Phyſicke. So called, becauſe hee viſited his patients lying ſicke in bed.
ſed that courſe of Phyſick which is called * Clinice. Wherby Phyſitians found ſuch ſweetnes,
that afterwards there was no meaſure nor end of fees: inſomuch, as *Prodicus*, a diſciple of *Hippo-*
crates, and borne in Silymbria, erecting that kind of practiſe in Phyſicke, which is called * Iatra-
liptice, opened by that meanes the way to inrich euen thoſe, who vnder Phyſitians were employ-
* The manner of maintaining of health and curing diſeaſes by frictions, and outward application of oiles & ointments.
ed in rubbing and annointing mens bodies, yea, and brought gaine to other baſe and ſeruile mi-
niſters atending vpon their cures. After them came *Chryſippus* in place: who through his much
babble and pratling, wherewith he was well furniſhed, altered the Theoricke and ſpeculatiue
Phyſicke of * *Hippocrates* and *Prodicus*, with all their principles: whom ſucceeded *Eraſiſtratus*,
Ariſtotles ſiſters ſon, and he chaunged alſo many of *Chryſippus* his rules and receits, notwithſtan- H
ding he was a ſcholler of his and brought vp vnder him. This *Eraſiſtratus* for curing king *An-*
tiochus, receiued of his ſonne *Ptolomæus* (king after him) one hundred talents: which to beginne
withall, I note by the way, that you may ſee how (euen in thoſe daies) Phyſitians were well re-
warded for their pains and skill. But in proceſſe of time one *Acro*, a citizen of Agrigentum in
* Who wroght by reaſons and rules, & thereupon were called *Rationales*, and *Dogmatici*
Sicilie, much commended by the authority of *Empedocles* the famous naturall Philoſopher, be-
gan in that Iſland to inſtitute another faction and ſect of Phyſitians, who grounding altogether
their worke and operation vpon experience, called themſelues Empiriques. Thus there beeing
diuers ſchooles of Phyſick, the profeſſors in euery one of them entred into contention and vari-
ance, ſome ſiding this way and others taking the contrary; vntill at length *Herophilus* entred the
ſtage, who reproued and condemned as well the one as the other: and reduced the pulſes or bea- I
ting of the arteries vnto the times and meaſures in Muſicke, according to the degrees of euery
age. Long after it was not, but this Philoſophicall ſubtilty of his ſect was giuen ouer and aban-
doned, becauſe the profeſſion thereof required of neceſſitie ſo much learning and literature: and
albeit that *Aſclepiades* when he began to profeſſe Phyſick, brought with him an alteration of all
that was before, yet (as I haue already related) his Phyſick continued no longer than others: for
Themiſon (a ſcholler and auditor of his) ſo ſoon as euer his maſter was departed this life, altered
quite all that hee wrote and noted at firſt from his mouth, and betooke himſelfe to a new pra-
ctiſe, according to his owne head and fantaſie. But what became of it? Surely within a while af-
ter, *Antonius Muſa*, Phyſitian to *Auguſtus* the Emperour, put downe that which *Themiſon* had ſet
vp: and that by the authority and warrant of the ſaid Emperor his patient, whom he deliuered K
* *Quia calida fomenta non proderãt, frigidis curari coactus, auctore Antonio Muſa.* Suetonius *in vita Octau. Auguſt.*
from a dangerous diſeaſe, * vſing directly a contrary cure to that which had bin practiſed be-
foretime. Many other Phyſitians there were of great name, whom I ouerpaſſe: but the princi-
pall and moſt renowned of them all, were the *Caſij*, *Calpitani*, *Aruntij*, *Albutij*, and *Rubrij*, who in
their time might diſpend in fees allowed them out of the Princes and Emperours Exchequer,
vnder whom they liued, 250000 Seſterces apeece, by the yeare. And as for *Q. Stertinius* the
Phyſitian, he complained of the Emperors whom hee ſerued, and challenged them for that hee
had no greater reuenues than 500000 Seſterces by the yeare from them: whereas he was able
to make account, that by his practiſe in the city he gained yearely 600000 Seſterces, being re-
tained Phyſitian to certain houſes, which he could readily name at his fingers ends. A brother L
of his receiued no leſſe in fees from *Claudius Cæſar* the emperor. And albeit theſe brethren ſpent
a great part of their wealth & ſubſtance in building ſumptuouſly at Naples, wherby they ador-
ned and beautified that city, yet they left behind them in goods vnto their heires after them, to
* *Seſtertium trecenties*, as *Budæus* readeth.
the worth of * thirty millions; which was ſuch an eſtate, that vnleſſe it were *Aruntius* only, there
was neuer any known before thoſe daies to haue died ſo wealthy. After theſe men, there aroſe
one *Vectius Valens*, who ouer & beſides his profeſſion of Phyſicke and Rhetorick, which hee ear-
neſtly followed, grew into a greater name, by reaſon of the familiar acquaintance hee had with
Meſſalina the Empreſſe, wife to *Claudius Cæſar*. This minion of hers taking his time, and ſeeing
how mighty he was, followed his fortunes and erected a new ſect and practiſe of Phyſicke. But
within the compaſſe of that age, and namely in the daies of the Emperour *Nero*, in commeth M
* He reduced Phyſicke into a Method: and from him deſcended the ſect called *Methodici*.
* *Theſſalus*, who woon the name from all the Phyſitians of former times, and ouerthrew the pre-
cepts and doctrine of his predeceſſors; raging and faring as if he were mad, in open inuectiues
againſt all the profeſſors of Phyſicke that euer were: and with what ſpirit, policie, wit, and dex-
terity he performed this, it may be gathered ſufficiently by this one argument (if there were no
more) that vpon his ſepulchre or tomb, which remaineth at this day to be ſeen in the high way

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A or cauſey Appia, he triumphed ouer them all, and intituled himſelf by the name of *Iatronices. And in very truth, neuer matched there player to the ſtage, or coachdriuer to the publick cirque for to run a race, better attended and with a greater traine of followers, than hee when he paſſed along the ſtreets: and yet *Crinas* of Marſiles put him down and outwent him far in credit and authoritie: and that by the means of a twofold skill and knowledge wherein he was ſeen: For beſides his ordinary profeſſion of Phyſicke, he ſhewed himſelfe more warie and ceremonious in all his practiſe than any other before him, by reaſon of the deepe inſight that he had in the Mathematicks; obſeruing the courſe of the ſtarrs, chuſing good daies and houres, and going euer by his Almanakes and Ephemerides, whenſoeuer he miniſtred vnto his patients, inſomuch, as in their very diet he was ſo preciſe, that he would not allow them to eat or drink but with great
B regard of times and ſeaſons. Whereby he grew to ſuch wealth, that of late he bequeathed by his laſt will & teſtament *ten millions of Seſterces vnto his natiue citie Marſils toward the fortifications therof, beſides the walls that he cauſed to be built and emmanteled about other towns, which coſt him little vnder the foreſaid ſumme. Whiles this *Crinas*, with ſuch other as himſelf, ſeemed with their aſtrologie to command the courſe of the deſtinies, and to haue mens liues at their own diſpoſition, all on a ſuddain one *M. Charmis*, a Marſilian likewiſe, put himſelf forward and entred the citie of Rome, who not onely condemned the former proceedings of the ancient Phyſitians, but alſo put downe the baines and hot houſes: hee brought in the bathing in cold water, and perſuaded folke to vſe the ſame euen in the middeſt of Winter: nay, he feared not to
C giue direction vnto his ſicke patients for to ſit in tubs of cold water. And I aſſure you, my ſelfe haue ſeen ancient Senatours, ſuch as had been Conſuls of Rome, all chilling and quaking, yea and ſtarke againe for cold, in theſe kind of baths: and yet they would ſeeme to endure the ſame, to ſhew how hardy they were. And verily, there is a Treatiſe extant of *Annæus* * *Seneca*, wherein he approues highly of this courſe. Neither is it to be doubted, but ſuch Phyſicians as theſe, who hauing won credit and eſtimation once by ſuch nouelties and ſtrange deuiſes, ſhoot at no other marke but to make merchandiſe and enrich themſelues euen with the hazard of our liues. And hereupon come theſe lamentable and wofull conſultations of theirs about their patients, wherin you ſhall ſee them ordinarily to argue and diſagree in opinion, whiles one cannot abide that another mans iudgment ſhould take place, and ſeem to carry away the credit of the cure. From hence alſo aroſe that Epitaph of his (whoſoeuer he was) that cauſed theſe words to be engrauen
D vpon his vnhappy tombe, *Turba medicorum perij, i.* The variance of a ſort of Phyſitians about me, were the cauſe of my death. Thus you ſee how often this art from time to time hath been altered, and daily ſtill it is turned like a garment new dreſſed and tranſlated: inſomuch, as wee are carried away with the vain humor of the Greeks, & make ſail as it were with the puffes of their proud ſpirit: For euer as any of theſe new commers can venditat and vaunt his owne cunning with braue words, ſtraitwaies we put our ſelues into his hands, and giue him power to diſpoſe of our life and death at his pleaſure; and without further regard, are as obedient to him as a ſouldiour to his captaine and Generall of the field. A ſtrang matter that we ſhould ſo do, conſidering how many thouſands of nations there be that liue in health wel ynough without theſe Phyſicians, and yet I canot ſay altogether without Phyſicke. Like as the people of Rome alſo
E (notwithſtanding the Romanes were euer knowne to be forward ynough to entertaine all good arts and diſciplines) continued for the ſpace of ſix hundred yeares and aboue, after the foundation of their citie, and knew not what a Phyſician meant, but afterwards they did caſt a great fancie to Phyſick alſo: howbeit vpon ſome little experience thereof, they were as ready to loath and condemne it, as they were deſirous before to haue a taſt and triall of it. And here I thinke it not amiſſe in this corrupt age of ours wherein we liue, to diſcouer and relate certain principall examples of our anceſtours, worthy to be noted in this behalfe.

And to begin withall, *Caſſius Hæmina*, an ancient Hiſtoriographer, doth report, That the firſt Phyſician that euer came to Rome, was one *Archagathus*, the ſonne of *Lyſanias*, from out of Peloponneſus, which was when *L. Æmylius* and *M. Livius* were Conſuls, and in the yeare after
F the foundation of the citie of Rome 535. And this mine Author ſaith, that he was enfraunchiſed free denizen of Rome, and had a ſhop prouided for him, ſtanding in the carrefour of *Acilius*, bought at the charges of the citie for to entertaine his patients, and therin to exerciſe his cunning. Called he was (by report) The vulnerarie Phyſician or Chirurgion: wonderfull much ſeeking & running there was after him, and none more wealthie than he at his firſt comming. But

ſoone

* *i* The maſter and conqueror of all Phyſitians.

* *centies H.S.*

* Such as bath in cold water, be called by *Seneca*, *Pſychrolouiæ*.

ſoon after, when hee was knowne once to carry a cruell hand ouer his poore patients, in cutting, G
lancing, diſmembring, and cauterizing their bodies, they quickly began to alter his name, and
to terme him the bloudy Butcher or Slaughter-man: whereupon not onely all Phyſitians, but
Phyſick alſo grew into a bad name and became odious; as may appeare euidently by the monu-
ments and books of *M. Cato*, a worthy perſonage, and in regard of whoſe vertues and commen-
dable parts, his triumph and Cenſorſhip, as famous & honorable as they were, deſerue the leaſt
part of his authority and reputation; ſo much was there in himſelfe, aboue the gifts and graces
of Fortune. I will therefore inſert in this place, word for word, an Epiſtle of his vnto his ſonne
Marcus, touching this matter, wherein he thus writeth: *Concerning theſe Greekes (ſonne* Marcus) *I*
will write in place and time conuenient, what I haue found out and knowne by them in Athens: and namely,
that it were good to looke into their books and reade them (as it were) by the way, but in no wiſe to ſtudy vp- H
on them much and learn them throughly. I haue already giuen the attempt, and intend to conuince and put
downe the wickedeſt race and moſt peruerſe and obſtinat kind of them. And learne this of mee, as from the
mouth of a true Prophet, That whenſoeuer this Greekiſh Nation ſhall bring into Rome their Philoſophie,
they will corrupt and marre all: but let them ſend once their Phyſitians hither, you ſhall ſee a greater wrecke
and confuſion thereby. For I aſſure thee, they haue complotted and ſworne one to another for to murder all
** Barbarians by means of their Phyſicke. And euen to effect and bring this about, they will be fed alſo and*
take money, to the end, that both we ſhould truſt them the rather, and they alſo haue the better meanes to
worke the feat and diſpatch folke with more facility. As for vs, it pleaſeth them vſually to name vs Barbari-
*ans, yea, and they giue vnto vs more filthy termes than any others, and miſ-call vs * Opiques. Well, remem-*
ber thou once for all, that I haue giuen thee warning of their Phyſitians, and forbidden thee to be acquainted I
with them. Now *Cato*, who wrote this letter, died in the ſix hundred and fifth yere after the foun-
dation of our city, when himſelfe was fourſcore yeres old and fiue: whereby a man may ſee that
he wanted not grounded knowledge when he deliuered this ſpeech vnto his ſonne; for hee had
both the practiſe of former times in publicke affaires, and age ſufficient of his owne to furniſh
him with experience of priuat examples. What ſay we then to this reſolution of his? Are wee
to judge and beleeue that hee hath condemned thereby a thing ſo neceſſary and profitable as
Phyſicke is? God forbid: for himſelfe ſetteth downe a little after, what Phyſick, and what me-
dicines both he and his wife were acquainted with, and by meanes whereof they came to be ſo
aged as they were: and thoſe were no other (verily) but the vſe of ſimples, whereof wee now are
in hand to treat. He ſaith moreouer and profeſſeth, that he hath made one Treatiſe expreſſely, K
containing certaine receits for the cure of his ſon and ſeruants, and for the preſeruation of their
health: the which I haue not omitted, but diſperſed here and there, according to the occurren-
ces of accidents and diſeaſes of ſundry ſorts, whereof I haue had ſome occaſion to ſpeak of, and
ſtil ſhall haue more: wherby it is plain, that our antient forefathers blamed not the thing it ſelf,
I meane, Phyſicke, and medicines, but the Art and cunning of Phyſitians, who had the hand-
ling thereof. And moſt of all, they held off and were afraid to entertaine thoſe amongſt them,
who ſought ſuch exceeding gaines for their handie worke, eſpecially where they indangered
their liues withall. And that they made ſome account of Phyſicke, may appeare by this, that
when they receiued *Æſculapius* as a canonized god into their Kalender, they built one temple
for him without the city of Rome: yea, and the ſecond which in his honour they erected, was L
ſcituate within the Iſland apart from other buildings. Alſo at what time as by vertue of an e-
dict all other Greeks were baniſhed Italy, Phyſitians were excepted; and that was many a yeare
after *Cato* his time. And here by the way, one word will I ſpeake to the honour of our Romanes
for their ſingular wiſedome and prouidence; namely, That howſoeuer they are growne to good
proofe and be accompliſhed in al other Arts and Profeſſions of the Greeks, yet their grauity hi-
therto hath bin ſuch, as they would not giue themſelues to the practiſe of this only Science.
And notwithſtanding the exceeding wealth that accrueth by Phyſicke, yet very few or none of
our naturall Roman citizens haue medled therewith. And thoſe alſo that haue betaken them-
ſelues vnto it, preſently haue forſaken their natiue language, and gone to the Greek tongue. For
this opinion verily there is of this Art, That if the Profeſſors thereof handle it in their vulgar M
and mother tongue, or otherwiſe in any other than Greeke, all the authoritie, grace, and credit
thereof is loſt, euen with thoſe that be altogether vnlearned and know not ſo much as the Greek
Alphabet. See the nature and fooliſh propertie of our Countreymen, to haue leſſe confidence
and truſt in thoſe things which concerne their life and health, if they be intellegible and

deliue-

*That is to ſay all nations but themſelues.

**Opici*, were a certain people of Italie, infamous for their vnhoneſt life and filthy language. *quaſi* ὀπικοὶ ἀπὸ τοῦ ὄπισθεν ἐρίζειν.

*Why the tẽple of *Æſculapius* ſtood without the city of Rome? See *Plutark* 94 *Queſtionum Romanorum.*

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A deliuered to their capacity; than in others, which they vnderſtand neuer a whit! And hereupon verily it is come to paſſe, that the art of Phyſicke hath this peculiar gift and priuiledge alone; That whoſoeuer profeſſeth himſelfe a Phyſitian, is ſtraightwaies beleeued, ſay what he wil: and yet to ſpeak a truth, there are no lies dearer ſold or more dangerous than thoſe which proceed out of a Phyſitians mouth. Howbeit, we neuer once regard and looke to that, ſo blind we are in our deep perſuaſion of them, and feed our ſelues each one in a ſweet hope and plauſible conceit of our health by them. Moreouer, this miſchiefe there is beſides, That there is no law or ſtatute to puniſh the ignorance of blinde Phyſitians, though a man loſt his life by them: neither was there euer any man known, who had reuenge or recompence for the euill intreating or miſuſage vnder their hands. They learne their skil by indangering our liues: and to make proofe & expe-
B riments of their medicines, they care not to kill vs. In a word, the Phyſitian only is diſpenſed withal, if he murder a man: ſo clear he goeth away without impunity, that none ſo hardy as once to twit or challenge him for it: but ſay that one be ſo bold as to charge them with any vntoward dealing; out they cry preſently vpon the poor patients, at them they rail with open mouth, they are found fault with their vnrulineſſe, diſtemperature, wilfulneſſe, and I know not what: and thus the ſillie ſoules that be dead and gone, are ſhent & bear away the blame. The decuries or bands at Rome of thoſe knights which are deputed and called Iudges, are not choſen but by an ordinary triall and examination of their eſtate, quality, and perſon; and the ſame by the principal of that order and degree, both taken and approued: ſtreight inquiſition there is made of their demeanor from houſe to houſe: of their parentage alſo, yea and true information giuen to the ele-
C ctors before they can be choſen. Mint-maſters, ſuch as are to giue their judgement of mony, and the touch of coin, be not taken hand ouer head: but if any be more skilfull than others therein, they are ſent for (rather than to faile) as far as from Calis and the ſtraits of Gilbretar. And for to pronounce ſentence as touching the baniſhment of a Roman citizen, the fiue deputed or elected delegats (named Quinqueviri) had no warrant or decree paſſed before 40 daies were expired. But for theſe Phyſitians, who are the judges themſelues to determine of our liues; and who many times are not long about it, but giue vs a quick diſpatch & ſend vs to heauen or hel; what regard is there had, what inquiry and examination is made of their quality and worthines? But ſurely, wel enough are we ſerued, and we may thank none but our ſelues, if we come by a ſhrewd turn, ſo long as there is not one of vs hath any care or deſire to know that which is good for his
D life and health. We loue to * walk (forſooth) with other mens feet. * We read, we looke by the eies of others: we truſt the remembrance of another, when we ſalute any man and to conclude, in the very main point of all we commit our bodies and liues to the care and induſtry of others: No reckoning is there now made of the riches and treaſure of Nature: but the moſt precious things indeed which ſerue for the maintenance and preſeruation of health and life, are vtterly rejected and caſt away: no account make we of any thing and think our owne, but to liue in pleaſures and dainty delights. I will not leaue my hold of *M. Cato*, whom I haue oppoſed as a ſhield and buckler againſt the enuie and ſpight of this ambitious and vain-glorious Art: neither will I giue ouer the protection of that honorable Senat which hath judged no leſſe: and that without catching aduantage of the ſinfull pranks & lewd parts which are committed and practiſed vn-
E der the pretence of this art, as ſome man haply would look that I ſhould ſet them abroad: for to ſay a truth, is there any trade or occupation goeth beyond it for poiſoning? what is the cauſe of more gaping and laying wait after wils and teſtaments, than this? What adulteries haue beene committed vnder the colour hereof, euen in Princes and Emperors palaces? as for example, *Eudemus* with *Livia* the Princeſſe, & wife to *Druſus Cæſar*: *Valens* likewiſe with the Queen or Empreſſe aboue named, *Meſſalina*. But ſay that theſe crimes and odious offences are not to be imputed vnto the Art it ſelfe, but rather to be charged vpon the perſons, I meane the corrupt and lewd profeſſors thereof: yet ſurely I am of this beleefe, that in regard of theſe enormities, *Cato* was as much afraid of the entrance of Phyſicke, as of ſome Queene into the citie of Rome. For mine own part, I mean not to ſay ought of their extreme auarice; of the merchandiſe, ſpoile, and
F hauocke that they make when they ſee their patients in danger of death, and drawing to their end; nor how high they hold (as it were in open market) the eaſement and releaſe of the ſicke mans pains, whiles he is vnder their hands; ne yet what pawnes and pledges they take as earneſt of the bargaine, to diſpatch the poore Patient out of the way at once; and laſtly, of their hidden ſecrets and paradoxes, which forſooth they will not divulge abroad, but for ſome round

ſumme

* In this place he caſteth in the Romanes teeth, their *Lexicarij*, *Anagnoſtæ*, and *Nomenclatores*. * *Agnoſcimus inuicem.*

ſumme of money. As for example, that a cataract or pearle in the eie is to be couched rather G
and driuen down by the needle, than quite to be plucked forth: wherby it is come to paſſe, that
it is a very good turne & the beſt for vs (as the caſe ſtandeth) that we haue ſo great a number of
ſuch murderers and theeues in the commonweaſth: for I aſſure you it is not long of any ſhame
and honeſty (whereof there is none in them) but their malicious æmulation, being ſo many as
they are, that the market is well fallen, and the prices come down of their workmanſhip. Noto-
rious it is, that *Charmis* the abouenamed Phyſitian that came from Marſiles, bargained with one
patient that he had, to haue 200000 Seſterces for his cure, and yet hee was but a ſtranger and a
prouinciall inhabitant. Alſo as well knowne it is, that *Claudius Cæſar* vpon a condemnation and
judgement, tooke at one time by way of confiſcation, one hundred thouſand ſeſterces from one
Alcontes, who was no better than a Chirurgion or Wound-healer: who beeing confined into H
France, and afterwards reſtored, gathered vp his crums again & got as much within few yeares.
I am content alſo, that theſe faults ſhould be laid not vpon the art, but the men that profeſſe it:
Neither verily do I mean to ſhew and reproue the baſe, abject, and ignorant ſort of that crew:
nor how little order and regiment they obſerue in the cure of diſeaſes, or in the vſe of bains and
hot waters: how imperiouſly they preſcribe otherwhiles to their patients moſt ſtrait diet: and a-
gain, when they are ready many times to faint & die vnder their hands for want of ſuſtenance,
how they be forced to cram them as it were, and giue them meat vpon meat, oftentimes in one
day, before they haue digeſted the former viands. Moreouer, how they do and vndo, altering the
manner and courſe of their proceedings a thouſand waies, miſliking and bethinking themſelues
after they haue done a thing: making a miſh maſh and mingle mangle in the kitchin of thoſe I
victuals which they ordain for their poore patients: beſides a deal of mixtures and ſophiſticat
compoſitions of drugs and ointments. For there is no ſuperfluity tending vnto vain pleaſures
and wanton delights that hath ouerpaſſed their hands. And ſince I light vpon the mention of
theſe drugs and ſpices, for mine owne part I am verily perſuaded, that our anceſtors and forefa-
thers were nothing well pleaſed with the bringing in of ſuch forrain wares, which beare ſo high
prices and are extream deare: and that *Cato* neuer thought of theſe drugs and mixtures, nor fore-
ſaw theſe corruptions by them occaſioned, when he blamed ſo much and condemned this art of
* i. Treacle, Phyſick. Yet ſee what account there is made of a compoſition called * Theriace, deuiſed onely
for exceſſe and ſuperfluity: compoſed it is of diuers ingredients far fetcht and deare bought:
whereas Nature hath beſtowed vpon vs and preſented to our eies ſo many wholeſome ſimples, K
and euery one of them by it ſelfe medicinable and ſufficient. Moreouer, another antidote and
confection there is, conſiſting of no fewer than 54 ſundrie ſorts of drugs and ingredients, all of
diuers weights, and ſome of them are preſcribed to carrie the poyſe preciſely of the ſixtieth
part of one denarius or dram. Now would I gladly know whatgod he was (for ſurely it paſſeth
the wit of man thus to diſpenſe the ingredients, and calculat their vertues, to a ſingle ſcruple)
that taught firſt this ſubtil and intricat compoſition? By which it appeares manifeſtly, that this
geere bewraieth onely a vaine oſtentation, and all to giue a glorious and wonderful luſtre to the
art, for to make it better accepted and more vendible. And yet the very Artiſts themſelues are
not ywis ſo skilfull, as to know that whereof they make profeſſion. For I my ſelfe haue ſeene
theſe that goe for Phyſitians, put commonly into their medicines and receits *quid pro quo*, and L
* *Sanguis Draconis*. Sangdragon *Lachrymæ ſpecies*, a kind of gum. namely, in ſtead of the Lidian * Cinnabaris, * Minium; which is no better than a very poyſon,
as I will proue and ſhew hereafter in my Treatiſe of Painters colours: which errour proceedeth
only from this, that they are not wel ſeen in Grammar, nor in the proper ſignification of words.
But theſe and ſuch like errours touch and concerne the health of euery one in particular. As for
* *Metallicum*, a minerall Vermilion. thoſe abuſes in the art of Phyſick, which *Cato* feared, foreſaw, and would haue preuented, they
be ſuch as are nothing ſo hurtfull and dangerous as the reſt, and indeed ſmall matters in the o-
pinion of man: and ſuch as the principall Profeſſors and Maſters of this Art do auow and con-
feſſe among themſelues. Howbeit, euen thoſe deuiſes, as harmleſſe as they ſeem to be, haue been
the ouerthrow of all vertue and good manners in our Romane State, I mean thoſe things which
we doe and ſuffer in our health: our exerciſe of wreſtling, our greaſing and annointing with oile M
for that purpoſe, brought in forſooth and ordayned by theſe Phyſitians for to preſerue our
health. And what ſhould I ſpeak of their drie ſtouves, hot houſes, and ardent bayns, which they
would beare men in hand tobe ſo good for digeſtion of meat in their ſtomackes? Yet could
I neuer ſee any, when hecame forth of them vpon his own feet, but he was more heauy, & found

himſelfe

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himſelfe feebler than before he went in:and as for thoſe who haue bin more obſeruant of their rules than the reſt,and wholly gouerned by them,I haue known many ſuch caried out for dead, or elſe extream ſicke.To ſay nothing moreouer of the potions and drinks ordained by them,to be taken in a morning faſting,for to vomit and ſcoure the ſtomack therby,and all to make way for to quaffe and carouſe again vpon it more luſtily. I forbeare alſo to write of their roſins and pitch-plaiſters deuiſed by them for to pluck away and fetch off the haire where Nature hath ordained it to grow,wherby they would ſeem to effeminat our men. I baſh alſo to ſpeak how euen our women haue proſtituted their nakednes and priuities vnto them, by occaſion of theſe their wanton deuiſes. In ſum, conclude we may, that conſidering theſe enormities and corruptions which haue crept into our life,by nothing more than by the meanes of Phyſick,*Cato* was a true prophet indeed,and his oracle is verified &fulfilled euery day,when he ſaid,That it was ſufficient to look curſorily into the writings and witty deuiſes of the Greeks,without farther ſtudying therupon and learning them throughly.Thus much I thought good to ſpeak in iuſtification of that Senat and people of Rome,who not without great reaſon continued 600 yeres without the entertainment of Phyſicians;and againſt that Art which of all others is moſt dangerous and fulleſt of deceit:in regard wherof, it hath bleered the eies of good men, and they be thoſe who haue giuen credit & authority thereto. And withall,thus much may ſuffice to meet with the fond opinion and fooliſh perſuaſion of thoſe,who are rauiſhed and caried away with a conceit,eſteeming nothing good for the health of man,but that which is coſtly and pretious. For certes I doubt not,but ſome there be who will loath theſe receits taken from diuers beaſts, wherof I ſhall haue occaſion to ſpeak hereafter.But I comfort my ſelfe again herein,That *Virgil* diſdained not to name the very piſmires and the weevils ; * blind beetles alſo delighting in darkneſſe,and their neſts wherein they keep;of which he wrote,notwithſtanding he was not vrged thereto vpon neceſſitie.Neither did *Homer* think it improper,to*mingle the deſcription of a ſhrewd and vnhappie flie,euen with the heroicke battailes of the gods : ne yet dame Nature, who hath brought forth and made man, thought it any diſparagement to her majeſtie for to engender alſo theſe fillie and ſmall creatures. And therefore let euery man conſider their vertues,properties, and effects,and not regard ſo much themſelues. To come then to thoſe things that are moſt common and known,begin I will at ſheeps wooll,and birds egs,to the end that by that means due honour may be yeelded to the chiefe and principall of all others, as it doth appertain.Howbeit,I muſt of neceſſitie ſpeak of ſome other things by the way as occaſion ſhall be offered,notwithſtanding the place be not ſo proper & fit for them.Neither wanted I means ſufficient to furniſh this worke of mine with many gallant matters and pleaſant diſcourſes, if my delight and mind had been to looke after any thing elſe but a plaine and true narration,according to my firſt deſſeine and intention:For well I wot, that I might haue inſerted here and there,the rare receits which are reported to be of the aſhes of the bird Phœnix, and her neſt ; but that I know all to be meere fabulous, howſoeuer they carrie a pretence of truth Beſides, I count it a very mockerie and no better,to deliuer vnto the world thoſe medicins which are not to be but once in the reuolution of a thouſand yeres.

* *Lucifugis congeſta cubilia blattis.*
* *Iliados 4.*

Chap. II. ¶ *The vertues and properties of Wooll.*

THe ancient Romans attributed vnto Wool great authoritie,& had therein a certain religious and reuerent opinion of holines:inſo much as new wedded wiues by an old cuſtom and ordinance at Rome,were wont with great ceremonie to adorn and bedeck with wooll the ſide-poſts of the dore or entrie into their husbands houſe,on the mariage day.Now beſides the vſe of wool for decent apparrel,& defence againſt cold weather;that which is vnwaſhed and full of the ſheeps ſwet ſerueth in Phyſick,and is a ſoueraign remedy for ſundry accidents,being applied with oile,wine,or vinegre,according as need requireth, either in mitigation of pain,or mordicaſion and corioſion,and according as our purpoſe is,to bind,or to enlarge and open any part:and namely,it is imploied in diſlocations of members, and griefe of ſinues, if it be laid to the affected place,well ſprinkled & wet eftſoons with the ſaid liquors,that it might be alwaies moiſt.But more particularly,for disjointed members,ſome put thereto a little ſalt:others take rue,&when they haue ſtamped it,incorporat the ſame with ſome conuenient greaſe,& ſo apply it in maner of a cataplaſme vpon ſweatie wooll:after which maner,it is good for contuſions or bruſes & ſwellings. Alſo it is ſaid,that if the teeth&gumbs be well rubbed with ſuch wool and

hony mingled together, it will cauſe the breath to be the ſweeter: a ſuffumigation or perfume G
therof is ſingular for the frenſie: applied with the oile of roſes, it ſtanches bleeding at the noſe:
or otherwiſe if the ears be well ſtopped therwith, and a little garlick conueied withal therinto.
Moreouer, it is laid to inueterat ſores with good ſucceſſe, ſo that hony be put thereto. Soake
wooll in wine, vinegre, or cold water and oile, and then wring and preſſe the ſame forth, it heales
any wound. The wool of a ram well waſhed in cold water, & afterwards ſteeped in oile, is ſingu-
lar for womens infirmities, and particularly allaies the inflammation of the matrice: but in caſe
it be faln downward and readie to ſlip out of the bodie, a perfume therof receiued beneath, ſtai-
eth the ſame and keepes it vp. The fattie wooll of a ſheep being either applied, or put vp in ma-
ner of a peſſarie, drawes down the dead infant out of the mothers belly: and yet the ſame other-
wiſe repreſſeth the immoderat flux of womens fleurs. If it be couched hard & cloſe within the H
wound occaſioned by the biting of a mad dog, it ſerueth to great purpoſe; but with this charge
That it be kept bound therto & not remoued vntill the ſeuenth day be paſt: applied vnto whit-
flaws and impoſtimations about the naile-roots, with cold water, it cureth them: the ſame, if it
be dipped & ſoked in a medly made of ſalnitre, brimſtone, oile, vinegre, and tar, all diſſolued to-
gether and ready to boile, and ſo laid as a cataplaſm to the loins as hot as the patient can abide
it, changing it twice a day, appeaſeth the paine of thoſe parts. Take the greaſie wooll of a ram,
bind therwith very hard the joints of the extream parts, as namely the fingers and toes, you ſhal
ſee how it will ſtanch bleeding. [Howbeit, note this, that the wooll growing vpon the ſheeps
neck is euer beſt and moſt medicinable: and if we regard the country from whence it coms, that
of Galatia, Tarentum, Attica, and Miletum, is alwaies reputed better than any other.] Further- I
more, the greaſie or ſweatie wooll of a ſheepe, is proper to be applied to any raw places where
the skin is fretted off, to contuſions, bruſes looking black and blew, ſtrokes, cruſhes, ruſhes, rubs,
and gals; as alſo from them who are tumbled down from ſome high place; for the head-ach and
other pains; and laſtly, for the inflammation or heat of the ſtomack, being decently applied
with vinegre and oile roſat. Reduced into aſhes and vſed as a liniment, it is ſingular for them
that be cruſhes or ſqueeſed, wounded, burnt, and ſcalded. This aſhes entreth alſo into colyries
and eie-ſalues: it ſerueth for hollow vlcers & fiſtuloes: like as for the ears when they run filthie
matter. For theſe purpoſes aboue ſpecified, ſome ſheare it from the ſheeps back: others chuſe
rather to plucke it: and when they haue clipped off the vpmoſt parts, or forced it lay the ſame
forth to dry: they toze & card it alſo, and then beſtow it in an earthen pot not fully baked, which K
they beſmeer all ouer with hony, and ſo burn & calcine it to aſhes: others put vnder, ſmal chips
or ſlices of torchwood, and lay certain beds or courſes thereof between the locks of wooll; and
after they haue beſprinkled the ſame with oile, ſet all one fire: which done, the aſhes that come
therof they put into little pans or veſſels, & poure water theron: and after they haue well ſtirred
the ſaid aſhes with their hands, they ſuffer it to ſettle downe to the bottom; which they do of-
tentimes, alwaies changing the water till ſuch time as a man may perceiue the aſhes at the
tongues end to be ſomwhat aſtringent, but not biting: and they lay vp their aſhes for their vſe.
A great * ſcourer and cleanſer this is, and therefore moſt effectuall to mundifie the eye-lids.

* *Vis ejus ſmectica eſt*, out of *Dioſ.* not *ſeptica*, as is commonly read: for how can it be corroſiue if it bite not at all.

Moreouer, the very filthy excrements of ſheep, & the ſweat ſticking to the wool of their flanks,
between their legs & the concauities thereabout (which they cal Oeſypum) is thought to haue L
infinit number of medicinable ptoperties: but the beſt Oeſypum ſimply is that which coms
from the ſheep bred about Athens. This ſwet or filthy excrement, cal it what you wil, is prepa-
red and ordered many waies; but the principall is that which is gathered from the wooll newly
taken from between the legs & ſhoulders of the ſheep, and preſently tozed ready for to be car-
ded: others are content to teke the ſweatie filth of any wooll, ſo it be freſh plucked or clipped
from the ſheep; and whether it be the one ſort or the other, they let it diſſolue ouer a ſoft fire in
a pan of braſſe: which done, they ſet it a cooling, and take off the fat that ſwims aloft, & gather
it into an earthen veſſell. As for the reſt which remained behind of the firſt ſtuffe, they ſet it on
the fire again, that the fatnes may boile forth of it: after this the fat that floted aboue, as wel the
former as the later, they waſh in cold water, & let * it drie in a linnen cloth, expoſe it to the heat M
of the Sun, that it may frie therein vntill it be blanched white and look pure and cleare: then is
it put vp in tin boxes or peuter pots, and reſerued for vſe. The true mark to know which is good
Oeſypum, after it is thus tried & putrified, is thus: if it haue a rank ſmel ſtil of the firſt filthines
which it had from the ſheep: alſo, if when you rub it with your hand in water, it melt not, but in

* *Siccatur*, or rather *Saccatur*. *i.* ſtreine it through a linnen bag.

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A the working look whitiſh like vnto cruſe or white lead: a ſoueraigne thing it is for the inflammation of the eies: for the hard calloſities alſo that grow vpon the eye-lids. Some there be who torrifie the foreſaid greaſie wooll into an earthen pot or pan, ſo long vntill it haue forgone and yeeldeth forth all the ſweet and fattineſſe; the which they ſuppoſe to be the beſt Oeſypum that is for any eroſion, fretting or hardneſſe of the eyelids: or to cure the ſcabs and ſores, yea, and the watering of the angles of the eies. Well, this fatty excrement thus clarified, incorporat with gooſe greaſe, cureth not only the vlcers of the eies, but of the mouth alſo and members of generation: the ſame tempered with Melilot and Butyr, maketh an excellent linement for all inflammations of the matrice: the chaps alſo and ſwelling piles or biggs in the fundament. Many other vertues it hath, which I will digeſt into their ſeuerall places, and ſpeake of them accordingly.

B As touching the filthy excrements hanging to ſheeps tailes, and baltered together into round pils or bals, if they be dried and ſo beaten to pouder, are ſingular for the teeth, yea, though they ſhooke in the head, if they be rubbed therwith; alſo for the gums, though there were gotten into them a cankerous ſore. Now concerning fleece wooll that is pure and waſhed, either by it ſelfe alone, or elſe with ſulpher vif, it is paſſing good to be applied to any place in paine, whereof the cauſe is not euident and known: which alſo being reduced into aſhes, is ſoueraign for the accidents which happen vnto the priuie parts. In ſum, of ſuch vertue is wooll, that there is no cataplaſme, pulteſſe, or plaiſter, in manner applied to a grieued place, but the ſame hath wooll laid ouer it. The ſame alſo hath a ſingular vertue aboue all things, to recouer the appetite of meat in the very ſheep that beare it, in caſe they haue loſt their ſtomacks and feed not: for pluck the

C wooll that groweth to their tailes, and therwith tie the ſame as hard as is poſſible, you ſhall ſee them preſently fall to their meat: But it is ſaid withall, that the reſt of the taile which is vnderneath the ſaid knot where it was bound, will quickly become mortified, and die.

*Doloribus cuiuis.

Chap. XIII.

¶ *The nature and properties medicinable of Eggs.*

GReat ſocietie and affinitie there is between wooll & egs; in this regard, That if they be applied both together in a frontall to the forehead, they repreſſe all violent flnxes & rheums falling into the eies: but you need not take for this purpoſe any wool that hath bin dreſſed or clenſed with the* Fullers ſcouring weed: neither is it required, that in this caſe there ſhould

D be vſed any more but the white of an egg, and the ſame ought to be infuſed or ſpread vpon the foreſaid wooll, with the pouder of Frankincenſe: & in very truth, the white of an egg alone, if it be inſtilled or dropped into the eies, is ſufficient to reſtraine the flux of humors thither, yea and to coole any hot rheume or inflammation incident to them. Howbeit, ſome think it better to put ſaffron therto, and vſe this gleere or white of the egg beaten, in ſtead of water, for all collyries or medecins appropriat to the eies. The white of an eg incorporat whit freſh butyr, is ſo ſoueraign for the red and bloud ſhotten eies which put little children to pain, as none in the world better; nay there is not in a maner any other vſed in that caſe. The ſame beaten and tempered with oile, aſſuageth the heat of S. *Anthonies* fire, if there be leaues of beets laid vpon the place and kept bound thereto. The white of an egg incorporat with ſalhormoniacke finely puluerized, doth ex-

E tend and turn backward, the haires of the eielids which grow inward into the eies: the ſame with pine nut-kernels, & a little hony mingled withall, and ſo reduced into a liniment, takes away the pimples that ariſe in the face: annoint the viſage therwith, it will keep it from being ſun-burnt. If one be ſcalded with hot water, lay quickly an egg to the place, yelke, white, and altogether, it will take out the fire and preſerue it from bliſtering: ſome put thereto barley meale and a little ſalt: but ſay the place be bliſtered & exulcerat with any burne or ſcald, parched barley with the white of an egg and ſwines greaſe, is an excellent medicine to heale the ſore: and the ſame cataplaſme is much vſed in the cure of the hæmorroids, piles, and chaps of the fundament; and eſpecially in children, for to reduce the tiwill into the right place, if it hang forth, for the riſts and chaps which appeare in the feet, take the white of an egg ſodden or roſted, the weight of two

F deniers of ceruſe, as much of letharge of ſiluer, and myrrhe, with a little quantitie of wine; incorporat all together into a cataplaſme, there is not a better medicine for them: and for the inflammation called S. *Anthonies* fire, the white of an eg beaten together with Amydum or ſtarch-floure, is right ſoueraign. It is ſaid moreouer, that the white of an egg is very good to congluti-nat or ſowder any wound, yea and two expell the ſtone and grauell out of the body.

* *Radicula*, called before *Struthium*.

The yelke of an egg ſodden vntill it be hard, and tempred wirh a little ſaffron, with hony alſo G
and breſt-milke, and ſo reduced into a liniment, allaieth the pain of the eies, if they be anointed
or fomented therewith: or if the ſame be incorporat with oile roſat & honied wine, and ſo ſpred
vpon a quilt of wooll and applied, it workes the ſame effect. Others there be who take the yelke
or an hard egg, mix therwith the pouder of perſley ſeed, adding thereto fried barly meale dried,
and honied wine; with which compoſition they annoint the ſore eies. Alſo the yelk of a ſoft egg
alone, ſupped off and ſwallowed down cleare that it touch not the teeth by the way, is ſingular
good for thoſe that be troubled with the cough, with the rheume or catarrhe that hath taken a
way to the breſt or pectorall parts; yea and the roughneſſe of the throat & pipes which cauſeth
* Which name it hath for that it cauſeth flux of bloud at ſundrie parts. hoarſeneſſe: but principally if one be bitten with a worme or ſerpent called * Hæmorrhois, let
him both ſup off the yelke of an egg raw or ſoft, and apply it alſo to the wounded place. It hel- H
peth the infirmities of the reins; it healeth the fretting, excoriation, and vlcers of the bladder;
yea and cureth thoſe that reach & caſt vp bloud. Fiue yelks of egs ſupped off raw in one hemin
of wine, are ſingular good for the dyſenterie or bloudy flix, and namely, with the pouder of
the ſhels from whence they came, the juice of Poppie, and a little wine withall. For the flux of
the belly proceeding from a feeble ſtomacke, they vſe to giue the ſaid yelks of eggs raw, with as
much in weight of good and full raiſins, aud the rind of a pomegranat; with direction to the pa-
tient, for to take this medicine three daies together by euen portions, and no more one day than
another: for which purpoſe alſo, there is another way to vſe them; namely, to take three yelks of
an egg, to incorporat the ſame in as many onnces of honey and old lard, putting thereto three
cyaths alſo of good old wine; and ſtamped all together into one compoſition vntill ſuch time I
as it be reduced to the conſiſtence or thickneſſe of hony, of which the patient muſt drinke as
need requires, with water, the quantity of an hazle nut at a time. Alſo it is good to lay three egs
in vinegre for three daies together, and vpon the fourth day to eat them, for the foreſaid flix of
the ſtomack: after which maner it auaileth much to take them againſt the oppilations & hard-
neſſe of the ſpleene: but to ſuch as are ſubject to caſting and reaching bloud vpward, Phyſicians
preſcribe to take them in three cyaths of new wine. Some vſe the yelks of egs that haue bin old
kept, for to reduce the skin that is blacke and blew to the freſh and liuely colour again; but they
incorporat the ſame in hony with bulbe roots: the ſame ſodden and drunk in wine, doe repreſſe
the immoderat flux of womens months: but applied raw with oile and wine, they diſcuſſe & re-
ſolue the ventoſities within the matrice. Incorporat with oile roſat and gooſe greaſe, they are K
good to be applied to the nape of the neck for the cricke and pain thereof: being roſted againſt
the fire hard, and ſo preſently applied hot to the ſeat, they are good for the griefs and accidents
of the fundament: but more particularly for the ſwelling piles and bigs riſing in thoſe parts,
they would be laid too with oile of roſes. Being ſodden in water vntill they be hard, they ſerue
very well for any burne or ſcald; with this charge, That preſently the aſhes of the ſame eg-ſhels
calcined vpon burning coales, be applied to the place, and then to annoint the ſame with the
foreſaid yelks and oile roſat mixed together. Now it falleth out ſomtime, that egs be all yelke
within, & haue no white at all; namely, when the hen hath couued & ſitten ouer them three daies
together, and then be taken away from vnder her; and ſuch kind of egs the Greeks call Schiſta,

Dalechampius would haue the ſame egs to be dried and reduced into pouder, &c. Take the egs from vnder the hen when they be full of chicken, a little before they ſpring and L
the chicke be hatched, together with halfe as much of gal nuts, and giue the ſame for to ſtreng-
then a feeble and weak ſtomack; with this caution, That the patient haue eate nothing in two
hours before. And ſo me doe aduiſe for the dyſentery or bloudy flix, to giue the ſaid chickins
ſodden egg and all together, putting therto one hemine of auſtere or ſharpe wine, and an equall
quantitie of oile and parched barly groats drie. The fine pellicle or skin that is within the egg-
ſhell, being taken from it (whether the egg be raw or ſodden it skilleth not) healeth the chaps
that are in the lips, if it be applied thereto. The aſhes of an egg-ſhell drunke in wine, ſtoppeth
the iſſue of bloud guſhing out at any part: but the ſame ought to be burnt, or calcined without
the pellicle or skin aforeſaid; and ſo it makes an excellent dentifrice alſo to cleanſe and ſcoure
the teeth white: a liniment made with the ſaid aſhes and myrrhe together, ſtaies the ſuperfluous M
flux of womens terms. And here I cannot chuſe but note vnto you by the way, the ſtrange pro-
pertie and wonderfull nature that egg-ſhels haue: for ſo hard compact and ſtrong they be, that
if you hold or ſet an egg endlong, no force nor weight whatſoeuer is able to break and cruſh it,
ſo long as it ſtandeth ſtreight and plumbe vpright, vntill ſuch time as the head incline to a ſide

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A and bend one way more than another. Egs entire and all whole as they be [*i.* white, yelke, ſhell and skin] taken in wine with rue, dill, and cumin, helpe women in hard trauell to ſpeedie and eaſie deliuerance. Egs incorporat with oile & roſin of the cedar mixed together, are ſingular good for to heale ſcabs and to kill the itch: put thereto the root of Cyclamin, [*i.* Sow-bread] it healeth the running skalls of the head: for thoſe that reach vp purulent matter out of the cheſt, or ſpit bloud, it is good to ſup off a raw egg together with the juice of vnſet leeks, and an equall quantitie of Greekiſh wine; but firſt all muſt be warmed, before that it be giuen to the patient. Againſt a cough, they ordaine egs ſodden and ſtamped together with hony, and ſo to eat them; or elſe to ſup them off raw, with wine cuit & oile, of each a like quantity. If a man haue any ſore or vlcer in his ſecret parts ſeruing for generation, it were very good to inject one egg tempered
B with three cyaths of wine cuit, and halfe an ounce of Amylum or ſtarch-floure, preſently vpon his comming forth of the bains or hothouſe. An excellent linement there is made of ſodden egs ſtamped together with creſſes, for the ſting or biting of ſerpents. How many means there be whereby egs doe good as meat, there is not one but knoweth: for euen in their going downe, they paſſe through any tumor or ſwelling of the throat, and with their kind heat foment thoſe parts by the way. There is not any kind of viand in the world beſides it, that nouriſheth a ſicke man, without any offence or burden at all to the ſtomacke; and it may go well enough for meat and drinke both. As touching egs ſodden in vinegre, and how their ſhels may be made ſoft and tender therby, I haue alreadie ſhewed; ſuch egs if they be wrought and knead with meale into a dough or paſt, do make a kind of bread which is ſoueraigne for all fluxes of the ſtomack. Some
C there be who think it better to take theſe egs thus mollified & reſolued in vinegre, and to torriſie the ſame betweene two platters of earth; ſuppoſing that being thus prepared, they ſerued not only to ſtop a lask, but alſo to repreſſe the immoderat flux of womens monthly tears: but in caſe the ſaid fluxions be exceſſiue and beyond all meaſure vehement, they are to be ſupped off raw, with water and meale in maner of a grewell or pottage: or els the yelks may be boiled by themſelues in vinegre, vntill they be hard; and then a ſecond time be fried & torrified afterwards with groſſe pepper, and in this ſort they will die any looſeneſſe of the bellie. And yet there is another ſingular remedie for the bloudy flix, namely, to put the meat of a raw egg in a little earthen pot that neuer was occupied, and to add therto as much hony as may amount to the quantitie of the egg, to the end that all be of equall proportion; then, within a while after to temper therewith
D the like meaſure of vinegre & oile both, and to beat them all together oftentimes, that they may be well concorporat and vnited in one. In which compoſition, this is to be obſerued, That the better that euery one of theſe ingredients is that enter into this confection, the more excellent operation and ſpeedier remedy wil enſue therupon. Others there are, who in ſtead of oile and vinegre, put in red roſin and wine, according to the former rate and proportion: howbeit they temper the ſaid medicine after another ſort; for they put in of oile, only as much as the egg comes to, adding thereto of the pine-tree barke * two ſixtie parts of a Romane denier, and one ſixtie part of Sumach, which I called Rus, and fiue oboli weight of hony; with this charge, That they be all boiled together; and that the patient eat no other meat whatſoeuer for the ſpace of foure hours after. Many there be, who to cure and eaſe the wringing gripes and torments of the belly,
E taks two egs and foure cloues of Garlick, which they pun and ſtamp together; then they heat them ouer the fire in one hemine of wine, and giue this maſh vnto the patient to drinke. To conclude, becauſe I would not willingly omit any thing that may commend egs and giue grace vnto them, know thus much moreouer, That the gleere or liquid white of an egg with quicke-lime, maketh an excellent ſement to ſouder or vnite any broken pieces of a glaſſe together: beſides, of ſuch ſtrength and efficacie they are, that neither a piece of wood no nor ſo much as any parcell of cloath wet or dipped in the white of an eg wil burn, but check the violence of the fire. Howbeit, note that all which I haue ſpoken of egs, is to be meant thoſe that hens only do lay: for as touching other birds egs, I wil write in their due places; for as much as they are not deſtitute of many peculier vertues and ſingular properties of their own. Ouer & beſides, I will not ouer-
F paſſe one kind of eggs beſides which is in great name and requeſt in France, and whereof the Greeke authors haue not written a word: and this is the ſerpents egg, which the Latins call Anguinum. For in Summer time yerely, you ſhall ſee an infinit number of ſnakes, gather round together into an hpape, entangled and enwrapped one within another ſo artificially, as I am not able to expreſſe the manner thereof: by the means therfore, of the froth or ſaliuation which they

* *i.* about two graines.

yeeld from their mouths, and the humour that commeth from their bodies, there is engendred G
the egg aforesaid. The priests of France called Druidæ, are of opinion, and so they deliuer it,
That these serpents when they haue thus engendred this egg do cast it vp on high into the aire,
by the force of their hissing; which being obserued, there must be one ready to latch and receiue
it in the fall again (before it touch the ground) within the lappet of a coat of arms or soldiours
cassocks. They affirme also that the party who carrieth this egg away, had need to be wel mount-
ted vpon a good horse and to ride away vpon the spur, for that the foresaid serpents will pursue
him still, and neuer giue ouer vntil they meet with some great riuer betweén him and them, that
may cut off and intercept their chase. They ad moreouer and say, that the onely marke to know
this egg whether it be right or no, is this, That it will swim aloft aboue the water euen against
the stream, yea though it were bound and enchased with a plate of gold. Ouer and besides, these H
Druidæ (as all the sort of these magicians be passing cautelous and cunning to hide and couer
their deceitfull fallacies) do affirme, That there must be a certaine speciall time of the Moones
age espied, when this businesse is to be gone about, as if (forsooth) it were in the power and dis-
position of man to cause the moon and the serpents to accord together in this operation of en-
gendring the egg aforesaid by their froth and saliuation, I my selfe verily haue seen one of these
egs, and to my remembrance, as big it was as an ordinary round apple: the shell thereof was of
a certaine gristly and cartilagineous substance, and the same clasped all about (as it were) with
many acetables or concauities representing those of the fish called a Pourcuttle, which shee
hath about her legs. And it is the ensigne or badge that the Druidæ doe carry for their armes.
And they hold it a soueraigne thing, for to procure readie exceſſe vnto any princes, and to win I
their grace and fauour; as also to obtaine the vpper hand ouer an aduersarie in any sute and pro-
cesse of law, if one do carrie it about him. But see how this vanitie and foolish persuasion hath
possessed the minds of men! for I am able vpon mine owne knwledge to auouch, that the Empe-
ror *Claudius Cæsar* commanded a man of arms and gentleman of Rome, descended from the Vo-
cantians, to be killed for no other reason in the whole world, but because he carried one of these
egs in his bosome, at what time as he pleaded his cause before him in the court. This winding
and mutuall enfolding of these serpents one within another, putting me in mind of one thing
worth the obseruation, That it was not for nought that forrein nations haue ordained, that their
Embassadors who had commission to treat of peace, should carrie with them a certaine rod or
mace wherein were pourtraied serpents winding and clasping round about it; to signifie and K
shew, that these creatures, as sauage, fell, and venomous as they be otherwise, and as it were made
altogether of poison, yet otherwhiles they accord and agree well enough together: where it is
furthermore to be noted, that the manner was not to represent in these maces and ensignes of
peace, any furious serpents with crests vpon their heads.

As touching geese and their eggs, how good and profitable they are, before I enter into any
discourse (for my purpose is to treat of them also in this very booke) I cannot chuse but for the
honour due vnto the Comagenes, in regard of an excellent composition by them made, write
first of it, being of them called Comagenum: for that also the principall and best of that kind
was most vsed and in greatest request in Comagene: which is a region belonging vnto Syria. It
consisteth of goose greace, cinamon, casia or canelle, white pepper, and an herbe called likewise L
Comagene. Now for the better mixture and fermentation of these ingredients and the whole
composition, the vessell which containeth the same ought to be buried in snow: a pleasant smel
it hath, and is held to be a soueraigne ointment for any through-cold and quiuering fit; for con-
vulsions, for sodain pains whereof no euident cause is known; and in one word, for all lassitudes
and what infirmities soeuer be cured by the medicins called in Greeke * Acopa: in such sort, as
that it serueth not only for an outward ointment, but also for an inward medicine. This Coma-
genum is made in Syria after another maner, namely of the fat or grease of birds which is clen-
sed, tried, and purified, according as I haue before said, with an addition of Erysisceptron, Xylo-
balsamum, the barke or young shoots of the Date tree, and sweet Calamus, of each as much as
amounteth to the weight of the greace aforesaid; and all these together must be put into wine M
and set ouer the fire for siuer and to take two or three waulms. Now this is to be noted, that
the conuenient time of making it is in winter, because it will neuer jellie and grow to any thick
consistence in Summer, vnlesse there be * wax put into it.

Many other good medicines and ointments there be made of Geese, whereat I marueile as
much

* *Acopa*, so called, because they be good against lassitude or wearinesse.

* And that delaieth much the odoriferous smell.

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A much as at * Goats: for it is ſaid, that all Summer long euen vnto the fall of the leafe, Geeſe and Rauens be continually ſicke. Finally, as touching the honour which Geeſe deſerued and woon by diſcouering the skallade that the Frenchmen made into the Capitoll hill of Rome, I haue written heretofore.

* For Goats are ſaid neuer to be cleare of the ague.

Chap. IIII.

¶ *Medicinable receits taken from dogs, and other beaſts which are not tame, but wild: alſo from foules. Remedies againſt the pricke or ſting of the venomous ſpiders Phalangia.*

B VPon the foreſaid occaſion, for the dogs which had the cuſtome of the Capitoll, barked not when the Gaules skaled the Capitoll, there is a cuſtome yearely obſerued at Rome to truſſe certain *dogs to forkes, and thus as it were crucified, to hang them aliue vpon an Elder tree for examplarie juſtice: which execution was performed between the temple of *Ieventus* and *Summanus*. But ſeeing I am thus light vpon the mention of dogs, I muſt needs diſcourſe of them more at large, and the rather, for that our anceſtours in old time obſerued many ceremonies about this beaſt. Firſt and formoſt, the ancient Romanes thought the fleſh of ſucking whelps to be ſo pure and fine a meat, that they vſed to ſacrifice and offer them as an expiatorie oblation to their gods for to appeaſe their indignation. And verily at this day they make no C ſcruple to ſacrifice a yong whelpe before it be full a day old, and eſpecially ſuch an one as the bitch puppied the ſame morning: yea, and at the ſolemne feſtiuall ſuppers ordained for the honour of the gods, they forget not this day to ſerue vp at the table certain diſhes of yong whelps fleſh that ſucke their dams. Moreouer, that young dogs fleſh was an ordinarie ſeruice at thoſe ſumptuous feaſts called * Aditiales, it appeareth plainely by the teſtimonie of *Plautus* in his * Comœdies. Certes, it is generally thought, that for the venome called Toxicum, there is not a better counterpoyſon than dogs bloud. It ſeemeth alſo that this domeſticall creature taught men firſt the manner of diſcharging and purging the ſtomacke by vomit. In ſumme, there are a number of other medicinable vertues in a dog highly commended, whereof I will write as occaſion ſhall be offered in conuenient place. But for this preſent I will proceed orderly according to my firſt intention and purpoſe.

*ἐνυλάκτας, ſaith *Cœl. Rhod. lib. 17. cap. 29.* ſuch as will not barke and giue warning of ſtrangers comming

*or *Adiſciales.* * *Feſtus* quoteth the place in the Comœdie called *Saturio* which is not now extant.

D To returne againe vnto the ſtinging of ſerpents, theſe remedies following are taken to be effectuall, to wit, ſheeps treddles and Goats dung freſh gathered and boiled in wine to the conſiſtence of a liniment, and ſo applied vnto the place: alſo mice and rats ſplitted and ſo laid hot vnto the wound. And verily, how baſely ſoeuer men thinke of this kind of cattell and hold them no better than vermine, yet they are not without certaine naturall properties, and thoſe not to be deſpiſed: but principally in regard of the ſympathy betweene them and the planets in their aſcent, as I haue noted heretofore: and namely, conſidering how the lobes and filaments of their liuers and bowels do encreaſe or decreaſe in number, according to the daies of the Moons age. And theſe magicians do report, That if one do giue vnto hogs the liuer of a mouſe or rat within a fig, they will follow the partie that gaue them that morcell. They ſay moreouer, that the E ſame is able to do as much in a man: but in caſe a cyath of oile be drunke vpon it, it looſeth all the vertue.

As touching Weaſels, there be two kinds of them: for there be wild ſort different from the reſt in bignes, for they be ſmaller: and thoſe the Greeks call * Ictides: their gall is ſaid to be very effectuall againſt the ſting of the Aſpis, whereas otherwiſe it is a very poyſon it ſelfe. As for that kind which keepeth about our houſes, wandering here and there in euery corner, and *vſeth to carie her kitlings in her mouth to and fro euery day from place to place and neuer reſteth (as mine author *Cicero* doth write) ſhee is an enemie ro ſerpents and naturally perſecuteth them. Their fleſh being ſalted, is giuen to the weight of one denier in three cyaths of wine, with great ſucceſſe, vnto thoſe that be ſtung by ſerpents: alſo their maw farced with coriander ſeed, and F kept in ſalt or brine, is good for the ſame purpoſe if it be drunke in wine. But the young kitling of the Weaſell is beſt and moſt effectuall.

* Which be our Ferrets.

* Some take theſe for our Cats.

Other vile creatures there are beſides, which for their baſeneſſe I baſh to name and relate in this place; howbeit, becauſe ſo many authors with one conſent haue ſo conſtantly commended their medicinable properties, I make it a matter of conſcience to paſſe them ouer in ſilence:

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conſidering that all our medicins proceed from that conuenience and repugnancie which is in the nature of all things, whereof we haue ſo much ſpoken. As we may ſee for example in theſe punies or wall lice (the moſt ilfauoured and filthy vermine of all other, and which we loth and abhor at the very naming of them) for natually they are ſaid to be aduerſatiue to the ſting of all ſerpents, and principally of the Aſpis: nay they are thought to be a counterpoyſon againſt any venomous thing whatſoeuer: and folke ground their reaſon hereupon, becauſe looke what day that Hens do eat a wal-louce, the ſame day there ſhall no Aſpis haue power to kill them. And it is ſaid moreouer, That the very fleſh of ſuch hens as haue eaten ſuch punies, is ſingular good for thoſe that be ſtung alreadie by the ſaid ſerpents. Other receits there be ſet downe by our great maſters in Phyſicke, as touching this foule vermine: but thoſe which carie moſt modeſtie with them and haue greateſt reſpect vnto manhood & humanity, are theſe, namely, to rub or annoint the place which is ſtung, with the ſaid wal-lice and the bloud of a Tortoiſe together: alſo to chaſe away ſerpents, with the ſmoak or perfume of them: likewiſe if any beaſt which hath ſwallowed down horſe-leeches, do take them in drink, they will either kill them or driue them out, yea, and in what part ſoeuer they are ſettled and ſticke faſt, they will remoue them and make them to fall off. And yet ſome there be who vſe this naſtie and ſtinking creature in eie-ſalues, for they incorporat them in ſalt & womans milk, and therwith annoint their eies: yea, and drop them into the eares with honey and oile roſat mingled together. Others there be who vſe to burne theſe punaiſes or wal-lice, ſuch eſpecially as be of a wild kind, and breed vpon Mallowes, and incorporat their aſhes in oile of Roſes, and inſtill them into the eares. Touching other medicinable properties which they attribute vnto them, namely for impoſtumes and botches that are broken and run, for the Quartan agne and many more maladies; although they giue direction to ſwallow them down in an egge, or elſe encloſed within wax or a beane, I hold them for lies, and therefore not worthy to be related in ſadneſſe. Marie I will not ſay but there is ſome probabilitie and apparence of reaſon why they ſhould put them in thoſe medicines which are ordained for the lethargie: for ſurely they are knowne to be very proper againſt that drowſines, which is occaſioned by the venome of the Aſpis: to which effect ſeuen of them be ordinarily giuen in a cyath of water, or but foure, if the patient be a child. In caſe of ſtrangurie alſo, when a man piſſeth dropmeale, they vſe to put wall-lice into a ſyring, and ſo conueigh them into the paſſage of the yard. See the goodneſſe and induſtrie of dame Nature, the mother of all, how ſhe hath produced nothing in the world but to good purpoſe and with great reaſon. And yet here is not all that they report of theſe lice called punaiſes: For they ſay, that whoſoeuer carie two of them in a bracelet about his left arme, within a lock of wooll (but the ſame forſooth muſt be ſtollen from ſome ſhepheard) he ſhall be ſecured againſt thoſe agues that come ordinarily in the night ſeaſon: but ſay their fits vſe to returne by day time, then the ſaid punices ought to be lapped in a reddiſh clout of a carnation colour. Contrariwiſe, the worme called Scolopendra is an enemie vnto theſe wall-lice, and killeth them.

As for the Aſpides, look whom ſoeuer they haue ſtung, they die vpon it with a kind of deadly ſleepineſſe and benummedneſſe in all their lims: and to ſay a truth, of all ſerpents that creep vpon the ground, they are moſt mortall, and their wounds leaſt curable. Their venome if it enter once ſo farre, that it come to bloud, or doe but touch a greene wound, there is no remedie but preſent death: marie if it light vpon an old ſore, the danger is not ſo ſpeedie, nor the force ſo quick. Otherwiſe let the ſame be taken in drinke to what quantitie ſoeuer, it is harmeleſſe and doth no hurt at all: for ſetting aſide that ſenceleſſe drowſineſſe wich it inflicteth, putrifaction and infection it cauſeth none: which is the reaſon, that the fleſh of thoſe beaſts which die of their ſting is meat good enough. I would pauſe and make ſome ſtay in reporting a remedie that theſe Aſpides do yeeld, but that I haue my warrant from *M. Varro*, whom I know to haue deliuered the ſame, euen when he was * foureſcore yeeres old and eight: namely, That there is not in the world ſo good a thing to cure the bitings of the Aſpides, as to giue the party who is wounded thereby, ſome of their vrine to drinke.

* At which yers he would haue beene aſhamed to tell a lie.

To come now vnto the Baſiliske, whom all other ſerpents do flie from and are affraid of: albeit he killeth them with his very breath and ſmel that paſſeth from him; yea, and (by report) if he do but ſet his eie on a man, it is enough to take away his life: yet the Magicians ſet great ſtore by his bloud, and tell wonders thereof: and namely that being of it ſelfe as blacke and as thick congealed as pitch, yet when it is waſhed and diſſolued, it looketh more cleare and pure than

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A *Cinnabaris. Vnto it they attribute ſtrange and admirable effects: For whoſoeuer (ſay they) carie it about them ſhall & gratious with princes or great potentats, yea, and at their hands obtaine a grant of all their petitions: they ſhall find fauour with the gods aboue, and ſpeed in all their praiers: remedie they ſhall haue of all diſeaſes: and no ſorcerie or witchcraft ſhall take hold of them. And ſome of them there be who call it the bloud of *Saturne*.

*A kind of gum, called *Sanguis Draconis*.

As for Dragons, they haue no venome in them. And if it be true that our Magicians ſay, if a Dragons head be laid vnder the threſhold of a dore, after due worſhip and adoration of the gods, with praiers & ſupplications vnto them for their fauourable grace, that houſe ſhall ſurely be fortunat. The eies of a Dragon preſerued drie, pulveriſed and incorporat with hony into a liniment, cauſe (by their ſaying) thoſe who be annointed all ouer therewith to ſleepe ſecurely,
B without any dread of night-ſpirits, though otherwiſe they were fearfull & timerous by nature. Moreouer, if we may beleeue them, the fat growing about the heart of a Dragon, lapped within a peece of a Buckes or Does skin, and ſo tied faſt to the arme with the nerues or ſinues of a red Deere, is very auaileable, and aſſureth a man good ſucceſſe in all ſutes of law. The firſt ſpondyle or turning joint in the chine of a Dragon, doth promiſe an eaſie and fauourable acceſſe vnto the preſence of princes & great ſtates. The teeth of a Dragon lapped within the skin of a roe buck or wild Goat, and ſo bound faſt with the ſinewes of a Stag or Hind, do mitigat the rigor of great lords and potentats, cauſing them to incline to their petitions and requeſts, who preſent themſelues before them. But aboue all other receits, one compoſition there is which bewraieth the impudent and lying humor of theſe Magicians, who promiſe vndoubted and infallible victory,
C to thoſe that haue it about them, and this it is: Take (ſay they) the taile and head both of a Dragon, the haire growing vpon the forehead of a Lion, with a little alſo of his marrow, the froth moreouer that an Horſe fometh at the mouth, who hath woon the victory and priſe in running a race, and the nailes beſides of a dogs feet: bind all theſe together with a piece of leather made of a red Deere skin, with the ſinues partly of a Stag and partly of a fallow Deere, one with another in alternatiue courſe: carrie this about you and it will worke wonders. Impoſtures all, and loud lies. And verily, it is as gratious a deed to diſcouer and lay abroad theſe impudencies of theirs, as to ſhew the remedies for the ſting of ſerpents, conſidering how theſe deuices be no better than meere miſchiefes and ſorceries, which hurt and bewitch poore patients, and ſuch as truſt in them. True it is, that all venomous beaſts flie from thoſe that be annointed with Dra-
D gons greaſe. Likewiſe they cannot abide the ſtrong & virulent ſauour of the rat of India called Ichneumon: inſomuch as they ſtand in dread of them who are annointed with a liniment made of the aſhes of their skin incorporat in vinegre. Moreouer, lay the head of a Viper to the place where ſhe hath wounded one, it is a ſoueraign remedy; yea, though it were the head of any other Viper than it which inflicted the wound, it is infinitely good. Likewiſe if a man do hold vp the ſame Viper that inflicted the ſting, at a ſtaues end ouer the ſmoak of wood burning, or the vapor of ſeething water (and yet, ſay they, warie enough they be thereof, and will auoid it) or annoint the place with a liniment made of her aſhes burnt, it is ſufficient to heal the ſore. *Nigidius* mine Author affirmeth, That ſerpents after they haue ſtung one, are forced by a certain neceſſitie and inſtinct of Nature to returne vnto the party whom they haue hurt. The Scythians yerely vſe to
E ſlit a vipers head between the eares for to take forth a little ſtone, which ſhe is wont to ſwallow when ſhe is affrghted. Others make vſe of the whole head as it is. Certaine trochisks there be, made of a Viper, called by the Greeks Theriaci: for which purpoſe they cut away at both ends as well toward the head as the taile the breadth of foure fingers, they rip her belly alſo, and take out the garbage within: but eſpecially they rid away the blew ſtring or vein that ſticketh cloſe to the ridge bone. Which done, the reſt of the bodie they ſeeth in a pan, with water and dill ſeed, vntill ſuch time as all the fleſh is gon from the chine: which being taken away, and all the prickie bones therto belonging, the fleſh remaining they incorporat with fine floure, & reduce into troſches, which being dried in the ſhade, are reſerued for diuerſe vſes, and enter into many ſoueraigne antidotes and confections. But here is to be noted, that although theſe troſch s be
F called * Theriaci, yet are they made of vipers fleſh onely. Some there be, who after a Viper is cleanſed as aboueſaid, take out the fat, and ſeeth it with a ſextar of oile vntill the one halfe be conſumed: which ſerueth to driue away all venomous beaſts, if three drops of this ointment be put into oile, and therewith the body be annointed all ouer. Moreouer, this is held for certaine, that there is no ſting or bit of ſerpents ſo mortall and incurable otherwiſe, but the entrailes of the

* θηριακὸν. For *Theriaci* in the primitiue and naturall ſignification is more generall: of θὴρ or θηρίον, which is any wild or venomous beaſt.

the ſame which gaue the wound, applied thereto, will heale it: as alſo, that as many as haue at G
any time ſupped the broth wherein a Vipers liuer was boiled, ſhall neuer afterwards be ſmitten
or ſtung by ſerpents.

As for Snakes, venomous they are not but at ſome times of the month, when they feel them-
ſelues mooued by the inſtigation of the Moone: but contrariwiſe they be good for thoſe which
chance to be ſtung by them, if they be taken aliue, ſtamped, or braied with water, and therewith
the affected place fomented. Certes, they are thought to be medicinable in many reſpects, as I
will hereafter declare: which is the cauſe that a Snake is dedicated vnto the god of Phyſick, *Æſ-*
culapius. And *Democritus* verily talketh of many ſtrange and wonderfull compoſitions made of
ſnakes, by meanes whereof a man may vnderſtand the language of birds, and know what they
prattle one to another. But to ſay no more, was not *Æſculapius* brought from Epidaurus to H
Rome in the forme of a Snake? and keepe we not ſtill many of that race commonly in our houſes
tame and gentle, feeding them by the hand? Surely if their eggs and young frie were not eft-
ſoones deſtroied with firing them in their holes, the world would be peſtered with them, they
multiplie ſo faſt. The goodlieſt and faireſt ſnakes to ſee too, are thoſe which liue in the water, and
are called Hydri, *i.* water-ſnakes: but a more fell and venomous ſerpent, their liues not vpon the
face of the earth. Howbeit, the liuer of theſe water-ſnakes, if it be kept in ſalt, or otherwiſe preſer-
ued, is a ſoueraigne remedie for thoſe that be ſtung by the ſame kind.

Now for the ſpotted Lizard, called Stellions, a Scorpion ſtamped is ſingular good againſt
their poyſon. For this you muſt thinke, that of them there is made a venomous drinke: for let I
him be ſtrangled or drowned in wine, whoſoeuer drinke thereof ſhall find themſelues impoyſo-
ned, inſomuch as their faces will break forth into certaine ſpots and pimples & foule morphew.
And this is the reaſon that our jealous dames when they would auert the affection and loue of
their husbands from thoſe concubins, vpon whom they ſuſpect them to be enamoured, will if
they can poſſible, ſtifle a ſtellion in the complexion or ointment wherewith ſuch harlots vſe to
paint their viſage; by meanes whereof they become disfigured, and grow both foule and ill-fa-
uoured. But what is the remedie to cleanſe the skin from ſuch deformities? The yolke of an egg
incorporat with hony and ſalnitre, doth the feat. The gall of theſe Lizards or Stellions punned
and diſſolued in water, is ſaid to haue an attractiue facultie to draw all the Weaſels about the
place to reſort thither in companies.

Of all venomous beaſts, there are not any ſo hurtfull and dangerous as are the Salamanders. K
As for other ſerpents, they can hurt but one at once, neither kill they many together: to ſay no-
thing, how when they haue ſtung or bitten a man, they die for very griefe and ſorrow that they
haue done ſuch a miſchiefe, as if they had ſome pricke and remorſe of conſcience afterwards;
and neuer enter they againe into earth, as vnworthy to be receiued there: but the Salamander is
able to deſtroy whole nations at one time, if they take not heed and prouide to preuent them:
For if he get once to a tree, and either claſpe about it or creepe vpon it, all the fruit that it bears
is infected with his venome; and ſure they are to die, whoſoeuer eat of that fruit, and that by the
meanes of an extreame cold qualitie that his poyſon hath, which doth mortifie no leſſe than if
they had taken the Libard-baine call Aconitum. Moreouer, ſay that ſhee doe but touch any
peece of wood, billet, or hedge ſtake, wherwith either a loafe is baked, or a ſhiue of bread toſted, L
as many as eat thereof, ſhall catch their bane by it: or if one of them chance to fall into a well
or pit of water, looke whoſoeuer drinke thereof, ſhall be ſure to die vpon it: and that which is
more, if there happen neuer ſo little of the ſpittle or moiſture which ſhee yeeldeth, to light
vpon any part of the body, though it touched no more but the ſole of the foot, it is enough to
cauſe all the haire of the body to fall off. And yet as great and dangerous as the poyſon of
theſe beaſts is, there be ſome creatures and namely Swine, that eat them ſafely; ſo effectuall
is their contrarietie and repugnancie in Nature, that it conquereth and ſubdueth the ſaid poy-
ſon: And to mortifie this venome, it ſoundeth to good reaſon, that thoſe beaſts ſhould haue
power, which feed vpon them and find no harme thereby. But writers there be who ſay, that the
flies called Cantharides, taken in drink, or the Lizard in meat, are good for that purpoſe: beſides M
other things which are aduerſe and contrary thereto, wherof I haue already ſpoken & will ſpeak
more in time and place conuenient. As for that which the Magicians do report of the Salaman-
der, againſt skarefires (for that there is other beaſt but it, that ſcorneth the violence of the fire
and quencheth it) ſurely it had beene put in practiſe long ſince at Rome, in caſe their words

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A had proued true. *Sextius* affirmeth, That the body of a Salamander cleanſed from the guts and garbage within, and parted from the head and feet, if it be condite in hony, inciteth greatly to fleſhly luſt thoſe that eat thereof: but he denieth flatly that it doth extinguiſh and put out the fire.

Now concerning thoſe birds which yeeld any helpe againſt ſerpents, the vulture or Geir deſerueth to be ſet in the firſt ranke: but this hath bin obſerued and found by experience, that the black of this kind are not ſo powerful as others in this behalfe. It is commonly ſaid, that a perfume made with burning their feathers, chaſeth ſerpents away. Likewiſe, it is an opinion generally receiued, that whoſoeuer carie about them the heart of this foule, are ſecured from the violent aſſault, not of ſerpents only, but alſo of other wild beaſts, yea, and of theeues & robbers by
B the high way ſide. The ſame alſo aſſures them to eſcape the danger of princes wrath and indignation, how ſoeuer they be ſet and incenſed againſt them. The fleſh of Cocks and Capons diſmembred, if it be applied warm (as it was plucked from the bones) to the place which is bitten or ſtung by any ſerpent, drawes out the venome, and mortifies the ſtrength therof, ſo doth their braines if it be drunke in wine. But the Parthians thinke it better to lay vnto the ſaid ſores the braines of an Hen. Alſo a broth made of ſuch pullein, hath a ſingular vertue in this caſe, if it be ſupped off: like as in many others it workes wonderfull effects, as it is vſed. For firſt and formoſt neither Lions nor Panthers will ſet vpon thoſe perſons who are bathed with their decoction, eſpecially if there were any Garlick ſodden therin. Secondly, it is paſſing good to keep the body looſe: but ſtranger is the operation if it were of an old Cocke. *Item*, It ſerueth very well to cure
C long feauers, the trembling alſo and nummednes of the lims, it aſſuageth the pain of all kinds of gout, eaſeth the head-ach, ſtaieth the violence of rheumes eſpecially falling into the eies, reſolueth ventoſities, quickeneth the dull appetite to meat, preuenteth the danger of the inordinat deſire to the ſtoole without doing any thing, if it be taken betimes and in the beginning of that diſeaſe; ſtrengtheneth a feeble liuer, comforteth the reins and the bladder, concocteth crudities in the ſtomack, and finally, helpeth thoſe who are ſhort winded. In regard of theſe manifold commodities, the maner of making this broth as it ought to be, is ſet down in writing, and direction giuen therefore. For more effectuall it is found to be, in caſe there be ſodden with the Cocke or Capon the ſea wort Soldanella, or the hearbe Cybium, Capres, or Perſely, Mercurie the herbe, Polypodium, or dill. Now the beſt way of making this broth, is to ſet the ſaid Cocke
D or Capon a ſeething with the abouenamed herbes in three gallons of water, and to ſuffer the ſame to boile vntil there remain but three pints of liquor: when it is thus ſodden to this height, it ought to coole without dores in the open air: and then it is ſingular good to be giuen in thoſe caſes aboue rehearſed, prouided alwaies, that the patient haue taken a vomit before, for that is the only ſeaſon. And for as much as I am thus far entred into a diſcourſe of Pullain, I cannot forget one miraculous experiment, although it be nothing pertinent to Phyſick, & this it is, That if one put the fleſh of an hen into gold as it is in melting, it will draw all the mettall into it, and *conſume it ſo, as therupon the ſaid fleſh is held to be the poyſon (as it were) of gold. Moreouer, if you would not haue a Cock to crow and chant, put a wreath or coller of Vine twigs about his necke. But to returne again to our receits and medicines againſt ſerpents: the fleſh of young Pi-
E geons newly hatched, as alſo of ſwallowes, is very good: ſo are the feet of a ſcriche Owle burnt together with the herbe *Plumbago. But before I write further of this bird, I cannot ouerpaſſe the vanitie of Magicians which herein appeareth moſt euidently: For ouer and beſides many other monſtrous lies which they haue deuiſed, they giue it out, That if one doe lay the heart of a ſcrich-Owle on the left pap of a woman as ſhe liee aſleep, ſhe will diſcloſe & vtter all the ſecrets of her heart: alſo whoſoeuer carie about them the ſame heart when they go to fight, ſhal be more hardie, and performe their deuoir the better againſt their enemies. They tell vs moreouer, I wot not what tales of their egges, and namely, that they cure the accidents and defects befalling to the haire of the head. But I would faine know of them what man euer found a ſcrich-Owles neſt and met with any of their egges, conſidering that it is holden for an vncouth and ſtrange pro-
F digie to haue ſeen the bird it ſelfe? and what might he be that tried ſuch concluſions and experiments, eſpecially in the haire of his head? Furthermore, they affirme aſſuredly, That the bloud of their young birds will curle and frizzle the ſame haire? Much like to theſe toies are their reports alſo of the Bat: for (ſay they) if a man goe round about a houſe three times, carrying a liue Bat with him, and then naile it vpon the window with the head downward, it is a ſoueraign

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*Hereupō peraduenture it is that in collices & Cocks broths we vſe to ſeeth peeces of gold, with an opinio to make them thereby more reſtoratiue.

* Which ſome take for the leſſe wild Tazell.

counter charme againſt all ſorceries and witchcrafts: and more particularly, if a Bat be borne G
thrice round about a ſheepe-coat, and then hanged vpon the lintell of the dore, with the heeles vpward, it will ſerue for a ſingular preſervatiue to defend the ſheep from all ſuch harmes. As for the bloud of a Bat, they commend it highly for healing the ſting of ſerpents: if together with the leaues or ſeeds of a thiſtle it be applied to the place.

*Yet *Matthiolus* vpon *Dioſcorides* reckoneth *Tarantula* to be a kind of Phalangium, whereof there is great ſtore in Apulia.

Touching the venomous ſpider called *Phalangia, they know not in Italy what it is, for all there be many kinds thereof: for ſome are like vnto Piſmires, but that they be far bigger; their heads be reddiſh, the reſt of their body black, howbeit here and there marked with white ſpots. The ſting of this ſpider is more keene and ſharpe than that of the weſpe. It liueth ordinarily about ouens and mils. The beſt remedie againſt the prick of their ſting, is to preſent before the eies of the patient, another ſpider of the ſame kind: for which purpoſe folke vſe to keepe them H
in ſtore, when they find any of them dead. Their caſes or skins brought into pouder and taken in drink, haue the like effect to young weazils or kitlings, as I haue declared before. A ſecond ſort there is of theſe venomous ſpiders Phalangia, which the Greeks diſtinguiſh from others by the name of Lupus. Thoſe that be of a third kind, and yet named Phalangia, are the ſpiders which be couered all ouer with a certain downe, and of all the reſt haue the biggeſt heads. Cut one of them and rip the bellie, you ſhall find within two little wormes or grubs, which (if it be true that *Cecilius* hath left in writing) hinder women for conception in caſe they be knit within a peece of leather of a red deere skin, and tied to their armes or other parts of their bodie before the ſunne-riſing: but this vertue continueth not aboue one yeare. Thus haue I ſhewed one receit
*called *Alocia* only, of all thoſe that * keep women from conceiuing; which I may be allowed to do in regard I
of ſome wiues, who being too fruitfull and ouercharged with child bearing, haue ſome reaſon to play them a while and reſt from teeming: and therefore may be pardoned, if they vſe ſome ſuch meanes therefore.

There is another kind of ſpiders, which the Greeks call Rhagion, for that it reſembles a black grape kernill: theſe haue a very little mouth vnder their belly, and as ſhort legs, as if they were vnperfect and not fully made. Look where they bite, the pain that enſueth is much like to that which is occaſioned by the ſting of a ſcorpion: and their vrine who are hurt by them, ſeemes to ſhew to the eye, cobwebs floting aloft. I would ſay, that this ſpider were the ſame that Aſterion, another kind of them, but that theſe haue certain e raies or ſtreakes of white. Their ſting or pricke cauſeth looſeneſſe and feebleneſſe of the knees. As for the blew ſpider, which carrieth a K
blacke downe or cotton, it is worſe than both the former, cauſeth trouble and dimneſſe of the eyes by their pricking, yea, and vomiting of matter reſembling cobwebs. And yet there is another Phalangium worſe than it, which commeth neare in ſhape to the Hornet, but that it hath no wings at all, and look whom ſoeuer it biteth, they are ſure to become leane and pine away. The venomous ſpider, called by the Greeks Myrmecion, is headed like vnto an Emmet: the bellie is blacke, howbeit marked with certain white ſpots: their ſting is as painefull as that of
*i. Hauing four claws. Weſpes. But as touching that kind of Phalangium which is called * Tetragnatium, there be two ſorts thereof: The one, which is the worſt of the twaine, hath the head diuided directly in the middeſt with a white line; wheras in the other, the ſaid line or ſeame runneth croſſe ouerthwart. Theſe make the mouths to ſwell whom they haue bitten. But thoſe that be of a dead aſh L
colour, and yet whitiſh behind, are not ſo quicke with their prick as the reſt: Of which colour there is another ſort that be altogether harmleſſe: and, theſe be our common ſpiders or ſpinners which againſt wals vſe to ſtretch out their large webs as nets to catch poore flies. Now concerning the remedies appropriat to any pricke or biting of the foreſaid Phalangia, there is not a better thing than to drink in oxycrat, *i.* water and vinegre mingled together, the braines of a Cock or Hen with a little pepper. Alſo to take in drink fiue Piſmires, is thought to be a ſingular medicine: and withall to make a liniment of ſheeps mucke aſhes, tempered in vinegre, and therwith to annoint the grieued place. Moreouer, the ſaid ſpiders themſelues (of any kind whatſoeuer) reſolued and putrified in oile, ſerue for the ſaid purpoſe.

As for the miſcheeuous mouſe called the Hardiſhrew, the runnet found in a lambes maw ta- M
ken in wine, healeth the hurt that commeth by her biting: alſo the application of a ſalue made with the aſhes of a Rams cley incorporat with hony, worketh the ſame effect: ſo doth a young weazill or kitling, prepared and vſed in manner aforeſaid in the Treatiſe of ſerpents. If one of theſe ſhrewes haue bitten a horſe or other beaſt, it is good to lay vnto the place a mouſe or rat

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A new killed, with ſome ſalt, or elſe the gall of a Bat with vineger. The ſhrew it ſelfe being burſt, and ſo laid freſh and warm to the ſore, cureth the ſame: for this is obſerued, That if one of them be with yong when ſhe doth bite, preſently ſhe cleaueth in ſunder. And in truth, the beſt & ſureſt means to cure the hurt, is to apply vnto the wound the very ſhrew it ſelfe that did the deed, if poſſibly ſhee may be had; and yet the reſt are very good: for which purpoſe they vſe to be kept in oile, or els to be dawbed ouer with clay, to ſerue in time of need: alſo the earth taken from a cart-rut where a wheele hath gon, is thought to be a proper remedie for the ſaid biting of a ſhrew, if it be applied thereto: for it is ſaid, that this creature is by nature ſo benummed or dull of mouing, that it will neuer go ouer a cart-tract.

As touching Scorpions, the lizard named Stellio (by way of a reciprocall counterchange) is
B the greateſt enemie they haue; inſomuch as at the very ſight only of the ſaid lizard, they wil be afrighted and aſtonied and fall into cold ſweats: and therefore people vſe to putrifie & reſolue Stelliona in oile, and therewith anoint the wounds that Scorpions haue made. Some there be who make a kind of plaiſtre of the ſaid oile and litharge of ſiluer boiled both together, wherewith they rub and anoint the grieued place. This lizard, which we name Stellio, the Greeks cal Colotes, Aſcalabotes, and Galeotes: * it breeds not in Italy: but call it what you will, & wherſoeuer it is to be found, full it is of little red ſpots like lentils; a ſhril noiſe it maketh, that pierceth the eares and goeth through ones head; it doth eat and graze like other beaſts, which be marks all contrary to our Stellions or ſtarre-lizards here in Italy. But to come againe vnto the pricke of ſcorpions: it is thought good to rub the ſame with the aſhes of hens dung, mixt with
C the liuer of a dragon: or to take a lizard that is burſten, and the ſame to apply vnto the affected place; or a mouſe likewiſe which is clouen in ſunder; alſo to lay to the ſore the very ſame ſcorpion that did the harm; or to eat him roſted: and laſt of all, to drinke it in two cyaths of pure wine of the grape. Moreouer, this proper qualitie haue ſcorpions alone by themſelues, That they neuer pricke the ball of ones hand, nor ſting at all vnleſſe they may touch ſome haire. Furthermore, take any little ſtone whatſoeuer, and apply that ſide which lay next the ground vnto the wound, it will eaſe the paine: likewiſe any ſhell or potſherd which lieth with ſome part of it couered with earth, if it be taken vp and laid vnto the ſore, with earth and all vpon it as it was found lying, is ſaid to heale the ſame perfectly: but in no wiſe they that haue the applying of it muſt looke behind them: they ought alſo to take heed and be very carefull that the Sun ſhine
D not vpon them when they are about this buſineſſe. Earth-worms or mads ſtamped and laid to, are very good to cure the biting of ſcorpions: and yet they ſerue beſides for many other remedies; in which regard they be ordinarily preſerued in hony.

For the ſting of Bees, Weſps, and Hornets; for the biting alſo of thoſe Horſeleeches called Bloudſuckers, the Howlat is counted a ſoueraigne remedie, by a certaine antipathy in nature: alſo whoſoeuer carry about them the bill of a Woodpecker or Hickway, ſhall neuer be anoied with any of the foreſaid vermin. The ſmalleſt kind of locuſts likewiſe, which are without wings and be called Attelabi, be aduerſe and contrarie vnto them all.

Ouer & beſides the Inſects aboue named, there be in ſome places certain piſmires alſo very venomous, which *Cicero* calleth Solpugæ: but they of Grenado in Spain, Salpugæ: howbeit few
E or none of them are to be found throughout all Italy. But what help is there for them and their poiſon? Surely the heart of a Reremouſe, otherwiſe called a bat, hath an operation which is aduerſe not only to them, but to all Ants beſides.

As for the flies named Cantharides, I haue ſhewed before how contrarie they be to the venom of the Salamander: and yet conſidering how hurtful they be themſelues, and a very poiſon to the bladder, cauſing intollerable pain if they be drunk down, much diſpute & queſtion there is among phyſitians, * how they ſhould be taken and vſed; for how venomous they be, it may appeare by the practiſe of a certaine Egyptian phyſitian, whom by occaſion that one *Coſſinus* a knight of Rome, a great fauorit of the Emperor *Nero*, was infected with the foule tettar called Lichene, the ſaid prince ſent for out of Egypt to cure of that diſeaſe: but he prepared ſuch a
F drink of Cantharides for his patient *Coſſinus*, that it quickly coſt him his life and brought him to his graue. Howbeit there is no doubt, but being applied outwardly they are not only harmleſſe, but alſo very good, eſpecially if they be incorporate in the juice of the blacke wilde Vine called Vva Taminia, and ſheeps ſuet or goats tallow. Moreouer, albeit well knowne it is that theſe Cantharides be venomous, yet thoſe Authors that write of them be not agreed and reſol-

* And yet *Matthiolus* vpon *Dioſc.* ſaith it is the *Terrantola* which is common in Tuſcan.

* Namely, whether they are to be vſed inwardly at all? whether with their wings, head & feet, or without them.

ued, in what part that venom lieth: for ſome there be who are of opinion, that their feet are poiſon; others thinke their miſchiefe is all in their head; and there be againe who deny both: but whereſoeuer the ſaid poiſon lieth, all conclude jointly vpon this point, that their wings be medicinable therefore, and do cure the ſame. As for the generation of theſe dangerous flies, they be ingendred of certaine little grubs or wormes; and moſt commonly vpon the ſpongeous bals which wee ſee to grow vpon the ſtalke or ſtem of the Eglantine: but ſurely the greateſt plenty of them breed in an Aſh tree. As for others that come of a white Roſe buſh, they are not ſo vehement in operation as the reſt: and of them all, thoſe worke moſt violently which are ſpotted and of diuers colours, ſtreaked with yellow lines ouerthwart their wings, and beſides are very plumpe and fat. The ſmaller ſort, which alſo are broad and hairy, are nothing ſo powerful and ſpeedy in their operation. But the worſt of all, and leaſt effectuall in phyſicke, be thoſe which are of one entire colour, and leane withall. Now for the manner of preparing and ordering of them for phyſical vſes; they would be gotten when Roſes be fully out: heaped vp together in one maſſe, and ſo beſtowed in an arthen pot not pitched, verniſhed or nealed, the mouth wherof is cloſe ſtopped with a linnen cloath: then are they to be hanged vp with the mouth of the ſaid pot downward ouer ſome vinegre boiling with ſalt, vntill ſuch time as by the fume or vapour thereof ſteeming through the ſaid linnen clout, they be choked and killed: and afterward they be layd vp and reſerued for vſe. Of a cauſticke and burning nature they are, inſomuch as they will raiſe bliſters, yea and leaue an eſchar vpon the exulcerat place.

Of the like force be the wormes Pityocampæ, breeding in pitch trees: ſo is the venomous flie or beetle called Bupreſtis: and after the ſame maner be they prepared as the Cantharides:

All the ſort of them in generall be moſt effectuall to kill the leproſie, and ilfauored tettars called Lichenes. Beſides, they haue the name to prouoke womens monethly termes, and vrine; which is the cauſe that *Hippocrates* preſcribed them to be vſed in a dropſie. To conclude with theſe Cantharides, I thinke it not amiſſe to note, That *Cato* ſyrnamed **Vticenſis*, was accuſed and endited for ſelling of poiſon; becauſe in the generall portſale of the kings goods, amongſt other moueables, he held Cantharides at threeſcore ſeſterces a pound, and made ſo much money of them.

* For that he killed himſelf at Vtica.

Chap. V.

¶ *Of the Oſtrich greace, and of a mad Dog: of Lizards, Geeſe, Doues, and Weaſils, with the medicines that they do yeeld.*

I Cannot chuſe but relate alſo by the way, vpon this occaſion miniſtred, that at the ſame time Oſtrich greaſe was ſold for * eighty Seſterces the pound: and in truth it is much better for any vſe it ſhall be put vnto, than gooſe greaſe.

* Some reade thirty.

As touching diuers ſorts of venomous hony I haue written already: but for to repreſſe the poiſon thereof, it is good to vſe other hony wherein a number of bees haue been forced to die: and ſuch hony ſo prepared and taken in wine, is a ſoueraign remedie for all thoſe accidents that may come by eating or ſurfeiting vpon fiſh.

For the biting of a mad dog take the aſhes of a dogs head burnt, and apply it to the ſore, it wil ſaue the Patient from that ſymptome of being afraid of water; which is incident to ſuch as be ſo bitten. [And now by occaſion of ſpeech know thus much once for all, That all things which are to be calcined require one and the ſame manner of burning, that is to ſay, within a new earthen pot neuer occupied before, well luted all ouer with ſtrong cley, and ſo ſet into an ouen or furnace vntill ſuch time as the contents be calcined.] The ſaid aſhes made of a Dogs head is ſingular good likewiſe to be drunke in the ſame caſe: wherfore ſome haue giuen counſell to eat alſo a dogs head. Others ſeeke after the wormes that breed in the carkaſſe of a dead dog, and hang the ſame faſt about the necke or arme of the party that is bitten: or els they lap within a cloath ſome of the menſtrual bloud of a woman, and put it vnder the cup or pots bottome out of which the patient drinketh. And there be ſome againe who burn the haires of the ſame mad dogs taile, and conueigh the aſhes handſomely in ſome tent of lint into the wound. Moreouer it is commonly ſaid, That as many as haue a Dogges head about them, no other Doggs will come neere to do them any harme. In like manner, if a man carry a dogs tongue in his Shooe vnder his great toe, there will no Dogges bay or barke at him. If hee haue

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A about him a weazils taile,which hath beene let goe againe after it was cut away. There is to be found under the tongue of a mad dog, a certaine ſlimy and groſſe ſpittle, which being giuen in drinks to thoſe that are bitten,keep them from the feare of water;which ſymptome the Greeks call Hydrophobia: but the beſt and moſt ſoueraigne remedy of all other, is the liuer of the ſame dog that in his madneſſe bit any body,eaten raw,if poſſibly it may be;if not,yet ſodden or boiled any way;or elſe to cauſe the Patient for to ſup the broth that is made of the ſame dogs fleſh. There is a certaine little worme in dogs tongues, called by a Greeke name Lytta which if it be taken out when they be young whelpes, they will never after proue mad, nor loſe their appetite to meat. The ſame worme giuen to ſuch as are bitten with a mad dog,preſerueth them from beeing mad; but with this charge,that before they take the ſame,it muſt be carried three
B times about the fire. Alſo the braines of a Cocke,Capon, or Hen, is ſingular good againſt the biting of a mad dog: but if one haue eaten the ſame, the vertue thereof indureth but for that yeare onely,and no longer. It is commonly ſaid,that the creſt or combe of a Cocke well bruiſed and ſtamped,and ſo laid in manner of a cataplaſme to the place bitten, is very effectuall to cure it: as alſo the greaſe of a gooſe incorporate with honey. Furthermore,ſome there be who vſe to ſalt the fleſh of dogs which haue bin mad,and ſo keepe it to giue in meat vnto thoſe who chance to be bitten by others. There be,who take ſome young whelpes, male or female according to the ſex of dog or bitch that hath bitten any one, and preſently drowne them in water, cauſing the Patient to eat their liuers raw. The yellow or reddiſh doung of a cock or a hen,diſſolued in vineger,and applied to the ſore,is ſingular good. The aſhes alſo of an hardy ſhrewes
C taile;prouided alwaies,that the ſhrew were let go aliue,ſo ſoone as ſhe was curt-tailed. Moreouer,a piece of clay taken from a ſwallows neſt,made into a liniment with vineger: or the aſhes of young ſwallows newly hatched and burnt: the old skin alſo or ſlough which a ſnake vſeth to caſt off in the ſpring time,ſtamped with a male crab-fiſh,and with wine brought into a Cataplaſme,be all eſpeciall remedies for the biting of a mad dog. As for the skinne or ſpoile of a ſnake,if it be put alone in a chiſt,preſſe,or wardrobe,among cloaths,it will kil the moth. But to come again vnto a mad dog:his poiſon is ſo ſtrong,that whoſoeuer do but tread upon his vrine, eſpecially if they have any ſore or vlcer about them,they ſhall ſenſibly feele hurt therby. Now what remedy is there for ſuch? None better than the dung of a caple, well wet and tempered with vineger,and the ſame laid very hot within a fig to the foreſaid ſore. Theſe may ſeeme to
D ſome men ſtrange things & monſtrous;but leſſe will they wonder hereat, when they ſhall heare and conſider,that a ſtone which a * dog hath taken vp with his mouth and bitten,wil cauſe debate and diſſention in the company where it is:and yet this is held for a certain truth,inſomuch as it is growne into a common prouerbe and by-word,when we perceiue thoſe that dwel in one houſe together to be euermore jarring and at variance one with another,to ſay, You have a dog-bitten ſtone here among you. Againe,whoſoever maketh water in the ſame place where a dog hath newly piſſed,ſo as both vrines be mingled together,ſhall immediatly find a coldneſſe and aſtoniſhment in his loines,as folke ſay.

* For the manner of a dog is to bee angrie with the ſtone that is thrown at him, without regard of the party that flung it: whereupon grew the Prouerbe in Greeke, κύων εἰς λίθον ἐμεσεν κτῆνος.

That kinde of Lizard,which of ſome Greeks is called Seps,of others Chalidicum,hath a venomous tooth: howbeit, the ſame worme or ſerpent taken in drinke, cureth the bit which it
E ſelfe inflicted.

If wilde Weazils haue empoiſoned any body, let the patient take a large draught of the broth of an old Cocke,he ſhall finde it to bee a very ſoueraigne remedy therefore: but aboue all,it is moſt effectuall againſt the poiſon of the herbe Aconitum; hut then it muſt be given with a litle ſalt among.

Againſt the poiſon of venomous Tadſtoles and hurtfull Muſhromes, hens doung (I meane that part alone which is white) ſodden with * Hyſſope or honied wine,is ſingular good, for it repreſſeth and killeth the malice thereof. And the ſame otherwiſe keepeth downe ventoſities and ſtuffing of the ſtomacke,ready to choke one. Whereat I cannot chuſe but maruell much, conſidering that if any other liuing creatures do taſt never ſo little of the ſaid dung (but man
F or woman onely) they ſhall be exceedingly vexed with winde in the belly, and other grieuous wrings and torments.

* *In hyſopo decocta, aut mulſo*: ſome reade, *cũ œſypo decoctum in mulſo*. Boiled with tried greaſe of ſheeps wool, in honied wine.

The Sea-hare is knowne to be venomous;but gooſe bloud taken with an equall quantity of oile is a ſoueraign counterpoiſon for it. Of this bloud,incorporat with the beſt Terra Sigillata of the Iſland Lemnos,and the juice of the S. *Mary* thiſtle called Bedegnar, there be excellent

trochiſchs made weighing fiue drams apeece, which are vſually kept in a readineſſe for to bee drunke in three cyaths of water as a counterpoiſon and countercharme, againſt all venomous confections and divelliſh ſorceries: for which purpoſe ſerveth alſo a yong ſucking Weazill prepared in manner aforeſaid. The rennet in a lambs maw likewiſe, is paſſing good for any ſuch indirect means wrought by poiſon or witchcraft: like as the bloud of ducks and mallards bred in the realm of Pontus: and therefore their bloud is ordinarily kept dry in a thicke maſſe, and as need requireth is diſſolued and giuen in wine: but ſome think, that the bloud of the female duck is better than that of the mallard or drake. Semblably, the geſier of a ſtorke, and the rennet or read of a ſheep, is thought to be ſingular good for any poiſons whatſoeuer. The broth or decoction of Coleworts boiled with Rams mutton, hath a peculiar vertue againſt the Cantharides. Ewes milke alſo drunke warm, availeth much againſt all poiſons, vnleſſe it be the venomous flie Bupreſtis, or the deadly herb Aconitum. The dung of wild quoiſts or ſtockdoues taken in drink, hath a ſpeciall vertue to helpe thoſe that haue drunke quicke-ſiluer. Finally, the fleſh of the ordinary or common houſe weazill kept in ſalt, is a preſent counterpoiſon againſt all venome that goeth vnder the name of Toxicum, if one drinke of it the weight of two drams.

Chap. VI.

¶ *Medicines to bring haire againe in places that by ſome diſeaſe are bald: alſo to rid away nits: for to rectifie and keepe in order the Eye-lids, and the haire growing thereupon: for to cure the pearle in the Eye: and generally for all the accidents befalling to the Eyes: laſtly, for the impoſtumat kernels behind the eares.*

THe naked places in head or beard, are repleniſhed again with haire by a liniment made of the aſhes of ſheeps dung incorporat in Cyprin oile & hony: alſo with the aſhes of mules or mullets houſes, applied with oile of Myrtles. Our countryman and Latine writer *Varro* affirmeth moreouer, That the dung of mice (which he by a proper name calleth * Muſcerda) is a conuenient medicine for the ſaid infirmity and defect: he attributeth alſo the ſame operation to the heads of flies applied freſh to the bald place, if ſo be the ſame were before rubbed hard, and in ſome ſort fretted with a figtree leafe. Some vſe in this caſe the bloud of flies: others mingle their aſhes with the aſhes of paper vſed in old time, or els of nuts; with this proportion, that there be a third part only of the aſhes of flies to the reſt, and herewith for 10 daies together rub the bare places where the haire is gone. Some there be again, who temper and incorporat together the ſaid aſhes of flies with the juice of the Colewort and breſt-milk: others take nothing thereto but hony. Certes, a ſtrange thing it is of theſe flies, which are taken to be as ſenſeleſſe and witleſſe creatures, yea, and of as little capacity and vnderſtanding as any other whatſoeuer: and yet at the ſolemne games and plaies holden euery fifth yeare at Olympia, no ſooner is the bull ſacrificed there to the Idoll or god of Flies called * Myiodes, but a man ſhall ſee (a wonderfull thing to tell) infinit thouſands of flies depart out of that territory by flights, as it were thicke clouds. But to come again to the foreſaid infirmity of haire-ſhedding: the aſhes of the heads, tails, yea and the whole bodies of mice burnt, are very good to make it come again; eſpecially if the haire went off by occaſion of ſome venomous matter or poiſon: ſo are the aſhes of an vrchin or hedgehog medled with hony: or the skin therof burnt and applied with tar. As for the head alone of an vrchin conſumed into aſhes, it is thought ſo effectual for this purpoſe, that it will cauſe haire to grow again vpon a skar: but for the cure of the foreſaid defect of haire, called Alopecia, the places ought before the application of thoſe topicke medicines, to be wel prepared with the razour, and a ſinapiſme or rubificatiue made of muſtard-ſeed, vntill the place look red: howbeit, ſome chuſe rather to take vineger vnto it. Here note by the way, that whatſoeuer vertue we attribute vnto hedgehogs, the ſame is more effectuall in the porkeſpine. Moreouer, Lizards torrified yea and calcined as I haue ſhewed before, with the root of reeds or canes that be green and new drawn (which that it may burne the better with the Lizards, ought to be ſliced ſmall) yeeld aſhes, which being incorporat well in oile of myrtles, doe retaine the haire and keep it from ſhedding, if the place be annointed therwith: and the green lizards in this cure and operation be ſimply the beſt: but if you would haue this medicine to work more effectually, put thereto ſalt, Bears greaſe, and Onions ſtamped. Some there be, who in ten ſextars of old oile ſeeth ten greene Lizards, and therewith make a liniment, thinking it ſufficient therewith

to

*The Latines in old time after the ſame analogie called the dung of ſwine, *Sucerda*, of kine and oxen, *Bucerda*, like as the ordure of men, *Homerda*

* This Idoll of the Panims, I take to be called in the holy Scripture, *Beel-zebub*.

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A to annoint the place once a moneth,and no oftener. The aſhes of vipers skins doth raiſe haire quickly againe and make it grow apace,where it was ſhed:ſo doth Hens dung that is freſh and new,if the place be plied with annointing. Take a rauens egge, and mix it with the dung aforeſaid in a veſſell of braſſe,and therewith rub and annoint the head (ſo that it were ſhauen before) it will cauſe the new haire to come vp blacke: but vntill this vnguent be dried vpon the head, the patient muſt hold oile in his mouth, for feare leſt the teeth alſo by this means turn blacke: and withall,this ought to be done in the ſhade or within houſe:and the foreſaid ointment not to be waſhed off in 4 daies ſpace. Others in this cure,vſe the bloud and brains of a rauen,together with ſome thick and deep coloured wine. Some boile a rauen throughly,vntill the fleſh be parted from the bones,and in the dead time of the night when euery body is found aſleepe, put
B him vp into ſome pot or veſſell of lead. There be again, who hauing prepared and rubified the skin with ſalnitre,do annoint the place where the haire is gone or groweth thin,with a liniment made of Cantharides and tar punned & incorporat together. Now foraſmuch as Cantharides be of a cauſtick quality and corroſiue,great heed would be taken that they doe not fret and eat into the skin over deep. Now when the place is thus prepared,and lightly exulcerat,they ordain to apply thereto a liniment made of mice heads and their galls, incorporat and wrought together with their dung,putting thereto Ellebore and Pepper.

The head many times is peſtered with nits;but for to rid them away, there is not a better thing than dogs greaſe. Some for this purpoſe make a diſh of meat with ſnakes, dreſſing and ordering them as eels and ſo eat them;or els they take their ſlough which they ſlip off in the
C ſpring time,and drinke the ſame.

Otherwhiles there be certaine branny ſcales called dandruffe,which ouer-ſpread the head:to cleanſe it from this ſcurfe and deformity,it were not amiſſe to annoint the head with ſheeps gal tempered with fullers * ſcouring clay,and let it remaine on the head vntill it be drie.

For the painfull head-ache,it is commonly thought,that the heads of naked ſnails(I meane thoſe that be found without ſhels,and are vnperfect yet and not fully made)plucked from their bodies are a ſingular remedy to be hung about the neck or tied to the head; with this charge, that there be taken forth of their heads firſt,a certain ſtony hard ſubſtance, which is made flat and broad like a thin grauell ſtone:and if the ſaid ſnails be but yong and ſmall,they vſe to ſtamp them, and in manner of a frontall apply them to the forehead. In like manner, the bones of a
D Vultures head,whether it be the common Geire,or that which the Greeks cal Ægypios, hanged about the neck or faſtned to the arms: alſo the brains of the ſaid foule tempered with the oile of Cedar-roſin,driueth away the head-ache,if either the head be throughly annointed, or the noſthrils within forth,therewith. The brains of a crow or of an owle,being ſodden and eaten wil do as much. Some think it good in this caſe,to lap the head and forehead with the feathers or plume pluckt from about the neck of a cocke, or with his creſted combe, but it muſt bee of ſuch a cock as hath bin cloſe ſhut vp as a priſoner and kept from meat and drinke a whole day and a night;but take this withall,the patient who is troubled with the head-ach, muſt faſt as long from all meat and drink. The aſhes of a rat or weazill applied to the forehead, eaſeth the pain,ſo doth a twig or ſtick taken from a puttocks neſt,laid under the pillow of the ſick perſon;
E yea and a liniment made of a mouſe skin burnt to aſhes,mixed with vineger,& ſo applied. Many do ſay,that the little hard bone in the head of ſnailes (ſuch eſpecially as are found betweene two cart-tracts) if it be put through the eare,and hanged thereto within a little box of Ivorie,or otherwiſe tied faſt and carried about one within a piece of a dogs skin,is a remedy for the head ach that never faileth,and may ſerue to do many good. If the head be hurt,or the crown crackt, lay to the wound a copweb with oile and vineger,and ſo let it lie,it will not lightly goe off vntill ſuch time as it be perfectly healed:this copweb is very good alſo to ſtaunch the bloud * of wounds in a Barbers ſhop. But ſay that the bloud guſh out of the head,and from the brain,what is to be done in that caſe? Surely there is not a better thing to ſtay the flux thereof, than to inſtill and drop thereupon the bloud of a gooſe or ducke,with the greaſe of the ſaid fouls,ſodden
F together with the oile of Roſes. And to returne once againe to the cure of the head-ach: Take a ſwallow feeding in a morning betimes,cut off his head (but let this bee done if poſſibly you can in the ful of the Moon)wrap it within a linnen cloth,and binde it to the head of the patient with the yarn that goeth to the ſelf edge or liſt of a piece of cloth:and yet ſome there be,who incorporat the ſaid head within white wax,and therewith annoint the forehead;and withall, baſt

* *Creta cimolia.* Tuckers earth.

* *Palearibus tenuiorum ſanguine ſiſtit.* Either when the barber would ſtop the orifice of a vaine after bloud letting: or when one that is newly wounded, craueth freſh bleeding to be dreſſed:or if his own raſor chance to go awry & ſhaue to the quicke, while he hath a man vnder his hand to trim.

dogs haire downe to a bend or peece of cloth, and faſten the ſame cloſe to the ſaid forehead.

Let vs come lower to the eielids: it is ſaid, that if one do eat the brains of a crow with meat, it will make the haire there to grow: ſo doth the tried greaſe of ſweatie wooll called Oeſypum, if the edges or brims of the eielids be annointed with it and myrrh hot, with a fine penſill. Many promiſe the ſame effect, if there be taken the aſhes of flies and mice dung, of each an equall portion; ſo as they both together amount to the weight of halfe a dram or denier Romane; adding thereto of Stibi or Antimonium * two ſix parts of a denier; ſo as they be all incorporat with Oeſypum aforeſaid, and therewith the eielids be annointed. Likewiſe young mice are imploied to the ſame purpoſe, being braied in a mortar with old wine to the conſiſtence of thoſe medicines which be called Acopa, and prepared to diſſolue laſſitudes. If any haires grow in the eie-lids vntowardly and be offenſiue to the eies, or otherwiſe, pluck them forth, and annoint the H place with the gall of an vrchin, they will neuer grow againe to trouble you: of the ſame operation and effect, is the humor or liquor that the egs of the Star-lizard called Stellio, doe yeeld from them: the aſhes of a Salamander: the gall of a green lizard, tempered with white wine and permitted in the Sun to thicken and dry vntill it haue gotten the conſiſtence of hony, lying all the while in ſome baſon or veſſell of braſſe: the aſhes of young ſwallows with the milky juice of the Tithymall: and laſt of all, the ſlime or froth that iſſueth from ſhel-ſnails.

* i. One whole ſcriptule or ſcruple.

To come nearer to the very eies; the fiery red ſpots or pearles appearing in the chryſtalline humor, which the Greeks cal Glaucomata, may be cured (as our Magitians ſay) with the brains of a yong whelp or puppie that is but 7 daies old; ſo as the Chyrurgian with his probe or inſtrument, do conuey the ſame gainly on the right ſide, if the right eye be amiſſe; and contrariwiſe on the left ſide, if the other eie be affected. And ſome of them affirme, that the freſh gall of a foule called Aſio will do as much: this Aſio, is of the biggeſt kind of owls, who haue certaine feathers pricking vp like ears. *Apollonius Pitanæus* was of opinion, that for to cure the cataract in the eie, the gall of a dog was better than that of the Hyæna, ſo that it were applied thereto with honey: and he was perſuaded, that the ſame would take away the white ſpots or pearles of the eie, called Albugines. It is a generall ſpeech, that to clarifie & quicken the eieſight that is dim and ouercaſt with a miſt or cloud, a collyrie or eieſalue made with the aſhes of mice heads and their tails, mixt with hony, is a ſingular medicine: but the ſame would bee much better in caſe the ſaid ſalve were made vp with the aſhes of heads and tails both, of dormice, or the wild field mice: or at leaſtwiſe with the brains or gall of an Ægle. The greaſe and aſhes of a rat burnt K and well incorporat in a mortar with the beſt Attick hony, is a ſoueraigne remedy for weeping and watery eies: ſo is Antimonium, otherwiſe called Stibi; but what it this, I meane to declare in my treatiſe of Minerals. The aſhes of a weazil is good for the cataract: ſo are the brains of a lizard or ſwallow: and if the ſame lizards & ſwallows be either braied in a morter or ſodden, and ſo applied to the forehead in manner of a liniment, they do repreſſe the violent rheume that taketh to the eies: which effect they worke either alone by themſelues, or els with fine floure of meale, or with Frankincenſe: and in this wiſe they help the eies and face * blaſted and bliſtered with ſun-burning. Moreouer, there is not of all others a better medicine to cleare the eie and to rid away all thick filmes and miſts that trouble the ſight, than to burn the ſaid lizards & ſwallows aliue, and with an eie-ſalue made of their aſhes and hony of Candy, to annoint them. The L ſlough or skin of an Aſpis, which ſhe likewiſe ſomtime caſteth, tempered with the own greaſe, mundifieth the eies of horſes and ſuch labouring beaſts, if they be annointed therewith. Alſo, there is not a more ſoueraigne thing in the world for to remoue the cataract, and diſpatch the miſts and cloudy films that dim the eies, than to burne and calcine a viper aliue in a new earthen pot neuer occupied before; putting thereto of the juice of fenell the meaſure of one cyath, and ſome corns or crums of Olibanum or frankincenſe: and this medicine is commonly called * Echion. Moreouer, There is a collyrie or ſpeciall eie-ſalue made of a viper ſuffered to putrifie in a pot of earth, ſo as the grubs or worms that come of the ſaid carrion be ſtamped and incorporat in Saffron. Some burn a viper with ſalt in an earthen pot; and they are of opinion, that whoſoeuer do lick the ſame ſalt, or let it melt at the tongues end, it clarifieth the eies: and that they M ſhall * keep the ſtomacke and all the body beſides in good temper, yea, and liue long by that meanes. They vſe to giue alſo of this ſalt vnto ſheepe when they are not well at eaſe, and it is thought to bevery wholſome for their health: yea, & it entereth into many antidotes & counterpoiſons deuiſed againſt the venome of ſerpents. Some there be who vſe to eat vipers ordinarily

* *Sicci ſolatia proſunt.* This, ſcorching & roughneſſe of the skin or face, is called by Phyſitians *Ephelis.*

* A stone would ſay, made of a viper.

* *Stomachi totiusque corporis temperiam, ſeruſque ætates, ex Dioſc.* ωφελησει γαστηρ

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A rily at their table, for to preſerue their eieſight. But for meat they prepare & order them in this wiſe: firſt, ſo ſoon as they haue killed a viper, they giue order to put ſalt into the mouth, vntill ſuch time as it hath ſucked out the venomous humor that lieth at the root of the teeth, and diſſolued or conſumed it: afterwards, when they haue cut away to the bredth of foure fingers from vnder the top of the head, and withall taken forth the intrails and garbage out of the belly, they ſeeth the reſt of the body in water, or oile, together with oile and dill ſeed: and this fleſh either they eat out of hand thus dreſſed, or els working it with ſome paſte, they reduce the ſame into troſches, that they may be preſerued for their vſe at ſundry times. As touching the broth that is made of this decoction, ouer & beſides that it is good in thoſe caſes before ſpecified, this quality it hath, namely, to rid and cleanſe both the head and all the body beſides of lice; yea, and to
B kill the itch that runnes aloft in the skin. The aſhes of a vipers head calcined, are by themſelues very effectuall without any thing els; but principally in clearing the ſight, if the eies be annointed therwith in ſome conuenient liquor: ſo is the greaſe alſo of the viper. As for their gal, I dare not be ſo bold as to approue that which others confidently haue aduiſed & preſcribed: becauſe (as I haue already ſhewed) the venome of ſerpents is nothing els but their gall. The greaſe of a ſnake mixed with verdegreece, healeth any part of the eye that is broken: but the ſlough or old skin which they caſt off in the ſpring, doth clarifie the eie-ſight, if the eies bee gently rubbed therewith. The gal of an Hulat likewiſe is highly commended for the white pearles, the cataracts and thick films which trouble the ſight: the fat alſo of the ſaid bird is as much praiſed for the clearing of the ſame. Moreouer, it is ſaid, that the gall of that * Eagle (which I ſaid hereto-
C fore, to proue and trie her yong birds, vſeth to force them for to looke directly vpon the Sunne) mingled with the beſt hony of Athens, ſerueth to annoint the eies, for the webs, filmes, & cataracts which trouble the eieſight. Of the ſame operation is the gall of a Vulture or Geire, incorporat with the juice of Porret and a little hony. The like vertue alſo there is in the gall of a cock or capon, for the pin and web, and for the pearle in the eie, if the ſame be diſſolued in water; yea and for the cataract, eſpecially if the ſaid Cock or Capon be all white. The dung likewiſe of cocks and capons, I mean that part only thereof which is ruddy and browne, they ſay, is ſingular good for thoſe that be pore-blind or ſhort ſighted, ſuch alſo as ſee not wel but about noon tide. They commend moreouer the gal of an hen (but the fat eſpecially) for the little bliſters or ſpots that otherwiſe ariſe in the apple of the eie: in regard of which vertue, many there bee that cram
D them fat, and for no cauſe els. But if there be put thereto the pouder of the red bloud-ſtone Hæmatites, and the yellow ſaffron-coloured Schiſtos, it is wonderfull how much better it will bee for that purpoſe; yea, and to heale the tunicles of the eies that be broken. Moreouer, Hennes dung, as much only of it I meane, as is white, many vſe to keep in old oile within certaine boxes of horne, for to cure the white pearles that grow in the apple of the eye. And ſince I am entered thus farre into the dung of Pullaine, I muſt aduertiſe you what is reported of Peacockes, That they doe eat and ſwallow downe againe the ſame dung which themſelues haue meuted for very enuie that they haue vnto mankind, knowing by a ſecret inſtinct of Nature how good it is for many vſes. Furthermore, it is an opinion commonly receiued, that all the race of Faul-
E cons, if they be boiled in oile Roſat, are ſoueraigne for any accidents of the eies whatſoeuer, if they be bathed with that decoction. Semblably, it is ſaid, that their dung reduced into aſhes and incorporat in the beſt hony of Athens, is very good therefore: as alſo the liuer of a Glede or Kite is much commended in thoſe caſes. Pigeons dung tempered in vineger, cureth the fiſtulaes which are between the lachrymall corners of the eies and the noſe: and otherwiſe is ſingular for the white pearls and the cicatrices or films growing in the eies. Gooſe dung and duckes bloud be both of them very ſoueraigne for to ſoake out the blacke bloud in the eies, occaſioned by ſome contuſion or bruiſe, with this regard, that they be afterwards annointed with * Hyſſope and Honey. The gall of a Partridge mixed with honey, of each a like weight, mightily cleareth the eieſight: ſo doth the gal of a fallow Deere applied ſimply alone, without any mixture or addition at all. But theſe galls ought to be kept in a ſiluer box, ſay they who ground vpon the au-
F thority of *Hippocrates* for their warrant. Partridge egs ſodden with honey in a braſen pan or poſnet, do cure the vlcers in the eies, and take away the red pearls ariſing in the blacke thereof. The bloud of Pigeons, Turtledoues, Stockdoues or Coiſts, & Partridges, is paſſing good for bloudſhotten eies. But they ſay, that the bloud of the cocke Pigeons is better for this purpoſe than that of the female. Now for to fit this cure, they muſt be let bloud in the vein vnder the wing or pinion,

* *Haliartos*, i. the ſea Ægle or Orfray.

* *Hyſſope*, vnleſſe we reade *Oeſypo*, which is the tried greaſe of vnwaſhed wool.

pinion, becauſe that bloud is hotter, and therefore by ſo much the better. But when the eies bee G
dreſſed with this bloud, it would not be forgotten, that there be a thin bolſter boiled in honey,
laid aloft, yea, and a lock of greaſie wooll vpon it, which had bin ſoaked either in oile or wine.
The bloud of the fouls abouenamed helpeth thoſe that cannot ſee toward a night: the liuer al-
ſo of a ſheep doth the ſame: but if the ſaid ſheep be of a ruſſet or browne colour, the medicine
will do the better: for as I obſerued before in Goats, thoſe that carry ſuch a coat, bee alwaies e-
ſteemed beſt. Many giue counſell to foment and waſh the eies with the decoction of the ſaid
liuer: and if they be in pain and ſwollen withall, they aduiſe to annoint them with the marrow
of a Mutton. They promiſe alſo, That the aſhes of ſcrich-owles eyes put into a collyrie, wil cla-
rifie the ſight. Indeed the dung of Turtles conſumeth the white pearles in the eyes; ſo doth the
aſhes of ſhell-ſnailes or hoddidods: as alſo the meuting of the keſtrell Cenchris, which the H
Greeke writers wil haue to be a kind of Hawke. As for the ſpot or pearle in the eie called Ar-
gema, it may be cured by all thoſe medicines aboue rehearſed, ſo that they be applied thereto
with hony. But the beſt hony ſimply for the eies, is that wherein a number of Bees were forced
to die. Whoſoeuer hath eaten a young ſtorke out of the neſt, he ſhall (they ſay) continue many
yeares together, and neuer be troubled with inflamed or bleared eies: like as they that carrie a-
bout them a Dragons head. It is ſaid moreouer, That the Dragons greaſe incorporat in honey
and old oile, diſpatcheth and ſcattereth the filmes and webs that trouble the ſight, if they bee
taken betimes before they be grown too thicke. Some there be who at the full of a Moone put
out the eies of yong ſwallowes, marking the time when they haue recouered their ſight againe:
for then they pluck off their heads and burne them to aſhes, which being tempered with hony, I
they vſe for to cleare their owne ſight, to eaſe the pains, and diſcuſſe the bleardneſſe of eies, yea
and to heale them, if they haue caught a blow or ruſh. As for Lizards, they vſe to prepare them
many and ſundry waies for the infirmities incident to the eies. Some take the green Lizard and
put her cloſe within a new earthen pot that neuer was occupied; and therewith 9 of thoſe little
*Becauſe they be found in the fiſh called Cinædi. ſtones which the Greeks call * Cinædia, (and theſe are vſually applied vnto the ſhare for the
ſwelling glandules and tumors that many times riſe there) marking euery one of them reſpe-
ctively by themſelues: which being done, they take forth of the pot euery day one; & when the
ninth day is come, they let out the Lizard, and then they keepe the ſaid ſtones thus ordered
and prepared, as ſoueraigne remedies to allay the pain and griefe of the eies. Others get a green
Lizard and put out her eies, and heſtow her in a glaſſe with a bed of earth vnder her in the bot- K
tome thereof, and withall, incloſe within the ſaid glaſſe certaine rings, either of ſolid yron or
maſſie gold: and ſo ſoon as they perceiue through the glaſſe, that the Lizard hath recouered her
ſight againe, they let her forth: but the ſaid rings they keep with great care and regard, as a ſpe-
ciall meanes for to helpe any bleared eies. There be moreouer who vſe the aſhes of a Lizards
head in ſtead of Stibium or Antimonium; for to make ſmooth the roughneſſe of the eye-lids.
Some hunt after green Lizards with long neckes, which breed in ſandy and gravelly grounds,
and when they be gotten, burne them to aſhes, with which they vſe to repreſſe the flux of wate-
riſh humors which begin to fall into the eies, yea, and therewith conſume the red pearls grow-
ing therein. It is ſaid moreouer, That if a Weaſels eies be pecked or plucked out of the head,
they will come againe, and ſhee will recouer her ſight: and therefore they practiſe the like with L
rings and them together, as I obſerued before in Lizards. Furthermore, it is ſaid, That as many
as carry about them the right eie of a ſerpent tied vnto any part, it is very good for to ſtay the
violent rheumes that haue taken to the eies, but then in any wiſe the ſerpent muſt be let goe a-
liue after that ſhe hath loſt her eie. As touching thoſe eies which be euermore weeping, and
do ſtand ful of water continually, the aſhes of the ſtar-lizards head called Stellio, together with
Antimonium, helpeth them exceeding much. The copweb which the common Spider ma-
keth, that vſeth to catch flies; but eſpecially that which ſhee hath wouen for her neſt or hole
wherein ſhe lieth her ſelfe, is ſoueraigne good for the flux of humours into the eyes, if the ſame
be applied all ouer the forehead, ſo as it meet with the temples on both ſides: but wot you
what, none muſt haue the doing hereof, either to get the ſaid copwebs, or to lay it vnto the M
place, but a young lad not as yet vndergrowne, nor foureteene yeares of age: neither muſt he be
ſeene of the partie whom hee cureth, in three daies after: ne yet during the ſpace of thoſe
three dayes muſt either hee or his Patient touch the ground with their bare feet: Which cir-
cumſtances and ceremonies being duely obſerued, it is wonderfull to ſee what a cure will

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A follow thereupon. Furthermore, it is ſaid, That theſe white ſpiders with the long and ſlender legs, being punned and incorporat in old oile, be ſingular for to conſume the white pearle in the eie, if the ſame be dreſſed with that compoſition. Alſo thoſe ſpiders that worke ordinarily vnder rooſes, rafters, and boorded floores of houſes, and weaue the thickeſt webs, if any of them be inwrapped within a piece of cloth and kept bound to the eies or forehead, do reſtraine for euer the ſaid rheumes and catarrhes that haue found a way to the eies. The greene Beetle hath a property naturally to quicken their ſight who do but behold them: and therefore theſe lapidaries and cutters or grauers in precious ſtones, if they may haue an eie of them once & looke vpon them, take no more care for their eie-ſight, how it ſhould ſerue their turnes when they are at their worke. Thus much of eies.

B As concerning the ears and the infirmities incident vn them, there is not a better thing to mundifie and cleanſe them than a ſheepes gall with hony: and a bitches milke if it be dropped into them, eaſeth their paine. Dogs greaſe tempered with Wormewood and old oile, helpeth thoſe that be hard of hearing, ſo doth Gooſe greaſe: howbeit, ſome put thereto the juice of an Onion & Garlick, of each a like quantity. In this caſe alſo there is much vſe of Ants egs alone without any thing els: for as little and ſilly a creature as it is, yet ſhe is not without ſome medicinable vertues: inſomuch, as Beares, when they feele themſelues ſickiſh or not well at eaſe, cure themſelues with eating Piſmires. As for the manner of preparing as well the greaſe of a gooſe as of all other fouls, this it is: firſt the fat ought to be clenſed and rid from all the skins, veines, and ſtrings that are among it, and then to be laid abroad to the Sun in an earthen pan, couered

C ouer with a new lid of earth likewiſe which had neuer bin vſed: this done, the foreſaid pan muſt be ſet ouer ſeething water, that the ſaid greaſe may melt: and then it is to paſſe through linnen bags that it may be tried from all the groſſe cratchens: and ſo they put it vp in a new earthen pot, & ſet it in ſome cold place againſt the time that it is to be vſed: howbeit, this is wel known, That if ſome hony be put therto, it is leſſe ſubject to corruption or putrifaction. Moreouer, the aſhes of burnt mice incorporat in hony, or els ſodden with oile of Roſes, allaieth the pain in the eares if it be inſtilled into them. But in caſe ſome earwig or ſuch like vermine be crept into the ears, there is not the like means to cauſe it to come forth again, as is the gall of mice diſſolued in vineger & dropped into them. Alſo when water is gotten into the head by the eares, Gooſe greaſe, together with the juice of an Onion, is ſingular good to draw it out. Moreouer, there is a

D notable medicine made of dormice for all infirmities of the ears, which otherwiſe could not be cured, but were giuen ouer by all Phyſitians: for the making whereof, they take a dormouſe and flea it, and after the guts and entrails be taken forth, they ſeeth the ſame with hony in a new earthen veſſell. Howbeit, ſome Phyſitians there bee who thinke it better to boile the ſame with Spikenard, vntill a third part be conſumed, and ſo reſerue it for their vſe: and whenſoeuer after there is need of it, the manner is to infuſe the ſaid liquour warme into the eare by a pipe or inſtrument called an Otenchyte. This is knowne by experience to heale all the accidents of the ears, though otherwiſe incurable. Alſo the decoction of earth worms boiled with Gooſe greaſe is ſingular good likewiſe to be poured into the ears. But if the ears be exulcerat, broken out, and do run matter, the red worms ingendred about trees ſtamped in a morter with oile, are very pro-

E per to heale the ſame, if they be applied therto. Lizards that haue hanged vp a long time a drying with their mouths downward, if they be punned with ſalt, ſerue to heale the eares that haue caught ſome hurt either by bruiſe, cruſh, or ſtripe. But aboue all other, the Lizards that haue brown ſpots vpon them like ruſty yron, and are ſtraked along the taile with lines, are moſt effectual for theſe infirmities. As touching the Wool beads or Caterpillers, which ſome cal Milleped æ, others, Multiped æ or Centiped æ, which are a kind of earth-wormes keeping vpon the ground, all hairy, hauing many feet, & courbing arch wiſe as they creep; and if you touch them, they wil gather round together: the Greekes, ſome call them * Oniſcos, others Tylos: theſe *worms (I ſay) are very effectual to aſſuage the pain of the ears, if they be ſodden with the juice of Porret in the rind of a pomgranat: ſome put therto oile of Roſes, & giue aduiſe to poure this

F medicine into the contrary eare that is not pained. As for that worm or vermin which riſeth not archwiſe with ſome part of the body in creeping, the Greeks, ſome cal it Seps, others Scolopendra; which though it be leſſe than the former deſcribed, yet miſchievous enough & venomous; The ſnails that carry ſhels vpon their backe, and are vſually dreſſed for good meat, applied with Myrrhe or the pouder of Frankincenſe, are very good for the eares that be crackt: ſo are the little

* *Pliny* confoundeth *Oniſcos* (which wee call a Sow or Wood-louſe) with the Caterpiller or wooll-bead Milleped æ.

* Indeed our Sows or wood-lice, called otherwiſe Porcelliones, and Multiped æ, but not Milleped æ, & which if one touch them, draw themſelues round, are good for the pain of the ears: but not the foreſaid Wooll beads or Caterpillers Milleped æ, which in their creeping riſe and fall, &c.

tle and broad ſnailes brought into the forme of a liniment with hony, and laid too accordingly. The ſloughs or skins that ſerpents caſt, calcined upon a tile or potſhard red hot, and ſo reduced into aſhes and incorporat with hony, are very medicinable for all the accidents of the eares, if the ſame be dropped into them; but principally when they ſtink or yeeld from them a ſtrong ſavour: but if they be full of purulent matter, and run withall, it were better to mingle the ſame with vineger in ſtead of hony: but beſt of all with the gall of a Goat, a Bœufe, or a ſea-Tortois. The foreſaid ſloughs or skins if they be above one yere old, or have caught much wet by raine and water, haue loſt their vertue, & do no good, as ſome are of opinion. Moreover, the bloudie humour that commeth from a ſpider, either tempered with the oile of Roſes, or els alone by it ſelfe vpon a locke of wooll, or with a little Saffron, is very good for the eares: ſo is the Cricket digged vp and applied to the place earth and all where it lay. *Nigidius* attributeth many properties to this poore creature, and eſteemeth it not a little: but the Magitians much more a fair deale: and why ſo? Forſooth becauſe it goeth as it were reculing backward, it pierceth and boreth an hole into the ground, and neuer ceaſeth all night long to creake very ſhrill. The manner of hunting and catching them is this, They take a flie and tie it about the midſt at the end of a long haire of ones head, and ſo put the ſaid flie into the mouth of the Crickets hole: but firſt they blow the duſt away with their mouth, for feare leſt the flie ſhould hold her ſelfe therein: the Cricket ſpies the ſilly flie, ſeaſeth vpon her preſently and claſpeth her round, and ſo they are both drawne forth together by the ſaid haire. The inner skin of a Hens giſier, which the cook vſeth to caſt away, if it be kept and dried, and ſo beaten to pouder and mingled with wine, is good to be dropped or poured hot into the eares that runne with matter: ſo is the fat alſo of an Hen. There is a certaine kind of fattineſſe to be found in the flie or inſect called * Blatta, when the head is plucked off, which if it be punned & mixed with oile of Roſes, is (as they ſay) wonderfull good for the eares: but the wooll wherein this medicine is inwrapped, and which is put into the eares, muſt not long tarry there, but within a little while be drawne forth againe; for the ſaid fat will very ſoone get life and proue a grub or little worm. Some writers there be who affirm, That two or three of theſe flies called Blattæ ſodden in oile, make a ſoueraigne medicine to cure the eares: and that if they be ſtamped and ſpread upon a linnen rag and ſo applied, they will heale the eares, if they be hurt by any bruiſe or contuſion: Certes this is but a naſtie and ill favoured vermine, howbeit in regard of the manifold and admirable properties which naturally it hath, as alſo of the induſtrie of our Anceſtors in ſearching out the nature of it, I am moved to write thereof at large and to the full in this place. For they have deſcribed many kindes of them. In the firſt place, ſome of them be ſoft and tender, which being ſodden in oile, they haue proued by experience to be of great efficacie in fetching off werts, if they bee annointed therewith. A ſecond ſort there is, which they call Mylœcon, becauſe ordinarily it haunteth about mils and bake-houſes; and there breedeth: theſe, by the report of *Muſa* and *Pyction* two famous Phyſitians, being bruiſed (after their heads were gone) and applied to a body infected with the leproſie, cured the ſame perfectly. They of a third kind, beſides that they be otherwiſe ill favoured enough, carry a lothſome and odious ſmell with them: they are ſharp rumped and pin buttockt alſo: howbeit, being incorporate with the oile of pitch called Piſſelæon, they haue healed thoſe vlcers which were thought, *Nunquam ſana*, and incurable. Alſo within 21. daies after this plaſtre laid too, it hath been knowne to cure the ſwelling wens called the Kings evill: the botches or biles named Pani, wounds, contuſions, bruiſes, morimals, ſcabs, and fellons: but then their feet and wings were plucked off and caſt away. I make no doubt or queſtion, but that ſome of vs are ſo dainty and fine eared, that our ſtomacke riſeth at the hearing onely of ſuch medicines: and yet I aſſure you, *Diodorus* a renowned Phyſitian, reporteth, That he hath giuen theſe foure flies inwardly with roſin and hony, for the jaundiſe, and to thoſe that were ſo ſtrait winded that they could not draw their breath but ſitting vpright. See what libertie and power ouer vs theſe Phyſitians haue, who to practiſe and trie concluſions vpon our bodies, may exhibite vnto their Patients what they liſt, bee it neuer ſo homely, ſo it goe vnder the name of a medicine. Howbeit, ſome of the more ciuile ſort, and who carried with them a better regard of man-hood and humanitie, thought it better and a more cleanely kinde of Phyſicke, to reſerue in boxes of horne the aſhes of them burnt, for the vſes aboue named. Others alſo would beat them (after they were dried) into pouder, and miniſter them in manner of a clyſtre unto thoſe that were * Orthopnoicke and Rheumaticke.

* which *Pliny* taketh for a kind of *Scarabæus* or Beetle.

* *Orthopnoici*: Such as cãnot take their wind but ſitting vpright.

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A Certes it is well knowne and confeſſed, that a liniment made of them will draw forth prickes, thorns, ſpils, and whatſoeuer ſticketh faſt within the fleſh. Moreouer, the honey wherein Bees were extinct and killed, is ſoueraigne for the diſeaſes of the eares. As for the impoſtumes and ſwellings ariſing behinde the eares, called Pacotides, Pigeons dung applied thereunto, either alone by it ſelfe, or with barly meale and oatmeale, driueth them backe or keepeth them down. Alſo the liuer or brains of an Owle being reſolued in ſome conuenient liquor, and applied accordingly, cureth the accidents of the lap of the eare, and the foreſaid impoſtumations, ſo doth a liniment made of the wormes called Sowes, together with the third part of roſin: and laſtly, the cricquets aboue rehearſed, either reduced into a liniment, or elſe bound to, whole as they be, are good in theſe caſes. Thus much concerning thoſe maladies aboue ſpecified: it remaineth
B now to proceed vnto other diſeaſes, and the medicinable receits reſpectiue vnto them, drawne either from the ſame creatures, or els from others of that kinde: whereof I purpoſe to treat and diſcourſe in the next booke enſuing.

C

THE THIRTIETH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

D

The Proem.

CHAP. I.

¶ *The originall and beginning of Art Magicke. When it firſt began, and who were the Inventors of it. By whom it was practiſed and aduanced. Alſo other Receits or medicines drawne from Beaſts.*

E THE folly and vanitie of Art Magicke I haue oftentimes already taxed and confuted ſufficiently in my former books, when and whereſoeuer iuſt occaſion and fit opportunitie was offered; and ſtill my purpoſe and intention is to diſcouer and lay open the abuſe thereof in ſome few points behind. And yet I muſt needs ſay the argument is ſuch as deſerueth a large and ample diſcourſe, if there were but this only to enduce me, That notwithſtanding it be of all arts fulleſt of fraud, deceit, and couſenage, yet neuer was there any throughout the whole world either with like credit profeſſed, or ſo long time vpheld & maintained. Now if a man conſider the thing well, no marnell it is that it hath continued thus in ſo great requeſt and authoritie: for it is the onely Science which ſeemeth to compriſe in it ſelfe three profeſſions beſides, which haue the command and rule of mans minde aboue any other whatſoeuer. For to begin withall, no man doubteth but that Magicke tooke root firſt and proceeded from phyſicke, vnder the pretence of main-
F taining health, curing and preuenting diſeaſes: things plauſible to the world crept and inſinuated farther into the heart of man, with a deepe conceit of ſome high and diuine matter therein more than ordinarie, and in compariſon thereof all other phyſicke was but baſely accounted. And hauing thus made way and entrance, the better to fortifie it ſelfe, and to giue a goodly colour and luſtre to thoſe faire and flattering promiſes of things, which our nature is moſt

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giuen to hearken after, on goeth the habit also & cloke of religion: a point I may tel you that G
euen in these days holdeth captiuate the spirit of man, and draweth away with it a greater part
of the world, and nothing so much. But not content with this successe and good proceeding, to
gather more strength and win a greater name, she intermingled with medicinable receits & Re-
ligious ceremonies, the skill of Astrologie and arts Mathematical; presuming vpon this, That
all men by nature are very curious and desirous to know their future fortunes, and what shal be-
tide them hereafter, perswading themselues, that all such foreknowledge depends on the course
and influence of the starres, which giue the truest and most certain light of things to come. Being
thus wholly possessed of men, and hauing their sences and vnderstanding by this meanes fast e-
nough bound with three sure chaines, no maruell if this art grew in processe of time to such an
head, that it was and is at this day reputed by most nations of the earth, for the paragon & chief H
of al sciences: insomuch as the mighty kings and monarchs of the Levant are altogether ruled
thereby. And verily there is no question at all, but that in those East parts, and namely in the
realme of Persia, it found first footing, and was inuented and practised there by * *Zoroastres*, as
all writers in one accord agree. But whether there was but that one *Zoroastres*, or more afterward
of that name, it is not yet so certainly resolued vpon by all Aurhors: for *Eudoxus* (who held art
Magicke to be of all professions philosophicall and learned disciplines, the most excellent and
profitable science) hath recorded, that this *Zoroastres*, to whom is ascribed the inuention therof,
liued and flourished * 6000 yeares before the death of *Plato*. And of his minde is *Aristotle* also.
Howbeit *Hermippus*, who rot of that art most exquisitely, and commented vpon the Poëme of
Zoroastres, containing * a hundred thousand verses twenty times told, of his making; and made I
besides a Repertorie or Index to euery booke of the said Poësie: this *Hermippus* (I say) reports,
That one *Azonaces* taught *Zoroastres* Art Magick; which master of his liued 5000 yeres before
the war of Troy. Certes I cannot chuse but maruell much, first, That this Science and the me-
moriall thereof should so long continue, and the Commentaries treating of it not miscary and
be lost all the while, during such a world of years: considering besides, that neither it was ordi-
narily practised and continued by tradition from age to age; nor the successors in that facul-
tie were professors of the greatest name, and renowned by any writings. For what one is there
thinke you among so many thousands, that hath any knowledge, so much as by bare heare-say,
of those who are named for the only Magitians in their time, to wit, *Apuscorus* & *Zaratus* Medi-
ans, *Marmaridius* of Babylon, *Hippocus* the Arabian, and *Zarmocenidas* of Assyria. For bookes K
haue we none extant of their writing, nor any monuments which beare record and giue testimo-
nie of such clerks. But the greatest wonder of all is this, that *Homer* the Poet in his Ilias (a poem
composed purposedly of the Trojan war) hath not so much as one word of Magick; and yet in
his Odyssæa, where he discourseth of the aduentures, trauels, & fortunes of prince *Vlysses*, such
a do and stirre there is with it, as if the whole work consisted of nothing else but magicke. For
what is meant by the variable transformations of * *Proteus*, or by the songs of the * Meremaids,
whereof he writeth so much; but that the one was a great sorcerer, the other famous witches or
Inchantresses. As for that which he relateth of lady *Circe*, how shee wrought her feats by conju-
ration only, and raising vp infernal spirits; surely it sauoreth of art Magick and nothing else. I
muse much also, that after *Homers* time there is no writer maketh mention how this art arriued L
at Telmessus, a city [in the marches of Lycia] wholly addicted to religion, & so famous for the
colledge of priests and soothsayers there: or at what time it made a voiage and passed ouer into
Thessaly; where it reigned so rife, and was so vsually practised in euery towne & city, that with
vs here in these parts of the world it tooke the denomination of * that countrey, and retained
the same a long time, notwithstanding that the word Magicke indeed was appropriate vnto a
strange and far remote Nation. And verily, considering how about the time of the war and de-
struction of Troy, there was no other phy sick in vse but that which *Chiron* the Surgeon practi-
sed, and that during the heat and bloudy wars only; it seemeth very strange and wonderfull to
me, That the nation of Thessaly, and the natiue country of *Achilles* [and *Chiron*] should become
so famous for magick: insomuch as *Menander* also (a Poet by all mens iudgement so framed by M
nature for deep learning and excellent literature, as that he had no concurrent in his time that
came neere vnto him) entituled one of his Comœdies, Thessalica; wherein he deciphered and
depainted liuely vnto vs the whole order and manner of witches, with all their charmes and in-
cantations, by the vertue wherof they would seem to pull the Moon down from heauen. I would
haue

* K. of the Bistrians, which some take to be *Abraham*.

* It seems that in thi calculation of yeares, *Pliny* mistakes the number: for *Plutarch* saith hee liued 600 yeres before the Trojan war, or els that hee means *Lunares annos*.

* *Vicies centũ, millia versum, i*, two millions of verses.

* *Diodorus Siculus* saith that this was meerly a fiction, arising herupon, That *Proteus* being a king of Egypt, according to the custome of the Egiptian kings for greater maiesty and state, shewed himself abroad adorned with the ensigns, representing a Bull, Dragon, Lion, tree, fire, and such like: altering eftsoones those ornaments, which contained some hierogliphy call mysteries appropriat to the person of a King.

* Three daughters of *Achelous* & *Calliope* whose names were *Parthenope*, *Ligia*, and *Leucosia*, reputed witches, & able to doe great matters by charmes.

* For properly the *Magi* were the wise men of Persia, and yet at Rome they vsually termed Magitians by the name of Thessalians.

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A haue thought that *Orpheus* ſoon after and in the age next inſuing, had brought in firſt theſe ſuperſtitious ceremonies, by reaſon of the propinquity and neighborhood of that region, and that he proceeded therewith to the aduancement of phyſick, but for one thing which plucketh me back; namely, that Thrace his naturall country and the place of his birth, was altogether ignorant of Magick, and knew not what it meant. But as far as euer I could finde, the firſt that is recorded to haue commented and written of this art, was *Oſthanes*, who accompanied *Xerxes* K. of the Perſians, in that voiage and expedition which (in warlike manner) he made into Greece: and to ſay a truth, he it was that ſowed the ſeeds of this monſtrous Art, and infected therewith by the way, all parts of the world whereſoeuer he went and came. Howbeit, thoſe Authors, and hiſtoriographers who haue ſearched more neerly into the matter, ſet down another *Zoroaſtres*, born
B in the Iſle Proconneſus, who wrote ſomewhat before *Oſthanes*, of that argument: neuertheleſſe, this is held for certain, That *Oſthanes* was the man, who moſt of all other ſet the Greeke nations not onely in a hot deſire, but alſo in a madding fit and inraged as it were after Magick. And yet I muſt needs ſay that I haue obſerued, that not only at firſt, but alſo from time to time, the greateſt name that went of learned men and great philoſophers, for their ſingular skil and profound knowledge, aroſe from the opinion that was of their inſight in this Science. Certain it is, that *Pythagoras*, *Empedocles*, *Democritus*, and *Plato*, were ſo far in loue therewith, that for to attaine the knowledge thereof, they vndertooke many voiages and journies ouer ſea and land, as exiled and baniſhed perſons, wandring from place to place, more like trauellers than ſtudents; and beeing returned againe into their owne countries, this Art they blazed abroad and highly praiſed; this
C they held as a ſecret and diuine myſterie. As for *Democritus*, he raiſed a great name of *Apollonices Captidenes*, and *Dardanus* of Phœnicia, as well by the Books of *Dardanus* his maſter (which he fetched from out of his ſepulchre where they were beſtowed) as alſo by publiſhing commentaries of his owne, which were extracts and draughts out of thoſe authors and their writings; which afterwards, receiued and learned by others, ſo paſſed from hand to hand, and were ſo deeply ingrauen and imprinted in the minds and memories of men, that I aſſure you I wonder at nothing in the world ſo much; for ſo full they are of lyes, & ſo little or no truth, godlineſſe, and honeſty is contained in them, that men of iudgement and vnderſtanding who approue and eſteem his other Books of Philoſophie, will not beleeve that theſe workes were of *Democritus* his making: howbeit, this is but a vaine conceit and perſuaſion of theirs; for well it is knowne &
D confeſſed, that *Democritus* led away an infinite number of people by this means, & no man ſo much; filling their heads with many faire promiſes, and the ſweet impreſſion thereof rauiſhed their ſprits after this Art. Moreouer, there is yet one point more, whereat I wonder as much as at any other; to wit, that theſe two profeſſions (Phyſicke I mean and Magick) flouriſhed both together in one age, and ſhewed themſelues in their greateſt glory; which was about the Peloponneſiack war in Greece, 300 yeares after the foundation of our citie of Rome; at what time as *Hippocrates* profeſſed the one, and *Democritus* for his part publiſhed the other. Now there is another faction (as it were) of Magitians, which tooke the firſt foundation from *Moſes*, * *Iamnes*, and *Iotapes*, Iewes; but many thouſands of yeares after *Zoroaſtres*: and yet the * Cyprian Magicke is later than ſo by as many yeres. But to come againe vnto our Magicke abouesaid: there was a ſecond
E *Oſthanes* in the daies of K. *Alexander* the Great, who (by reaſon that he attended vpon him in his train, during his journies and voiages that he made) was himſelf in great reputation abroad, and by meanes thereof gaue no ſmall credit and authoritie to his profeſſion; for that hee had opportunity thereby (as no man need to doubt) to trauell and compaſſe the globe of the earth, and ſo to ſpread and divulge this learning in all parts. And verily, that this doctrine hath bin heretofore receiued in ſome nations of Italy, it appeareth as well by good euidences and records extant at this day in the body of our Law written in the 12 Tables, as by other arguments and teſtimonies which I haue alledged in the former Booke. Certes, in the 657 yeare after the foundation of Rome citie, and not before (which fell out to be when *Cn. Cornelius Lepidus* and *P. Licinius Craſſus* were Conſuls) there paſſed a decree and act of the Senat, forbidding expreſſely the
F killing of mankinde for ſacrifice: whereby we may euidently ſee, that vntill this inhibition or reſtraint came forth, our progenitors and anceſtours were giuen to thoſe inhumane and monſtrous ſacrifices. No queſtion there is verily, but that this Art of Magicke was profeſſed in France, and continued vntill our daies: for no longer is it agoe than ſince the time of *Tiberius Cæſar*, that their Druidæ (the Prieſts and Wiſemen of France) were by his authority put down,

* It ſhould ſeeme that theſe were the Magicians of *Pharao*, of whom S. *Paul* 2. *Tim.* 3. *chap.* maketh mention, who would haue counterfeited the miracles wrought by *Moſes*: where note, that *Pliny*, ignorant in the holy Scriptures, and void of true religion, rangeth *Moſes* the prophet and faithfull ſeruant of almighty God, with ſuch ſorcerers and enchaunters. For the Painims, wanting the light of the goſpell, attributed all effects and operations aboue nature, to Magick: & were not able to diſtinguiſh between miracles done by the finger of God or his miniſters, and the illuſions practiſed by the diuell and his lims.

* Some interpret this to be meant of Chriſtianity, which was receiued with the firſt in Cypros by the preaching of the Goſpell, and as it is thought, by S. *Barnabas*: for that during the infancie of the primitiue Church, many miracles were wrought by the Apoſtles and Diſciples of our Sauiour Ieſus Chriſt, the heathen hold that Religion of Chriſtians to be a kind of Magicke. Other vnderſtand this place of the Prieſt of *Cyprian Venus* called *Cynaretans*.

together with all the pack of ſuch Phyſitians, prophets, & wizards. But what ſhould I diſcourſe any longer in this wiſe, of that Art which hath paſſed ouer the wide ocean alſo, & gone as far as any land is to be ſeene, even to the vtmoſt bounds of the earth; and beyond which, there is nothing to be diſcouered but a vaſt proſpect of Aire and Water. And verily in Brittaine at this day it is highly honored, where the people are ſo wholly deuoted vnto it, with all reuerence and religious obſeruation of ceremonies that a man would think, the Perſians firſt learned all their Magick from * them. See how this Art and the practiſe thereof is ſpread ouer the face of the whole earth! and how * thoſe nations were conformable enough to the reſt of the world in giuing entertainment thereto, who in all other reſpects are far different & diuided from them, yea and in manner altogether vnknowne to them. In which regard, the benefit is ineſtimable that the world hath receiued by the great prouidence of our Romanes, who haue aboliſhed theſe monſtrous and abhominable Arts, which vnder the ſhew of religion, murdred men for ſacrifices to pleaſe the gods; and vnder the colour of Phyſicke, preſcribed the fleſh to bee eaten as moſt wholſome meat.

* As it appeareth by our old Engliſh Chronicles, which write of K. *Arthur*, the knights of the round table, and *Merlin* the prophet or magitian.

* No doubt hee meaneth England, Scotland, & Ireland, which ſeemed to be ſeperat from the reſt of the world; where, in old time Magicke bare a great ſway, and witches ſtill ſwarm too much.

Chap. II.

¶ *The ſundry kinds of Magicke. The execrable acts of Nero: and the deteſtation of Magitians.*

MAgicke may be practiſed after diuers ſorts, according as *Oſthanes* hath ſet downe in writing: for it worketh by the means of (1) Water, (2) Globes or Balls, (3) Aire, (4) Starres, (5) Fire-lights, (6) Baſons, and (7) Axes: yea, and many other means there bee, that promiſe the foreknowledge of things to come: beſides the raiſing vp and conjuring of ghoſts departed, the conference alſo with Familiars and ſpirits infernall. And all theſe were found out in our daies, to be no better than vanities & falſe illuſions, and that by the Emperor *Nero*: and yet was he neuer more addicted to play vpon the cythern, nor took greater pleaſure to hear & ſing tragicall ſongs, than to ſtudy art Magick: and no maruell if he were giuen to ſuch ſtrange courſes, hauing wealth & world at wil; and his fortunes beſides attended vpon & accompanied with many deep corruptions of the mind. But amid thoſe manifold vices whereunto he had betaken and ſold himſelfe, a principall deſire he had, to haue the gods (forſooth) and familiar ſpirits at his command; thinking that if he could haue attained once to that, hee had then climbed vp to the higheſt point and pitch of magnanimity. Neuer was there man that ſtudied harder, and followed any Art more earneſtly, than he did Magick. Riches he had enough vnder his hands, and power he wanted not to execute what he would; his wit was quicke and pregnant, to apprehend and learn any thing, ouer and beſides other means that he practiſed to bring about this deſſeine of his, which were ſo intollerable, that the world could not indure them: and yet he gaue it ouer in the end without effect: an vndoubted & peremptory argument to conuince the vanity of this Art, when ſuch an one as *Nero* rejected it. But would to God he had conferred with familiars & ſpirits, yea & taken counſel of all the diuels in hell, for to be reſolued of thoſe ſuſpitions which were gotten into his head, rather than giuen commiſſion as he did to the profeſſed bawds and common harlots in ſtinking ſtewes and brothell houſes, for to make inquiſition from houſe to houſe after thoſe whom he had in jealouſie. Certes, no bloudy and deteſtable ſacrifices (how inhumane and barbarous ſoeuer) he could haue performed, but they had beene far more eaſie and tollerable, than thoſe cruel imaginations which he conceiued, and wherupon he murdered moſt piteouſly ſo many good citizens, & filled Rome with their reſtleſſe ghoſts. But to return again to Art Magick, which *Nero* would ſo fain haue learned: what might be the reaſon that he could not reach vnto it? Surely theſe Magitians are not without their ſhifts & meanes of euaſion to ſaue the credit of their art, if haply they miſſe and come ſhort at any time of their purpoſe: for otherwhiles they beare vs in hand, that ghoſts and ſpirits will not appeare, nor yeeld any ſeruice to thoſe perſons who are * freckled & full of pimples: and haply * *Nero* the Emperor was ſuch an one. As for his lims otherwiſe, he had them all, & ſound they were: beſides, the ſet daies and times fit for this practiſe, and preſcribed by Magitians, he might chuſe at his good will & pleaſure. Moreouer, an eaſie matter it was for him to meet with ſheep, cole black, & ſuch as had not a ſpeck of white or any other colour; for him (I ſay) who when he liſt could ſacrifice men, and took greateſt delight in thoſe ſacrifices: furthermore, he had about him *Tyridates*, the K. of Armenia, a great Magitian, to giue him inſtructions. This prince *Tyridates* being vanquiſhed and ſubdued

(1) *Hydromantia.*
(2) *Sphæromantia.*
(3) *Aëromantia.*
(4) *Aſtrologia.*
(5) *Pyromantia.*
(6) *Lecanomantia.*
(7) *Axinomantia.*

* *Lentiginoſis.*
* *Suetonius in Nerone: corpora fuit maculoſo & fuſco.* i. His skin was full of foule ſpots.

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A dued by the Romane captains vnder *Nero*, and forced by their capitulations to preſent himſelfe perſonally at Rome for to do homage vnto the Emperour; trauelled thither all the way by land (which was a ſore charge to the countries & prouinces through which he paſſed, bringing with him as he did the whole pompe and train for the triumph ouer Armenia and himſelfe) & came vnto *Cæſar*. And why would not this *Tyridates* paſſe the ſeas and ſaile ouer into Italy, the neareſt and moſt expedit way? Forſooth, ſo preciſe he was, that he made a ſcruple, and thought it vnlawful (as all magicians do) either to ſpit into the ſea, or otherwiſe to diſcharge into it the neceſſary excrements that paſſe from mans body, therby to pollute and defile that Element. Many other magicians he brought with him in his traine. He inſtructed *Nero* in the principles of Magick, yea and admitted him to their ſacred feaſts, and ſolemne ſuppers, and all to enter him into that
C profeſſion: but it would not be: for albeit *Nero* enthronized and enſtalled *Tyridates* in his kingdome, and gaue him his roialties againe, all would not ſerue; for neuer could he receiue at his hands by way of remuneration and recompence, the skill of this Science. And therfore we may be fully aſſured and boldly conclude, That it is a deteſtable and abhominable Art, grounded on no certaine rules; full of lies and vanities, howſoeuer it carry ſome ſhew or ſhadow rather of veritie: and to ſay a truth, that certitude which it hath in effecting any thing, proceedeth rather from the diuelliſh caſt of poiſoning practiſed therwith, than from the Art it ſelfe of Magicke. But what needs any man to ſeek & hearken after the lies which the magitians in old time haue let flie and ſent abroad? When I my ſelfe in my youth haue ſeen and heard *Apion* (that great and famous Grammarian) tell ſtrange tales of the herbe Cynocephalia, which the Ægyptians call
C Oſyrites, and namely that it hath a diuine and heauenly vertue, and was a ſingular preſeruatiue againſt all poyſons, charmes, and enchantments; but whoſoeuer plucked or drew it out of the ground (ſaith he) could not eſcape preſent death. The ſame *Appion* reported in my hearing, that he hath conjured and raiſed vp ſpirits, to *enquire and learne of *Homer*, what countryman borne he was? and from what parents deſcended? mary hee durſt not report what anſwer was made againe, either vnto him or them.

* *Ad ſciſcitandum Homerum.*

Chap. III.

¶ *Of Mould-warps: and of many other medicines taken from ſundry beaſts, which are in their kind either tame or wilde: and the ſame medicines digeſted according*
D *to diſeaſes as they orderly follow.*

ONe ſpeciall argument this may be, to prooue the follie and vanitie of magicians, becauſe of all other liuing creatures, they do admire & ſet greateſt ſtore by theſe wants or mouls, which Nature ſeemeth to haue condemned to perpetuall blindneſſe and priſon, ſhutting them vp as it were euermore in a dark dungeon, or keeping them rather vnder the earth, like as they were buried and enterred. And yet for all this, theſe Wiſe men giue more beleefe to thoſe ſignes which they ſpie in their bowels and entrails when they be opened, than to the inwards of any beaſt whatſoeuer. This opinion moreouer they haue of a mould-warpe, that there is not a creature more capable of religion, and fitter to be emploied in ſacrifice and diuine ſeruice, than
E it: nay they baſh not to auouch & warrant, That whoſoeuer ſwallowes down al whole the heart of a moule freſh killed, whiles it is yet warme and panting with life in it, ſhall haue the gift of diuination, and foretell the euent and iſſue of any buſineſſe in hand. Moreouer, they affirm, that the tooth of a moule-warpe taken out of her head whiles ſhee is aliue, is ſingular to allay the tooth-ach, if it be hanged about the necke, or tied to any part of the body. They talke of many other wonders wrought by this poore creature, which I purpoſe to deliuer as occaſion ſhall be offered, in place conuenient. And yet when they haue all ſaid that they can of them, that which carrieth the greateſt likelihood and probabilitie, is this, That they ſhould be good againſt the biting of theſe muſets or hardiſhrews, for as you haue heard me ſay before, the very earth that is preſſed down with the wheels in a cart-tract, is proper for that purpoſe. But to leaue theſe mouls
F and to follow on ſtill with this maladie of tooth-ach; the ſaid magitians tel vs a medicine made of the aſhes of a dogs head (dying of madneſſe) that it ſhould be paſſing good therefore, if it be mixed with the oile Cyprinum, & ſo dropped into the ear on the pained ſide: howbeit this care would be had, That the ſaid dogs head haue no fleſh at all ſticking to the ſcalp or ſcull, when it is burned and calcined. They ſay moreouer, that the greateſt eie-tooth of a dog growing on the

left ſide of his head ſerues well for this grieuance, if the tooth that is in pain be ſcarrified round G
about therewith. Alſo a bone growing out of the ridge or chine of a Dragon, will do as much;
or that of the ſerpent called Enhydris. Now are theſe ſerpents white of colour, and held al to be
the male. The greateſt tooth of this Enhydris is thought to be ſingular for to ſcarrifie or to let
the painfull tooth bloud therwith: but in caſe the teeth in the vpper chaw do ake, they take two
of the vpper teeth of this ſerpent, & apply them faſt therto; but contrariwiſe if the nether jaw.
They that hunt after crocodils, vſe to greaſe themſelues with the fat of this ſerpent. Moreouer,
it is good by their ſaying, to ſcarrifie the gums about the teeth with the bones taken out of a
lizards forhead at the ful of the moon; with this regard, that the ſame in any wiſe touch not the
ground. Some of them there be who make a collution with dogs teeth ſodden in wine till the
one halfe be conſumed, and therwith waſh the teeth that ake: but the aſhes of the ſaid teeth in- H
corporat in hony, are ſingular good for little children which haue much a do in breeding their
teeth. The ſame medicine is holden to be an excellent dentifrice for to make teeth look white.
If the teeth that ake be hollow, they vſe to put into the concauity thereof, the ſaid aſhes incor-
porat in mice dung, or els the liuer of a lizard dried. Alſo if one that is troubled with tooth-ach,
ſet his teeth in a ſnaks heart & bite it, or hang the ſame about the neck or otherwiſe, it is thought
to be an effectuall remedy for the ſaid diſeaſe. Others there be of the magicians, who preſcribe
to chew and eat the fleſh of a mouſe twiſe in a month, and they aſſure vs by this means that we
ſhall preuent and auoid the tooth-ach. Moreouer, it is ſaid that a decoction of earthworms boi-
led in oile & poured into the eare on that ſide where the tooth-ach is, doth giue great eaſement
of pain. The aſhes of the ſame mads burnt, put into the hole of a tooth that is rotten and worm- I
eaten, cauſeth it to fall out of the head with eaſe: and if the teeth that do ake be ſound, rub them
with the ſaid aſhes and the pain will ceaſe. Now the ſaid worms ought to be burnt or calcined
vpon a tele or potſheard. Alſo a decoction of this kind of wormes ſodden in ſquillitick vinegre
with the root of a mulberie tree, is a ſoueraigne medicine to waſh the teeth withall when they
*Ventriſ Labij. be in pain. Furthermore, the little grub or worue which is found in the herb Tazill, called *Ve-
nus Lauer, hath a wonderful operation to cure the tooth-ach, if it be put into the hole of a faulty
tooth: and no maruaile, for the caterpillars that breed in coleworts, will preſently fal off if they
be but touched with this worm. The punaiſes alſo or wall-lice that come from mallows, infuſed
into the ears with oile roſat, aſſuage the tooth-ach. The ſmall ſandy grit that is found in the
horns of ſhel-ſnails, conueied into an hollow tooth, preſently allaies the pain. The bare ſhels of K
the ſaid ſnails, hollow as they be and void, calcined and reduced into aſhes, and incorporat with
myrrhe, are paſſing good for the gubs: but the aſhes of a ſerpent burnt and calcined in an ear-
then pot, with ſalt among, helpeth the tooth-ach, if it be inſtilled into the eare on the contrary
ſide, with oile of roſes. The skin of a ſnake which ſhe hath caſt in the Spring, made hot in oile
& the roſin of torchwood, is ſingular in this caſe to be diſtilled into eather of the ears, it makes
no matter which: ſome put therto frankincenſe and oile of roſat. The ſaid ſlough or skin of a
ſnake thus prepared and put into an hollow tooth, cauſeth the ſame to fall out of their head
without any pain or griefe at all. As touching white ſnakes, how they caſt their ſlough at the ri-
ſing or apparition of the Dog-ſtar, I hold to be a meere fable; for it was neuer ſeen or knowne,
that they did ſo in Italy: much leſſe therfore it is credible, that in hot countries they ſhould be L
ſo late ere they caſt their ſlough. Moreouer, it is commonly beleeued, that the ſaid ſlough kept
long and incorporat with wax, draweth out a tooth moſt ſpeedily, if it be applied thereto. Alſo,
ſnakes teeth, either worn about the necke, or laid to teeth in pain, aſſuage their griefe. Some are
of opinion, that a very ſpider all whole as it is, caught with the left hand, bruiſed and incorporat
in oile of roſes, and ſo dropped into the eare of the ſame ſide that the teeth ake, is very good to
mitigat the pain. It is ſaid alſo, that if a man take all the little bones of an hen (and ſaue thoſe
onely of the legs whole that be hollow) and keepe them in the hole or crany of a wall, and with
one of the ſaid bones either hit the tooth that aketh, or ſcarrifie the gumbe about it, and then
preſently caſt it away when he hath done with it, the paine will immediately be gon. The like
effect hath the dung of a rauen, applied hard vnto the place within a locke of wooll: likewiſe of M
ſparrowes, tempered in oile hot and poured into the eare that is next vnto the pained tooth; but
ſurely it will cauſe an intollerable itch: and therefore many thinke it a more ſafe and eaſie re-
medy, to burn young ſparrowes in a fire made of Vine-twigs, and the aſhes that commeth from
them to temper with vinegre, and therewith to rub the ſaid teeth.

CHAP.

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Chap. IIII.

¶ *How to procure a ſweet breath. Meanes to take away the ſpots that blemiſh the face: and to amend the infirmities incident to the throat.*

IT is ſaid, that for to rectifie the offence of a ſtrong and ſtinking breath, and to make it ſweet and pleaſant, it is good to rub the teeth with the aſhes of mice burnt, and incorporat with honey. Some there be, who mingle therewith the root of fennell. If the teeth be pricked or ſcraped with a vulturs quill, it will cauſe the breath to be ſowre: but to doe the ſame with the quill or prick of a porkepine, is a ſingular thing to ſtrengthen the teeth and keepe them faſt in the head. As touching the ſores in the tongue, or the ſcabs and little vlcers breaking out about the lips, a decoction of ſwallowes ſodden in honied wine, healeth them: but if the lips be chapped, there is not a better thing than to annoint them with the greaſe of a gooſe or hen. For the ſame purpoſe ſerueth the tried or rindled greaſe of ſweatie wooll, being incorporat with the pouder of gall-nuts: alſo the white cobwebs that ſpiders doe weave, or elſe the little fine ones which they work vnder the planks and floors of high loſts, or rouſes of houſen. * If one chance to burne his mouth inwardly with ſome ſcalding broth or otherwiſe, the milke that a bitch giueth is a preſent remedie therefore.

* *Si ferentia os intus exuſſerint*: peraduenture he meaneth the hot ſores within the mouth, called ἐφθα.

As touching the ſpots that infect the skin of the face, the foreſaid tried greaſe of wool vnwaſhed, called œſypum, incorporat with the hony of the Iſland Corſica (which of al other is counted moſt vnpleaſant and vntoothſome) is proper to ſubtiliat and ſcoure them: the ſame alſo laid to the face vpon a lock of wooll, cauſeth the ſcurfe or ſcales whereby the skin ſeemeth to pill, for to fall away: howbeit ſome thinke it better to put hony thereto. But ſay there appeare vpon the face any foule and thick morphew that hath pierced deep into the skin, it is good to rub the ſame with dogs gall; but firſt the place ought to be pricked thick with a needle that the medicine may enter in. If the skin look wan, or black and blew, take the light of rams or other ſheep, cut them into thin ſlices like to skins, and lay them hot to the place; or els apply therto pigeons dung. The fat of a gooſe or hen, is a ſingular thing to preſerue & keep ſoft, ſmooth, and dilicat, the skin of the face. As for the ringworms or illfauoured tetters called Lichenes, there is a proper liniment made either of the dung of mice incorporat with vinegre, or the aſhes of an vrchin tempered with oile. But in this cure, the face ought to be bathed and fomented before with vinegre and ſalnitre. For to take away any ſpots or pimples ariſing in the face, there is not a better thing to apply to them than the aſhes of the little broad ſnails which are commonly found in euery place, incorporat with honey. And in truth, the aſhes of any ſnails whatſouer, are aſtringent and hot, by reaſon of a certain abſterſiue qualitie that they haue; which is the reaſon that they enter into potentiall cauteries, or cauſtick & corroſiue medicines: and therfore they ſerue in liniments for to kill ſcabs, ſcurfs, mange, and leproſie; yea and to ſcoure away the foule ſpots called Lentils. Moreouer, I read in authors of certain piſmires greater than the reſt, called Herculaneæ, the which being ſtamped with a little ſalt put to them, are good for all the infections of the skin mentioned in the former receit. There is a kind of inſect or flie called Bupreſtis, paſſing like to a long legged beetle, but ſeldom or neuer be any ſuch found in Italy: kine and oxen catch much harme by this flie; for many times as they graſe, they lick it vp with the graſſe and ſwallow it down: and hereupon it tooke that name Bupreſtis: for no ſooner commeth it to the gall, but it inflameth and ſetteth the beaſt into a great heat, wherupon it ſwelleth vntill it burſt againe. So corroſiue it is (as I haue ſaid before) that being incorporat with goats ſewet, and ſo reduced into a liniment, it takes away the tettars called Lichenes that be in the face. The bloud of a vultur [*i.* a geire] tempered with the root of white Chamæleon (I mean the herb ſo called) and the roſin of cedar, heales the leproſie, ſo that this liniment be couered with colewort leaues. Of the ſame effect are the feet of locuſts braied in a mortar and incorporat with goats tallow. The greace of a cock, capon, or hen, wel ſtamped & wrought with an onion, is ſingular to ſcoure the ſpots and ſpecks of the viſage: alſo the hony wherin a number of bees were ſtifled and killed is proper for the ſaid purpoſe: But aboue all, the greace of a ſwan is commended both for to cleanſe the skin of the face from all flecks and freckles, and alſo take away wrinkles. As for the markes remaining after the cauterie or hot yron, there is no better means to take them out, than a plaſtre of pigeons dung and vinegre. If the rheume cauſe the mur, the poſe, or heauineſſe in head, I find a pretie medicine to rid it away, by kiſſing only the little hairie muzzle of a mouſe.

As touching the uvula and paine of the throat, they may be both of them eaſed and cured with lambs ordure, which paſſeth from them before they haue bitten graſſe dried in the ſhade. The juice or ſlimie humor that ſhel-ſnails yeeld when they be pricked through with a pin or needle, is ſingular good in a liniment for to be applied vnto the uvula; prouided alwaies, that thoſe ſnailes do hang after, in the ſmoke. The aſhes that come of ſwallows calcined & burnt, is likewiſe very ſoueraign, being laid to the grieued place with hony: and in that ſort prepared, it ſerueth alſo for the inflammation and ſwelling of the tonſils or amygdals of the throat. For the ſaid tonſils and other accidents of the throat, a gargariſme of ewes milke is right ſoueraigne. There is a certain creeper called, a* Cheeſlip, which if it be bruiſed or ſtamped, is good for the ſaid infirmities: ſo is pigeons dung gargariſed with wine cuit, or applied outwardly with ſalnitre & dried figs. If the throat be troubled with hoarſneſſe, occaſioned by rheume or catarrhe, the foreſaid ſhel-ſnailes do greatly mitigat the ſame infirmitie, being firſt ſodden in milke (all ſaue the earthy or muddy ſubſtance which they muſt be cleanſed from) and then giuen in wine cuit to the patient for to drink. Some hold opinion, that the ſnails found in the Iſle Aſtypalæa, are the beſt of all other for this purpoſe, but principally the abſterſiue ſubſtance that is found in them. The cricquet called Gryllus, doth mitigat catarrhs & all aſperities offending the throat, if the ſame be rubbed therewith: alſo if a man doe but touch the amygdals or almonds of the throat, with the hand wherwith he hath bruiſed or cruſhed the ſaid cricquet, it will appeaſe the inflammations thereof. To come now vnto the Squinancie: a gooſe gall incorporat with the juice of the wild cucumber, and hony together, is a moſt ſpeedie and preſent remedy for it: alſo the brains of an owle, and the aſhes of a ſwallow drunk in water wel and hot, is good for the ſaid diſeaſe: But for this medicine we are beholden to the Poët *Ouid*. Note that when I ſpeak of any medicine (for what maladie ſoeuer) made of ſwallows, the yong wild ones are alwaies the better and more effectuall in operation: *and thoſe you may know eaſily by the faſhion of their neſts where they do build: But if you would haue the beſt indeed, the young ones of that kind which are called Ripariæ, paſſe al the reſt for medicinable vſes, for ſo they are commonly named which build in the holes of banke ſides. Howbeit, ſome there be who aſſure vs, that we ſhal not need to feare that diſeaſe for a yeare together, if we do but eat any young ſwallow, it skills not of what kind ſoeuer it be. Now the order of calcining them from their aſhes, is to ſtrangle them firſt, & ſo to burn them in their bloud within an earthen veſſell: and the aſhes thus made, is vſually giuen either wrought in paſt for bread, or elſe to be drunk: and ſome there be who mingle withall, the like quantity of the aſhes which come of weazils. And this kind of medicine thus prepared, they giue in drink euery day againſt the kings euill, and falling ſickneſſe. Moreouer, ſwallowes kept and condite in ſalt, are paſſing good for the Squinancie, taken in drinke to the weight of a dram at a time: and it is ſaid, thet their very neſt giuen in drinke, cureth the ſaid maladie. It is a common opinion, that a liniment made with the creepers called Sowes or Multipedes, is moſt effectuall to cure the ſaid Squinancie. And ſome there be who aduiſe to take one and twenty of theſe worms ſtamped, and to giue them in one hemine of mead or honied water for the ſaid diſeaſe; but they muſt be conceiued downe the throat by a pipe or tunnell, for if this medicine touch the teeth once it will do no good. It is ſaid moreouer, that if one drinke the decoction of mice ſodden with veruaine, it is a ſoueraign remedy for that diſeaſe: as alſo that a leather thong made of a dogs skin put thrice about the necke, will doe the deed. And ſome there be, who in this caſe vſe pigeons dung mixed with oile and wine.

*Multipeda.

* For the martinets or ſwallowes called *Apodes*, build not, but lay and breed in chinks and cranies of old walls.

As touching the cricks of the nerues or ſinewes that ſerue the nape of the necke; as alſo for the cramps that draw the head backward, they ſay, that a twig or branch of a vine taken out of a puttocks neſt, and carried about one hanging to the necke or arme, is a ſpeciall remedie for the abouenamed accidents.

Chap. V.

¶ *Medicines for the Kings euill that is broken and doth run: for the paines lying in the ſhoulders: as alſo for the griefe of the bowels about the midriffe and precordiall parts.*

THe bloud of a weazill is good for the wens called the king euill, when they be exulcerat & do run: ſo is the weazill it ſelfe ſodden in wine and applied; prouided alwaies, that they run

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A not by occaſion of any launcing or inciſion made by the Chirurgions hand. And it is commonly ſaid, that to eat the fleſh of a Weazill, is effectuall for the cure. So are the aſhes of a Weazil calcined vpon a fire made of Vine-twigs, if they be incorporat with Hogs greaſe. *Item*, Take a green Lizard and binde it to the ſore; but after thirty daies you muſt do ſo with another, & this will heale them. Some make no more ado but in a little box of ſiluer keep the heart of a Weazil & wear it about them. If women or maids be troubled with the kings euil, it were good to make choiſe of old ſhel-ſnailes, and to ſtamp them ſhels and all into a plaiſter or liniment: but eſpecially ſuch as be found ſticking to the roots of ſhrubs and buſhes. The aſhes of the ſerpent Aſpis calcined, are likewiſe very good for this diſeaſe, if they be incorporat with buls tallow, & ſo applied. Some vſe ſnakes greaſe and oil together: alſo a liniment made with the aſhes of ſnakes
B burnt, tempered either with oil or wax. Moreouer, it is thought that the middle part of a ſnake, after the head and taile both be cut away, is very wholſome meat for thoſe who haue the kings euill: or to drink their aſhes, being in the ſame manner prepared and burnt in a new earthen pot neuer occupied; mary if the ſaid ſnakes chanced to be killed between two cart-tracts, where the wheeles went, the medicine will look much more effectually. Some giue counſell to apply vnto the affected place Crickets digged out of the earth, with the mould and al that commeth vp: Alſo to apply Pigeons dung only without any thing els, or at the moſt to temper it with Barley meale or Oatmeale in vinegre. Likewiſe to make a liniment of a Moldwarps aſhes incorporat with hony. Some there be who take the liuer of a Moule, cruſh and bruiſe it between their hands, working it into a liniment, and lay the ſame to the ſore, and there let it drie on the place
C and waſh it not off in three daies. And they affirme, That the right foot of a Moule, is a ſingular remedie for this diſeaſe. Others catch ſome of them, cut off their heads, ſtampe them with the mould that they haue wrought and caſt vp aboue ground, & reduce them into certain trochisks which they keep in a box or pot of tinne, and vſe them by way of application to all tumors and impoſtumes which the Greeks call Apoſtemata, and eſpecially thoſe that riſe in the necke: but then they forbid the patient to eat porke or any ſwines fleſh during the cure. Moreouer, there is a kind of earth-beetles called tauri, *i.* Buls: which name they took of the little hornes that they carry; for otherwiſe (in colour) they reſemble tickes; ſome tearme them, Pedunculos terræ, earth-lice: Theſe alſo worke vnder the ground like wants, and caſt vp mould, which ſerueth in a liniment for the Kings euil, & ſuch like ſwelling, as alſo for the gout in the feet, but it muſt not
D be waſhed off in three daies ſpace. Howbeit, this is to be noted, that this medicine muſt be renued euery year, for the ſaid mould will continue no longer in vertue than one year. In ſum, there be attributed to theſe beetles, all thoſe medicinable properties which I haue aſſigned vnto the crickets called Grylli. Moreouer, ſome there be who vſe in manner and caſes aforeſaid, the *mould which ants do caſt vp. Others for the Kings euil take iuſt as many mads or earthworms in number as there be wens gathered and knotted together, and bind the ſame faſt vnto them, letting them to drie vpon the place: and they are perſuaded that the ſaid wens will drie away and conſume together with them. There be again who get a Viper about the riſing of the Dog ſtar, cut off the head and taile, as I ſaid before of ſnakes, and the middle part betweene they burne: the aſhes that come thereof, they giue afterwards to be drunke for three weeks together,
E euery day as much as may be comprehended and taken vp at three fingers ends: and thus they cure and heale the kings euill. Moreouer, there be ſome that hang a Viper by a linnen thread faſt tied ſomewhat vnder the head, ſo long till ſhe be ſtrangled and dead, and with that thread bind the foreſaid wens or Kings euill, promiſing vnto their patients aſſured remedie by this meanes. They vſe alſo the Sowes called Multipedæ, and incorporat the ſame with a fourth part in proportion to them, of true Turpentine: and they be of opinion, That this ointment or ſalue is ſufficient to cure any impoſtumes whatſoeuer.

*Of which being raiſed more & more, come Maure-hils, corruptly called Mouſe-hils; for Ants were in old Engliſh called Maures: and Moules neuer caſt vp ſuch.

As touching the paines that lie in the ſhoulders, there is a proper medicine made in forme a liniment, with the aſhes of a Weazill tempered with wax, which eaſeth the ſame.

To keepe young boies from hauing any haire growing on their face, that they may ſeem al-
F waies young, it is good to annoint their cheekes and chin with Ants egges. Alſo the marchants or huckſters that buy yong ſlaues to ſell them againe for gaine, vſe to hinder the growth of hair as well of the viſage, as in the armeholes and vpon the ſhare, that they may be taken for young youths ſtill, by annointing thoſe parts with the bloud that commeth from lambs when they be libbed, which ointment doth good alſo to the armpits, for to take away the ranke and rammiſh

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ſmell thereof: but firſt the haire there growing ought to be pulled vp by the roots. G

Now that I am come to ſpeake of the precordiall region of the body, know this, That by this one word *Præcordia*, I meane the inwards or entrailes in man or woman, called in Latine * *Exta*, whenſoeuer then there ſhall be pain felt in theſe parts or any of them, apply thereto a yong ſucking whelpe, and keepe it hard huggled to the place, doubtleſſe the ſaid griefe will paſſe away from the part to the puppie it ſelfe, as men ſay: and this hath been found true by experience in one of thoſe whelpes * ripped and opened aliue, and the ſaid bowels taken forth: for looke what part in man or woman was grieued, the very ſame was ſeene infected thereupon, in the puppie. And ſuch whelpes thus vſed for the curing and taking vpon them our maladies, were wont to be enterred with great reuerence and ceremoniall deuotion. As touching the pretty little dogs that our daintie dames make ſo much of, * called Melitæi in Latine, if they be euer and anon H kept cloſe vnto the ſtomacke, they eaſe the paine therof. And in very truth a man ſhall perceiue ſuch little ones to be ſicke, yea, and many times to die thereupon: whereby it is euident, that our maladies paſſe from vs to them.

* The bowels, as heart, liuer, lights, &c.

* *Præciſſos, viuo, non profuſos, vino.*

* Becauſe they were brought from the Iſle Melita, lying within the Sclavonian ſea

Chap. VI.

¶ *Of the diſeaſes incident to the lights and liuer. Of thoſe that vſe to caſt and reach vp bloud at the mouth.*

Mice are very good for the infirmities of the lungs, eſpecially thoſe of Barbarie, if they be I firſt flaied, then ſodden in oile and ſalt, and ſo giuen to the patient for to eat: Thus prepared and vſed, they cure them that either ſpit purulent and filthy matter, or elſe reach vp ſhere bloud. But a diſh of meat made of ſnailes with ſhels, is moſt excellent for the ſtomacke. But for the better ordering and dreſſing of them: firſt they ought to ſiver ouer the fire and take a few waulmes till they be parboiled, without touching or medling one jot with their body: afterwards they muſt be broiled vpon the coales, without putting any thing in the world vnto them, and then to be ſerued vp in wine and fiſh pickle or brine called Garum, and ſo eaten. But the beſt for this purpoſe are thoſe of Barbarie. It is not long agoe, that this experiment was found: but ſince it was once known, many haue done themſelues much good thereby. But (that which I had well neare forgotten) many obſerue to take them in ſome od number. Howbeit, as holeſome as they are ſuppoſed to be otherwiſe, this diſcommoditie is found by them, That they K cauſe thoſe to haue a ſtrong and ſtinking breath that vſe to eat them. Being ſtamped without their ſhels, and ſo drunk in water, they helpe them that reach bloud vpward. But that you may know that there be degrees of them in goodnes: The beſt ſnailes ſimply are they of Barbary, and namely, thoſe about the quarter neere Soli: Next to them are much eſteemed ſuch as are gathered in the Iſlands Aſtypelæa, and Sicilia, for they are of a meane bigneſſe; for ſuch as be grown very great, haue their fleſh hard, and be void of humidity. Then are ranged in a third place, thoſe that come from the Baleare Iſlands, called Cavaticæ, becauſe they breed in caues and holes. There be good alſo brought from the Iſlands Capreæ. Holeſom theſe ſhel-ſnailes may be well ynough: but toothſome ſurely they are not, whether they be old kept, or new taken. Thoſe that be found in riuers, & which haue white ſhels, cary a rank and ſtrong ſauour with them: ſo do the L wild ſort that are not kept vp and fed in ſtewes & pits, and be hurtfull to the ſtomack, but good to looſen the bellie: euen ſo are all the ſort of the little ones. But contrariwiſe, thoſe that breed in the ſea are better for the ſtomack than others: and moſt effectuall to allay the pains therof. Moreouer, it is ſaid, that they do moſt good, of what kind ſoeuer, if they be ſwallowed downe aliue & all whole with vinegre. Moreouer, there be of theſe ſnailes called * Aceratæ, of a broad making, and growing in many and ſundry formes; of whoſe properties, and how they are to be vſed, I wil write elſwhere in place conuenient. The inner skin of a Hen or Capons geſier, preſerued till it be drie, and reduced into pouder, and ſo put into a cup of drinke like ſpice; the ſame alſo eaten freſh, & newly roſted or broiled, is ſingular for the catarrhes that fall into the breaſt, and for a moiſt cough. Shel-ſnails punned raw & giuen in a ſupping with three cyaths of warm M water, ſerue wel to appeaſe & ſtay the cough. Take a piece of a dogs skin, and tie the ſame about any one of your fingers, which you will, it ſtaies all rheumes and diſtillations. The broth made of Patridges, is ſoueraigne to comfort and refreſh the ſtomack. As touching the griefe or pain of the liuer, it is ſaid, That the fleſh of a wild Weazill, or her liuer eaten, is a ſingular meat therfore.

* Haply ſo named, becauſe they haue little or no hornes, *quaſi* ἀκέρατα. *Interp.*

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A fore: ſo be Ferrets roſted in manner of little pigs. The worms with many feet called ſowes or cheſelips, are very proper for them that draw their wind ſhort; but there muſt be one and twentie of them, neither more nor leſſe, diſſolued in the beſt Atticke hony, and ſo giuen in drink and ſwallowed down by a pipe or tunill: the reaſon why they muſt be thus conueied through ſuch a cane or tunill is this, becauſe looke what cup or boule they ſo touch, they ſtaine the ſame black. Some take of them to the quantitie of one ſextar, and torrifie them vpon a pan or platter, vntill they looke white and be calcined, and then incorporat them in hony: [there be Latine writers who call this worme Centipeda, as if it had an hundred feet] and then giue direction, that they ſhould be taken in hot water. Furthermore, it is ſaid, That if the patient do either eat or drinke for the ſpace of nine daies together one ſnaile hot, ſtamped ſhell and all in three cyaths of wine
C cuit he ſhall find helpe, if he were giuen either to faint and ſwoune, or to be lunatick and to go beſide himſelfe, or elſe be ſubject to the dizzineſſe of the head. Others giue order to take them after another maner, namely, one the firſt day, the morrow twain, the third day three, the fourth two, and the fift one again: and in this wiſe they cure thoſe who are ſhortwinded, or haue an impoſtume broken within their bodie. There is a kinde of Inſect reſembling a Locuſt, but that it hath no wings, which in Greek is called *Tryxalis; a Latine name it hath not found yet, as ſome do thinke: and writers there be not a few, who are of opinion, That it is the ſame that our Grylſ. or criquet. Call it what you will: let there be twenty of them torrified and drunk in honied wine, it is reported for to be a ſingular medicine for thoſe that cannot take their breath but ſitting vpright: and for ſuch as ſpit bloud. There is one writer who ordaineth to take ſnailes vn-
C waſhed, and to poure vpon them either the Mere-gout of the grape that runneth ont firſt without preſſing, or elſe ſea-water, and ſo to boile them therein, and afterwards to eat them for a cough. And the ſame Authour giueth counſell, to pun them ſhels and all, and to take them with the foreſaid Mere-gout to the ſame effect.

* or *Troxalis*; according to *Ælianus*.

Touching inward impoſtumes broken, the hony wherein a numbet of Bees haue bin drowned to death, hath a peculiar vertue to heale them. The lungs of a Vulture burned to pouder in a fire made of Vine-cuttings, giuen in wine morning & euening, if the patient be free from the ague; ſo there be put thereto one moitie of Pomegranat floures, and the floures of Quinces and Lillies as much of each, is a very ſoueraign remedie for thoſe that caſt vp bloud out of their bodie: but if he be in a feauer, the ſame medicine would be taken in the decoction of Quinces.

D As for the paine of the ſpleene, if we may beleeue the receits and preſcriptions of the Magicians, the patient ought to haue the milt or ſpleen of a ſheep ſpread and laid ouer the place: but the patient that hath the application thereof, muſt ſay theſe words withall, *This I do to cure the ſpleene:* Which done and ſaid, the ſame milt of the ſheep muſt be laid vp cloſe and hidden within the wall or behind the ſeeling of the bed chamber where the ſick body lieth, and ſealed vp with a ſignet, for feare it ſhould be taken away: with this charge, that he or ſhe that hath the beſtowing of it, repeat the foreſaid charme nine times thrice ouer. If a dogs bellie be ripped aliue, and the ſpleen taken forth, whoſoeuer eateth thereof, ſhall find it very good to eaſe them of the ſaid maladie. But ſome content themſelues with laying it freſh and warme to the region of the ſpleen. Others giue the ſpleen of a young whelpe but two daies old, in ſquillitick vinegre, to the
E patient, but they make not the patient acquainted with the medicine what it is; or elſe they miniſter the ſpleen of an Hedgehog in the ſame manner. Likewiſe they giue the aſhes of ſhell-ſnailes with Line ſeed and Nettle ſeed, putting thereto ſome hony: and this cure they continue vntill the patient be throughly whole. It is ſaid moreouer, That a green Lizard taken aliue, and hanged ſo in a pot iuſt before the dore of the patients bedchamber: with this charge, that euer as he goes in and out he touch the ſame with his hand, will worke the ſame effect. The aſhes of a ſcritch-owls head reduced into an vnguent with oile, is good for this purpoſe, ſo is the hony wherein Bees were ſtifled: and laſtly a ſpider, but eſpecially that which they call Lycos.

The heart of the bird called a * Houpe, is highly commended for the pain of the ſides. Alſo * *Vpupæ.*
the aſhes of ſhell-ſnailes boiled in Ptiſane or huſked Barley water: and ſome in this caſe apply
F the ſame otherwhiles in a liniment onely without any thing elſe. The aſhes of a dogs head (I meane the bare ſkalpe or ſkull onely) dying enraged and mad, is good to ſpice a cup of drinke withall for this diſeaſe.

If the loines be pained, it is ſaid, That the ſtarre-Lizards called Stellions, comming from beyond ſea ſodden in wine together with the ſeed of black Poppie to the weight of halfe a denier

is very good, ſo the decoction be drunk: howbeit, this care muſt be had, that the head be cut off G
firſt, and the garbage taken forth. The green Lizards are good meat in this caſe, if they be dreſſed accordingly, and their feet and head cut away: ſo are ſhell-ſnailes, braied ſhels and all together, and ſodden in wine with fifteen grains of pepper. Some vſe the feet and legs of an Ægle in this diſeaſe, pulling them away backeward from the knees: and the right foot they apply faſt to the paine of the right ſide: but the other if the contrary ſide be grieued. The many-foot Sowes or Cheeſlips, which I called before Oniſcos, help the ſame pains, if they be taken to the weight of halfe a denarius in two cyaths of wine.

To conclude with the Sciatica, the magitians giue order to put an earth-worm in a treene or wooden diſh, which hauing bin cleft, was ſtitched vp again with iron wier, or bound with a plate or hoope of yron: then to lade vp ſome water therwith, and in it to waſh & rince the ſaid worme H
very well, and then to enterre or burie the ſame again in the very place from whence it was digged forth: which done, to giue the ſaid water anon to the patient for to drinke out the ſaid wooden diſh: and this they hold to be a wonderfull medicine.

Chap. VII.

¶ *Remedies for the dyſenterie or bloudie flix. And generally for all diſeaſes of the belly.*

THe decoction of a leg of mutton ſodden in water with Line ſeed, is ſingular good for to be ſupped off to ſtay a bloudie flix. So is old Cheeſe made of Ews milke: and ſheeps ſuet ſodden together in ſome auſtere wine. The ſame is ſingular for the Sciatica paſſio, and an old cough. The ſtarre-Lizard Stellio, which breeds beyond ſea, being flaied, garbaged, and dreſſed for meat, ſo that the head and feet be taken away, and ſo ſodden and eaten, is commended alſo in this caſe. Moreouer it is ſaid, That two ſnailes and one Hens egg, ſtamped the one as wel as the other with their ſhels, and afterwards gently ſodden in a new earthen pot with ſome ſalt & two cyaths of wine cuit, or elſe with the juice of Dates & 3 cyaths of water giuen to the patient to drink who is tormented with the dyſentery or bloudy flix, wil bring great alleuiation of the ſaid diſeaſe. It is thought alſo, That the aſhes of the ſaid ſhell-ſnailes calcined, if they be taken in wine with a little roſin, are ſoueraign therfore. As touching naked ſnails without any ſhels, they be found plentifully in Affrick. Paſſing good they be for the bloudie flix, if 5 of them be burnt K
and calcined together, with halfe a denier weight of Acacia, & 2 ſpoonfuls of their aſhes taken in Myrtle wine or ſome other auſtere & aſtringent wine, and a like quantity of hot water. Some there be who in this ſort vſe all the ſnailes of * Barbary. Others thinke it better to take fiue of the ſaid ſnailes of Affricke, or rather as many of the broad and flat ſort, and to clyſterize them for the dyſenterie. But if the flux be exceeding vehement, then they put thereto of Acacia the quantitie of a beane. It is ſaid moreouer, That the ſpoile or ſlough of a ſerpent boiled with oile roſat in a veſſell of tinne, is ſingular for the * Dyſenterie and * Tineſme, to be injected by a clyſter: Or if it be ſodden in any other veſſell, yet with an inſtrument or pipe of tin it is to be conueighed into the fundament, that the tiwill thereby may be annoinied. The broth of a Cocke cureth theſe infirmities: but if it be of an old Cocke, it is the more effectuall. And yet if the L
ſaid broth be any thing ſaltiſh, it ſtirreth the bellie & prouoketh to the ſeege. The inward skin of an Hens giſier broiled and giuen with ſalt and oile, doth mittigat and appeaſe the * wrings cauſed by the flux of the ſtomacke. But then this regard muſt be had before, That neither the Hen haue any corne giuen her, nor the patient feed vpon any graine ſome time before. Pigeons dung being burnt, and the aſhes taken in drinke, is of great effect and vertue in theſe caſes. The fleſh of a Quoiſt or Stock-doue ſodden in vinegre, is good both for the bloudie flix, and alſo for the looſeneſſe, proceeding from the imbecilitie of the ſtomacke. The Thruſh or Mauis roſted with Myrtle berries, is ſoueraigne for the dyſenterie: ſo is the Merle or black-bird. In which reſpect, great account alſo is made of the honey boiled, wherein bees were killed. [Of all the paines that be, the * Iliacke paſſion is moſt ſharpe and grieuous to be endured. But it M
is ſaid, That the bloud of a Bat, torne and plucked in peeces aliue, is very good againſt it; yea, and if the bellie be annointed therewith, it eaſeth the torment thereof.] But to come againe vnto the flux of the bellie, ſhell-ſnailes prepared and made in manner aforeſaid for thoſe that be ſhort winded, are ſingular good for to ſtop the ſame, and to knit the bodie. So are their aſhes

* Or Affricke.

* Vlcer of the guts or bloudie flix.
* A continuall deſire to the ſtoole without doing ought.
* *Dolores cœliacorum.* Some read *Colicorum*, of the Collicke.

* Which is the torture or inflammation of the vpper ſmall guts.

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A aſhes (if they were burnt and calcined aliue) taken in ſome auſtere or aſtringent wine. The liuer of a cocke roſted, together with the skin of the giſier, which ordinarily the cooke caſteth away, dried and kept, and ſo taken with a little of the juice of Poppy mixed with it, is of great power to remedy theſe accidents: others take the ſame skin whiles it is new and freſh, which they broil and torrifie, for to be giuen in wine to drink. A Partridge broth, yea, and the giſier of the bird alone beaten to pouder and taken in ſome groſſe and aſtringent wine, is ſingular to ſtay a flux of the belly. The wild Ring-doue or Quoiſt, boiled in vineger and water, is of the ſame effect. The milt of a ſheep firſt torrified, then puluerized and taken in wine, helpeth much this infirmitie. A liniment likewiſe made of Pigeons dung and hony, is of great vertue, if the patients belly be annointed therewith.

B Touching thoſe that haue feeble ſtomacks, and cannot concoct and digeſt their meat. It is ſaid, That the maw or giſier of that kind of Geire or Vulture, which is called in Latine Oſſifragus, dried, puluerized and drunk, is right ſoueraigne. Nay, if the patient doe but hold the ſame giſier in his hand whiles he is at his repaſt, it will help digeſtion. And in truth there bee diuers that for this cauſe weare theſe giſiers ordinarily about their necks: but I think it not wholſome to do ſo, long, for it maketh them leane as many as vſe it, and ſpendeth their body.

To ſtay a flux of the belly, the bloud of Mallards or Drakes is thought alſo to be ſingular good. The meat made of ſhell-ſnailes, diſcuſſeth and ſcattereth ventoſities. The Milt of a Mutton broiled to aſhes and giuen in wine, is ſingular good to allay the wrings and torments of the belly. Of the ſame operation is the wild Quoiſt or Ringdoue, ſodden in vineger and water. The
C greater kind of Swallows or Martins called Apodes, are no leſſe powerfull, if they bee ſodden and taken in wine. The aſhes of the bird Ibis plucked & burnt without his feathers, & ſo giuen to drink, work the ſame effect. But ſtrange it is and wonderfull, if that be true which is reported as touching this malady, namely, that if a Ducke bee applied aliue vnto the belly which is tormented with ſuch wrings, ſhe ſhal draw away the diſeaſe into her own body, and die of the torment, but the patient ſhal be eaſed by that means. Theſe painful gripes likewiſe are cured with ſodden hony, wherein Bees ſometimes wete drowned to death.

As for the Collick, there is nothing ſo good to aſſuage the paine thereof, as to eat Larkes, which the Latines name Galeritæ. Howbeit, ſome giue aduiſe and think it better to burne and calcine them in their feathers within a new earthen veſſel, & ſo to ſtamp them to aſhes or pou-
D der, and to drink therof foure daies together in water by three ſpoonfuls at a time. Others make no more ado, but take the heart of a Lark, and bind it to the inward part of the thigh: and there be againe who would haue the ſame to be ſwallowed downe whole newly taken out of the bird while it was warme. There is a family of the Aſprenates, men of good quality and reputation, for that they had bin ſomtimes Conſuls of Rome: in which houſe, of two brethren, the one was fully cured of the collick by eating theſe birds, and by wearing ordinarily the heart of one of them about his arme, incloſed within a bracelet of gold: the other being likewiſe troubled with the ſaid diſeaſe, found remedy by a kind of ſacrifice which he offered in a little chappell made with vnbaked brickes, piled vp archwiſe in manner of a furnace: and ſo ſoon as the ſacrifice was finiſhed, he ſtopt vp the ſame againe. That Vulture which is called Oſſifragus, hath one gut of
E wonderfull nature, for it is able to concoct and digeſt whatſoeuer the ſaid foul deuoureth. And for certain this is known and generally receiued, that the nethermoſt end therof cureth the collick, if the patient do but carry it about him. There are other ſecret and hidden diſeaſes incident to the guts, wherof there be wonders told: and namely, that in theſe caſes, if yong whelpes before they can ſee be applied for 3 daies together vnto the ſtomack eſpecially, and the breſt, ſo that they ſuck milke from out of the patients mouth the while: the ſaid diſeaſe ſhall paſſe into the body of the poore whelps, whereof in the end they ſhall die. Let the ſame be ripped & opened, then it wil appear euidently what the cauſe was of the foreſaid ſecret malady of the patient But ſuch whelps ought when they are dead to be enterred & buried. As for the Magitians, they auouch, That if the belly be annointed lightly with the bloud of a Bat, the party thus dreſſed,
F ſhall not need to feare any paine of that part for one whole yeare after: or if it chance that one be pained in the belly, let him (ſay they) indure to drinke the water that runneth down from his feet when his legs be waſhed, and he ſhall find help anone.

CHAP.

Chap. VIII.

¶ Medicines againſt the ſtone and graucll: the paines of the bladder. The ſwellings in the cods and the ſhare. Alſo for the biles and botches called Pani.

For them that are troubled with the ſtone, it is good to annoint the region of the belly with Mouſe dung. It is ſaid, that the fleſh of an Vrchin or Hedgehog is very good meat & pleaſant in taſt, if ſo be he were killed outright in the head at one blow, before that he had time to ſhed his owne vrine vpon himſelfe: and looke whoſoeuer eat this fleſh, ſhall neuer be ſubiect to the diſeaſe of the ſtrangury. The fleſh of an Vrchin killed in this ſort, helpeth the bladder, in H caſe the vrine paſſe by dropmeale from it. But contrariwiſe, if the Vrchin chance to wet and drench himſelfe with his owne vrine, as many as eat of the fleſh ſhal fal into the infirmity of the ſtrangury or piſſing dropmeale. Moreouer it is ſaid, That earthworms drunke either in wine or cuit, is of great efficacy to breake or diſſolue the ſtone: as alſo that ſnailes, prepared in that ſort as they are ordained to be dreſſed for ſhortneſſe of wind, work the like effect. Take ſnails naked out of their ſhels, and ſtamp them; giue 3 of them to the Patient to drinke in a cyath of wine the firſt day, two the morrow after, and the third day one againe, you ſhall ſee how it will helpe the ſtrangurie or piſſing dropmeale. But let the empty ſhels be burnt, the aſhes therof wil ſcoure away and expell the ſtone. Semblably, it is ſaid, that the ſame effect followeth vpon drinking the liuer of a water-ſnake: the eating of the aſhes of ſcorpions calcined, either in bread, or with I locuſts. Likewiſe, to take the little ſtones or grit that be found in the craw of a cocke, or in the giſier or maw of a ſtock-doue: to beat the ſame to pouder, and therewith to ſpice the drinke, is ſingular good for the infirmity aforeſaid. To do the like with the skin of a Cocks or Hens giſier, dried: or if it be new and freſh, to roſt and eat it. Alſo for the ſtone and other difficulties or impediments of the bladder, it is good to take the dung of Quoiſts or Stock-doues, with Beane meale. In like manner there is much help found by the aſhes of Quoiſts feathers, ſuch as be of a wilder kind than the reſt, taken with Oxymell. Moreouer, the aſhes of the guts of this bird giuen to the quantity of three ſpoonfuls: as alſo the neſt of ſwallows: and Cricquets infuſed and diſſolued in hot water, are commended for this purpoſe. Some helpe themſelues with the giſier of Oſſifragus dried: others vſe the decoction of Turtles dung boiled in honied wine; or els the K broth of the Turtle it ſelfe. Furthermore, for the difficulty of vrine, it is wholſome to eat blacke birds or Merles, boiled with Myrtle berries: or Graſhoppers fried in a pan: & to drink the ſows or Cheeſlips called Oniſcoi, folke make it not ſtrange to do themſelues good. But if there be pain in the bladder, it is ſaid, That the broth made of Lambs feet, is ſoueraigne. If the body bee bound or coſtiue, a Cocke-broth cauſeth it to be ſoluble: and the ſame doth withall lenifie the acrimony of humors that cauſe the foreſaid griefe of the bladder. The dung of Swallows likewiſe procureth looſneſſe of belly, in caſe it be tempered with hony to the forme of a ſuppoſitarie, and ſo put vp.

Touching the infirmities incident to the ſeat, the tried greaſe of vnwaſhed wooll, (whereunto ſome adde Tutie and oile of Roſes) the aſhes alſo of a dogs head are ſoueraign medicines: the L ſlough likewiſe which a ſerpent hath caſt, applied with vineger, is good, in caſe there be chaps and fiſſures in that part. Likewiſe, the aſhes of dogs dung, which looketh white, incorporat with oile of Roſes: & this receit (they ſay) was the inuention of *Æſculapius*, and is beſides moſt effectuall to take away werts. The aſhes of Mice dung, Swans greaſe, & the tallow of Oxe or Cow, are helpfull for this infirmity. If the tuill or gut Longaon be ralaxed and hang forth, it is good to annoint the ſame with the moiſture iſſuing forth of ſhel-ſnailes that is pricked through with a pin or needle, for it *driueth it back again to the right place. If the ſeat be galled, it is thought that the aſhes of the wood-Mouſe tempered with hony, cureth the ſame: or els the aſhes of an Vrchin, together with the brains of a Bat, Allum, and the greaſe tried out of vnwaſhed wool, wil skin it againe. In like manner, Pigeons dung with hony: for the ſwelling blind hæmorrhoids or M piles called Condylomata, there is a proper remedy; namely, to rub the place with a ſpiders body, after the head and legs be caſt away. Againſt the acrimony and ſharpneſſe of humors, that they ſhould not fret and burne thoſe parts, there is a faire liniment made with Gooſe greaſe, incorporat with Barbary wax, white lead, and oile roſat. So is the fat of a Swan. Theſe medicines

*Repellit.

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A alſo are ſaid to heale the hæmorrhoids that run.

For the pain of the Sciatica, it is thought that raw ſhell-ſnailes bruiſed are good, if they bee taken in Amminean wine and pepper: alſo a greene lizard eaten as meat, without the feet, garbage, and head: ſo is the ſtarre-lizard Stellio, but thereto ought to be put the weight of three oboli of black poppy ſeed.

For ruptures, inward ſpaſmes and convulſions, it auaileth much to take ſheeps gal with breſt milk. In caſe the priuities haue an itch & a fretting humor vpon them, or if ſome offenſiue werts ariſe in thoſe parts, the dripping or grauie that commeth from a rams lights roſted, doth much good, if the place be therewith annointed. As touching other accidents which happen to thoſe parts, the wooll of a ram calcined and reduced into aſhes, euen with all the filthineſſe that is
B therein, is thought to be very good, ſo that the aſhes be applied to the affected place with water. The ſewet of the kell of a mutton, but eſpecially that which groweth to the kidnies, incorporat with the pouder of a pumiſh ſtone and ſalt, is much commended in this caſe: alſo greaſie and vnwaſhed wooll ſoked in cold water, is good to be applied to the place.: the fleſh moreouer of a mutton calcined, ſo as the aſhes be incorporat with water. *Item*, the aſhes of a mules houſe: and the pouder of caples teeth braied & puluerized, if the grieued place be ſtrewed therewith.

To come lower to the infirmities of the cods: the pouder of the bones of a dogs head without any fleſh vpon it, puluerized, is ſingular therfore. If it fal out that one of the genitoirs be relaxed & hang down lower than his fellow, it is good to annoint the ſame with the wateriſh ſlime and ſome that commeth from ſhel-ſnails; ſo they ſay it is an excellent remedy: if there be
C any foule and malignant vlcers in thoſe parts running with filthy matter, the aſhes of a dogges head freſh killed are ſingular to heal the ſame: ſo are the little broad and flat ſhel-ſnails bruiſed and incorporat with vineger, if either the ſame or the aſhes be applied thereto, alſo the honey wherein bees haue been killed mixt with roſin: the naked ſnailes likewiſe which bred (as I ſaid in Barbarie, in caſe they be ſtamped & incorporat with the pouder of Frankincenſe & the white of an egg; with this charge, that the ſaid cataplaſme be not taken off in 30 daies, by which time it will be ready to fall away of it ſelfe. Some in ſtead of frankincenſe, put the bulbous roots of ſmall onions or ſcallions. For thoſe who be troubled with the * wateriſh rupture, it is thought * *Hydrocelicis.*
that the ſtar-lizards Stilliones be wonderfull good, in caſe their head, feet, and guts, bee taken forth, and the reſt of the body roſted; but the patient had need to eat of this meat often, and ſo it
D helpeth thoſe who cannot hold their water. The like opinion there is of dogs greaſe incorporat with * Alume de plume, if the patient take thereof to the quantity of a bean: as alſo the ſnailes * *Alumine ſcbiſto.*
of Barbary burnt, fleſh, ſhell and all, ſo as the patient drink their aſhes. Furthermore, it is ſaid, that the tongues of three geeſe roſted and eaten, is a ſpeciall remedy for this infirmity: and *Anaxilaus* is he that deuiſed this receit.

Touching the biles called Pani, ſheepes tallow incorporat with ſalt torrifacted, is ſingular good to breake them: but mice dung, with the fine pouder of frankincenſe & orpiment or red Arſenicke, is as proper to reſolue them: likewiſe the aſhes of a lizard, and the lizard it ſelfe ſplit aliue and applied hot thereto. In like maner cheeſlips or ſows ſtamped and incorporat with the right terpentine, to the quantity of a third part, & ſo brought into a cataplaſme. Some there be
E who to ſhell-ſnailes punned, adde the common bole-armoniack. Alſo the aſhes of the void ſhels only alone without the ſnailes mixt with wax, are of a reſolutiue and diſcutient facultie. In like manner, a liniment made either of pigeons dung only, or els incorporat with barly meale or oatmeale. The flies called Cantharides mixed with quicklime, are a good potentiall cauterie, and open ſuch biles as well as the Chirurgians launcet. The botches or ſwellings in the ſhare, a liniment made with the ſmall ſhel-ſnailes and hony, doth aſſuage and mitigate. Finally, to keepe down the veins from ſwelling which be called Varices, it is good to anoint the legs of children with the blond of a lizard, but this muſt be don, whiles both the children and the party who hath
t he doing thereof be faſting.

F

Chap. IX.

¶ *Receits for the gouts of feet and hands: and generally for the pains or diſeaſes of ioints whatſoeuer.*

THe tried greaſe of vnwaſhed wooll incorporat with womans milk and white lead, is a very proper liniment to mitigate the pain of the gout: ſo is the liquid dung of ſheep when they

run out behind. Their lights likewiſe, or a rams gal incorporat with their ſuet. Some ſplit mice G
and lay them hot to the place: alſo the bloud of a weazil reduced into a liniment with Plaintain:
and the aſhes of a weazill burnt aliue, tempered with vineger and roſe water, and brought into a
thin liniment, ſo that the place affected may be dreſſed with a feather. Others temper wax and
oile of roſes together. And there be again who vſe dogs gal for this purpoſe, but in any wiſe the
hand muſt not touch it, but the place ought to be annointed with a feather: likewiſe hens dung,
and the aſhes of earthworms mixt with hony, with this charge, that this cataplaſme be not vn-
done or remoued before the third day. Howbeit it is thought better by ſome, to apply the ſame
aſhes with water: but by others to vſe vineger in meaſure and with moderation, together with
3 cyaths of hony, hauing before hand annointed with oile roſat the gouty feet. It is ſaid moreo-
uer that to drink broad ſnails, is a ſingular medicine to take away the gout of the feet, or the pain H
of any other ioint: the manner wherof is to ſtamp 2 at a time, and drink them in wine: ſome ap-
ply the ſame in a liniment with the juice of the herb Parietary. Others content themſelues to
bruiſe them and ſo to incorporat them into a cataplaſme with vineger. Many are of opinion,
that the gout may be cured, if the patient vſe oftentimes to take the ſalt, which together with a
Viper was calcined in a new earthen pot: as alſo that it is very good to annoint the feet with Vi-
pers greaſe. And they affirme conſtantly of a Kite that hath bin kept long dried, if the patient
reduce it into pouder, and drink thereof in water as much as three fingers will well take vp, it
cureth the gout throughly. But if the feet be full of bloud and ſwollen withall, they vſe Nettles
thereto. Some there be that take the yong feathers of a Kite ſo ſoon as they put forth, and ſtamp
the ſame with Nettles to a liniment. The very dung likewiſe that theſe foules do meut, ſerueth I
in ſtead of a good liniment to annoint the painful gout in any joint whatſoeuer: ſo do the aſhes
of a weazill or of ſhell-ſnailes burnt or calcined and incorporate either with Amydum or gum
Tragacanth.

If a man haue gotten a rap or ruſh vpon any joint, there is not a better thing for to cure it than
copwebs: ſome chuſe for this intention, thoſe which be wouen by the ſpiders of aſh colour: like
as to vſe the aſhes of Pigeons dung with parched barly groats and white wine. In any diſlocati-
on of joints, the moſt preſent remedy that is knowne, is ſheepes ſuet tempered with the aſhes of
of womens haire burnt. This ſuet likewiſe ſerueth well to bee applied with allum to the kibes
*Pura, vlcera. of the heels: ſo do the aſhes of a dogs head, or of mice dung. But in caſe there be any *vlcer there
not yet putrified, adde wax thereto, and it will skin vp and heale the ſame: and the like effect is K
wrought by the light aſhes of criquets burnt and tempered with oile, or els with the aſhes of
the wild wood-mice mixt with hony: of earth-worms alſo incorporat with old oile: & laſtly, ma-
ny apply therto the ſnails that be found naked & without their ſhels. And verily, the aſhes of
ſuch ſnails burnt aliue, heale all ſores of the feet: howbeit, if the feet be galled & but lightly ex-
coriated, there is not a better thing for them than the aſhes of hens dung, or pigeons dung in-
corporat with oile. If the ſhoo hath rubbed off the skin, or fretted any part of the foot, the aſhes
of an old ſhoo-ſole are ſingular good to heal the ſame: ſo are the lights of a ram or lambe. The
pouder of a caples teeth is a ſoueraigne and ſpeciall remedy for the feet, if there ouſe out any
matter from vnder the nailes. The bloud of a green lizard healeth the galls vnder the foot, yea,
and cureth throughly the ſore feet both of man and beaſt, if they be dreſſed therewith. L

As for the corns and agnels which ariſe about the feet, it is good to beſmeare them with the
*Muli mulæue: vrine of * Mule or mulet, together with the mire in the very place where they ſtaled: alſo with
Some take *mu-* ſheeps dung. The liuer or bloud of a greene lizard applied vpon ſome flocke to the place, or vp-
lus to be the on a locke of wooll. Some vſe in that order, earth-wormes ſtamped with oile, or the head of the
mule ingen- ſtar-lizard Stellio, incorporat in oile with a like quantity of Agnus Caſtus. Laſt of all, others
dred by a male take Pigeons dung ſodden in vineger, and lay the ſame to the place.
aſſe & a mare:
but *Mula*, to be Touching werts, of what ſort ſoeuer they be, there is not a more proper thing to make them
that mule that fall off, than to bathe them well with the vrine, durt and all, of a dog where he lately piſſed: or
commeth of to apply thereto a ſalue of dogs dung aſhes and wax: it is not amiſſe alſo to lay to them ſheepes
an horſe and dung, or to rub them wel with Mice-bloud new killed: or to apply a Mouſe ſplit along the mids M
female aſſe, aliue: the gall likewiſe of an Vrchin: the head of a lizard: or the bloud: or laſtly, the aſhes of a li-
zard calcined: the old ſlough of a ſnake alſo. Laſtly, hens dung incorporat with oile and ſalnitre.
If all theſe medicines fail, begin the cure new with Cantharides incorporat with wilde grapes
called Vvæ taminæ: this is a corroſiue, & wil eat them out: but when they be thus fretted & ex-

ulcerat

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A ulcerat, the cure muſt be followed with thoſe appropriat means which I haue ſet downe before in the healing of vlcers.

Chap. X.

¶ *Medicines appropriate for diuers and ſundry diſeaſes which poſſeſſe the whole body.*

Returne we now to the cure of thoſe maladies which are incident not to this or that member, but to the whole body. Firſt and foremoſt, the Magitians ſay, that the gall of a blacke dog (a dog I ſay and not a bitch) is a ſingular countercharme and preſeruatiue againſt all
B ſorceries, inchantments, and poiſons, which may indanger a whole houſe, in caſe there be a perfume made therewith to purifie the aire thereof; yea, and to hallow and bleſſe it againſt all ſuch dangers. The like effect (ſay they) we are to look for, if the walls of the ſaid houſe be ſprinckled or ſtriked with the bloud of the ſaid black dog; with this charge, To burne vnder the threſhold or dore ſell at the entry of the ſaid houſe the genitall member of the ſame dog. Men may maruell well enough at theſe fooleries and abſurdities of theirs: but ſurely wonder leſſe will they thereat, who know what ſtore they ſet by illfauored ticks, the fouleſt and naſtieſt creatures that be: and why do they thus magnifie ſo filthy a vermine? becauſe (forſooth) this creature onely of all others hath no paſſage at all for the voidance of excrements, ſucke it neuer ſo much: and no way there is but death with them when they are thus full, but ſo long only as they continue hun-
C gry and faſting: and yet they ſay, that they wil indure ſo a long time, euen a whole ſeuen-night together with abſtinence and ſpary feeding: mary let them feed ſtil to the ful, they wil not hold out ſo long, but burſt again in fewer daies ſpace. Well, this tick, ſo filthy as it is, and of ſo admirable and ſtrange a nature in their conceit, they hold to bee of exceeding vertue to appeaſe all paines and torments of the body whatſoeuer, in caſe a man take one of them, with the left eare of a dog, and carry them hanging to ſome part about him. And more than that; theſe Magitians take marks by it, & preſage of the life or death of their patients; for they hold it for a certain and aſſured ſigne of life, if one hauing a ticke about him, ſtand at the beds feet where the ſicke man lieth, and when he asketh him how he doth, and where he is amiſſe, &c. if the patient make anſwer readily vnto him; but in caſe hee make no anſwer at all, then ſurely hee ſhall die there is
D no remedy. But take this withall: this ticke muſt be plucked likewiſe from the left eare of a dog, and the ſame dog ought to be cole-blacke without any ſpecke of other colour. And *Nigidius* hath left in writing, that dogs will not all day long come neare vnto a man nor abide to ſee him, who hath plucked a ticke from an hogge. But to returne vnto our Magitians: they affirm, that ſuch as be lunaticke and beſide themſelues, ſhall come againe to their right wits and ſences, in caſe they be ſprinckled with the bloud of a moule. They auouch moreouer and ſay, that if one ſeeth the tongue, eies, gall, and guts of a Dragon in wine and oile, and permit this decoction to coole all night abroad in the open aire, it is a ſoueraigne medicine to chaſe away ſuch bugs, ſpirits, and goblins, wherewith folke be haunted and affrighted in the night ſeaſon, if they bee annointed therewith all ouer their bodie, morning and euening. *Nicander* writeth, that whoſoeuer
E carry about them the ſerpent Amphisbæna dead, or no more but the very skin thereof hanging faſt to any part of their bodies, they ſhall finde it to bee a moſt ſoueraigne remedy for any through cold or chilling fitt that hath ſurpriſed them. Nay hee ſtaieth not there, but addeth moreouer and ſaith, that if the ſaid ſerpent be bound vnto any part of a tree that is to bee felled and laid along, the workemen that hew at the butt thereof, ſhall feele no cold all the while; and the tree by that meanes ſhall the ſooner and more eaſily bee cut downe and ouerthrowne. No maruell therefore, if this ſerpent aforeſaid dare leaue his neſt, and commit himſelfe to the cold weather; for he ventureth firſt to come abroad, and is to be ſeene aboue ground before the Cuckow begins to ſing. But ſince I haue made mention of the Cuckow, there comes into my minde a ſtrange and miraculous matter that the ſaid Magitians report of this bird; namely, that if a
F man the firſt time that he heareth her to ſing, preſently ſtay his right foot in the very place where it was when he heard her, and withal marke out the print and juſt proportion of the ſayd foot vpon the ground as it ſtood, and then digge vp the earth vnder it within the ſaid compaſſe, looke what chamber or roome of the houſe is ſtrewed with the ſaid mould, there will no fleas breed there.

They ſay moreouer, that the fat which is fleeted or skimmed from the broth wherin dormice G
and rats be ſodden, is excellent good for thoſe that be affraid of the palſie, and ſubiect thereto:
alſo that Sowes or Cheeſlips called Milliped æ, prepared and taken in drink, in manner as I ap-
pointed for the ſquinancie, are ſingular for thoſe that find themſelues to be falne into a phthy-
ſick or conſumption of the lungs: ſo is a green Lizard (by their ſaying) ſodden in three ſextars
of wine, till there be but one remaining, if the patient take thereof a ſpoonfull at a time euery
day, vntill he feele himſelfe wariſhed and fully cured. Others aſſure vs of as great effect, by drin-
king the aſhes of ſhell-ſnailes in wine.

As for the falling ſickneſſe, the tried greace of ſweatie and vnwaſhed wooll tempered with a
little myrrhe, ſo that the quantitie of them both ariſe to the bigneſſe of an hazell nut, cures the
ſame, if it be taken infuſed and diſſolued in two cyaths of wine, preſently after the patient haue H
ſwet and be come out of the baine. For the ſame diſeaſe, they ordaine the cullions or ſtones of a
ram which haue bin kept long and dried, to be reduced into pouder to the weight of halfe a de-
nier Romane, and ſo to be taken in water, or elſe in one hemine of aſſes milke; howbeit with this
charge, That the patient forbeare drinking of wine fiue daies after, and as many before. Fur-
thermore, they do highly commend the drinking of ſheeps bloud: likewiſe their gall in milke, but
principally if it be the gall of a lambe: a ſucking whelpe is very good in this caſe, if it be taken
with wine & myrrhe; but firſt the head and feet muſt be cut away. Some for this purpoſe drink
the ſurots or rough werts growing to the legs of a mule, in three cyaths of oxymell: others giue
order to drinke in vinegre the aſhes of the ſtar-lizard Stellion, which breedeth beyond-ſea: and
the tender skin or ſlough of the ſaid Lizard (which ſhe caſts in the ſame maner as a ſnake doth) I
taken in drink, helpeth much. Some Phyſitians are ſo venturous and bold, that they haue giuen
to thoſe who be ſubiect to the falling ſickneſſe, the verie Stellion it ſelf, after it is rid and clen-
ſed from the garbage or guts, and ſo kept dried; appointing their patients to drinke the pouder
thereof in ſome conuenient liquor, through a pipe of a cane: others appoint it to be roſted vpon
a wooden broch or ſpit, and ſo to be eaten for meat. And ſeeing I haue occaſion thus to write
of this Stellio, and the skin thereof, it were very conuenient and neceſſarie in this place to ſhew
the manner how the ſaid ſlough (which is growne ouer him in winter) may be gotten from him
when he hath turned himſelfe out of it, conſidering that he vſeth commonly to deuoure and eat
it himſelfe, becauſe it ſhould not do any man good; for there is not a beaſt againe more ſpight-
full to mankind, and enuious of our commoditie: inſomuch as this word * Stellio is growne to K
be a reprochfull tearme among vs. Well, to meet with this skin of his (as craftie as he is to be-
guile men of it) they vſe to obſerue in hot ſummer daies, his neſtling hole into which he is wont
to retire himſelf: and ordinarily they find it to be in ſome hollow crannies about doors & win-
dows, or elſe vnder vaults and ſepulchres: when they haue eſpied where it is, they wait for the
prime of the Spring, they ſet iuſt againſt his hole certaine little cages or leaps made of clouen
and ſliued reeds, and the ſame wrought and wouen good and thicke: and in very truth he delight-
eth to get betweene the ſtreights and narrow paſſages of the ſtaues and windings, whereof the
ſaid cages are made, for by means therof he may the better ſlip himſelfe out of that coat which
cloggeth his body and maketh him vnweldie: and thus in getting through the ſaid lattices, he K
leaueth the ſame behind him: but after he hath thus done, hard beſted he is, for back he cannot
the ſame way again for to eat the ſaid ſlough. Certes, there is not a medicine preferred before
it, for the falling ſicknes: and yet good reckoning there is made of the brains of Weazles which
haue bin kept and dried: yea and of the liuer ſo prepared, if they be reduced into pouder and ſo
taken in drinke: yea their very genetoirs, and bagg or matrice wherein they beare and breed
their young; or their maw likewiſe ſaued, dried and condite with coriander ſeed, are ſingular
good for this maladie, as I haue heretofore noted: and ſo are their aſhes. Some are of opinion,
that it is good eating of them whole as they be, eſpecially the wild kind, without any ſuch pre-
paring & dreſſing, but others eſteem ferrets to be as effectual as they, for the falling euil. More-
ouer, it is ſaid: that the green lizard eaten with ſome ſharp ſauce that quickneth appetite, is ſin-
gular good in this caſe, but the heads and feet muſt be firſt taken away. Moreouer, the aſhes of M
ſhel-ſnailes together with line-ſeed & nettle-ſeed, brought into the form of a liniment with ho-
ny, cure thoſe throughly of this diſeaſe who are all ouer annointed therewith. But I like better
yet, that for this maladie one ſhould carrie about him the taile of a dragon bound within a buck
or does skin to ſome part of his body, with the ſinews of a ſtag or hind: or els to tie vnto the left

arme

* *Stellionatus crimē* as much as conſenage, or cony-catching.

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A arme the little ſtones that be taken out of the craw or giſier of yong ſwallows: for it is ſaid, that ſo ſoone as the old ſwallow hath hatched her birds, ſhe giueth them ſuch little ſtones to ſwallow downe: but in caſe this doſe be taken in the very beginning, and that the firſt time that one is falne of this diſeaſe, there be giuen to him for to eat, the yong ſwallow that the dam hatched firſt, he ſhall be deliuered from it clearly and neuer haue more fits. But at any time after, ſwallowes bloud and frankincenſe, or els the heart of a ſwallow freſh killed, cureth them that be ſurprized with this malady, if they ſwallow the ſame downe. Moreouer, it is ſaid, that the little ſtone found in a ſwallows neſt, if it be but applied vnto man or woman that is falne of this ſickneſſe, it will raiſe them out of the fit, and bring them againe to themſelues immediatly; but if they carry it tied to any part about them, they ſhall neuer haue fit againe. Much talke there is
B alſo of a kites liuer, that it ſhould be of ſingular operation to this effect, if it be eaten: as alſo of a ſerpents old skin which ſhe hath caſt off, that it wil do no leſſe. The heart of a vulture ſtampt together with the own bloud, and giuen in drink 3 weeks together, worketh wonders in this diſeaſe. So doth the heart of the yong bird of a vulture, if the patient weare it about his arme, or hang it at his necke: but then they giue counſel, to eat the fleſh of the vulture it ſelfe, & eſpecially when he hath eaten his ful of mans fleſh. Some of them ordaine the breſt of a vulture to be drunk, but it muſt be out of a cup or maſer made of the wood of Cerrus: and others there be who to this purpoſe cauſe the ſtones of a cock to be kept and dried, and the ſame to be giuen to the patient in water and milk, after he hath abſtained fiue daies from drinking wine. To conclude, there haue bin of them, that preſcribed vnto their patients in this caſe, 21 of theſe ſandy or red-
C diſh flies (but they muſt be dead ones) for to be taken in drinke: howbeit, if they were but of a feeble complexion, they gaue fewer of them.

CHAP. XI.

¶ *Againſt the Iaundiſe and Phrenſie. Againſt Feauers and the Dropſie.*

THe excrement ingendred in the eares, called commonly Eare-wax, mightily withſtandeth the jaundiſe: ſo doth that ordure alſo which gathereth about the vdders & teats of ſheepe and goats, if the patient drink thereof to the weight of one denier in two cyaths of wine, with ſome myrrh, though it be neuer ſo little. the aſhes of a dogs head calcined, taken in honied
D wine: one of theſe ſows or Cheeſlips with many feet, in one hemine of wine: earthworms in honied vineger with myrrh, be all excellent for the ſaid diſeaſe. Moreouer, it is ſaid, that a hen with yellow feet is very good therfore; in caſe the ſaid feet be cleanſed and waſhed firſt in faire water, afterwards bathed and rinſed in the wine that the patient is to drink. The brains of a Partridge Ægle, or other birds of prey, taken in three cyaths of wine, is very proper alſo therefore. The aſhes of dates; thoſe alſo of the entrails of ſtock-doues, giuen in honied wine to the quantity of three ſpoonfuls, are ſoueraigne in this malady: likewiſe the aſhes of ſparrows burnt in a fire made of vine-wood, work the ſame effect, if they be taken in mead to the quantity of 3 ſpoonefuls. A bird there is called in Greeke Icterus, of the yellow colour which the feathers carry; which if one that hath the jaundiſe do but looke vpon, he or ſhe ſhall preſently be cured thereof, but the
E poore bird is ſure to die for it: I ſuppoſe that this is the ſame bird which in Latine is called Galgulus.

As for the Phrenſie, it ſeemes that the lights of a mutton, applied hot round about the head, and ſo kept faſt, is ſoueraigne to bring their heads againe into temper, who are beſides themſelues. Say that true it were, that not only the brains of mice giuen in water to drink, or the aſhes of a weazil, but alſo the fleſh of an vrchin kept in ſalt or dried, are very good for ſuch as are bereft of their right wits; who will venture to giue them theſe medicines, be they neuer ſo certain and aſſured? For as touching the aſhes verily of Scrich-owls eies calcined (which theſe Magitians ſo highly commend for the phrenſie) I take it to be one amongſt many other of their illuſions, whereby they mocke and abuſe the world. But aboue all, the courſe that they take in the
F cure of Feuers, ſauoreth nothing at all of Phyſick, which indeed is oppoſite to all their rules and proceedings: for they haue diuided and digeſted the ſame into all the 12. ſignes in the Zodiack, according as the Sun or Moone paſſeth through any of them. All which, is nothing els but a meere mockerie to be rejected and vtterly condemned, as I will plainely proue and ſhew to the view of the eye by ſome few examples and inſtances gathered out of many. For in the firſt

place they ordain, that when the Sun is in Gemini, the combs, the eares, the nailes, and clawes of G
cocks ſhould be burned, and the aſhes thereof tempered with oile, wherewith the ſicke perſons are to be annointed all ouer: but if the moon do paſſe through the ſaid ſign, the ſame cure (they ſay) is to be done with the aſhes that come of their barbs & ſpurs: whiles either Sun or Moone be in Virgo, the cure doth alter, and is to be wrought with barly corns in the ſame manner vſed. But how if either of theſe 2 planets bee in Sagittarius? then the wings of a Bat muſt ſerue the turne. In caſe the moone be entred into Leo, they imploy the leaues and branches of the Tamariske; mary it muſt be the tame and garden Tamarisk in any caſe. Laſtly, if ſhe be in Aquarius, they preſcribe the coles made of box wood, punned and puluerized. Certes, I purpoſe not to run through all their receits: ſuch onely as are found and approued good, or at leaſtwaies carry ſome ſhew and probability thereof, I am content to ſet downe: as namely, when they giue order for H
ſtrong odours and perfumes to be applied vnto patients lying of a lethargy, for to awaken and raiſe them out of their dead ſleepe: among which peraduenture, the ſtones of a weazill dried and long kept, or their liuer burnt, may doe ſome good. And whereas they thinke it conuenient to apply hot vnto their heads all about, the lungs of a Mutton, they ſpeake not altogether beſides ſenſe and reaſon.

As for quartane agues, foraſmuch as it is often ſeen, that all the phyſicke that is vſed about them doth little good or none at all, be a Phyſitian neuer ſo Methodical, Rational, & Diligent, yea, though he viſits ſuch patients ordinarily, & be preſent with them by their bedſides: in that regard I wil not ſtick to relate many of their medicines and receits for this diſeaſe; beginning
firſt with thoſe that are locall, and outwardly to be applied, hanged, or worne about any part of I
the body. *Imprimis*, they ſay, that the duſt or ſand wherein any hawke or bird of prey hath basked or bathed her ſelfe, is ſingular good for the quartane ague, if the patient weare it in a linnen cloth tied with a red thred. *Item*, the longeſt tooth in the head of a cole-black dog, is very proper for this purpoſe. There is a kind of baſtard weſps, which the Greeks thereupon cal Pſeudoſpheces, and ordinarily they do flie alone, and not in troupes as others doe; which, if they be caught with the left hand, and hanged about the neck vnder the chin, do cure quartans, as ſome Magitians ſay: howbeit, others attribute this effect to one of theſe weſpes, which a man ſaw firſt the ſame yeare. Cut the head of a Viper off, or take out the heart aliue, and wrap the one or the other within a little linnen rag, and carry it about you, the quartane ague will be gone anon, by their ſaying. Some of them take only the little pretty ſnouts end of a mouſe, or the very tips of K
the eares, and injoin the patient to lap the ſame in a red carnation coloured cloth, and ſo to carry it about him; but then the mouſe muſt in any caſe be let go again and not killed. Others pluck out the right eie of a green lizard aliue; which done, within a while after they chop off the head: then they infold them both in a piece of goats skin, and giue the patient in charge to haue the ſame about him: and many there be, who by the direction of magitians carry about them in like manner for the ſame purpoſe, one of theſe flies or Beetles that vſe to roll vp little bals of earth: and in very truth, in regard of this kind of beetle, the greater part of Ægypt honour all beetles, and adore them as gods, or at leaſtwiſe hauing ſome diuine power in them: which cerimoniall deuotion of theirs, *Appion* giueth a ſubtill and curious reaſon of, for he doth collect, that there
is ſome reſemblance between the *operations and works of the Sun, and this flie: and this hee L
ſetteth abroad, for to colour and excuſe the ſuperſtitious rites of his countrymen. Howbeit, the Magitians imploy in the cure of a quartan ague, another kind of them *which hath little horns turning backward, but they muſt be gotten likewiſe with the left hand, or els they will doe no good. As for the third ſort, ſpotted with white, and called in Latine by the name of Fullo, they appoint one of them to be ſlit through in two, and the 2 pieces to bee tied to both armes of the patient; whereas thoſe of other kinds, they bind to the left arme only. Semblably they ſay, that the heart of a ſnake taken out of her body aliue with the left hand, cureth the quartan, if the patient carry it about him: as alſo, that who ſoeuer taketh foure of the knots or joints of a ſcorpions taile, together with the ſting, and carrieth the ſame about him inwrapped within a piece of
black cloth, with this charge, That for 3 daies ſpace hee doe not ſee either the ſcorpion which M
was let go, nor the party who tied the ſaid cloth and that which is within it about him, he ſhal be deliuered from the quartan ague: but after the returne of the third fit, the patient muſt hide this clout and the joints aforeſaid, & bury them in the ground: ſome there be who lap a caterpiller in a little piece of linnen cloth, & bind the ſame thrice about with linnen thred, making three

* Haply, becauſe all theſe beetles be coſiſted of the male ſex, & none of them female: for in thoſe little roundles of earth there breed grubs, which turne to be in the end beetles.

* This beetle he called before *Taurus*, i. Bull.

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A three knots thereof, ſaying at the knitting of euery knot, that this they do to cure him or her of a Quartane feuer. Others carry about them a naked ſnaile in a little piece of fine leather: or elſe foure heads of ſnails cut off and incloſed within a ſmall reed. Many thinke it better to infold one of theſe ſows or Cheeſlips within a locke of wooll, and ſo to carry it about them againſt the quartane, or els the little grubs or worms whereof come the oxe-flies, before their wings bee grown. And there be that for this purpoſe fit themſelues with thoſe ſmal worms couered al ouer with a kind of down or Cotton, which are found in thickets, & among buſhes or ſhrubs. Some of theſe Magitians giue direction otherwhiles to take 4 of the ſaid wormes incloſed within a wal-nut ſhel, & to bind them to ſome part of the patient, or els the ſnails which be found naked without their ſhels. Others put a liue Stellion or ſtar-lizard in ſome little casket or box, & lay
B the ſame vnder the pillow or bolſter where the patient laieth his head: but when the ague beginneth to decline and is like to go away, they let the Stellion go againe at liberty. They preſcribe likewiſe to ſwallow downe the heart of a ſea-gull or cormorant, taken forth of the bodie without any knife or inſtrument of yron: if not ſo, to keepe the ſame dried, to beat it to pouder, and then to drink it in hot water. The hearts of ſwallows condite in hony, and ſo eaten, bee excellent good for the quartane ague, as our Magitians ſay. And yet ſome of them make no more ado, but giue of their dung to the weight of one dram, in 3 cyaths of goats milke and ews milk, or els of wine cuit, before the acceſſe come. Howbeit, others would haue the Swallowes themſelues to be eaten whole without any dreſſing at all. The people of Parthia drink for the quartan ague the ſixt part of a denier weight of an Aſpis skin, with the like poiſe of pepper, & they hold
C it to be a ſoueraigne remedy. *Chryſippus* the Phyloſoper was of opinion, and ſo he hath put down in writng, That to carry one Phryganium tied to ſome part of the body, is excellent for the quartan. But what liuing creature he would meane by that ſame Phryganium, neither hath he himſelfe deſcribed, nor euer could I meet with any man that knew it: howbeit, I thought it good to ſet downe this remedy, being thus deliuered by ſo graue an Author as *Chryſippus* was, to ſtir vp the diligence of others, if haply there be any ſo induſtrious as will take paines to ſearch farther into the thing, and learne what it might be.

In any of theſe long diſeaſes which be called Chronique, it is commonly thought, That to eat the fleſh of a Crow, & to apply vnto their body their * neſt, is moſt excellent to bring them to an end.

* *Nidum.* Some reade *Nitrum.*

D As for Tertian agues, it were an eaſie matter to try the experiments of ſuch receits as are giuen out for them: conſidering how the poore patients in hope of eaſe are willing enough & delighted to be doing and working concluſions: and namely to ſee whether the copweb, neſt, and all, of that ſpider which they cal * Lycos, incorporat with roſin and wax, & ſo appliedas a frontale to the forehead and temples on both ſides of the head, will do any good to rid them away? Certes, ſome vſe to wear about them the ſpider it ſelfe, incloſed within a quil or piece of a reed: in which ſort it is reported to auaile much in the cure of other feuers. Alſo it is thought, That a green lizard hung about the neck aliue in ſome box ſufficient to receiue it, is as effectuall. And theſe kind of medicines they affirm to be of great efficacy for to driue away thoſe agues which by way of relapſe vſe often to return againe when they were thought to be cleane gone.

* *i.* Wolfe. Supposed to be our common ſpider that hunteth flies.

E Touching the dropſie, the tried greaſe of ſweaty wooll taken in wine with a little Myrrh, ſo that the whole ariſe to the quantity of an Hazel nut, is ſuppoſed to be a ſingular receit: but ſome put thereto Gooſe greaſe alſo and oile of Myrtles. The filthy ordure that gathereth about Ewes vdders, hath the ſame effect. Likewiſe, the fleſh of an vrchin long kept in pouder or otherwiſe, and eaten, doth much good. To conclude, it is thought, that if the belly be rubbed well and annointed with that which a dog doth vſe to caſt by way of vomit, it helpeth thoſe that bee in a dropſie, for it is reported to haue a ſpeciall vertue to draw a water, and to drie vp the ſuperfluous humidity ingendring that diſeaſe.

CHAP. XII.

F ¶ *Medicines for S. Anthonies fire, Carbuncles, fellons, burns, crampes, or contractions of ſinewes.*

THe ſuet or greaſe of vnwaſhed wooll incorporat with oile of Roſes and Tutie, is a proper liniment for S. *Anthonies* fire: ſo is the bloud of a tike, and earth-wormes reduced into an vnguent with vineger: but eſpecially theſe Cricquets, cruſhed and wrought within ones

hand

hand to the conſiſtence of an vnguent and ſo applied. And this medicine laſt mentioned, is paſ- G
ſing effectuall for the party himſelfe that hath the handling of it: for it aſſureth him aforehand,
that he ſhall not fal into the ſaid diſeaſe in a whole yere following: but this Criquet muſt bee
digged out of the ground with ſome inſtrument of yron, and the earth & all to be taken vp with
it, for to ſerue in this cure. Moreouer, it is ſaid, That gooſe greaſe is very good in this caſe: ſo are
the aſhes of a Vipers head kept dried & then calcined, if the ſame be afterwards applied in form
of a liniment with vineger. The old ſloughs that ſnakes caſt off, reduced into an vnguent with
Bitumen and Lambs ſuet, quencheth this burning humor of S. *Anthonies* fire, if the body be an-
nointed therewith tempered in water, preſently after the baine.

As for Carbuncles, the means to rid them away, is to annoint them either with Pigeons dung
alone, or els mixed with Lineſeed and honied vineger: likewiſe, it is good to make a cataplaſme H
of thoſe Bees which haue bin drowned or killed in their own honey, and lay the ſame vpon the
ſore. Others apply vnto them either a pulteſſe of fried Barley groats, or elſe a pouder made with
their meale. If there be a carbuncle riſen in their priuities, the fattineſſe of greaſie and vnwaſhed
wooll, incorporat in hony and the skales refuſe or cinders of lead, into a ſalue, cureth it: and the
ſame healeth generally all other botches or vlcers in thoſe parts. Sheeps dung that is freſh and
greene, they hold to be ſingular for carbuncles, taken in the very beginning.

All tumors and hard ſwellings, which had need to be mollified, are made ſoft and brought
downe moſt effectually with Gooſe greaſe, or the fat of a Swan.

Moreouer it is ſaid, That a ſpider laid to any fellon, before it be once named what thing it is I
cureth the ſame; but it muſt not be remoued from the place before the third day. The mouſe
called an Hardiſhrew hanged vp aliue vntill it be dead, is very good for theſe fellons, in caſe it
touch not the ground afterward, and that there be 3 circles or turnes made with it round about
the ſore, ſo that withall both the patient and the party that hath this cure in hand, ſpit vpon the
floore three times in the doing thereof. Alſo the dung of Cocke or Henne (that which looketh
reddiſh eſpecially) tempered with vineger & laid to a fellon, healeth it: but the ſaid dung ought
to be freſh and newly meuted. Of the ſame operation and effect is the giſier of a Storke boiled
in wine. Some there be that take certain flies of ſome odde and vneuen number, bruiſe and work
them into the conſiſtence of a ſalue, with their *ring-finger, and therewith apply them to the
fellon. Others vſe for the ſaid purpoſe the filth ingendred in ſheeps ears: old ſheeps tallow mix- K
ed with the aſhes that come of womens haire, reduced into a liniment, ſerueth to cure the ſayd
accident; ſo doth rams ſuet mixed with the aſhes of a pumiſh ſtone calcined, and a like quantity
in weight of ſalt.

* *Medico*, i. the fourth or next to the little finger.

As for burns and ſcaldings, the aſhes of a dogs head burnt, are ſingular good to cure the ſame:
ſo be the aſhes of Dormice tempered with oile: ſheeps treddles alſo mixed with wax: the aſhes
of mice and ſhel ſnails; and this medicine will skin them ſo cleane, that there ſhall no ſcarre re-
maine afterwards to be ſeen. In like manner, the greaſe of Vipers: or the aſhes of Pigeons dung
calcined and reduced into a liniment with oile.

Touching the nodoſities of the ſinewes, the aſhes of a Vipers head burnt and brought into
an vnguent with the oile Cyprinum, is thought to be a ſouereign medicine for to reſolue them. K
Likewiſe, earth-wormes made into a cataplaſme with honey, and ſo applied vnto the affected
place. But if the ſaid ſinews do ake and be pained, bind vnto them the ſerpent called Amphiſ-
bæna dead, and it will eaſe the griefe. The like effect you may looke for of Vultures greaſe, to-
gether with the giſier of the ſaid foule, dried or ſtamped with old ſwines greaſe or lard, and ſo
reduced into a liniment. And if we may giue any credit to the Magitians, a drinke made of ho-
nied wine, ſpiced with the aſhes of a ſcrich-owles head, together with a Lillie root, will work the
ſame effect.

In contractions of the ſinewes, it is good to eat the fleſh of ſtock-dooues, eſpecially if the ſame
hath bin poudered and kept in ſalt. The fleſh likewiſe of an Hedgehog is as good for crampes
and ſpaſmes: as alſo the aſhes of a Weazil. The old ſlough that ſnakes leaue off, infolded with-
in a piece of a Buls skin or leather made thereof, is good to be worne tied about one for to pre- M
uent this diſeaſe: and more particularly for thoſe ſpaſmes or conuulſions that draw the ſinews
of the neck ſo, as the head is pluckt backward, there is not a better medicine than to drinke the
poiſe of three oboli of a kites liuer dried, in as many cyaths of mead or honied water.

When the skin turneth vp about the roots of the nails, or the excreſcence of the fleſh putteth
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A the fingers to pain,which accidents be called in Latine Reduviæ,and in Greek Pterygia:it were good to vse to them the ashes of a dogs head calcined,or the matrice of a bitch sodden in oile; with this charge,to annoint them aloft with a liniment of butter,made of ewes milke and hony incorporat together. The burse likewise or little bladder, which containeth in it the gall of any beast,is good for this purpose.

If the snailes be ragged and rugged, it is not amisse to apply vnto them Cantharides incorporat with pitch,without reemooving this plaister before the third day:or els to lay vnto them Locusts fried in Goats suet:sheeps tallow also is good therefore. Some mix therwith Birdlime made with Misselto and Purcelane tempered together: others take Verdegris or rust of brasse and the foresaid birdlime,but they remoue not the plaister off in three daies.

B

Chap. XIII.

¶ *Receits for stanching bloud: repressing or smiting backe the swelling incident to wounds: healing of vlcers and greene wounds: and generally for curing of many other maladies. Remedies all taken from dumbe creatures.*

THe suet that commeth from the kell of a mutton,staies any flux of bloud,if it be conueied into the place from whence it issueth: so is their rede, especially if it be the rennet of a yong Lambe tempered with water,either drawn vp into the nosthrils or poured into them:
C this is thought to be such a soueraigne remedie, that when all others haue failed, it hath done the deed. The earthie substance sticking to shell-snailes,hath the same effect:yea,and their verie flesh when they are pulled out of their houses. In case the nose do bleed excessiuely, take the said shell-snailes,bruse them and lay them to the forehead: they will stanch the bleeding: the copwebs also put vp into the nosthrils. As for the brains of a Cocke or Capon,they stop a flux of bloud issuing from the braine. But say that bloud do gush immoderately out of a wound: it is wonderfull how the ashes of horse dung, together with egg-shels, will stop the same, if it be laid thereto.

As for*wounds,the grease of vnwashed wool, incorporat with the ashes of torrified and calcined Barley and Verdegris,of each a like quantitie, and so made into a plaistre,healeth them.
D The same is a soueraign salue for any corrosiue vlcers,be they neuer so maligne & cankerous. It eateth and consumeth the dead flesh about the brims and edges of vlcers, yea,and brings down the excrescence of proud flesh, reducing the same to be euen with the rest about it. The same doth incarnat likewise and skin the place after it is filled vp with yong flesh. If the vlcers proue to be ilfauoured cankers,it is thought,that the ashes of sheeps dung mixed with salnitre, is an effectuall pouder for the same:and as great operation is attributed to the ashes of a Lambs leg bones, but principally if the said sores be of the nature of *Nunquan sana*,and will not skin vp, but scorne all healing plaisters whatsoeuer. Much vertue also is attributed vnto Rams lights in these cases, for it eateth away all the excrescences of ranke flesh in vlcers, and there is not the like againe vnto it,for reducing all vnto an equalitie. The very dung also of sheep heat vnder an
E earthen pan and afterwards wrought into a masse or paste, assuageth the tumour of any vlcers: And it serueth likewise to mundifie and heale fistulaes, as also to rid away the chil-blanes or bloudy fals,which are our night-foes. But of al other,the ashes of an horse head is most forcible in this case,for it consumes all superfluous flesh growing in sores,and heales vp the same afterwards,no Spodium better. And yet it is said,that mice dung is very good therfore:like as the ashes of Weazils dung. The hard callosities in the bottome of vlcers,the Cheeslips or Sowes if they be stamped fresh and reduced drie into pouder,do search throughly:like as all cankers also they cure,if they be incorporat with the right Turpentine and common*Bole-Armoniacke. And these medicines aboue said are singular for those vlcers that be giuen to breed worms,and thereby are dangerous. And seeing I am light vpon the mention of wormes, it would be noted,
F that there be diuerse sorts of wormes which haue wonderfull properties in these cases: For first and formost,the grosse and fat wormes breeding in wood & timber,which the Latins call Cossi, are soueraigne healers of any vlcers whatsoeuer. But if the same be burnt with an equall weight of Annise seed, and reduced into a liniment by meanes of oile, they haue a speciall vertue to cure those sores that be corrosiue,which the Greeks call Nomæ. Earthwormes are great healers, and

**Vulneribus.* Some read: *Vlceribus,i.* Vlcers.

**Sinopide*some take it for *Terra Sigillata*:but it skill th not much,seeing that *Rubrica Sinopica,Terra Sigillata,& Bolus Armena*, yea, and *Terra Lemnia*, little differ in operation,*vis secundum magis & minus*,as the learned think, *Vid. Encelium de re Metallia.*

and ſoon do ſouder greene wounds: in which operation they are ſo effectuall and ſpeedy withal, G
That if the ſinewes be cut quite aſunder, it is a common opinion, that they will conſolidat and vnite them again in leſſe ſpace than a week: and therefore, becauſe they ſhould be ready and euer at hand, many preſerue them for this purpoſe condite in hony. Indeed, when they be reduced into aſhes, they are effectuall to eat downe the hard calloſities growing in the ſides and edges of vlcers, if they be incorporat with Tarre, or the Sicilian hony called Hyblæum. Some vſe them dried in the Sun and tempered with vineger, for wounds: but this cataplaſme they doe not remoue vntill 2 daies be paſt. After the ſame maner, the terrene or earthly ſubſtance of ſhel-ſnails do much good: yea, and taken forth whole as they be out of their ſhels, ſtamped and ſo applied, they conglutinat greene wounds, and ſtay the running farther of corroſiue vlcers. Alſo there is a certain liuing creature, which is called Herpes by the Greeks; the ſame hath a peculiar proper- H
ich alſo is Herpes: ngles and ty to heale any ſore that * runneth on ſtill and corrode as it goeth. For which kinde of vlcers, ſnails, bruiſed ſhells and all, be paſſing good: and the ſame incorporat with Myrrh and Frankincenſe, haue the name to heale ſinewes that be cut in two: Moreouer, the fat of a Dragon dried in the Sun, is very effectuall: like as the brains alſo of a Cock, to heale green wounds, if the patient withall eat ſalt to his meat, which was calcined together with Vipers fleſh: and by this means (they ſay) that any vlcers will ſooner yeeld to the cure, and be healed with more ſpeed. The renowned Phyſitian *Antonius Muſa*, hauing certain Patients in cure vnder his hand, who had vlcers that were thought incurable, preſcribed them to eat Vipers fleſh; and wonderfull it is how ſoone he healed them cleane by that means.

The aſhes of certain Locuſts without wings, called by the Greeks Tryxalides, cauſe the thick I
roufs and eſcars that grow about the brims of vlcers to fall off, and they conſume the hard calloſities thereof applied with honey. The aſhes likewiſe of Pigeons dung tempered with Orpiment or Arſenick and hony, ſerue as a corroſiue to eat away any excreſcence that ought to bee conſumed: the brains of ſchrich-owls incorporat with greaſe, doth wonderfully conglutinat any wounds. As for thoſe morimals, named by the Greekes Cacoethe, the aſhes of a rams ſhanke-bones & legs mixt with breſt milk, is ſingular to heale them, ſo that the ſaid ſores were firſt well and throughly waſhed and bathed with fine linnen cloaths ſoked in ſome conuenient liquour. There is a bird called an Hulat, which if it be ſodden in oile, & ſo reſolued, is good therefore, in caſe the ſame be incorporat with butyr made of ewes milk and hony. If the ſides or brims of any K
vlcer be growne callous and hard, the Bees that are ſtifled and killed in hony, doe mollifie very well. The bloud and aſhes of a Weazill calcined, doe cure the white filthy leproſie called Elephantiaſis. The wounds occaſioned by whipping and ſcourging, the marks alſo and wales remaining to be ſeen black and blew after ſuch laſhes and ſtripes, are done away and go preſently out, with applying thereto a ſheeps skin freſh and newly flaied. If there be any joint bruiſed or cracked, the aſhes of a Sheeps leg bone, burnt, haue a ſpecial vertue to help the ſame: but much better, if they be incotporat into a cerot with wax. Of the ſame operation there is another plaſter made; namely, if there be calcined with the former the jaws of the ſaid Sheep, and a Harts horn: and if the wax be ſoftened and reſolued with oile roſat. When bones bee broken, it is good to K
apply vnto the fracture the brains of a dog ſpread vpon a linnen cloth or inwrapped therein, couering the ſaid cataplaſme with wooll laid aloft, and the ſame eft-ſoones moiſtened and wet throughly [* in ſome aſtringent liquor:] this manner of cure doth ſouder them lightly in
* As oile of roſes, or red wine
14 daies at the fartheſt. The aſhes alſo of field-mice work the like effect as ſpeedily, if the ſame be tempered with honey, or mingled with the aſhes of earth-wormes: which alſo is able to draw forth ſpils of bones, and make them to worke out. The lights of a Mutton and of a Ram eſpecially, reduce skars to their liuely colour againe, ſutable vnto the skinne about: their tallow alſo mixed with ſal-nitre: ſo do the aſhes of a greene lizard: the ſlough that ſnakes caſt off in the Spring boiled in wine: and Pigeons dung tempered with honey, and ſo applied. The ſame medicines do take away the filthy white Morphew, called in Latine Vitiligo, if they be vſed with wine: for which Morphew or infection of the skin, it is good to apply Cantharides, with twice as much of Rue leaues, which the patient muſt indure and abide, lying ſtil vpon the place in the M
Sunne, vntil ſuch time as the skinne begin to riſe in pimples and little bliſters. Afterwards it is needfull to foment and bathe the ſaid place thus offended, yea, and to annoint it wel with oile: which done, to returne againe to the former emplaſtration, and ſo hold on this courſe by turnes for many daies together, but in any wiſe to take heed that the exulceration in this cure

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A go not ouer deep. For t he ſame morphew, many giue order to make a liniment with flies & the root of docks, and herewith to annoint the places infected with this morphew : alſo, to apply thereto hens dung, I mean as much thereof as is white: for which purpoſe they keep the ſame in oile within horne boxes, for to ſerue the turne as need requireth. Likewiſe, to annoint them with the bloud of bats, or the gall of an Vrchin tempered with water. As for the running ſcalls, the brains of a ſchrich-owle is very good, incorporat with ſalt-petre: but dogs bloud hath no fellow to repreſſe the ſame: like as to kill the itch, the little broad ſnailes ſtamped and brought into a liniment, are ſoueraigne. If there be any ſpill or ſhiuer of arrowes, if any piece of a dart or whatſoeuer els ſtick within the fleſh, which would bee gotten forth, ſplit a liue mouſe in the middeſt, and lay the ſame hot to the place, you ſhall ſee how it will draw the ſame out. But a Li-
C zard paſſeth all the reſt, being in this wiſe ſlit along and diuided: or if the head onely be ſtamped with ſalt, and applied accordingly. There be certain ſhel-ſnailes that creep in troups together for to deuour the yong ſpring and green leaues of plants, which ſerue to this effect, if they be punned with their ſhels and laid to the place. Thoſe alſo that we vſe to dreſſe and eat, if they be taken forth of their ſhels: but if you put thereto the rennet of a yong hare or leueret, it is wonderfull to ſee how effectually they will worke. Snakes bones incorporat with the rennet of any foure-footed beaſt whatſoeuer, within leſſe than 3 daies ſhew the ſame effect, and draw forth any thing that ſticketh within the body. Finally, the flies called Cantharides are much commended for this operation, if they be ſtamped and incorporat with barly meale.

CHAP. XIIII.

¶ Proper remedies for the cure of womens maladies: and to help them for to goe out their full time, and bring forth the fruit of their womb fully ripe and accompliſhed.

THe skin or ſecundine which an Ewe gleaneth after ſhe hath yeaned, and which inlapped the lambe within her belly, prepared, ordered, and vſed (as I ſaid before) as touching goars, it is very good for the infirmities that properly bee incident vnto women and occaſioned by their naturall parts. The dung likewiſe of ſheep, be they rammes, ewes, or weathers, hath the ſame operation. But to come vnto particulars, the infirmity which otherwhiles putteth them to
D paſſe their vrine with difficulty and by dropmeale, is cured principally by ſitting ouer a perfume or ſuffumigation of Locuſts. If a woman after that ſhe is conceiued with child, vſe eft-ſoons to eat a diſh of meat made of cock-ſtones, the infant that ſhe goeth with ſhall proue a man child, as it is commonly thought and ſpoken. When a woman is with childe, the meanes to preſerue her from any ſhift and ſlip that ſhe may tarry out her full terme, is to drink the aſhes of Porkepines calcined: alſo the drinking of a bitches milk maketh the infant within the womb to come on forward & to grow to perfection, before it ſeek to come forth vntimely: alſo, if the child ſtick in the birth, or otherwiſe make no haſte to come forth of the mothers body when the time is come: the skin wherein the bitch bare her whelps within her body, and which commeth away from her after ſhe hath puppied, haſteneth the birth, if ſo be it were taken away from her before
E it touch the ground.

If women in labour drinke milke, it will comfort their loins or ſmal of the back, Mice dung delaied and diſſolued in rain water, is very good to annoint the breſts of a woman, new laied, to break their kernel, and to allay their ouermuch ſtrutting preſently after childbirth. The aſhes of hedgehogs preſerueth women from abortion or vntimely births, if they be annointed with a liniment made of them and oile incorporat together. The better ſpeed and more eaſe ſhall thoſe women haue of deliuerance, which in the time of their trauell drinke a draught of Gooſe dung in two cyaths of water: or elſe the water that iſſueth out of their owne body by the naturall parts a little before the child ſhould be borne, and that out of a weazils bladder. A liniment made of earth-wormes, if the nouch or chine of the necke and the ſhoulder blades be annointed there-
F with, preſerueth a woman from the pain of the ſinews, which commonly followeth vpon childbearing: and the ſame ſend away the after-birth, if when they bee * newly brought to bed, they drink the ſame in wine cuit. A cataplaſme made of them ſimply alone without any other thing, and applied to womens ſore breſts which are impoſtumat, bring the ſame to maturation, breake them when they are ripe, draw them after that they runne, and in the end heale them vp cleane

* *Grauidis, & puerperis.*

and

and skin all again. The ſaid earthwormes alſo if they be drunk in honied wine, bring down milk G
into their breſts. There be certain little wormes found breeding in the common Coich-graſſe,
called Gramen, which if a woman weare about her neck, ſerue very effectually, to cauſe her for
to keep her infant within the wombe the ordinary terme: but ſhe muſt leaue them off when ſhe
drawes neere to the time when ſhe ſhould cry out: for otherwiſe, if they be not taken from her,
they would hinder her deliuerance. Great heed alſo there muſt be taken, that theſe wormes bee
not laid vpon the ground in any hand. Moreouer, there be Phyſitians who giue women to drink
5 or 7 of them at a time, for to help them to conceiue. If women vſe to eat ſnailes dreſſed as
meat, they ſhall be deliuered with more ſpeed, if they were in hard labour: let them be applied
to the region of the matrice or naturall parts with Saffron, they haſten conception. If the ſame
be reduced into a liniment with Amylum and gum Tragacanth, and laid too accordingly, they H
do ſtay the immoderat flux of reds or whites. Being eaten in meat, they are ſoueraigne for their
monthly purgations. And with the marrow of a red Deere they reduce the matrice againe into
the right place, if it were turned a to-ſide: but this regard muſt be had, that to euery ſnaile there
be put a dram weight of Cyperus alſo. If the matrice be giuen to ventoſities, let the ſame ſnails
be taken forth of their ſhels, ſtamped and laid too with oile of Roſes, they diſcuſſe the windi-
neſſe thereof. And for theſe purpoſes before named, the ſnailes of Aſtypalæa be choſen for the
beſt. Alſo for to reſolue the inflation of this part, there is another medicine made with ſnailes,
eſpecially thoſe of Barbarie, namely, to take two of them and to ſtampe them with as much Fe-
nigreeke ſeed as may be comprehended with three fingers, adding thereto the quantity of four I
ſpoonfuls of hony, and when they be reduced all into a liniment, to apply the ſame to the regi-
on of the womb, after the ſame hath been well and throughly annointed all ouer with the iuice
of Ireos, i. Floure-de-lis. There be moreouer, certaine white ſnailes that be ſmall and long with-
all, and theſe be commonly wandering here and there in euery place. Theſe beeing dried in the
Sun vpon tiles, and reduced into pouder, they vſe to blend with bean floure, of each a like quan-
tity. And this is thought to be an excellent mixture for to beautifie their body, and make the
skin white and ſmooth. Alſo, if the itch be offenſiue, ſo as a woman be found euer and anone to
ſcratch and rub thoſe parts, there is not a better thing therefore than the little flat ſnails, if they
be brought into a liniment with fried Barly groats. If a woman with child chance to ſtep ouer
a Viper, ſhee ſhall be deliuered before her time of an vnperfect birth. The like accident wil be-
fal vnto her, in caſe ſhe go ouer the ſerpent Amphisbæna, if the ſame were dead before. And yet K
if a woman haue about her in a box one of them aliue, ſhee ſhall not need to feare the going o-
uer them, though they were dead. And one of theſe Amphisbænes dead as it is, and preſerued
or condite in ſalt, procureth ſafe and eaſie deliuerance to a woman that hath it about her. A
wonderfull thing, that it ſhould be ſo dangerous for a woman with childe to paſſe ouer one of
them which hath not bin kept in ſalt: and that the ſame ſhould be harmeleſſe and do no hurt at
all, if immediatly after it hath bin ſo kept, ſhe ſtept ouer it. A perfume made with a ſnake long
kept and dried, procureth the deſired ſickneſſe of women. The old ſlough of a ſnake, which ſhe
hath caſt, applied vnto the loines of a woman that is in labour, helpeth her to better ſpeed: but
it muſt be remoued preſently after that ſhe is deliuered. Many vſe to giue it vnto women with K
child for to be drunk in wine with frankincenſe: for being taken otherwiſe it cauſeth abortion.
The rod or wand whereby one hath parted or taken off a frog or toad from a ſnake, helpeth wo-
men that be in trauell of childbirth. And a liniment made with the aſhes of the vnwinged Lo-
cuſts called Tryxalides & hony tempered together, helpeth forward their monthly purgations.
The ſpider likewiſe that commeth downe ſpinning from aloft, hanging by her fine thred which
ſhe draweth in a length, if ſhe be caught with the hollow of the hand, bruiſed & applied accor-
dingly, worketh the ſame effect: but take the ſame ſpider winding vp her yearne, and returning
back to her neſt vpward, it wil worke contrariwiſe, & ſtay the fleurs of women. The Ægle ſtone
called A tites, becauſe it is found in an Ægles neſt, preſerueth & holdeth the infant ſtill in the
mothers womb to the ful time, againſt any indirect practiſe of ſorcery or otherwiſe, to the con-
trary. If a woman be in hard labor of childbirth, put a Vultures quill vnder her feet, it will helpe M
her to a more ſpeedy deliuerance. Great bellied women, as it is well knowne & found by proofe,
ought to be very chairy and to beware of rauens egs, for if they chance to goe ouer one of them,
they ſhall fall to labour preſently, aud ſlip an vntimely birth with great danger of their life. It
ſeemeth to many, that the meuting of an Hawke drunke in honied wine, maketh women which

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A were barren before, to be fruitfull. Certes, the greaſe of a gooſe or ſwan doth mollifie any hard rumors, ſchirrhs, and impoſtumations of the matrice and ſecret parts. Gooſe greaſe mixt with the oile of roſes and * Ireos, * preſerueth womens breſts after they be newly brought to bed. In Phrygia and Lycaonia it is found by experience, that the fat of the Biſtard or Horn-owle is verie good for greene women lately deliuered, if they be troubled with the pricking or ſhooting paines of their breſts: but for women that are in danger to be ſuffocated with the riſing of the mother, they haue a liniment alſo made with the beetils or worms called Blattæ. The aſhes of Partridge egs calcined, mixed with braſſe ore called Cadmia, and wax, and ſo reduced into a cerot, preſerueth womens breſts plumpe and round, that they ſhall not be riueled or flaggie: and it is thought, that if a woman make three imaginary circles round about them with a partridge B egg, they ſhall continue knit vp and well truſſed, and not hang downward ilfauoredly: let a woman vſe to ſup them off, ſhe ſhall be both a fruitfull mother of many children, and alſo a good milch nurſe for to reare them vp. Alſo it is a generall receiued opinion, that if womens paps be anointed all ouer with gooſe greaſe, it will allay the griefe and paine thereof: likewiſe there is not a better thing for to diſſolue and ſcatter Moon-calues and ſuch like falſe conceptions in the wombe: or to mitigate the ſcurfe or mangineſſe incident to that member, than to apply to thoſe parts a liniment made of punaiſes bruiſed or ſtamped to the purpoſe.

* *Irino*, as followeth in the next chapter: not *aranео*, as it is in moſt prints.

* From ſwelling, hardneſs, or the ague, as women call it.

Bats bloud hath a depilatorie facultie to fetch off haire, and lett the growing thereof; howbeit ſufficient it is not alone to worke that feat in boies cheeks and chins whom we would keep ſmooth and beardleſſe, except the place be rubbed afterward with the ſeed of rocket or hem-
C lock: and in this manner if they be dreſſed, either no haire at all will come vp there, or els it wil neuer be but ſoft down: it is thought that their brains alſo wil work the ſame effect. Now theſe brains be of two ſorts, to wit, red and white: howbeit ſome giue counſell to mingle with the ſaid brains both the bloud and the liuer. Others there be who ſeethe in 3 hemines of oile a viper, vntill her fleſh be throughly ſodden, and as tender as may be, hauing before rid her from all her bones; and it they vſe for a depilatorie: but firſt they plucke vp all thoſe haires by the roots which they would not haue to grow any more. The gall of an vrchin is a depilatorie, eſpecially if it be mixed with the brains of a Bat, and goats milke. *Item*, the aſhes thereof ſimply, mingled with the milk of a bitch of her firſt litter; ſo that the haires which we would not haue to come againe be plucked vp; or if thoſe places be anointed therewith where neuer yet grew any, none
D ſhall ſpring there afterwards. The ſame effect (by report) hath the bloud of a tick that was taken from a dog: and finally, the bloud or gall of a ſwallow.

Chap. XV.

¶ *Many Receits handled together diſorderly one with another for ſundry maladies.*

IT is ſaid, that Ants eggs ſtamped & incorporat with flies likewiſe punned together, wil giue a louely black colour to the hairs of the eie-browes: alſo if a woman be deſirous that her infant ſhould be born with black eies, let her eat a rat while ſhe goes with childe. To preſerue the haire from being gray and griſle, anoint them with the aſhes of earth-worms and oile oliue
E mixt together. If ſucking babes be wrung or gnawne in the belly, by reaſon of ſome cruddled milk which they draw from their nurſes, or doth corrupt ſo in their ſtomack, it is good to giue them in water the rennet of a yong lambe to drink: but in caſe this accident commeth by cailling of the milk, they vſe ro giue vnto them the ſaid rennet in vineger for to diſcuſſe the ſame. For the paine that they abide in toothing, the brains of an * hare is ſoueraigne to anoint their gumbs withall. It falleth out that yong infants many times be tormented with an vnnaturall heat and burning of their head, called Siriaſis; for to eaſe and cure them thereof, they vſe to take the bones that are found in dogs dung, and to hang them about their necks or arms. Yong infants are ſubiect to ruptures and deſcents of the guts, in which caſe it is good (ſome ſay) to apply a greene lizard vnto their bodies whiles they lie aſleepe, and to cauſe it to bite the place:
F but then afterward the ſaid lizard muſt be tied faſt to a reed and hung vp in the ſmoke: for look how it decaieth and dieth by little and little, ſo ſhall the rupture knit and heale again. The foamie moiſture that ſhel-ſnails yeeld, if childrens eies be anointed therewith, doth not onely rectifie and lay ſtreight the hairs of the eie-lids which grow crooked into the eies, but alſo nouriſheth & cauſeth them to grow. The aſhes of burnt ſhell-ſnailes reduced into a liniment with

* *Leporis* or *pecoris*, (i.) of a Sheepe.

kincenſe and the white of an egg,doth in the ſpace of 30 daies cure thoſe that are burſten belli- G
ed. In the little horns of ſhell-ſnails there is found a certaine hard ſubſtance reſembling grit or ſand,which if it be hanged about a youg infant,is a means that it ſhall breed teeth with eaſe. The aſhes of ſnail ſhels when the ſnails are gon,incorporat in wax,and applied to the ſeat of the fundament,putteth backe the end of the tiwill that is fallen down and ready to hang out of the body: but you muſt not forget to mingle with the ſaid aſhes the bloudy ſubſtance that is let out of a vipers brains when her head is pricked. The braines of a viper if they be put in a little fine skin,& worn by a yong child,helpeth it to breed teeth without any great pain:for the ſame purpoſe ſerue alſo the teeth of ſerpents,ſo they be choſen the biggeſt that are in their heads:ra-uens dung wrapped in wool and hung to any part of yong infants,cureth the chin-cough.

Some things there remain as touching this argument,which hardly methinks I ſhould not H
handle ſeriouſly & deliuer in good earneſt:howbeit ſince there be diuers writers who haue put them down in writing,I muſt not paſſe them ouer in ſilence. They are of opinion and doe giue order,to cure the rupture and deſcent of the guts in little children,with a lizard:but how? firſt it ought to be of the male kind which is taken for this purpoſe;and that may ſoone be knowne,if vnder the taile it haue one hole and no more:then there muſt be vſed all means poſſible that the ſaid lizard do bite the tumor of the rupture through a piece of cloth of gold, cloth of ſiluer, or purple: which done,the ſaid lizard muſt be tied faſt within a new cup or goblet that neuer was occupied,& ſo ſet in ſome ſmoky place where it may die. If little infants piſſe their beds,a rea-die way to make them containe their water,is to giue them ſodden mice to eat. If there be any ſuſpition of ſorcerie,witchcraft, or inchantment practiſed for to hurt young babes, the great I
horns of beetles, ſuch ſpecially as be knagged as it were with ſmal teeth,are as good as a coun-tercharm and preſeruatiue,if they be hanged about their necks. There is (as they ſay) a little ſtone within the head of an ox or cow,which they vſe to diſcharge and ſpit out when they be in danger of death;the ſame if it be taken out of one of their heads which is ſuddenly ſtricken off before the beaſt be ware therof, & hanged about an infants necke or other part of the body, is wonderful good for breeding of teeth. Semblably they preſcribe their brains to be caried about them in like maner,& for the ſame purpoſe:alſo the little bone or ſtone found in a naked ſnails back. Moreouer,the anointing of childrens gumbs with the brains of a yong ſheepe, is ſingular good and effectual to cauſe them to breed their teeth with facilitie:like as gooſe greaſe inſtil-led with the juice of baſil into their ears,cureth the infirmities therof. There be in many prick- K
ly herbs certain rough & hairy worms,which if they be hung about the necks of yong infants, do preſently cure them,if haply there were any thing in their meat that ſtucke and lay hard in their ſtomack,for they wil cauſe them to puke it vp. To prouoke ſleep there is not a better thing than the tried greaſe of vnwaſhed wool,with ſome myrrh,be it neuer ſo little infuſed & diſſol-ued in two cyaths of wine;or els incorporat with gooſe greaſe and wine of myrtles: for which intent they vſe to take the bird called a Cuckow,and within a hares skin tie it to the patient;or els to bind the bil of a yong heron to the forehead,within a piece of an aſſe skin:and they are of opinion,that the ſame bill alone is as effectuall,ſo it be well waſhed in wine: contrariwiſe, the head of a bat dried and hanged about the neck,keeps one from ſleep altogether. A lizard drow-ned to death in the vrin of a man,diſableth him from the vſe of venery,who * drank the liquour L
whereof that vrine came:and no maruel;for why? the magitians repoſe a great thing in a lizard in loue matters. The excrements of ſnailes which reſemble dung,as alſo the dung of pigeons, tempered in a cup of wine and giuen to drink,coole fleſhly luſt. The right lobe or ſide of a vul-tures lungs prouoke men to *Venus* ſports,if they cary it about them enwrapped within a cranes skin. In like maner the yelks of fiue pigeons egs incorporat with ſwines greaſe to the weight of one denier Roman,and ſo ſupped off,work the ſame effect. Some eat ſparrowes vſually for this purpoſe;or ſup their egs. Alſo there be who carry about them the right ſtone of a cock,incloſed faſt within a piece of leather made of a rams skin,and to good effect, if all be true that magiti-ans ſay: who affirm alſo,that thoſe women who are anointed with a liniment made of the aſhes of the bird Ibis,incorporat with gooſe greaſe and the oile Ireos,ſhal if they be conceiued with M
child go out their full time: and they ſay,that whoſoeuer be anointed with a liniment made of the ſtones of a fighting cocke and gooſe-greaſe, ſhall haue but little mind to performe the act of generation: or if the ſame be tied vnto any part of them within a piece of leather made of a rams skinne. In like manner,it is ſaid that the ſtones of any other dunghill cock are of the ſame

effect,

* *Biberit*,ſome reade *fecerit*, i. who made the ſaid water.

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A effect, if together with the bloud of the ſaid cock, they be but laid vnder ones bed. If one pluck the haires out of a mules taile while the ſtallion couereth her, and bind the ſame together in a wreath or knot, & apply them to the legs or loins during the act of generation, they will cauſe (women) to conceiue whether they will or no. Whoſoeuer maketh water vpon the very place where a dog hath lift vp his leg and piſſed, ſo as both vrines be mingled together, folke ſay, he ſhall find himſelfe therby more vnluſtie to the worke of *Venus*. A wonderfull thing it is (if it be true) which they report likewiſe of the aſhes of a ſtar-lizard or Stellion; that if the ſame be enwrapped within ſome lint or linnen rag, & held in the left hand, it ſtirreth vp the heat of luſt; but ſhift the ſame into the right hand, it wil coole one as much. Moreouer, that if one put vnder the pillow where a woman laies her head, a few flockes, or locke of wooll ſoked well in batts bloud,
B it wil ſet her on to deſire the company of a man; or if ſhe do take a gooſe tongue either in meat or drink. The old skin or ſlough that ſnakes do caſt off in the Spring, whoſoeuer drinketh in his ordinary drink, it will kil all the vermin or lice of the body within three daies: ſo doth the whey of milke after the cheeſe is gathered, if one drinke the ſame with a little ſalt. If the braines of a weazill be put into the rendles or rennet that goeth to the making of cheeſe, they ſay that the cheeſe ſo made, ſhall neither corrupt all ſummer long, nor be eaten by the mouſe. The aſhes of the ſame weazill giuen to chickens or young pigeons among the paſt that is made for to feed them, ſecureth them from the weazill. Furthermore, it is ſaid, that if a batt be tied vnto a horſe or mare or ſuch labouring beaſts that are pained in their ſtaling, they ſhall ſoon haue an end of that griefe and impediment: if they haue the wringing of the guts, or be troubled with the bots,
C there will enſue eaſe of their paine, preſently vpon the making three turns or compaſſes round about their ſhap and naturall parts with a ſtockdoue. But ſee a maruellous matter! the doue being let go, dieth forthwith; and the beaſt immediatly is deliuered from paine. Moreouer, if you would know a remedy againſt drunkenneſſe, marke this experiment; Giue for three daies together to great drunkards the eggs of an owle continually in their wine, they will take a loathing thereto and forbeare drinking. Whoſoeuer taketh the lights of a mutton roſted, and eateth the ſame before he ſit downe to drinking, ſhall not be ouertaken or drunken, how freely ſoeuer he powreth downe the wine. The aſhes of ſwallowes bills incorporat with myrrhe, will ſecure any man from drunkenneſſe, and cauſe him to beare his drinke well, in caſe the wine that he drinketh be ſpiced therewith: And *Horus* king of the Aſſyrians, deuiſed firſt this receit againſt drun-
D kenneſſe.

Ouer and beſides all this, there by many other ſingular properties behind, worthy to be noted, which are attributed vnto ſundrie beaſts, and doe properly pertaine to this preſent treatiſe handled in this booke: for theſe magitians tel vs of a certain bird in Sardinia called Gromphæna, like vnto a crane, but I beleeue verily that the Sardinians at this day know not what bird it is. Within the ſaid Iſland and prouince, there is a beaſt called *Ophion, which in haire only reſembleth a ſtag, but in no place els doth it breed: and the very ſame authors haue told vs of another by the name of Sirulugus, but they ſet not downe in writing either the deſcription what manner of beaſt it ſhould be, nor the place where it ſhould breed. I doubt not verily but ſuch ſometime there were, conſidering that they haue ſhewed diuers medicines that they do affourd.
E And *M. Cicero* writeth of a beaſt named Byturos, which gnaweth the vines in Campania.

* A Muffle, as *Munſter* taketh it.

Chap. XVI.

¶ *Strange wonders reported of certaine beaſts.*

THere remaines yet certain wonderfull things to be ſpoken of, depending vpon thoſe brute creatures, of which I haue treated already: namely, that whoſoeuer haue about them the ſecondine of a bitch, that is to ſay, the skin wherin her whelps lay within her belly; or hold in their hands either the hair or dung of an hare, no dogs will bark at them whereuer they come. Alſo that there be a kind of gnats called Muliones, which liue not aboue a day. Moreouer,
F as many as haue about them the bill of a woodſpecke when they come to take hony out of the hiue, ſhall not be ſtung by Bees: againe, let a man giue to ſwine among their meat, or in a morcell of paſt or bread, the brains of a rauen, they will follow him whitherſoeuer he goes. Furthermore, that if one be ſtrewed with the duſt wherin a mule hath wallowed & tumbled her ſelf, he ſhal be wel cooled in loue, how amorous ſoeuer he were before. Ouer & beſides, take a rat & cut

out his ſtones, and ſo let him go againe, he will make all other rats to run away. Make a maſh or drench of a ſnakes skin, ſalt, red wheat called Far, with ſome wild running thyme, ſtamped all together, in one and the ſame day; put all into wine and conuey the ſame into the throat of a cow or ox, about the time that grapes begin to ripen vpon the vine, the ſaid beaſts will ſtand to health for a whole yeare after: or giue them young ſwallowes, and cauſe them to let the ſame downe their body in ſome paſt or bread at three ſeuerall times. Gather the duſt together out of the place where you ſee a ſnake hath gone and made a tract, ſling the ſame vpon a ſwarme of bees, they ſhall returne againe to their hiue. Tie vp the right ſtone or cullion of a ram, he ſhall get none but ram-lambs. And looke whoſoeuer haue about the ſtrings or ſinewes taken from the wings and legs of a crane, they ſhall not be tired and faint in any labour that they take. If you would haue mules not to winſe and fling out with their heels, giue them wine to drinke. Laſt of all, I cannot ouerpaſſe one notable and memorable example as touching the houſe of a mule: when *Antipater* ſhould ſend the venomous water of the fountaine Styx for to poyſon king *Alexander* the great, he could meet with no matter that would hold this poyſon, without piercing and running through it, but onely the houſe of a mule: and to the knowledge hereof hee came, by the direction of *Ariſtotle* the Philoſopher, who deuiſed a cup to be made thereof. A foule ſtaine and blot of *Ariſtotles* name, for being priuie to ſuch vilanie, and ſetting it forward as he did. Thus much of Land-creatures: it remaineth now to returne againe to thoſe of the Waters, and their vertues in Phyſicke.

THE XXXI. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proem.

CHAP. I.

¶ *The medicinable vertues of creatures liuing in water. The admirable nature of waters.*

NOw followeth the diſcourſe of Water-beaſts, and how beneficiall they be vnto vs in regard of Phyſicke: wherein verily dame Nature (the mother and workemiſtris of of all things) ſheweth how little idle ſhee is, not ceaſing euen there alſo by her continuall operations to make knowne her wonderfull power, among the waues and ſurging billowes, amid the reciprocall tides of the ſea, ebbing and flowing in their alternatiue turnes; yea and in the ſwift courſe and ſtreames of great riuers. And verily, to ſay a truth and ſpeak as it is, there is no part of the World wherein the might and majeſtie of Nature more appeareth, than in the waters: for this one Element ſeemeth to rule and command all the reſt. Waters deuoure and ſwallow vp the earth: waters quench and kill the flames of fire: they mount vp aloft into the aire, and ſeeme to challenge a ſeignorie and dominion in the heauens alſo; whiles by a thick ſeeling and floore as it were of clouds, cauſed by the dim vapours ariſing from them, that vitall ſpirit which giueth life vnto all things, is debarred, ſtopped,

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A ſtopped and choaked. And what might the reaſon els be of thunder and lightnings flaſhing and breaking forth in that violence, and cauſing ſuch trouble and broils, as if the world were at war within it ſelfe? And can there bee any thing more wonderfull and miraculous, than to ſee the waters congealed aboue in the aire, and ſo to continue pendant in the skie? And yet as if they were not contented to haue riſen thus to that exceeding height, they catch and ſnatch vp with them into the vpper region of the aire, a world of little fiſhes: otherwhiles alſo they take vp ſtones, and charge themſelues with that ponderous & weighty matter which is more proper to another Element. The ſame waters falling downe againe in raine, are the very cauſe of all thoſe things here below which the earth produceth and bringeth forth. And therefore conſidering the wonderfull nature thereof, and namely, how the corne groweth vpon the ground, how trees
B and plants doe liue, proſper, and fructifie by the means of waters, which firſt aſcending vp into the skie, are furniſhed from thence with a liuely breath, and beſtowing the ſame vpon the herbs, cauſe them to ſpring and multiply; we cannot chuſe but confeſſe, that for all the ſtrength and vertue which the Earth alſo hath, ſhee is beholden to the Waters, and hath receiued all from them. In which regard, aboue all things, and before I enter into my intended diſcourſe of Fiſhes and beaſts liuing in this Element, I meane firſt to ſet down in generality the maruellous power and properties of water it ſelfe, and to illuſtrat the ſame by way of ſundry examples: for the particular diſcourſe of all ſorts of waters, what man liuing is able to performe?

Chap. II.

C ¶ *The diuerſitie of waters: their vertues and operations medicinable: and other ſingularities obſerued therein.*

THere is in maner no region nor coaſt of the earth, but you ſhall ſee in one quarter or other waters gently riſing and ſpringing out of the ground here and there, yeelding fountains in one place cold, in another hot; yea and otherwhils there may be diſcouered one with another neere adioyning: as for example, about * Tarbelli a towne in Guienne, and the Pyrenæan hills, there do boile vp hot and cold ſprings, ſo cloſe one vnto the other, that hardly any diſtance can be perceiued between. Moreouer, ſources there be, which yeeld waters neither cold nor hot but luke-warme, and the ſame very holeſome and proper for the cure of many diſeaſes; as if Na-
D ture had ſet them apart for the good of man only, and no other liuing creature beſide. To theſe fountains ſo medicinable, there is aſcribed ſome diuine power, inſomuch as they giue name vnto ſundry gods and goddeſſes, and ſeeme to augment their number by that means: yea & otherwhiles great towns & cities carrie their names: like as Puteoli in Campane; Statyellæ in Liguria; Aquæ Sextiæ in the prouince of Narbon or Piemont: but in no countrey of the world is there found greater plenty of theſe ſprings, and the ſame endued with more medicinable properties, than in the tract or vale Baianus within the realm of Naples, where you ſhall haue ſome hold of brimſtone, others of alume; ſome ſtanding vpon a veine of ſalt, others of nitre, ſome reſembling the nature of Bitumen, and others again of a mixt qualitie, partly ſoure, and partly ſalt. Furthermore, you ſhall meet with ſome of them, which naturally ſerue as a ſtouph or hot-
E houſe; for the very ſteeme and vapour only which ariſeth from them, is wholeſome and profitable for our bodies: and thoſe are ſo exceeding hot, that they heat the bains, yea and are able to make the cold water to ſeeth & boile again which is in their bathing tubs: as namely, the fountaine Poſidianus whithin the foreſaid territory Bajanus, which name it tooke of one *Poſidius* a ſlaue ſometime, and enfranchiſed by *Claudius Cæſar* the Emperour. Moreouer, there be of them ſo hot, that they are able to ſeeth an egg or any other viands or cates for the table. As for the Licinian ſprings, which beare the name of *Licinius Craſſus*, a man may perceiue them to boile aud reeke again, euen out of the very ſea. See how good Nature is to vs, who amid the waues and billows of the ſea, hath affourded healthfull waters! But now to diſcipher their vertues in Phyſick according to their ſeuerall kinds: thus much in generality is obſerued in theſe baths, That
F they ſerue for the infirmities of the ſinews, for gout of the feet, & ſciatica. Some more properly are good for diſlocations of ioints, and fractures of bones: others haue a property to looſen the bellie & to purge: and as there be of them which heale wounds and vlcers, ſo there are again that more particularly be reſpectiue to the accidents of the head and ears: and among the reſt, thoſe which beare the name of *Cicero* and be called Ciceronianæ, beſoueraign for the eies. Now there

* Some thinke Baion in France.

is a memorable manour or faire houſe of plaiſance, ſituat vpon the ſea ſide in the very high way G
which leadeth from the lake Auernus to the cittie Puteoli; much renowmed for the groue or
wood about it, as alſo for the ſtately galleries, porches, allies, and walking places adioyning ther-
unto, which ſet out and beautifie the ſaid place very much: this goodly houſe, *M. Cicero* called
Academia, in regard of ſome reſemblance it had vnto a colledge of that name in Athens, from
whence he tooke the modell and patterne: where he compiled thoſe books of his which carrie
the name of the place, and be called * *Academicæ quæſtiones*: and there he cauſed his monument
or ſepulchre to be made, for the perpetuitie of his memoriall, as who would ſay, he had not ſuffi-
ciently immortalized his name throughout the world, by thoſe noble works which he wrote and
commended vnto poſteritie. Well, ſoone after the deceaſe of *Cicero*, this houſe and forreſt both
fell into the hands and tenure of * *Antiſtius Vetus*; at what time, in the very forefront as it were H
and entrie thereof, there were diſcouered certaine hot fountaines breaking and ſpringing out of
the ground, and thoſe paſſing medicinable and wholeſome for the eies. Of theſe waters, *Laurea
Tullus* (an enfranchiſed vaſſall of *Cicero*) made certaine verſes, and thoſe carying with them ſuch
a grace of majeſtie, that at the firſt ſight a man may eaſily perceiue how affectionat and deuout
he was to the ſeruice of his lord and maſter: and for that the ſaid Epigram is worthy to be read
not onely there, but alſo in euery place, I will ſet it downe here as it ſtandeth ouer thoſe baines
to be ſeene, in this Decaſticon.

* Like as *Tuſculanæ quæſtiones*, which hee made in Tuſculano, i.a ferm or houſe that he had in Tuſculum.

* A noble man of Rome, Conſull with D. *Lælius Balbus, anno ab vrbe condita* 747.

Quo tua, Romanæ vindex clariſſime linguæ,
Sylva loco melius ſurgere juſſa viret, I
Atque Academiæ celebratam nomine villam.
Nunc reparat cultu ſub potiore Vetus
Hîc etiam apparent lymphæ non ante repertæ,
Languida quæ infuſo lumina rore levant.
Nimirum locus ipſe ſui Ciceronis honori
Hoc dedit, hac fontes cum pateſecit ope,
Vt quoniam totum legitur ſine fine per orbem,
Sint plures, oculis quæ medeantur, aquæ.

O prince of Romane Eloquence, loe here thy Groue in place
How greene it is, where planted firſt it was to grow apace: K
And *Vetus* now, who holds thy houſe, Faire Academie hight,
Spares for no coſt, but it maintains and keeps in better plight.
Of late alſo, freſh fountains here brake forth out of the ground,
Moſt wholeſome for to bath ſore eies, which earſt were neuer found.
Theſe helpfull ſprings, the Soile no doubt, preſenting to our view,
To *Cicero* her ancient lord, hath done this honour due;
That ſince his books throughout the world are read by many a wight,
More waters ſtill may cleare their eyes, and cure decaying ſight.

In the ſame tract of Campaine, and namely toward Sinueſſa, there be other fountains called L
Sinueſſan waters: which haue the name not only to cure men of lunacie and madnes, but alſo to
make barrain women fruitfull and apt to conceiue. In the Iſland Ænaria there is a ſpring which
helpeth thoſe that be troubled with the ſtone and grauell: like as another water which they call
Acidula, within 4 miles of Teanum in the Sidicins country, and the ſame is actually cold: alſo
there is another of that kind about Stabij, called by the name of Dimidia: like as in the territory
of Venafrum, that which proceeded from the ſource Acidulus, and gaue name to the foreſaid
water Acidula. The ſame effect they find who drink of the lake Velinus, for it breakes the ſtone.
Moreouer, *M. Varro* maketh mention of ſuch another fountain in Syria at the foot of the moun-
taine Taurus. So doth *Callimachus* report the foreſaid operation of the riuer Gallus in Phrygia:
howbeit they that take of this water muſt keep a meaſure, for otherwiſe it diſtracts their vnder- M
ſtanding, & driues them beſides their right wits: which accident hapneth to thoſe (ſaith *Cteſias*)
who drink of the red fountain (for ſo it is called) in Æthiopia: as touching the waters neer Rome
called Albulæ, they are known to heale wounds: theſe waters are neither hot nor cold: but thoſe
which go vnder the name of Cutiliæ in the Sabins country, are exceeding cold, & by a certain
mordi-

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A mordication that they haue, ſeem to ſuck out the humors & ſuperfluous excrements of the body; being otherwiſe moſt agreeable for the ſtomacke, ſinewes, and generally for all parts. There is a fountain at Theſpiæ, a city in Bœotia, which doth great pleaſure to women that would fain haue children; for no ſooner drinke they of the water, but they are ready to conceiue: and of this propertie is the riuer Elatus in Arcadia. In which region alſo the Spring Linus yeeldeth water, which if a woman with child do drink, ſhe ſhall go out her full time & not be in danger to ſlip an vnperfect birth. Contrariwiſe, the riuer Aphrodiſium in Pyrrhæa, cauſeth barrenneſſe. The lake or meere *Alphion is medicinable, and cures the foule Morphew. *Varro* mine author makes mention of one *Titius*, a man of good worth and ſometime lord Prætour, who was ſo bewraied & painted all ouer his face with ſpots of Morphew, that he looked like an image made of ſpot-
B ted marble. Cydnus, a riuer of Cilicia, hath a vertue to cure the gout; as appeareth by a letter written from *Caſſius* the Parmezan vnto *M. Antonius*. Contrariwiſe, the waters about Trœzen are ſo bad, that all the inhabitants are thereby ſubject to the gout and other diſeaſes of the feet. There is a citie in *Gaule named Tungri, much renowned for a noble *fountaine, which runneth at many pipes: a ſmacke it hath reſembling the ruſt of yron, howbeit this taſt is not perceiued but at the end & looſe only: This water is purgatiue, driues away tertian agues, expels the ſtone and cureth the Symptomes attending thereupon. Set this water ouer the fire or neare to it, you ſhall ſee it thick and troubled, but at the laſt, it looketh red. Between Puteoli and Naples, there be certain wels called Leucogæi, the water wherof cureth the infirmitie of the eies, and healeth wounds. *Cicero* in his booke entituled Admiranda, *i.* Wonders, among other admirable things
C hath ranged the moores or fens of Reate; for that the water iſſuing from them, hath naturally a propertie from all others, to harden the houſes of horſes feet. *Eudicus* reporteth, That in the territorie of Heſtiæa, a citie in Theſſalie, there be two ſprings, the one named Ceron, of which, as many ſheepe as drinke, proue black: the other Melas, the water wherof, maketh black ſheep turn white: let them drink of both waters mingled together, they will proue flecked and of diuers colours. *Theophraſtus* writeth, That the riuer Crathis in the Thuriaus countrie, cauſeth both kine and ſheep as many as drink thereof, to looke white: whereas the water of Sybaris giueth them a black hew. And by his ſaying, this difference in operation is ſeene alſo vpon the people that vſe to drink of them: for as many as take to the riuer Sybaris, become blacker, harder, and withall of a more curled hair than others: contrariwiſe, the drinking of Crathis cauſeth them to look white
D to be more ſoft skinned, & their buſh of haire to grow at length. Semblably in Macedony they that would haue any cattell to grow white, bring them to drinke at Aliacmon the riuer: but as many as deſire they ſhould be brown or black, driue them to water at Axius. The ſame *Theophraſtus* hath left in writing, That in ſome places there is no other thing bred or growing but brown and duskiſh, inſomuch as not only the cattel is all of that lere, but alſo the corne on the ground, & other fruits of the earth; as among the Meſſapians. Alſo, at Luſæ, a city of Arcadia, there is a certain wel, wherin there keep ordinarily land-mice. As for the riuer Aleos, which paſſes through Erythræ, it makes them to grow hairie all their bodies ouer as many as drink therof. In Bœotia likewiſe, neare to the temple of the god *Trophonius* & hard by the riuer Orchomenas, there be two fountains; the one helps memory, the other cauſeth obliuion, wherupon they *tooke their names.
E In Cilicia, hard at the town Creſcum, there runs a riuer called *Nus: & by the ſaying of *M. Varro*, whoſoeuer drink therof, ſhall find their wits more quicke, and themſelues of better conceit than before. But in the Iſle *Chios there is a ſpring, which cauſeth as many as vſe the water to be dull and heauie of ſpirit. At Zamæ in Affrick, the water of a certain fountain, makes a cleare & ſhrill voice. Let a man drink of the lake Clitorius, he ſhall take a miſliking and loathing of wine, ſaith *M. Varro*. And yet *Eudoxus* & *Theopompus* report, That the water of the fountains beforeſaid make them drunk that vſe it. *Mutianus* affirmes, That out of the fountain vnder the temple of father *Bacchus*, within the Iſle Andros, at certaine times of the yere for 7 daies together, there runneth nothing but wine; inſomuch as they call it the wine of god *Bacchus*: howbeit, remoue the ſaid water out of the proſpect and view (as it were) of the ſaid temple, the taſt wil turn
F to be wateriſh again. *Polyclitus* writeth of a certaine fountaine of Cilicia neere vnto the citie Soli, which yeeldeth an vnction or oleus water, that ſerueth in ſtead of oile. *Theophraſtus* reports the ſame of another fountain in Æthyopia, which hath the like quality. And *Lycus* ſaith, That among the Indians there is a fountaine, the water whereof is vſed in lampes to maintaine light. And the like is reported of another water about Ecbatane [the capitall citie of Media.]

Theopompus

* Otherwiſe called *Aniger*: but this name it tooke of *Alphi*, which ſignifieth a kind of white morphew.

* He meaneth the Low-conutries, called ſomtime Belgica Gallia

* Called now the bath of Spaugh or Spaw.

* For the former is called μνήμη, or μνημοσύνη, the latter λήθη.

* *Quaſi* wit and vnderſtanding.

* In Chio.

Theopompus writeth, That neere to Scotusa [in Macedonie] there is a lake, the water wherof is ſo- G
ueraign for the healing of wounds. Moreouer, king *Iuba* hath left in writing, That in the Troglodites country there is a lake, for the hurtful water that it beareth, called the Mad lake, which thrice a day becommeth bitter and ſalt: and as many times ſoſ, it turneth to be freſh and ſweet: which courſe it keeps alſo in the night ſeaſon, breeding otherwiſe white ſerpents twenty cubits long, of which it is crawling full. The ſame Prince (mine author) reports, That in Arabia there is a ſpring boiling out of the ground with ſuch a force, that it ſcorneth and checketh any thing that is throwne into it, and canot be kept downe with any weight whatſoeuer. *Theophraſtus* maketh mention of the fountain Marſyas in Phrygia, neere vnto the town Celænæ, which caſteth vp great ſtones. And not farre from it be two other ſprings *Claeon and Gelon, ſo called by the Greeks for the contrary effects which they worke. At Cizicum there is a fountain of *Cupid*, and H
whoſoeuer drinke of the water thereof, ſhall lay aſide and forget all affection of loue, as *Mutianus* doth both report and beleeue. At Cranon there is a hot ſpring, and yet not ſo boyling as many others be: the water thereof, if it be put into a bottle or flaggon of wine, will maintain the heat thereof for three daies together, that it ſhall drinke hot. In Germany beyond the riuer Rhene, there be waters ſo hot, that whoſoeuer drinketh therof, ſhall ſenſibly find the heat in his body 3 daies after: The ſprings that yeeld this water be called Mattiaci. This peculiar property beſides hath this water, that about the edges and brims thereof there engender pumiſh ſtones. Mow if any man ſuppoſe ſome of theſe ſtrange reports to be incredible, let him learne & know, that in no part of the world Nature hath ſhewed more admirable works than in this element of I
Water. And albeit in the beginning of this mine hiſtorie I haue written in ample manner of many a wonder obſerued in the waters, yet ſomewhat remaineth ſtill to be related. For *Cteſias* ſaith, That the Indians haue a lake or poole, wherin nothing will ſwim, but all ſinks to the bottome. And *Cælius* alſo our countryman auoucheth, That the leaues which fall into the lake Auernus will ſettle downeward and not flote aboue. And *Varro* auoucheth moreouer, That what birds ſoeuer flie ouer it, or approch the aire and breath thereof, they will die preſently. Contrariwiſe, in Apuſcidamus a lake of Affrick, nothing goes down, but all ſwims aloft. The like doth *Appion* report of Phinthia, a fountain in Sicilie: as alſo of a lake in Media, and namely the pit or well of *Saturne*. The fountaine Limyra is wont ordinarily to change his ſeat, and to paſſe into places adjoyning, but neuer for nought, preſaging alwaies thereby ſome ſtrange accident to enſue. And wonderfull it is, that the fiſhes therein ſhould follow and do the like. Now when this K
water is thus remoued, the inhabitants of the country, deſirous to know the iſſue of things to come, repaire thither as to an Oracle, and ſeek to be reſolued by the foreſaid fiſhes, and therwith offer to them ſome meat: if they come vnto it and ſwim away with all, it is a good token, & this they take for an affirmatiue anſwer, as if they ſaid, Yea, to their demands: but in caſe they refuſe the meat and flirt it away with their tailes, they collect the contrary, and this is their flat nay. There is a riuer in Bithynia called Olachas, running cloſe to Briazus (which is the name both of a temple, and alſo of the god therein honoured) the water whereof will diſcouer and detect a perjured perſon: for if he that drinketh thereof, feele (as it were) a burning fire within his body, take him for a falſe forſworne villaine. Furthermore, in Cantabria or Biſcay the fountains of the riuer Tamaricus, are endued with a ſecret vertue to preſage and foretell future euents: and three L
heads or ſources there be of them, eight foot diſtant one from another: they meet all at length in one channell, and maintaine the great and mighty riuer Tamaricus. Howbeit, twelue times euery day, yea and otherwhiles twenty times they are dry, and haue no ſhew at all or appearance of water; notwithſtanding there be another fountain or well neere to them, that yeeldeth plenty of water, and neuer giueth ouer running. And this is held for an ominous and fearefull preſage, if when folke are deſirous to ſee them, they ſeeme not to run at all: as it was ſeene of late daies by *Lartius Licinius*, ſometime lord Pretour and afterwards Lieutenant Generall vnder the Conſuls. For within a ſeuen-night after, a great misfortune happened vnto him. In Iurie there is a riuer which euery Sabbath day is dry. Thus much of waters medicinable and miraculous, and yet not ſimply hurtfull. Contrariwiſe, there be others of as wonderfull a nature, but dangerous M
they are and deadly withall.

Cteſias writeth, That there is a fountaine in Armenia, breeding and bringing forth black Fiſhes: wherupon, as many as feed, are ſure to die for it immediatly. I haue heard the like reported of ſuch dangerous fiſhes about the head of the riuer Danubius, vntill a man come to a fountaine

* Ἀπὸ τῦ κλαίειν, i. fleta, ἢ γελᾶν, i. Riſu. For the one cauſeth weeping, the other moueth to laughter.

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A taine which preſently diſchargeth it ſelfe into the channell of the ſaid riuer; for beneath that place ſuch fiſhes go not, nor enter lower into the riuer. And hereupon the fountaine is by the generall voice of people taken to be the very ſource and head of Danubius aforeſaid. The ſelfe-ſame accident as touching fiſh, is reported by a poole in Lydia, called the poole of the nymphs. In Arcadia neere vnto the riuer Pheneus, there floweth a water out the rockes called Styx, which is preſent death to as many as drink thereof, as heretofore I haue ſhewed: And *Theophraſtus* ſaith moreouer, that in this water there be certaine ſmall fiſhes (a thing that a man ſhall neuer ſee in any other venomous fountains) and thoſe likewiſe are as deadly as the water. *Theopompus* writeth, That in Thraſia there be waters about the place called Chropſos, which kill thoſe that drinke thereof. And *Lycus* maketh report of another fountaine in the Leontines countrey,
B wherof as many as drink die within three daies. *Varro* hath left in writing, That neare to the hill Soracte there is a fountaine foure foot large, which at the riſing of the Sunne ouerfloweth like boyling water: but the birds that haue taſted of the water die preſently, and are there to be ſeen lying dead. For this ſecret miſchiefe there is beſides in many of theſe waters, that they are faire and cleare to ſee to, and thereby ſeeme to allure both man and beaſt to drinke thereof, for their owne bane and deſtruction: as we may ſee by Nonacris in Arcadia; for ſurely this fountaine giueth no ſuſpition at all, wherby we ſhould miſtruſt a venomous quality; and yet ſome are of opinion, That the hurt which commeth thereby, proceedeth from exceſſiue cold; and they ground their reaſon vpon this, That the water iſſuing out of it into riuerets and rils, will congeale and grow to a ſtony ſubſtance. It fareth otherwiſe about the vale of Tempe in Theſſalie, where the
C water of a certaine fountaine is fearfull to ſee to, and there is no man but abhorreth the ſight therof, beſides the corroſiue quality that (by folks ſaying) it hath, to fret and eat into braſſe and yron: the beſt is, that (as I haue ſhewed before) it runneth not farre, and the courſe that it holdes is but ſhort. But wonderfull it is, that a certaine wild Carob ſhould enuiron this ſource round about with his roots, and the ſame continually beare purple flours, as it is reported to do. Alſo, in the very brinke and edge of this fountaine there is another herbe of a kind by it ſelfe, which abideth freſh and greene from one end of the yeare to another. In Macedonie, not far from the tombe of *Euripides* the Poët, there be two riuers run together, the one yeelds water moſt wholeſome for to be drunke: the other is as noiſome and deadly. Neare to Perperenæ, a towne in Troas, there is a ſpring the water whereof giueth a ſtonie coat or cruſt to all the earth that it either
D ouerfloteth or runneth by: of which nature are the hot waters iſſuing out of a fountaine neare Delium in Eubœa; for look what way ſoeuer the riuer runs, you ſhal ſee the ſtones to grow ſtill in height. About Eurymenæ, which is in Theſſalie, there is a well, caſt into it any chaplets or guirlands of floures, they will turne to ſtones. There runneth a riuer by Coloſſi, a city in Phrygia, into which if you throw brickes or tiles that be raw and vnbaked, you ſhall take them forth againe as hard as ſtones. Within the mines of the Iſle Scyros there is a riuer, which conuerteth into ſtone all the trees that it runneth by or toucheth, as well the boughs as the bodies. In the famous and renowned caues called Corycia, all the drops of water that diſtill from the rocke, turne to be as hard as ſtones: and no maruell, for at Meza in Macedonie, a man ſhall ſee the drops of water become ſtone, as they hang to the very vaults of the rocke, much like to yſickles
E from the caues of houſes in Winter time: whereas at Corycum abouenamed, the ſaid drops turn into ſtone when they are fallen downe, and not before. In certain caues they are to be ſeen conuerted into ſtones both waies, and ſome of them are ſo big, as they ſerue to make columnes and pilaſtres of, and thoſe otherwhiles of diuers colours to the eye: as may be ſeen in the great caue of Phauſia, which is within the Cherſoneſe of the Rhodians. Thus much may ſuffice by way of examples, to ſhew the varietie of waters, with their ſundry vertues and operations.

Chap. III.

¶ *The qualitie that is in waters. How a man may know which be good and wholeſome from ſuch as be naught and vnwholeſome.*

F

MVch queſtion there is & controuerſie among phyſicians, What kind of water is beſt? and yet with one generall conſent they condemne, and that iuſtly, all dead and ſtanding waters; ſuppoſing thoſe that rnn to be better: for it ſtandeth with good reaſon, that the very agitation and beating vpon the banks as they beare ſtreame in their current, maketh them more ſubtile,

ſubtile, pure, and cleare, and by that meanes they get their goodneſſe. Which conſidered, I G
In water. maruaile very much at thoſe who make moſt account of the * water gathered and kept in ceſternes: But they ground their opinion vpon this reaſon, becauſe raine water is of all others lighteſt, as conſiſting of that ſubſtance which was able to riſe and mount vp aloft, and there to hang aboue in the aire. Which is the cauſe alſo, that they preferre Snow water before that which commeth downe in ſhoures: and the water of yce diſſolued, before the other of melted Snow; as if the water were by yce driuen together and reduced to the vtmoſt point of fineneſſe. They collect hereby, that theſe waters, to wit, raine, ſnow, and yce, bee all of them lighter than thoſe that ſpring out of the earth: aud yce among the reſt farre lighter than any water, in proportion. But this opinion of theirs is to bee reputed as erronious, and for the common good and profit of mankinde to be refuted: For firſt and formoſt, that leuitie whereof they ſpake, can H
hardly and vnneath bee found and knowne by any other meanes than by the ſence and feeling of the ſtomacke: for if you goe to the weighing of waters, you ſhall perceiue little or no difference at all in their poiſe. Neither is it a ſufficient argument to prooue raine water to be light, becauſe it aſcendeth on high into the aire, for wee may ſee ſtones likewiſe drawne vp into the clouds: and beſides, as the raine falleth downe againe, it cannot chuſe but be infected with the groſſe vapours of the earth. Whereby it commeth to paſſe, that wee find raine water ordinarily to bee moſt charged and corrupted with ordure and filthineſſe: and by reaſon thereof it heateth moſt quickly and corrupteth ſooneſt. As for ſnow and yce, that they ſhould bee thought to bee compoſed of the ſubtile parts of this Element, and yeeld the fineſt water, I
I wonder much, conſidering the neare affinitie which is betweene them and haile, which might induce vs alſo to thinke the ſame of it: but all men confeſſe and hold, that the ſame is moſt peſtilent and pernicious for to bee drunke. Moreouer, there are amongſt them not a few, who contrary vnto the opinion of other Phyſicians their fellowes, affirme flatly and confidently the water of ſnow and yce to bee the vnwholeſome drinke that is, for that all the puritie and fineneſſe thereof hath beene drawne and ſucked out. And in very truth, wee find it by experience, that any liquor whatſoeuer doth diminiſh and conſume greatly by beeing frozen and congealed into an yce. Wee ſee beſides, That ouer-groſſe and foggie deawes breed a kinde of ſcurfe or ſcab in plants: white froſts burne and ſendge them: and both of theſe, the hore froſt as well as the deaw, proceed from the ſame cauſes in a manner that ſnowes doe.
Certes, all Philoſophers agree in this one point, That raine water putrifieth ſooneſt of any K
other, and leaſt while continueth good in a ſhip, as ſaylers know full well. Howbeit, *Epigenes* auoucheth and affirmeth, That the water which hath beene ſeuen times putrified and as often purified againe, is ſubiect no more vnto putrifaction. And as for ceſterne waters, the Phyſicians alſo themſelues confeſſe, That they breed obſtructions and ſchirrhoſities in the bellie, yea, and otherwiſe be hurtfull to the throat. As alſo, that there is not any kinde of water whatſoeuer, which gathereth more mud or engendreth more filthie and illfauoured vermine than it doth. Neither followeth it by and by, that all great riuer waters indifferently are the beſt: no more than thoſe of any brooke, or the moſt part of ponds and pooles are to
bee counted and eſteemed moſt wholeſome. But of theſe kinds of water wee muſt conclude L.
and reſolue with making deſtinction, namely, That there be of euery ſort thereof thoſe which are ſingular and very conuenient, howbeit, more in one place than in another. The kings and princes of Perſia bee ſerued with no other water for their drinke but from the two riuers, Choaſpes and Eulæus onely: And looke how farre ſoeuer they make their progreſſe or voyage from them two riuers, yet the water thereof they carry with them. And what might the reaſon be therefore? Certes, it is not becauſe they be riuers which yeeld this water, that they like the drinke ſo well: for neither out of the two famous riuers, Tygris and Euphrates, nor yet out of many other faire and commodious running ſtreames doe they drinke. Moreouer, when you ſee or perceiue any riuer to gather abundance of mud and filth, wote well, that ordinarily the water therof is not good nor wholeſome: and yet if the ſame riuer or running ſtreame bee giuen to breed great ſtore of yeeles, the water is counted thereby wholeſome and good M
* Which ſome take for Sows. ynough. And as this is a token of the goodneſſe, ſo the wormes called * Tineæ, engendered about the head or ſpring of any riuer, is as great a ſigne of coldneſſe. Bitter waters of all others bee moſt condemned: like as thoſe alſo which ſoone follow the ſpade in digging, and by reaſon that they lie ſo ebbe, quickly fill the pit. And ſuch be the waters commonly about

Trœzen.

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A Trœzen. As for the nitrous, brackiſh, and * ſalt waters found among the deſarts, ſuch as trauell through thoſe parts toward the red ſea, haue a deuiſe to make them ſweet and potable within two houres, by putting parched barley meale into them; and as they drinke the water, ſo when they haue done they feed vpon the ſaid barly grots, as a good and wholſom gruel. Thoſe ſpring waters are principally condemned, which gather much mud and ſettle groſſe in the bottome: thoſe alſo which cauſe them to haue an il colour who vſe to drink thereof. It skilleth alſo very much to mark if a water ſtaine any veſſels with a kinde of greene ruſt; if it be long before pulſe will be ſodden therein; if being poured vpon the ground, it be not quickly ſucked in and drunk vp; and laſtly, if it fur thoſe veſſels with a thicke ruſt wherein it vſeth to be boiled: for all theſe be ſignes of bad water. Ouer and beſides, it is a fault in water, not only to ſtink, but alſo to haue C any ſmack or taſt at all, yea though the ſame be pleaſant and ſweet enough, and inclining much to the rellice of milk, as many times it doth in diuers places. In one word, would you know a good and wholſome water indeed? Chuſe that which in all points reſembleth the aire as neere as is poſſible. At Cabura in Meſopotamia there is a fountaine of water which hath a ſweet and redolent ſmel: ſetting it aſide, I know not any one of that qualitie in the whole world againe: but hereto there belongs a tale, namely that this ſpring was priuiledged with this extraordinary gift, becauſe queen *Iuno* (forſooth) ſometimes bathed and waſhed her ſelfe therein: for otherwiſe, good and wholeſome water ought to haue neither taſt nor odor at all. Some there be who iudge of their wholſomneſſe by their ballance, and they keep a weighing and poiſing of waters one againſt another: but for all their curioſitie they miſſe of their purpoſe in the end; for C ſeldom or neuer can they find one water lighter than another. Yet this deuiſe is better and more certain, namely, to take two waters that be of equal meaſure and weight: for looke whether of them heateth and cooleth ſooner, the ſame is alwaies the better. And for to make a trial herof, lade vp ſome ſeething water in a pale or ſuch like veſſel, & ſet the ſame down vpon the ground out of your hand, to eaſe your arm of holding it hanging long in the aire; and if it be good water, they ſay it will immediatly of ſcalding hot become warm and no more. Well, what waters then, according to their ſundry kindes in generalitie, ſhall we take by all likelihood to be beſt? If we go by the inhabitants of cities and great towns, ſurely, wel-water or pit water (I ſee) is ſimply the wholſomeſt. But then ſuch wels or pits muſt be much frequented, that by the continual agitation and often drawing thereof, the water may be more purified, and the terren ſubſtance D paſſe away the better by that means. And thus much may ſuffice for the goodneſſe of water reſpectiuely to the health of mans body.

But if we haue regard to the coldneſſe of water, neceſſarie it is that the Wel ſhould ſtand in ſome coole and ſhadowie place not expoſed to the Sun, and natheleſſe open to the broad aire, that it may haue the full view and ſight (as it were) of the ſky. And aboue all this, one thing would be obſerued and ſeen vnto, that the ſource which feedeth it ſpring and boile vp directly from the bottom, and not iſſue out of the ſides: which alſo is a main point that concerns the perpetuitie thereof, and whereby we may collect that it will hold ſtil, and be neuer drawn dry. And this is to be vnderſtood of water cold in the owne nature. For to make it ſeem actually cold to the hand, is a thing that may be done by art, if either it be forced to mount aloft, or fal from on E high, by which motion and reuerberation it gathers ſtore of aire. And verily the experiment hereof is ſeene in ſwimming; for let a man hold his winde in, he ſhall feele the water colder by that means. *Nero* the Emperor deuiſed to boile water, & when it was taken from the fire to put it into a glaſſe bottle, and ſo to ſet it in the ſnow a cooling: and verily the water became therby exceeding cold to pleaſe and content his taſt, and yet did not participate the groſſeneſſe of the ſnow, nor draw any euill qualitie out of it. Certes, all men are of one opinion, that any water which hath been once ſodden, is far better than that which is ſtill raw. Like as, that after it hath been made hot, it will become much colder than it was before, which I aſſure you came firſt from a moſt ſubtil and witty inuention. And therefore if we muſt needs occupy naughty water, the only remedy that we haue to alter the badneſſe thereof, is to ſeeth it wel vntil the one halfe F be conſumed. Now if a man deſire to know the vertue and commoditie of cold water: firſt, it ordinarily ſtancheth any flux of bloud, if it be caſt vpon the place. Alſo if one be not able to endure the heate in a bain or hot-houſe, the beſt way to auoid this inconuenience, is to hold in his mouth cold Water all the while. Moreouer, many a man hath found by a verie familiar experience,

* *Salſas*, although ſome reade *Salmacidas*, which be holden for waters that will effeminat the that drinke thereof. But ſuch waters be impertinent to this place: neither doe we reade of the fountain Salmacis to be in this deſart.

rience, that the coldeſt water in the mouth is not alwaies the coldeſt in the hand. And contrariwiſe, when it is exceeding cold without to be felt, it is not ſo ſenſibly cold within to be drunk. G

Of all Waters in the world, that which wee call here in Rome Martia, carrieth the greateſt name by the generall voice of the whole City, in regard both of coldneſſe and wholeſomneſſe. And verily we may eſteeme this water for one of the greateſt gifts that the gods haue beſtowed vpon our city. In times paſt it was called Auffeia, and the very fountaine from whence it commeth, Piconia. The head or ſource thereof ariſeth at the foot of the vtmoſt mountains of the Pelignians: it runneth through the Marſians country, and paſſing through the lake Fucinus, it tendeth no doubt euen then directly toward Rome; but anon it is ſwallowed vp within a hole vnder the ground, ſo as it is no more ſeen vntill it ſhew it ſelfe againe in the territorie of the Tiburtines; from which place it is conueyed vnder vaults, and ſo carried through to Rome by H arch-worke for the ſpace of nine miles. The firſt that began to bring this water to the city, was *Ancus* * *Martius* one of the Roman Kings. Afterwards *Qu.* * *Martius Rex*, in his Pretorſhip finiſhed the ſaid worke: and when in proceſſe of time it was fallen to decay, *M. Agrippa* repaired it againe: who alſo brought the water named Virgo to the city, which hath her head eight miles from Rome, in a certaine nouke or by-corner about two miles turning from the great port way leading to Prænеſte. Neere vnto it runneth the riuer Herculaneus: but this water keepeth ſtil behinde, as though it fled from it, whereupon it tooke the name Virgo. Compare theſe two riuers together which are conueyed to Rome, you ſhall ſee the difference beforeſaid as touching the coldneſſe of waters; for looke how cold Virgo is to the hand, ſo much is Martia in the mouth. But long ago haue wee of Rome loſt the pleaſure and commoditie of theſe two Rills, I through the ambition and auarice of ſome great men, who haue turned away theſe waters from the City, where they yeelded a publique benefit to the Commonwealth; and deriued them for their priuat delight and profit, into their owne mannors and houſes in the country, for to water their gerdens, and ſerue to other vſes.

* No maruell then if it were called Martia.

And here in this place I thinke it not impertinent to adioine to this preſent treatiſe, the maner and skill of ſearching and finding out waters. And firſt to ſpeake in general terms: ſprings ordinarily be found in Vallies, in the pitch or creſt of ſome little hill where it hath a fall and deſcent, or elſe at the foot of great mountaines. Many are of opinion, That in any tract whatſoeuer, that ſide or coaſt which regardeth the North is giuen to haue water in it. And verily it were not amiſſe to ſhew how Nature diſporteth her ſelfe and worketh variably in this be- K halfe. Firſt, a man ſhall neuer ſee it raine on the South ſide of the mountaines in Hyrcania, which is the reaſon, that on that part onely which lieth to the North they are giuen to beare wood, and be full of forreſts. But Olympus, Oſſa, Pernaſſus, Apenninus, and the Alpes, be repleniſhed with Woods on all ſides, and are furniſhed with their Springs and Riuers euerie where. In ſome countries the hills be greene, and watered on the South ſide onely. As for example in Candy, the mountaines called * Albi: ſo that there is no heed to be taken by this, for the rule holdeth not alwayes. But to come now vnto particulars: Looke where you ſee growing Ruſhes, Reeds, or the * Herbe whereof I made relation before, be ſure you ſhall find water vnderneath. *Item*, Whereſoeuer you finde Froggs lying in any place vpon their breaſts, make account of good ſtore of water there. As for the wilde and wandering Sallow, the Aller tree, L Agnus-Caſtus, or Yvie, they come vp many times of their owne accords, in ſome low grounds where there is a ſetling or ſtay of raine water fallen from higher places: inſomuch as they that goe by theſe ſignes to finde ſome Spring may ſoone be deceiued. A ſurer aime yet by farre, is a miſt or exhalation, which a man may diſcouer a farre off a little before the Sunne riſing. And for to eſpie it the better, ſome there be who get vp into an high place, and lay themſelues grouelong with their chinnes touching the ground; and by that meanes diſcerneth where any ſuch ſmoke or vapor doth ariſe. There is alſo another ſpeciall means beſides to find out Waters, but knowne it is vnto thoſe onely who be skilfull and expert in this feat. For they that are guided by this direction to Water, goe forth in the hotteſt ſeaſon of the yeare, and about the noone-tide of the day to marke the reuerberation of the Sunne beames in any M place: for if this repercuſſion and rebounding appeare moiſt, and namely when the face of the earth looketh dry and thirſtie, they then make no doubt but to finde Water there. But they had need to looke ſo intentiuely and earneſtly, that oftentimes their eyes ake

and

*Διυκτιάσεις, i White.

*To wit, wild Folefoot, *ca.* 6. *lib.* 26.

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A and be pained withall. For auoiding which trouble and inconuenience, ſome betake themſelues to other experiments, and namely, they dig a trench or ditch fiue foot deep within the ground; the mouth wherof they couer all ouer with earthen veſſels of potters worke vnbaked, or els with a barbars braſen baſon well enhuiled; and withall a lamp burning: ouer all which, they make a little arch-work of leaues and boughs, and mould thereupon. Now if they come within a while after to this place, and either ſee the earthen pots broken or wet, or perceiue a dew or ſweat ſtanding vpon the braſſe, or finde the lamp aforeſaid gon out, and yet no want of oile to maintaine light, or if they feele a lock of wool which they hung within the trench to be moiſt, they aſſure themſelues they ſhall find water if they ſink the pit deeper. Some there be, who for better aſſurance hereof make a fire in the place, and burne it throughly; for then the veſſels aforeſaid if
B they proue to be wet, giue a more infallible hope of a ſpring. Moreouer, the very leire it ſelfe of the ſoile, if it be ſpotted with white ſpecks, or be altogether of a reddiſh bright colour, promiſeth ſpring water to be vnderneath; for if the ground look black, lightly the water wil ſoon fail if there be any ſpring there found. If you chance to light vpon a vein of potters clay or chalk, make account you ſhall meet with no ſpring there, ſink as deep as you will: and therfore workmen when they come to it giue ouer preſently. For a great regard they haue to obſerue the change of euery coat (as I may ſo ſay) of the earth as they dig, to wit from the black delfe, vntil they meet by degrees with the veins aforeſaid. Furthermore it is to be noted, that the water which is found in cley grounds is alwaies ſweet and potable: like as that which a ſtony and * *In Tophis.*
gritty ſoile doth yeeld, is commonly colder than any other: and ſuch a kinde of ground alſo is
C allowable for the proofe of good waters; for it ingendreth ſweet and wholſome water, light alſo of digeſtion, and pure withal, by reaſon that as it paſſeth by a ſoft grit as it were, through a ſtrainer, all the groſſeneſſe thereof it leaueth behind ſticking thereto. As for * thicke ſand & gra- * *Sabulum.*
uell, it affordeth ſmall and ſlender ſprings, and thoſe not durable; beſides, the water wil quickly gather mud. Ground giuen to beare * pibbles or the groſſer ſort of grauell, giue vs no ſecurity * *Glarea.*
that the ſprings therein wil hold all the yeare long, howbeit the water is very good & pleaſant. The hard and compact grauell called the male grauel, and the land which ſeemeth ful of black and burnt carbuncle ſtones, bringeth forth wholſome waters, and the ſources be ſure and perdurable. But red ſtones yeeld the beſt ſimply, and thoſe that we may be ſure will neuer giue ouer and faile. And therefore when wee ſhall perceiue the foot of a mountaine ſtanding vpon ſuch
D ſtone, or vpon flint, wee may boldly reckon of wholeſome and euerlaſting ſprings; and this gift they haue beſide, to be paſſing cold. Moreouer, in digging and ſinking pits marke this for an aſſured and infallible ſigne that you approch vnto water; namely, if the earth appeare and ſhew moiſt more and more, ſtill as you go lower and lower: alſo if the ſpade enter more willingly, and goe downe with eaſe and facilitie. When pioners haue wrought deepe vnder the ground, and then chance to meet with a veine of brimſtone or alume, the dampe will ſtop their breath and kill them preſently, if they take not the better heed: and therefore to foreſee and preuent this danger, they vſe to let downe into the pit a candle or lampe burning; for if it goe out, they may be ſure it hath met with the dampe. Therefore if pits be ſubiect to the riſing of ſuch vapours, cunning and expert workemen make on either ſide of ſuch pits, both on the right hand
E and the left, certaine out-caſts, tunnels, or venting holes, to receiue thoſe hurtfull and dangerous vapours, whereby they may evaporat and breathe forth another way. Otherwhiles it falls out, that the aire which they meet with in digging very low, doth offend the pioners, albeit there be no brimſtone nor alume neere: but the ready meanes to amend the ſome and auoid the danger, is to make winde and freſh aire with continuall agitation of ſome linnen cloathes. Now when the pit is ſunke and digged as far as to the water, the bottome muſt be layd, and the loweſt ſides of the wall reared of ſtone ſimply without any mortar made of [lime and] ſand, for feare leſt the veines of the ſource be ſtopped. Some waters there are, which in the verie prime and beginning of the ſpring are of this nature, That they grow to be exceeding cold, namely ſuch as haue their ſource or ſpring lying but ebb; for they are maintained only of winter rain:
F Others againe begin to be cold at the riſing of the Dog-ſtarre. And verily we may ſee the experience both of the one and the other about Pella the capitall city of Macedonie: for the water of the meere or marriſh there before the towne in the beginning of Summer is cold; and afterward when the weather is at the hoteſt, the ſpring water in the higher parts of the Citie is ſo extreame cold that it is readie to bee frozen. The ſemblable happeneth in Chios, where

there is the ſame reaſon of the hauen and towne it ſelfe. At Athens, the great and famous fountain named Enneacrunos, in a rainy or ſtormy ſummer is colder than the pit water or wel in *Iupiters* garden, within that city; and yet the ſaid Well water if it be a dry ſeaſon, will ſtand with an ice at Midſummer. G

Chap. IV.

¶ *The reaſon of certaine Waters that appeare and be hid againe ſuddenly.*

*i. about the beginning of Iune.

BVt aboue all others, the waters of pits or wels be ordinarily moſt cold about the * retreat or occultation of Arcturus, yea and many times they faile in the mids of ſummer, and all of them in maner grow very low for the ſpace of foure daies, at the time of the ſetting of the foreſaid ſtar. Many there be which haue little or no water in them all winter long, and namely about the hil Olympus, where it is ſpring firſt ere the waters return and find the way into their pits. And verily in Sicilia, about the cities Meſſana and Mylæ, during winter the ſprings are altogether dry; but in ſummer time they run ouer the brinks of their Wels and pits, maintaining pretty riuers. At Apollonia a city in Pontus there is a fen neere the ſea ſide, which in Summer only ouerfloweth, and eſpecially about the riſing of the great Dog-ſtar; mary if the ſummer be colder than ordinarie, it is not ſo free and plentifull of water. Some Springs haue this qualitie with them, to be drier for ſhoures and raine water: as for example, in the territorie of Narnia, a city in the duchy of Spoleto; which *M. Cicero* hath not forgot to inſert among other admirable things, in his treatiſe of Wonders: for of this territorie hee writeth in theſe tearmes, That in a drought it was durty, and in rainy weather duſty. Moreouer this is to be noted, That all waters are ordinarily more ſweet in winter than in ſummer, but in autumn leaſt of all; and in a dry ſeaſon leſſe than at other times. Neither are the riuer waters moſt times of like taſte, by reaſon of the great difference that is in their chanels; for commonly the water is ſuch as the earth & ſoil through which it paſſeth, and doth participat the qualitie and taſt of thoſe herbs always which it paſſeth and runneth by. No maruell therefore if the water of one and the ſelfe-ſame riuer be found in one place more vnwholſome and dangerous than in another. It falls out many times, that the brooks and rills which enter into great riuers, do alter their water in the very taſte (as we may ſee by experience in the famous riuer Boryſthenes) inſomuch as ſuch great riuers be ouercome with the influence of ſuch riuerets, and either their owne taſte is delaied by them, or clean drowned and loſt. And ſome riuers there be which change by occaſion of rain: the prooſe wherof was thrice ſeen in Boſphorus, when by reaſon of the fall of ſome ſalt ſhoures, the flouds that ouerflowed the fields deſtroyed all the corne vpon the ground. The like alſo fell as often in Egypt; for the rain that fel cauſed all the waſhes ariſing from the riuer Nilus, which watred the grounds, to be bitter, whereupon inſued a great plague and peſtilence to the whole region. It chanceth many times, that preſently vpon the cutting and ſtocking vp of Woods, there ariſe and ſpring certaine fountaines which beforetime appeared not, but were ſpent in the nouriſhment of the tree roots; as it fell out in the mountain Hæmus, when as *Caſſander* held the *Gallogreeks beſieged; for when the woods thereupon were cut down to make a palaiſad for a rampier, preſently there iſſued forth ſprings of water in their place. Moreouer, it hath bin oft times known, that by occaſion of ſpoiling ſome hils of the wood growing therupon, the ſprings haue met altogether in one ſtreame, and done much hurt in ſudden ouerflowing the vaile beneath; whereas the trees before-time had wont to drink vp, digeſt, and conſume all the moiſture & wet that fell and fed the ſaid waters. And verily it auaileth much for the maintenance of water, to ſtirre with the plough, and to till a ground; thereby to break vp and looſe the vppermoſt calloſitie and hide (as it were) of the earth, that kept it clunged and bound. Certes it is recorded for a truth, that vpon the raſing and deſtroying of Arcadia (a towne ſo called in Creet) wherby the place was diſpeopled, all the fountaines waxed dry, and the riuers in that tract (which were many) came to nothing: but ſix yeares after, when the ſaid town was re-edified, euen as the inhabitants fell to earing and ploughing any grounds within their territorie, the foreſaid fountains appeared again, and the riuers returned to their former courſe. H I K L M

*or Galatians.

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Chap. V.

¶ *Divers historicall obseruations touching this point.*

MOreouer, Earthquakes, as they discouer sometimes new springs and sources of water, so otherwhiles they swallow them vp that they are no more seene: like as it hapned (as it is well knowne) 5 times about the riuer Pheneus in Arcadia. And in manner aboue sayd, there issued forth a riuer out of the mountaine Corycus, so soone as the peisants of the country began to break it vp for tillage. But to return again to the change and alteration of waters: wonderfull they must needs be (no doubt) when there is no euident cause thereof to be knowne: as namely in Magnesia, where al the hot waters of the bains suddenly became cold, without any other change besides of the tast: also in Caria, where standeth the temple of *Neptune*, the riuer which was knowne before to be fresh and potable, all on a sudden turned into salt water. Ouer and besides, is not this a strange miracle, that the fountain Arethusa in Syracuse, should haue a sent or smell of dung, during the solemne games and exercises at Olympia? But there is some probable reason to be rendred hereof, Because the riuer Alpheus passeth from Olympus vnder the very bottom of the sea into that Island [of Sicily] where Syracuse standeth, and so commeth to the foresaid fountain. The Rhodians haue a fountain within their * Chersonese, which euery ninth yere purgeth it self & sends out an infinit deale of ordure and filthines. And as the tast & smell of waters do alter, so their colours also do change: as for example, there is a lake in the country of Babylon, which euery summer for the space of 11 daies, looketh red: and Borysthenes also in the summer time, runneth with a blewish colour like * violets, or the sky; and yet a most pure and subtill water it is of all other: which is the reason, that it swims aloft and floteth naturally vpon Hypanis the riuer. In which two riuers, there is another maruell reported, That all the while a Southern wind bloweth, the riuer Hypanis is discerned aboue it. But there is one argument more besides, that proueth the water of Borysthenes to be passing light & thin, for that there arise no mists out of it; nay it is not perceiued to yeeld any exhalation or breath at al from it. To conclude, they that would seem to be curious and skilfull in these matters, do obserue and affirme, That generally all waters grow to be heauier after that mid-winter is once past.

* *i.* their demy-iland, or rather a place inuironed round about with sea, saue only that it hath one banke or narrow causey leading to the continent.

* *Lesbos.-Athen.*

Chap. VI.

¶ *The maner of water-conduits. How and when those waters which naturally are medicinable, ought to be vsed. Also for what diseases it is good to sdile and take the aire of the Sea. The vertues and properties of sea waters as touching Physicke.*

IF a man would convey water from any head of a spring, the best way is to vse pipes of earth made by potters art; and the same ought to be 2 fingers thick, and one jointed within another, so as the end of the vpper pipes enter into the nether, as a tenon into a mortaise, or as a box into the lid: the same ought to be vnited and laid euen, with quicklime quenched and dissolued in oile. The least leuell for to carry and command water vp hill from the receit, is one hundred foot; but if it be conueyed but by one canel and no more, it may be forced to mount the space of two Actus, *i.* 240 foot. As touching the pipes by means whereof the water is to rise aloft, they ought to be of lead. Furthermore, this is to be obserued, That the water ascend alwaies of it self at the deliuerie, to the heigth of the head from whence it gaue receit: if it bee fetched a long way, the worke must rise and fall often in the carriage thereof, that the leuell may bee maintained still. As for the pipes, ten foot long apiece they would bee, if you do well. Now if the said pipes of lead be but * fiue fingers in compasse, ordinarily they should weigh sixty pound: * if they be of eight fingers size, they must carry the weight of one hundred pound: but in case they bear a round of * 10 fingers, their poise would be at the least 120 pound; and so the rest more or lesse according to this proportion. Those pipes be called properly in Latine Denariæ, the web or sheet whereof beareth ten fingers in breadth, before it be turned in and brought to the compasse of a pipe: like as Quinariæ, when the same is halfe so broad. Moreouer, this is to be obserued, That in euery turning and twining of an hill, the pipe ought of necessity to be fiue fingers round and no more, for to represse and breake the violence of the water in the current. Likewise the vaulted heads which receiue and contain water from all the sources meeting together, must

* *Quinariæ.*
* *Octonariæ.*
* *Denariæ.*

be of that capacity, as need requireth. G

And since I am falne into the treatise and discourse of fountains, I wonder much at *Homer*, that he hath made no mention at all of hot springs, and yet otherwise throughout his whole poëme, hee bringeth in oftentimes those who bathed and washed in hot baines. But it may verie wel be, that the reason therof is, because in those times there was not that vse of them in physick as at this present: for now adays, if folk be amisse or il at ease, straightwaies they run to the bains and bath for remedy. And in truth, those waters which stand vpon brimstone, be good for the sinews: such as come from a veine of alume, are proper for the palsie, or such like infirmities proceeding from resolution of the nerues. Moreouer, they that hold of bitumen or nitre (such as be the fountains Cutilie) be potable and good to be drunke, and yet they are purgatiue.

To come to the vse of natural bains and hot waters: many men in a brauery sit long in a bath, H and they take a pride in it, to indure the heat of the water many hours together; and yet is there nothing so hurtfull for the body: for in truth, a man should continue little longer in them than in ordinary artificiall bains or stouphs; and then afterwards when he goeth forth, hee is to wash his body with fresh cold water, not without some oile among. Howbeit, our common people here, thinke this to be very strange, & will not be brought to to it: which is the reason, that mens bodies in no place are most subject to diseases: for the strong vapours that steme from thence, stuffe and fil their heads; and although they sweat in one part, yet they chil in another, notwithstanding the rest of their bodies stand deep within the water. Others there are besides, who on the like erronious conceit, take great joy in drinking a deal of this water, striuing avie who can poure most of it downe the throat. I haue my selfe seen some of them so puffed vp and swolne I with drinking, that their very skin couered and hid the rings vpon their fingers; namely, when they were not able to deliuer again the great quantity of water that they had taken in. Therefore this drinking of much water is not good to be vsed, vnles a man do eftsoons eat * salt withall. Great vse there is and to good purpose, of the mud which these fountains do yeeld; but with this regard, that when the body is besmeared and bedawbed outwardly therwith, the same may dry vpon it in the Sun.

* For to irritat and prouoke the expulsiue faculty to send all forth againe.

Well, these hot waters be commonly full of vertue; howbeit, this is not generall, That if a spring be hot, by and by we should think it is medicinable; for the experience of the contrary is to be seen in Egesta of Sicily, in Lariſſa, Troas, Magnesia, Melos, and Lipara. Neither is it a K sure argument of a medicinable water (as many are of opinion) if a piece of siluer or brasse which hath bin dipped therein, lose the colour: for there is no such matter to be seene by the naturall baths of Padua; neither is there perceiued in them any difference in smell from others.

Concerning Sea waters, the same order and mean is to be obserued, especially in such as bee made hot, for to help the pains and infirmities of the sinews: and many hold them good to souder fractures of bones, yea and to cure their bruises and contusions: likewise they haue a desiccatiue vertue, wherby they dry rheumaticke bodies; in which regard, men bath also in sea water actually cold. Moreouer, the sea affoor deth other vses in diuers and sundry respects, but principally the aire therof is wholsome for those who are in a phthysicke or consumption (as I haue beforesaid) and cureth such as doe reach or void bloud vpward: and verily, I remember of late L daies, that *Annæus Gallio* after that he was Consull, tooke this course; namely, to saile vpon the sea for this infirmity. What is the cause think ye, that many make voiages into Ægypt? surely it is not for the aire of Egypt it self, but because they lie long at sea, and be sailing a great while before they come thither. Furthermore, the vomits also which are occasioned at sea by the continual rolling and rocking of the ships neuer standing stil, are good for many maladies of head, eies, and brest; and generally they doe cure all those accidents, for which the drinking of Ellebore serueth. As for sea water to be applied simply of it selfe vnto the outward parts, physitians are of opinion, that it is more effectual than any other, for to discusse & resolue tumors: & more particularly, if there be a cataplasme made of it and barly meale sodden together, it is singular for the swellings behind the ears, called Parotides. They mingle the same likewise in plasters, such especially as be white and emollitiues: and if the head be hurt, and the * brain touched and M offended, it is soueraigne to be infused into the wound. It is prescribed also to be drunke: for albeit the stomack take some offence and hurt thereby, yet it purgeth the body well, and doth euacuat melancholick humors and black choler; yea, and if the bloud bee cluttered within the body, it sendeth it out one way or other, either vpward or downeward. Some haue ordained it to

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A be giuen for the quartan feuer; others aduiſe to ſaue and keep it a time, for to ſerue the turne in caſe of Tineſmes, which are vnordinat ſtrainings at the ſtoole to no effect: alſo for all gouts and pains of joints: and in very truth, by age & long keeping, it forgoeth al that brackiſh taſt, which it had at the firſt. Some boile it before: but all in generall agree in this, To vſe for theſe purpoſes that ſea water which was taken out of the deep far from the land, ſuch as is not corrupt with any mixture of freſh water with it; and before their patients do drink it, enjoyne them to vomit: and then alſo do they mingle with it, either vineger or wine for that purpoſe. They that giue little thereof, and by it ſelfe, appoint radiſhes to be eaten preſently vpon it, with honied vineger or oxymell, for to prouoke the patient to vomit againe. Moreouer, they vſe otherwhile to miniſter a clyſtre made of ſea water, firſt warmed: & verily there i not a better thing than it for to bath
B and foment the cods withall, if they be ſwelled either with ventoſities or wateriſh humors. Alſo it is much commended for kibed heels, if they be taken before they are broken and exulcerat: and in like manner they kill the itch, cure ſcabs, tettars, and ringwormes. Sea water ſerueth wel to waſh the head, & to rid it of nits and filthy lice: yea, and reduceth black and blew marks in the skin, to the freſh and liuely colour againe. In all theſe cures, after the vſe of ſalt-water, it is paſſing good to foment the place affected, with vineger hot. Ouer and beſides, it is thought to be very wholſome and good againſt the venomous ſtings of ſerpents; and namely, of the ſpiders Phalangia and ſcorpions. Semblably, it cureth thoſe that be infected outwardly with the noyſome ſaliuation or ſpittle of the Aſpis called Ptyas: but in theſe caſes it muſt be taken hot: furthermore, a perfume made with ſea-water and vineger, is ſingular for the head-ach. If it be cly-
C ſterized hot, it allaieth the wrings and grindings of the belly; yea, and ſtaieth the violent motions of cholericke humors working vpward and downward. Thoſe that be once chafed and ſet into an heat with ſea water, ſhall not ſo eaſily feele cold againe. When womens paps are ouergrowne, and ſo exceeding great that they meet and kiſſe one another, there is not a better thing to take them downe, than to bath in a tub of ſea-water: the ſame alſo may ſerue to amend the griefe of the bowels and precordiall parts, yea, and to reſtore thoſe that be exceeding leane and worn away. The fumes and vapors of this water boiling together with vineger, are ſoueraign for thoſe that be hard of hearing, or troubled with the head-ach. Sea water hath this eſpeciall property, that of all things it ſcoureth away ruſt of yron ſooneſt. The ſcab that annoieth ſheepe, it healeth, and maketh their wooll more ſoft and delicat. But what meane I to ſay thus much of ſea
D water, knowing as I do full well, that for thoſe who dwell far vp into the maine, and inhabit the inland parts, all this may ſeem needleſſe, and ſuperfluous? And yet there hath bin means deuiſed to make artificiall ſea-water, wherewith euery man may ſerue his own turn when he will. In which inuention, one wonderfull thing is to be ſeen; namely, if a man put more than one ſextar of ſalt to foure of water, the nature of the water will be ſo ſoone ouercome, that ſalt ſhall not diſſolue nor melt therein: but if you mingle one ſextar of ſalt juſt with foure ſextars of water, you ſhall haue a brine as ſtrong as the ſalteſt water that is in the ſea: but to haue a kind & moſt mild brine, it is thought ſufficient to temper the foreſaid meaſure of water with 8 cyaths of ſalt: and this water thus proportioned, is very proper for to heat the ſinewes, without any fretting of the skin at all. There is a certain compound ſea water kept in manner of a Syrrupe, which they call
E Thalaſſomeli, made of Sea-water, hony, and raine water, of each a like quantity. Now the foreſaid ſea-water they ſerch for this purpoſe out of the very deep, and this compoſition they put vp in earthen veſſels well pitched or varniſhed, and reſerue it for their vſe. An excellent purgatiue this is; for beſides that it cleanſeth the ſtomacke without any hurt or offence therof, the taſt and ſmell both are very pleaſant and delectable. As touching the mead called Hydromell, it conſiſted in times paſt of rain water well purified, and hony: a drink ordained and allowed onely to ſick and feeble perſons when they called for wine, as being thought leſſe hurtfull to be drunke: howbeit, rejected it hath bin theſe many yeares, and condemned: for by experience it was found at length, to haue the * ſame diſcommodities that wine, but farre ſhort it was of the good and wholeſome qualities of wine.

* Namely, aduerſe to the head & ſinews

F Moreouer, foraſmuch as ſea-faring men and ſaylers be many times at a fault for freſh water, and thereby much diſtreſſed, I think it good to ſhew the means how to be prouided for the ſupply of this defect. Firſt and foremoſt therefore, if they ſpread and diſplay abroad certaine fleeces of wooll round about a ſhip, the ſame will receiue and drinke in the vapours of the Sea, and become moiſt and wet withall; preſſe or wring them well, you ſhall haue water freſh enough.

Item, let downe into the ſea within ſmall nets, certain pellets of wax that be hollow, or any other void and empty veſſels wel cloſed & luted, they will gather within them water that is freſh and potable: for we may ſee the experience hereof vpon the land: take ſea-water & let it run through cley, it will become ſweet and freſh. G

But to proceed vnto the other medicinable properties of water: let there be any diſlocation in man or beaſt; by the ſwimming in water (it matters not of what kind it be) the bones wil very quickly and with great eaſe be reduced into joint againe.

It falleth out many times that trauellers be in feare and danger of ſome ſickneſſe, by change of waters, and ſuch eſpecially as they know not the nature and quality of. To preuent this inconuenience, they drink the water cold which they doubt and ſuſpect, ſo ſoone as euer they be come out of the baine; for then they ſhall find it preſently. H

As touching the moſſe which is found in the water, ſoueraigne it is for the gout, in caſe it be applied outwardly: mix oile thereto, and reduce it into the forme of a cataplaſme or liniment, it caſeth the paine, and taketh down the ſwelling of the feet about the ankles. The ſome & froth that floteth aboue the water, cauſeth warts to flie off, if they be well rubbed therewith.

The very ſand likewiſe vpon the ſea ſhore, eſpecially that which is ſmall and fine, & the ſame burnt as it were with the heat of the Sun, is a ſoueraigne remedy to dry vp the watery humors in a dropſie, if the body be couered al ouer therewith; and to that purpoſe it ſerueth alſo for rheums and catarrhs. Thus much may ſuffice concerning water it ſelf: it remaineth now to treat of ſuch things as the water yeeldeth. In which diſcourſe, begin I wil (as my order and manner hath bin in all the reſt) with thoſe matters which be chiefe and principall, and namely, ſalt and ſpunges. I

Chap. VII.

¶ *The ſundry kinds of ſalt: the making thereof: the vertues medicinable of ſalt: and diuers other conſiderations reſpectiue thereto.*

SAlt is either artificiall or naturall: and both the one and the other is to be conſidered in many and diuers ſorts, which may be reduced all into 2 cauſes: for ſalt commeth either of an humor congealed, or els dried. In the gulfe or lake of Tarentum, the ſalt is made of the ſea water dried by the heat of the ſummer Sun; for then you ſhall ſee the whole poole converted into a maſſe of ſalt: and verily the water there, is otherwiſe very low & ebbe, and not aboue knee high. K The like is to be ſeen in Sicily within a lake called Cocanicus; as alſo in another neare to Gelas: but in theſe, the brims & ſides only about the banks, wax dry and turn into ſalt, like as in the ſalt-pits about Phrygia and Cappadocia. But at Aſpenchum, there is more plenty of ſalt gathered within the poole there, for you ſhall haue the ſame turn into ſalt, euen the one halfe to the very mids. In which lake, there is one ſtrange and wonderful thing beſides, for look how much ſalt a man taketh out of it in the day, ſo much ordinarily will gather againe by night. All the ſalt of this ſort is ſmall, and not growne together in lumpes. Now there is another kinde of ſalt, which of the owne accord commeth of ſea-water, and it is no more but the ſome or froth which is left behind ſticking to the edges of the banks, or to rocks. Both the one & the other become L thick and hard in manner and form of a candied dew: howbeit, that which is found in the rocks, is more quicke and biting than the other. There is beſides of ſalt naturall, a third diſtinct ſort from the former: for in the Bactrians country there be two great and huge lakes, which naturally do caſt vp a mighty quantity of ſalt: the one lieth toward the Scythians, and the other bendeth to the Arians country: like as neere to Citium, a city in the Iſle Cypros, and about Memphis in Ægypt, they draw forth ſalt out of lakes, and afterwards dry the ſame in the ſun. Moreouer, there be certain riuers which beare ſalt, and the ſame congealed aloft in their vpper part, in manner of yce, and yet the water runneth vnderneath and keepeth the courſe wel enough. As for example, about the ſluces and ſtraits of the mount Caſpius; and thereupon they be called the Riuers of ſalt: as alſo in other riuers of Armenia, and about the Mardians countrey. Moreouer, Oxus and Othus, two riuers paſſing through the region Bactriana, carry ordinarily downe with M them in their ſtreame, great peeces and fragments of ſalt, which fall from the mountaines adjoining vnto them. There are beſides in Barbary, other lakes, and thoſe verily thicke and troubled, which ingender and beare ſalt. But what will you ſay, if there bee certaine Fountaines of hote Waters which breed Salt? And yet ſuch bee the Baynes or Springs called Pagaſæi.

Thus

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A Thus far forth haue I proceeded in thoſe kinds of ſalt which come of waters naturally. There are beſides certain hils alſo which are giuen by nature to bring forth ſalt, and ſuch is the mountain Oromenus among the Indians, wherein they vſe to hew ſalt as out of a quarry of ſtone, and yet the ſame groweth ſtill: inſomuch, as the kings of that country make a greater reuenue by far out of it, than either by their mines of gold, or the pearles which thoſe coaſts do yeeld. Furthermore it is euident, that in Cappadocia there is ſalt * Minerall, digged out of the earth: and it appeareth plainly, that it is a ſalt humor congealed within. And verily, they vſe to cut it out of the ground after the maner of *glaſſe ſtone in lumps: and thoſe exceeding heauy, which the peaſants commonly call * crums of ſalt. At Carrhæ, a city of Arabia, all the walls thereof, as alſo the houſen of the inhabitants, be reared & built of hard ſtones: and the ſame be laid by Maſons worke, and the joints cloſed and ſoudered by no other morter but plain water. K. *Ptolomæus*, at what time as he incamped about Peluſium, a city of Egypt, and caſt vp a trench to fortifie the ſame, found ſuch a mine or quarrey of ſalt as theſe, which was a preſident to others afterward to ſinke pits betweene Ægypt and Arabia, euen in the waſte and dry quarters, where vnder the delfe of ſand they met with ſalt. After which manner alſo they practiſed to dig in the deſart & dry ſands of Africk, and found more as they went, euen as far as to the Temple and Oracle of *Iupiter Ammon*. And verily they might perceiue this ſalt to grow in the night ſeaſon, according to the courſe of the Moone. As for all the tract and country of Cyrenæ, famous it is, and much ſpoken of, for the ſalt * Ammoniacum, ſo called, by reaſon that it is found vnder the ſands. In colour and luſtre it reſembleth that Alume de Plume, which the Greeks call Schiſtos: It groweth C in long lumps or pieces, and thoſe not tranſparent: the taſt is vnpleaſant, howbeit, this ſalt is of good vſe in Phyſicke. The cleareſt thereof is taken for the beſt, eſpecially when it wil cleaue directly into ſtreight flakes. A ſtrange and wonderfull nature it hath if it be right: for ſo long as it lyeth vnder ground within the mine, it is paſſing light in hand, and may be eaſily welded; take it forth once, and lay it abroad aboue ground, a man would not beleeue or imagine how exceeding heauy it is. But ſurely the reaſon thereof is euident: for the moiſt vapors contained within thoſe mines where it lieth, beare vp the ſaid pieces of ſalt, and are a great eaſe to thoſe that deale therwith, much like as the water helpeth much to the ſtirring and managing of any thing within it, be it neuer ſo weighty. Well, this Ammoniacke ſalt is corrupted and ſophiſticate, as well with the pit-ſalt of Sicily called Cocanicus, as alſo with that of Cypreſſe, which is wonderfull like D vnto it. Moreouer, neare Egelaſta, a city in high Spaine, there is a kind of ſal-gem or Minerall ſalt digged: the peeces or lumps wherof are ſo cleare, as a man may in a maner ſee through them: and this hath of long time bin in great requeſt and of ſuch name, as the Phyſitians giue vnto it the price and praiſe aboue all other kinds. But here is to be noted, that all places where ſalt is found, are euer barren, and will beare no good thing els. And thus much may bee ſaid concerning ſalt that commeth of the own accord.

As touching ſalt artificiall, made by mans hand, there be many kinds thereof. Our common ſalt, and whereof we haue greateſt ſtore, is wrought in this manner: firſt they let into their pits a quantity of ſea-water, ſuffering freſh water to run into it by certain gutters, for to bee mingled therewith for to help it to congeale, whereto a good ſhower of raine auaileth very much, but aE boue all the Sun ſhining therupon, for otherwiſe it wil neuer dry & harden. About Vtica in Barbary they vſe to pile vp great heaps of ſalt in manner of Mounts: which after that they bee hardened and ſeaſoned in the Sun and Moone, ſcorne all raine and foule weather, neither will they diſſolue, inſomuch, as folke haue enough to doe for to break and enter in with pick-axes. Howbeit, in Candy the Salt is made in the like pits, but of Sea-water onely, without letting in any freſh water at all. Semblably, in Ægypt, the Sea it ſelfe ouerfloweth the ground which (as I take it) is already ſoked and drenched with the water of Nilus, and by that means their Salt is made. After the ſame manner they make ſalt alſo out of certain wels, which are diſcharged into their Salt-pits. And verily in Babylon, the firſt gathering or thickening of the water in their ſalt-pits, is a certain liquid Bitumen or Petroleum, an oleous ſubſtance, which they vſe in their lamps, as F we do oile: and when the ſame is ſcummed off, they find pure ſalt vnderneath. Likewiſe in Cappadocia they do conuey and let in water out of certain wels and fountaines into their Salt-pits. In Chaonia there be certaine * Springs of ſaltiſh water, which the people of that countrey doe boile, and when it is cooled againe, it turneth into Salt: but it is but dull and weak in effect, and beſides, nothing white. In France and Germany the maner is when they would make ſalt, to caſt Sea-

* *Sal Gemma.*

* *Lapis ſpecularis, vitrum vel glacies Martis* or *Lapis Arabicus.*
* *Micæ Salis.*

* Of ἄμμος in Greeke, which is ſand.

This ſeemeth to be our Bay-ſalt.

* This is the order of ſalt with vs in our wiches here in England.

ſea-water into the fire as the wood burneth. [In ſome parts of Spain there be ſalt ſprings, out of G
which they draw water in maner of that brine, which they cal Muria.] But thoſe verily of France
and Germany be of opinion, that it skilleth much what wood it is that ſerueth to the making of
ſuch fire. Oke they hold the beſt, as being a fewell, the ſimple aſhes whereof mixt with nothing
els, may go for ſalt. And yet in ſome places they eſteeme Hazell wood meeter for this purpoſe.
Now when the ſaid wood is on fire and burniug, they poure ſalt liquor among, wherby not only
the aſhes but the very coales alſo will turne to be ſalt. But all ſalt made in this ſort of wood, is
black. I reade in *Theophraſtus*, That the Iſlanders of Imbros were wont to boile in water, the a-
ſhes of reeds and canes, vntill ſuch time as there remained little moiſture vnconſumed, and that
which was left they vſed for ſalt. The brine or pickle wherein fleſh or fiſh hath bin kept ſalt, if
it be boiled a ſecond time vntil the liquor be ſpent and conſumed, returneth to the own nature, H
and becommeth ſalt again. Certes, we find, That the ſalt thus made of the pickle of Pilchars or
Herings, is of all others moſt pleaſant in taſt. As touching the ſalt made of ſea-water, that of the
Iſle Cypres, and namely, that which comes from Salamis, is commended for the beſt. But of
poole ſalt, there is none comparable to the Tarentine and Phrygian, eſpecially that which they
cal Tatteus, of the lake Tatta: and in truth, both theſe kinds of ſalt be good for the eies. The ſalt
brought out of Cappadocia in little earthen pipes, hath the name to make the skinne ſlick and
faire: but for to lay the ſame plain and euen, and make it look full and plump without riuels, the
ſalt which I called Cittieus hath no fellow. And therefore women after they be newly deliue-
red of child, vſe to annoint and rub their bellies with this ſalt, incorporat together with Gith or
Nigella Romana. The drieſt ſalt is euermore the ſtrongeſt in taſt: the Tarentine ſalt is taken for I
to be moſt pleaſant and whiteſt withal. Otherwiſe, the whiter that ſalt is, the more brittle it is,
and readier to crumble and fal to pouder. There is no ſalt but raine water wil make it ſweet and
freſh. The more pleaſant it wil be & delicat to the taſt, in caſe the dew fal therupon: but North-
eaſt winds ingender moſt plenty therof. In a Southerly conſtitution of the weather, and namely
when the wind is ful ſouth, you ſhall ſee no ſalt ingendred. The * floure of ſalt (commonly cal-
led Sperma-Ceti) is neuer bred but when the Northeaſt winds do blow. The ſalt Tragaſæus wil
neither ſpit, crackle, leap, nor ſparkle in the fire; no more will Acanthius (ſo called of a towne of
that name:) neither doth the ſome of ſalt, nor the gobbets and fragments, ne yet the thin leaues
or flakes thereof. The ſalt of Agrigentum, a city in Sicily, will abide the fire and make no ſpark-
ling: put it into water, it will keep a ſpitting and crackling. Great difference there is in ſalt, in re- K
gard of the colour. At Memphis [i. Caire] in Egypt, the ſalt is of a very deep red: but about the
riuer Oxus in Bactriana, more tawny or inclining to a ruſſet. And the Centuripine ſalt within
Sicily is purple. About Gela in the ſame Iſland, the ſalt is ſo bright and clear, that it wil repre-
ſent a mans face, as in a mirroir. In Cappadocia, the Minerall ſalt which they dig, is of a yellow
Safron colour, tranſparent, and of a moſt redolent ſmell. For any vſe in Phyſicke, the Tarentine
ſalt was in old time highly commended aboue the beſt: after which they eſteemed moſt, all the
ſea ſalts; and of that kind the lighter, and that which eſpecially is of the nature of ſome: for the
*eies of horſes and Bœufes, they made great reckoning of the Tragaſæan ſalt, and that of Gra-
nado or Bœtica in Spaine. For dreſſing of viands and cates; for to be eaten alſo with meat; the
better is that ſalt, which ſooner melteth and runneth to water. That alſo which by nature is moi- L
ſter than others, they hold to be better for the kitchin or the table (for leſſe bitterneſſe it hath)
and ſuch is that of Attica and Eubœa. For to pouder and keep fleſh meat, the dry ſalt, & quicke
at tongues end is thought to be meeter than other, as we may ſee in the ſalt of Megara. Moreo-
uer there is a certain confite or condited ſalt, compounded alſo with ſweet ſpices & aromaticall
drugs: which may be eaten as a dainiy kind of gruel or ſauce; for it ſtirreth vp and whetteth ap-
petite, eat the ſame with any other meats: inſomuch, as amongſt an infinit number of other ſau-
ces, this carrieth away the taſt from them all; for it hath a peculiar ſmatch by it ſelfe, which is
the cauſe, that the pickle Garum is ſo much ſought after for to giue an edge to our ſtomack: &
not only we men are ſolicited & moued by ſalt more than by any thing els to our meat; but mut-
tons, Bœufes, and horſes alſo haue benefit therby in that reſpect: they feed the better, giue more M
ſtore of milke, and the cheeſe made thereof hath a more dainty and commendable taſte by that
means. And to conclude all in one word, the life of mankind could not ſtand without ſalt, ſo ne-
ceſſary an element (if I may ſo ſay) it is for the maintenance of our life, that the very delights &
pleaſures of the mind alſo are expreſſed by no better term than Salt: for ſuch gifts and conceits
of

* *Halos-anthos* which he rendreth *flos-ſalis*: whereas indeed *Flos-ſalis*, i. the floure of ſalt, is another thing, as himſelf ſheweth elſwhere by the name of *tenuiſſima faville ſalis*.

* *Sandivere*.

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A of the ſpirit as yeeld moſt grace and contentment, we vſe in Latine to call Sales. All the mirth of the heart, the greateſt cheerfulneſſe of a lightſome mind, & the whole repoſe & contentment that a man findeth in his ſoule, by no other word can be better ſhewed. Moreouer, this terme in Latine of Sal, is taken vp and vſed in war, yea, and diuers honours and dignities beſtowed vpon braue men for ſome worthy ſeruice, go vnder this name, and be called Salaries. And how highly our anceſtors accounted therof, it may appeare by the name of that great port-way or ſtreet Salariæ, ſo called, becauſe all the ſalt that went into the Sabines country, paſſed that way. Moreouer, it is ſaid that *Ancus Martius* K. of Rome, was the firſt that erected the ſalt-houſes, and gaue vnto the people a congiary or largeſſe of 6000 Modij of ſalt. And *Varro* writeth, That our anceſtors in times paſt vſed ſalt ordinarily in ſtead of an houſhold gruell: for they were wont to eat
B ſalt with their bread & cheeſe, as may appeare by the common prouerb that teſtifieth ſo much. But moſt of all we may gather in what requeſt and account ſalt was in ſacrifices and oblations to the gods, by this, that none are performed and celebrated without a cake of meale and ſalt. Furthermore, where ſalt is truly made without any ſophiſtication, it rendereth a certain fine and pure ſubſtance (as it were) the moſt ſubtill cinders of aſhes: which as it is lighteſt, ſo none is ſo white as it. There is that alſo which is called the Floure of ſalt, altogether different from ſalt, as being a kind of dew, of a moiſter nature; reſembling ſafron in yellow colour, or els inclining rather to a ſad red or ruſſet colour, and is as a man would ſay, the ruſt of ſalt: the ſtrong & vnpleaſant ſmell likewiſe, which commeth neere vnto that of the pickle Garum, bewraieth, that it is a diſtinct thing from ſalt, as well as from the froth thereof. This Floure of ſalt came firſt from
C Ægypt, and it ſeemeth as though it floted vpon the riuer Nilus, & were carried down the ſtream thereof. And yet there be ſome fountains which doe beare and put vp the ſame, vpon which it ſwimmeth aloft. Of this kind, the beſt is that which yeeldeth a certain fatty and vncteous oyle: for this you are to think, that ſalt is not without a kinde of fattineſſe, wonderfull though it be. This floure of ſalt is ſophiſticated & commonly coloured with red ocre, or els many times with potſhards reduced into pouder: but this deceit may be quickly known and found by water; for if it be a falſe and artificiall colour, water will waſh it off: wheras the true floure of ſalt indeed, will reſolue by nothing but by oile, and verily the Apothecaries & confectioners of ſweet oiles and ointments, vſe it moſt of all for the colour ſake, when they would giue a freſh & liuely hue to their compoſitions. Being put vp in any veſſell, it ſeemeth white & hoarie aloft: but the mid-
D dle part within, is as I haue ſaid, more moiſt ordinarily. As touching the properties of this flour of ſalt, by nature it is biting, hot, and hurtfull to the ſtomack; it moueth ſweat, and looſeth the belly taken in wine & water; good alſo it is for to enter into thoſe ointments which are deuiſed for laſſitude and wearineſſe: and by reaſon of the abſterſiue faculty that it hath, fit for ſope and ſcouring bals. Nothing ſo effectuall to cauſe the haire to fall from the eie-lids. As for the reſidence or grounds therof, ſetling in the bottom of the pot where this floure is kept; they vſe to ſhog and ſhake the ſame together, to bring it again to the colour of Safron. Ouer and beſides, there is in ſalt-houſes another ſubſtance like brine, which in Latine is called Salſugo or Salſilago, altogether liquid; ſalter in taſt than ſea-water, but in ſtrength far ſhort of it, and different, and yet is there one kind more of an exquiſit and dainty liquor in manner of a dripping, called Ga-
E rum, proceeding from the garbage of fiſhes, and ſuch other offall as commonly the cooke vſeth to caſt away as it lieth ſoking in ſalt: ſo as if a man would ſpeak properly, it is no other but the humor that commeth from them as they do lie and putrifie. In old time this ſauce was made of that fiſh which the Greeks called Garon. Where by the way this commeth to my mind, that if a woman ſit ouer the perfume or ſuffumigation of the head of this fiſh whiles it burneth, it is of power to fetch away the afterbirth that ſtaieth behind when the child is borne.

Chap. VIII.

¶ *Of the fiſhes called* * *Scombri. Of fiſh pickle: and the fiſh ſauce, named in old time Alex.*

* Commonly taken for Maquerels.

F NOw adaies the moſt dainty and exquiſit Garum is made of the fiſh called Scomber; and that in new Carthage, where there groweth ſuch ſtore of Spart or Spaniſh broome; and namely, in the ſtews and ponds by the ſea ſide where fiſhes are kept ſalted. In times paſt, and yet it beareth the name of the * Allies ſauce, as their Garum, ſo coſtly and ſo much in re-

* Garſſoiens

queſt,

queſt, that every 2 gallons thereof might not be bought much vnder the price of a thouſand ſeſterces. Certes ſetting aſide ſweet perfumes & odoriferous ointments, there was not a liquor almoſt in the world that began to grow vnto a higher rate & reckoning; inſomuch as ſome places and people carried the name thereof, and were ennobled thereby. And verily in all Mauritania, Granade in Spaine, and Carteia, the inhabitants lie in wait to fiſh for theſe Scombri, and to take them as they enter out of the Ocean into the ſtraits of Gilbretar, and all for this Garum, being indeed good for nothing els. The city Clazomenæ in Aſia, the townes Pompeij & Leptis, are much renowned for this ſauce: like as Antipolis, Thurij, and of late daies, Dalmatia for their pickle. The groſſe grounds or dregs of this ſauce, before it be ſtrained, purified, and fully finiſhed, is called Alex, euen the very defect & imperfection therof. Howbeit, of late time men haue gone in hand to make the ſaid Alex or Garum of one kind of fiſhes apart by themſelues, which otherwiſe are good for little or nothing, & of all others be ſmalleſt: this fiſh we in Latin call Apua, the Greeks Aphye, for that it is engendered of raine and ſhowers. In the the territory of Forojulium, the fiſh whereof they make this ſauce they call * Lupus. But in proceſſe of time Garum aroſe to exceſſe, both in price & varietie of vſe: inſomuch as there grew an infinit number, of diuers kinds: for one ſort there was of Garum that in colour reſembled old honied wine, and became ſo cleare and ſweet withall, that it might wel enough haue bin drunk for wine: another kind there was, which our ſuperſtitious votaries vſe, for to keep themſelues chaſte & continent; & the Iews alſo in their holy ſacrifices imployed the ſame, eſpecially that which is made of skaly fiſhes. In like manner, the other ſauce, Alex, is come to be made of Oiſters, ſea Vrchins, ſea Nettles, Crabfiſhes, Lobſtars, and the liuers of ſea Barbles. In ſum, thus wee haue deuiſed a thouſand waies to diſſolue ſalt with the conſumption of the ſubſtance of fiſh, and all to procure appetite to meat and to content the belly.

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* Which ſome take to be our Pike.

Thus much I thought good to note curſarily, as touching thoſe ſauces which are ſo greatly longed after in the world; & the rather for that in ſome ſort they ſerue in the practiſe of Phyſick: for the groſſe liquor or ſauce Alex, healeth the ſcab in ſheep, if the skin be ſcarified or skiced, and the ſame Alex poured therupon. Alſo it is ſingular againſt the biting of a mad dog, or the prick of the ſea dragon: the ſame likewiſe ſerues to ſoke linnen wreaths to be laid in wounds or tents made of lint to bee put into ſores. As for Garum, it healeth any freſh burne, if a man drop it vpon the place, without naming it, or ſaying that it is Garum: good it is beſides for the biting of mad dogs, but eſpecially for the Crocodiles tooth: as alſo for running vlcers which be either corroſiue or filthy. Of wonderful operation & effect beſides for the ſores of the mouth, and ears, as alſo for their pains. The pickle Muria likewiſe, or that ſalt liquor that commeth from ſalt-fiſh, called in Latin Salſugo, is aſtringent, biting, diſcuſſiue, and drying: ſingular for to cure the dyſentery or bloudy flix, yea, though there were an eating vlcer within the guts: for the Sciatica and inueterat fluxes of the ſtomack, it is ſoueraign: and to conclude, thoſe that dwell far from the ſea in the midland parts of a country, vſe to bath and foment themſelues with it in lieu of ſea water.

K

Chap. X.

¶ *The nature of Salt, and the medicinable vertues thereof.* L

SAlt, by nature ſtandeth much vpon fire, & yet an enemy it is and contrary vnto fire, it flieth from it, eating and conſuming al things whatſoeuer: aſtringent it is, deſiccatiue, binding, and knitting. It keeps from putrifaction, bodies that be dead, and cauſeth them to indure ſo a world of yeares. In phyſick it is held for mordant, burning, cauſtick, and mundificatiue. It doth ſubtiliat, extenuat, and diſſolue. Contrary it is to the ſtomack, and ſerueth not but only to prouoke appetite. With origan, hony, and hyſſope, it is ſingular againſt the ſting of ſerpents: and more particularly of the horned ſerpent Ceraſtes, if it be applied with origan, cedar-roſin, pitch or hony. Being drunk with vineger, it helpeth thoſe that be pricked with the Scolopendre: and applied as a liniment with oile or vineger, and a fourth part of line ſeed, it is good againſt the ſting of ſcorpions: alſo with vineger alone, for the ſting of hornets or waſps & ſuch like. Incorporat with calues tallow, it ſerues much to cure the migrim, skals in the head, ſmall pocks, meaſels, & werts which begin to breed: alſo for the accidents of the eies, to wit, the excreſcence of ſuperfluous fleſh in thoſe parts, or the turning vp of skin about naile roots of fingers or toes.

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Bu principally for the eyes, and therefore it entreth into collyries and eie-ſalues. Howbeit for
A theſe purpoſes aboue named it is thought that the ſalt named Tattæus, of the lake Tatta, is moſt commended, as alſo the other lake like it, called Caunites. If the eies be bloud ſhotten, or look black and blew vpon ſome ſtripe, apply ſalt with an equal weight of Myrrh, & with hony, or els with * Hyſſop & hot water; with this charge, to foment or bath the place afterward with a kind of ſalt brine. But aboue all, Spaniſh ſalt would be choſen for this effect: & it is alſo good againſt cataracts and ſuffuſions of the eies: if it be ground with milke vpon ſome touch-ſtone, whetſtone, or hard porphyrit marble. More particularly, it is ſingular for the black bloud gathered in the eies, if it be folded within a little linnen cloth, & ſo applied: but the ſame ought to be dipped eftſoons in hot water, and ſo the place to be oft times patted withall. For the cankers or ſores in the mouth, it is good to lay ſalt vpon fine lint. In caſe the gumbs be ſwelled, it were not amiſſe to rub them therewith. Being beaten and reduced into ſmall pouder, it ſerueth for the roughneſſe of the tongue. Moreouer it is ſaid, That whoſoeuer hold euery morning vnder his tongue while hee is faſting a little ſalt vntill it be melted, hee ſhall by that meanes preſerue his teeth from being worm-eaten or rotten. The ſame incorporat in raiſins without ſtones, and in bœuf ſuet, with a little origan, leuen, or bread, is ſoueraign for the leproſie, fellons, tettars, ring-worms, and the wild ſcab. But in all theſe accidents, the ſalt of Thebais in high Egypt is moſt commended: and of this they make choice alſo to kil the itch. A gargariſm or collution ther-of with hony, is paſſing good for the inflammation of the amygdals and the uvula. There is no kind of ſalt but it helpeth the ſquinancie, and the rather if it be vſed inwardly with oile and vi-
C neger, ſo as at the ſame time it be applied without the throat alſo in a liniment with tar. If a cup of wine be dreſſed therewith it ſoftneth the belly being coſtiue. The ſame alſo taken in Wine chaſeth out of the body all worms and any hurtful vermin beſides. Held vnder the tongue, it inableth them that haue bin weakned with ſome long diſeaſe, and newly recouered, to indure the heate of bains or ſtoues the longer. Singular it is for the grief of the ſinues: but in the practiſe and vſe of this receit, it would be obſerued eſpecially, that there be applied about the ſhoulders and reins of the back, ſachels or bags full of ſalt, and the ſame made hot oftentimes in ſeething water: for ſo it eaſeth the pain. Being giuen in drink, or laid to exceeding hot in the ſaid bags, it aſſwageth the collique and other wrings in the belly, yea and the ſciatica. Beaten ſmall, and applied in manner of a cataplaſme, with meale, honey, and oile, it is ſoueraigne for the gout in
D the feet. Where I may not forget the obſeruation of this ſoueraign receit, which putteth vs in mind, that there is nothing better for the whole body [of ſuch eſpecially as be ſubiect to the gout] than * ſalt and Sun together. For thus we ſee, That our fiſhers at ſea ordinarily haue bodies as hard and tough as horne. A principall thing this is therefore to be nominated and ſet downe for the gout in the feet. But ſalt moreouer takes away cornes of the feet, and kibes in the heels. Being chewed in the mouth and ſo applied, or els with oile, it healeth any burn or skald, and keeps the skin from riſing into bliſters. With vineger and hyſſop it cureth S. *Anthonies* fire and all vlcers that be corroſiue. It heals likewiſe cankerous ſores, if it be applied with wild vine grapes. Reduced into fine pouder and laid to with barly meale, it is ſouerain for vlcers corroſiue ſuch as be called Wolues, and do eat deep to the very bone; ſo there be laid ouer the ſame and
E the part affected, a linnen cloath well ſoked and bathed in wine. A proper remedy it is for the jaundiſe, and riddeth away the itch occaſioned thereby, if the patient be rubbed all the bodie ouer with it, oile, and vineger; againſt a good fire vntill hee doe ſweat. But with oile alone it ſerues for thoſe that feel themſelues weary. Many phyſitians haue cured thoſe that be in a dropſie with ſalt; and haue ordained to rub their bodies with oil & ſalt together, who are in an ague, for to auoid the extremitie of heat: and they hold opinion, That there is not a better thing to diſpatch an old cough, than to be licking euer and anon of ſalt. They haue giuen order alſo by way of cliſtre to miniſter ſalt vp into the body, for the Sciatica. To apply the ſame alſo to eat away proud or dead fleſh in any vlcers. Being lapped within a linnen cloath, and applied to the biting of Crocodiles, it is ſouerain, ſo that the place affected were well patted withal, and preſ-
F ſed hard before. Moreouer, good it is to be taken in honied vineger againſt the dangerous Opium. Brought into a cataplaſme with honey and meale, it is of great effect to rectifie any diſlocation of bones which be out of joint: and in that ſort it taketh downe all tumors or ſwelling bunches. A collution or fomentation therewith allayeth the tooth-ache: and a liniment alſo made with it and Roſin worketh the ſame effect. For all theſe accidents beforenamed,

* *Hyſſopo.* Some read *Oeſypo.*

* *Sale & ſole.*

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the fome of ſalt found ſticking to rockes, or floting vpon the ſea water, is thought to be more G
conuenient than any other ſalt. But to conclude, any ſalt whatſoeuer it is ſerueth well for thoſe medicines that be ordained either to take away laſſitudes, or to enter into thoſe ſope balls that are to poliſh the skin and to rid it from wrinkles. If either a bœufe or mutton be rubbed with ſalt, it will kill the skab or mange in them: for which purpoſe alſo they giue it vnto the ſayd beaſts for to lick: and more particularly it is ſpurted out of ones mouth into horſes eies. Thus you ſee what may be ſaid as touching ſalt.

Chap. X.

¶ *Of Nitre, and the ſundry kindes thereof. The manner of making Nitre. The medicines and obſeruations to it belonging.* H

I May not put off the treatiſe concerning the nature of Salnitre, approching ſo neer as it doth to the nature of ſalt: and the rather am I to diſcourſe of it more exactly, becauſe it appeares euidently, that the phyſitians who haue written thereof were altogether ignorant of the nature and vertues of it: neither is there any one of them who in that point wrote more aduiſedly, than *Theophraſtus*. In the firſt place this is to be noted, That among the Medians there is a little Nitre ingendred in certain vallies which in time of drought became all hoary & grey therwith and this they call Halmirrhaga. There is found alſo ſome of it in Thracia neere vnto the Citie Philippi, but in leſſe quantitie, and the ſame all fouled and bewraied with the earth, & this they name Agrion. In times paſt men haue practiſed to make Nitre of oke wood burnt; but neuer I
was there any great ſtore of it made by that deuiſe: and long it is ſince that feat was altogether giuen ouer. As for waters & fountains of nitre, there be enow of them in many places, howbeit the ſame haue no aſtringent vertue at all. But the beſt Nitre is found about Clytæ in the marches of Macedonie, where there is moſt plenty thereof, and they call it Chalaſtricum: White and pure it is, and commeth neereſt to the nature of ſalt. And verily a lake or meer there is ſtanding altogether vpon nitre, and yet out of the midſt thereof there ſpringeth vp a little fountain of freſh water. In this lake there is ingendred Nitre about the riſing of the Dog-ſtar for 9 dayes together: then it ſtayeth as long, and beginneth freſh againe to flote aloft: and afterward giues ouer. Whereby it appeareth that it is the very nature of the ſoile that breedeth it; for knowne K
it is by experience, That if it ceaſe once, neither heat of Sun nor ſhoures of rain wil ſerue or do any good. Beſides, there is another wonderful propertie obſerued in this lake, that notwithſtanding the foreſaid ſpring or ſource do ſeeth and boile vp continually, yet the lake neither riſeth nor ouerfloweth. But during thoſe nine daies wherein it is giuen to yeeld Nitre, if there chance to fall any ſhoures, they make the nitre to taſte the more of ſalt. And ſay that the North-Eaſt winds do blow the while, the Nitre is nothing ſo good and cleere, by reaſon of the mud mingled withall, which thoſe winds do raiſe. Thus much of Nitre naturall.

As for artificiall Nitre, great aboundance there is made of it in Egypt, but far inferiour in goodneſſe to the other: for brown and duskiſh it is, and beſides full of grit and ſtones. The or- L
der of making it is all one in manner with that of ſalt, ſauing onely that in the ſalt houſes they let in ſea water, wheras into the boiling houſes of Nitre they conuey the water of the riuer Nilus. Whiles Nilus doth riſe and flow, you ſhal haue the ſaid nitre-pits or workhouſes dry: but as it falleth and returneth again toward the channel, they are ſeen to yeeld a certaine moiſture, (which is the humor of nitre) and that for the ſpace of forty daies together, with no reſt or intermiſſion between, as there is about Clytæ in Macedonie aboueſaid. Moreouer, if the weather be diſpoſed to rain during that time, they imploy not ſo much of Nilus water to the making of Nitre. Now ſo ſoon as the ſaid humor beginneth to thicken, preſently they gather it in all haſt, for feare it ſhould reſolue again and melt in the nitre pits. In this nitre, as well as in ſalt, there is to be found between whiles a certaine oleous ſubſtance; which is held to be ſingular good for the farcin and ſcab of beaſts. The nitre it ſelfe is laid vp and piled in heaps, where it hardeneth and continueth a long time. But admirable is the nature of the lake Aſcanius, and of certaine M
fountaines about Chalcis, where the water aboue, and which floteth vppermoſt, is freſh and potable; but all beneath and vnder it toward the bottome is nitrous. The lighteſt of the Nitre and the fineſt is reputed alwaies the beſt; and therefore the fome and froth therof is better than any other part. And yet for ſome vſes the groſſe and foule ſubſtance is very good, and namely,

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A for the ſetting of any colour vpon cloth, and eſpecially the purple die. As touching the vertues of nitre it ſelfe, & how it is imploied many wayes, I wil write in place conuenient. But to return againe to our nitre pits, and their boiling houſes, there be of them very faire and goodly in Ægypt. In old time, they were wont to be about Naucratis and Memphis only; but thoſe at Memphis were nothing ſo good as the other: for there, the nitre lying vpon heapes, groweth to the hardnes of a ſtone; inſomuch, as by this means, you ſhall ſee mountaines thereof like rockes. Of this nitre they vſe to make certain veſſels to vſe in the houſe: and many times they melt it with ſulphur, & boyle it ouer the coles for to giue a tincture vnto the ſaid veſſels: look alſo when they would keep any * thing long, they vſe this ſtone-nitre. Moreouer, there be in Ægypt other nitre pits alſo, out of which there iſſueth a reddiſh kind of nitre, reſembling the color of the earth B from which it ſweateth and ooſeth out. As for the ſome of nitre (which is commended for the beſt of all) the antient writers were of opinion, that it could not be made but when the dew fell: at what time as the nitre pits were (if I may ſo ſay) great bellied and ful of nitre within, but not ready to be deliuered thereof: and therefore if they be neare (as it were) to their time, there can no ſuch froth be gathered, notwithſtanding the dew do fall. Others there be of this minde, that the ſaid vppermoſt coat or cruſt aloft, is ingendred by reaſon of the fermentation of the ſayd nitre: but the modern Phyſitians of late daies haue thought and taught, That * Aphro-nitrum is gathered in Aſia, and found within certain ſoft and gritty caues diſtilling out of rocks: [Theſe caues becauſe they be vaulted and arched ouer head, the inhabitants call * Cochlacas] which afterwards they doe drie in the Sun: and the beſt is thought that of Lydia. The true marke to C know good ſal-petre, is to be very light in hand, exceeding brittle, & eaſie to crumble; inclining alſo much to the colour of purple: this is brought from thence to vs in trochiſchs. As for the Ægyptian Aphro-nitre or Salt-petre, it comes in veſſels wel pitched, becauſe it ſhould not melt and reſolue into water. Thoſe veſſels alſo beforenamed, ought to be throughly dried & dreſſed in the Sun. As for nitre, the beſt is choſen by theſe marks; namely, if it bee paſſing fine & cleare, but withal, ſpongious & very ful as it were of pipes and holes. Many do ſophiſticat it in Ægypt with quicklime; but this deceit may be eaſily found by the taſt: for the good and true ſal-nitre will ſoone melt and diſſolue at the tongues end; whereas the other that is not right, pricketh and biteth in the mouth: moreouer, if it haue a ſprinckling of lime among, it carrieth a ſtrong ſmell with it. When it is calcined in ſome earthen pot, it ought to be well couered with a lid, leſt it D leap or fly out; otherwiſe, in the fire it ſelfe, it ſparkleth not nor leapeth forth: neither groweth any thing els in thoſe places where ſal-nitre is ingendred, wheras in ſalt-pits gräſſe commeth vp. As for the Sea, what a number of liuing creatures breedeth it? and what plenty of reike and weeds beſides? And not only by this argument appeareth it, that there is more acrimonie and ſharpneſſe in ſal-nitre than in ſalt, but alſo herein, That no ſhooes will abide the nitre pits, but preſently fret and weare; for otherwiſe wholſome they be and ſoueraign for the eies: neither was it euer ſeen, that any men who handled theſe pits of nitre, and wrought therein, were euer blind. Moreouer, this commodity they haue, That if a man come thither hauing a ſore or vlcer vpon him, the ſame will ſoone be healed vp and skinned cleane: but if one chance to bee wounded or hurt there, long it will be ere he be cured thereof. Salnitre prouoketh ſweat, if the body be annointed with it and oile together; aud it maketh the skin ſoft and tender. That which is called E Chalaſtræum, ſerueth in lieu of ſalt, in making bread, whereas the Ægyptian nitre is vſed with radiſhes, for it maketh them more tender. As for cates and meats, if they bee powdred withall, they will look white and be worſe for it: whereas all woorts either for pot or ſallad, will ſeeme the greener.

To come now vnto phyſick and the medicinable vertues of ſalnitre: hot it is of temperature, and doth extenuat; biting beſides and aſtringent: a great drier it is, & doth exulcerat. In regard of which qualities, imployed it is in thoſe accidents which require either drawing to the exterior parts, or to be diſcuſſed and reſolued: ſuch alſo as need ſome gentle mordication, or would be lightly extenuated; as meazils, ſmall pocks, wheals, and pimples. Some for this purpoſe, firſt F make it red hot in the fire, and then quench it with ſome aſtringent wine: which done, they beat and reduce it to pouder, and therewith rub and chauſe the body in the bains, without any addition of oyle to it: mixt with the pouder of dried flour-de-lis, & incorporat in green oile oliue, it repreſſeth immoderat ſwets: a liniment made therwith & figs together, doth extenuat the films in the eies; and the aſperity of the eie-lids it doth ſubtiliat: the ſame operation hath it beſides,

* As dead bodies.

* This is our Sal-petre.

* Some reade *Colytas.*

if it be ſodden in wine cuit to the conſumption of the one halfe: and ſo is it good for the ſpots G
that ariſe in the eies. The decoction of nitre boiled within the rind of a pomegranat in wine cuit, cure the ſore nails and the raggedneſſe thereof: and reduced into an ointment with honey, it clareth the eie-ſight: a collution made therof, ſodden in wine with pepper, eaſeth the tooth-ach if the mouth and gums be waſhed therewith: ſo doth the decoction thereof with leeks. Burn or calcine nitre into pouder, it maketh an excellent dentifrice for blacke teeth, and reduceth them again to their naturall whiteneſſe: annoint the head with nitre & Terra Samia incorporat together in oile, it killeth the lice and nits that breed therein: diſſolued in wine, and poured into the ears that run attyr, it cureth them: dropt into them with vineger, it eateth and conſumeth the filthy excrements of that part: conueied dry into the ſaid ears, it diſcuſſeth the ſinging & ringing therein. A liniment made of nitre and fullers earth, of each a like weight, incorporat with vine- H
ger, taketh away the foule morphew, if the skin be annointed therwith: mixed with roſin, or with raiſons of white grapes ſtamped ſtones and all, it draweth vncoms and fellons to an head, and breaks them: reduced into an ointment with ſwines greaſe, it preſerueth the genitoirs from inflammation, & cureth them: good likewiſe for the meaſils and ſmall pocks which break out in all parts of the body: put roſin thereto, and incorporat them both in a liniment with vineger, it healeth the biting of a mad dog, ſo it be taken betimes at the beginning: and in this manner, it cureth alſo the ſores occaſioned by the ſting of ſerpents, eating vlcers, which conſume to the bone; ſuch likewiſe as be corroſiue and apt for putrefaction, ſo it be mixed with quick-lime and tempered with vineger. Stamp nitre with figs, and bring it into the form of a cataplaſme or liniment, it doth much good for the dropſie: the ventoſities cauſing wringings and painful gripes I
of the belly, it diſcuſſeth, if the decoction thereof be drunk; namely, when to the weight of one dram, it is ſodden with rue, dill, or cumin. Annoint their bodies all ouer who are weary, with nitre, oile, and vineger, you ſhal ſee how effectuall it is to refreſh them and driue away their laſſitude. Rub and chauſe both hands and feet, with nitre & oile wrought together, is ſingular good againſt quaking and ſhiuering cold: giuen with vineger, eſpecially in a ſwet, to thoſe who are painted with the jaundiſe, it repreſſeth the itch that troubleth them: if a man be poiſoned with taking venomous muſhroms, he ſhall find means to auoid the danger thereof by drinking nitre in oxycrat or vineger & water mingled together. Hath one ſwallowed down the hurtfull fly Bupreſtis? let him take a draught of ſal-nitre in water, it wil ſaue him, for it cauſes vomit: to thoſe that haue drunk buls bloud, it is vſually giuen with the ſpice Laſer: incorporat with honey and K
cow milk, it healeth the breaking out and the exulcerations in the face. Torrifie nitre vntill it begin to look blacke, beat it then to pouder and caſt the ſame vpon a raw place that is burnt, it wil take out the fire and skin it vp again: for the pain of the belly and the kidnies, for the ſtiffeneſſe and ſtarkneſſe of the lims, the grieuance alſo of the ſinews, it ſerueth well in a clyſtre: lay it to the tongue with bread, it is ſoueraigne for the palſie or reſolution of the ſinews: it helpes thoſe that be ſhort-winded, if they take it in a Ptiſan, or with husked barly. The floure of nitre incorporat in Galbanum, and the roſin called terpentine, of each an equall weight, and reduced into a lohoch, ſo as the patient ſwallow down the quantity of a Bean at once, cures an old cough

Vritur, not Coquitur, ex Dioſc.

* Burn or calcine nitre, temper it afterwards with liquid pitch or tar, and giue it to drink, it cu- L
reth the ſquinancy. The floure of nitre incorporat with the oile Cyprinum, makes a pleaſant liniment to annoint the body withal in the Sun, for the gout or any paine of joints: drunk in wine it doth exterminat and driue away for euer, the jaundiſe; it ſcattereth and diſcuſſeth ventoſities; it ſtoppeth bleeding at the noſe, if the patient receiue into the noſthrils the vapour of it out of boiling water: mixed well with alume, it riddeth away an itch: foment or bath the arme pits duly euery day therewith in water, it correcteth the ranke ſmell thereof. Make a liniment or cerot of nitre and wax tempered together, it healeth the vlcers occaſioned by fleam: after which maner it is good alſo for the ſinews. Being injected by a clyſtre, it helpeth the flux of the belly, proceeding from a feeble ſtomack. Many Phyſitians haue giuen direction to annoint the body all ouer with ſal-nitre and oile, before the cold fits of agues: which ointment ſerueth likewiſe for the leproſie, and the vnſeemly ſpots or freckles that blemiſh the skin. To ſit in a tub of nitre within M
the bains, & therwith to bath the body, is a ſoueraigne thing for thoſe that haue the gout, be in conſumption, and either draw backward with the crampe, or ſtretched and plucked ſo ſtrait and ſtiffe therewith, that they ſeem all of one entire piece. Sal-nitre, if it bee boiled together with ſulphur, turneth to be as hard as a ſtone.

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Chap. XI.

¶ *The nature of Spunges.*

MAny ſorts there be of Spunges, according as I haue ſhewed already more amply in my treatiſe of water-beaſts, and thoſe eſpecially of the Sea, and their ſeuerall natures: howbeit ſome writers diſtinguiſh them after another manner, into male and female: for ſome of them they haue thought to be of the male ſex, to wit, thoſe which haue ſmaller pipes or concauities, and thoſe growing thicker and more compact, whereby they ſucke vp more moiſture; and theſe, our delicat and dainty people, die in colours, and otherwhile giue them a purple tincture. Others they count of the femal ſex, namely ſuch as haue bigger pipes, & the ſame running throughout one continuity without interruption. Of the male kind, ſome be harder than others, which they call Tragos; the pipes whereof are the fineſt, and ſtand thickeſt together. There is an artificiall deuiſe to make ſpunges look white; to wit, if the ſofteſt and tendreſt of them be taken whiles they be freſh in ſummer time, and ſo bathed & ſoked wel in the ſome of ſalt: after which they ought to be laid abroad in the moon-ſhine, to receiue the thick dew or hoary froſts (if any fall) with their bellies vpward into the aire, I meane that part whereby they cleaue faſt to rocke or ſand where they grew, that therby they may take their whitening. That ſpunges haue life, yea and a ſenſible life, I haue proued heretofore; for there is found of their bloud ſettled within them. Some writers report, that they haue the ſenſe of hearing, which directs them to draw in their bodies at any ſound or noiſe made, and therwith to ſquize out plenty of water which they contained within; neither can they eaſily be pulled from their rocks, and therefore muſt be cut away; wherby they are ſeen to ſhed a deale of bloud, or that which reſembleth bloud very neer. Many do prefer the Spunges growing in places expoſed to the North-wind, before any other: neither doe any hold and maintaine longer in any place their owne breath, as Phyſicians doe hold; who affirme, that for this regard they be good for our bodies, namely, if wee entermingle their breath with ours by application: for which purpoſe, the freſher taken and the moiſter they be, the better they are thought: but this their operation is leſſe perceiued, in caſe they be wet in hot water, and ſo applied: likewiſe if they be ſoked in any vnctuous liquor, or bee laid vpon any part of the body anointed. This alſo is obſerued by them, that the thickeſt of them, to wit, ſuch as haue the leaſt pipes, ſticke not ſo hard to a place as others. As touching the ſofteſt and fineſt ſpunges, called Penicilli, if they be applied vnto the eies after they haue beene ſoked in honyed wine, they do allay and bring down any ſwelling in them. The ſame are abſterſiue and ſingular good to clarifie and cleanſe the eies that be giuen to bleerednеſſe: but thoſe (I ſay) ought to be of the fineſt and ſofteſt kind. For to ſtay the violent flux of rheumaticke humors into the eies, there is nothing better than to apply ſpunges of any ſort with oxycrat, that is to ſay, vinegre and water: but with vinegre alone actually hot, they be ſingular for the head-ach: and otherwiſe, any ſpunge that is freſh gotten, doth diſcuſſe, mollifie, & mitigat. Old ſpunges do conglutinat and ſouder any wounds. There is a generall vſe of all ſpunges, to wipe and mundifie any place, to foment and bath withall: to keep off the aire alſo and to couer it after fomentation, vntill another medicine be made ready for to be laid on freſh. Moreouer, they be deſiccatiue, & therfore if they be applied to rheumatick and moiſt vlcers, and namely in old folke, they dry vp the ſuperfluous humors that find a way thither: neither is there any thing ſo fit for to foment a fracture or green wound, as ſpunges. Alſo, when any part of the body is cut off or diſmembred, what is ſo handſome to ſuck and ſoke away the bloud quickly, (that the cure may be throughly ſeen, & the order thereof) as a ſpunge? Furthermore, ſpunges themſelues ſerue to be laid to wounds, ſomtime drie and ſomtime dewed or ſprinkled with vinegre, one while wet in wine, another while moiſtened with cold water, and all to defend them from inflammation: but if they be bathed in raine water, and ſo applied to members new cut, they will not ſuffer them to ſwell and impoſtumat. They are beſides laid vſually to the ſound parts, where no skin is broken, if there be any hidden and ſecret humor that runs vnder the place, and puts it to paine and trouble, ſuch as needeth to be diſcuſſed or reſolued: alſo to impoſtumes, if they be firſt annointed with boiled hony. In like manner, for the paine of the joints they are proper to be applied, one while wet in vinegre with ſalt, another while dipped in vinegre and water: and if the gout be hot, they would be laid to ſoked in water only. The ſame ſpunges ought for the diſſoluing of hard calloſities, to be wet with

ſalt water: & againſt the ſting or prick of ſcorpions, with vinegre. In the cure of wounds, ſpunges G
may be vſed in ſtead of vnwaſhed greaſie wooll, ſomtimes applied with wine and oile, and ſom-
times alſo with the ſaid wooll: this only is the difference, That ſuch wooll doth mollifie, wher-
as ſpunges do reſtrain and ſmite back: and yet a facultie they haue, to fetch out and ſucke away
the filthy excrements, attyr, and quitter, that gather in ſores and wounds. They may be bound
about the body of thoſe that haue a dropſie, either drie, or elſe wet in warme water or vinegre;
according as need requireth, either to goe gently to worke, or to couer and dry the skin. Ouer
and beſides, good it is to apply ſpunges to thoſe accidents and infirmities of the body which
require euaperation; namely, if they be well ſoked and throughly wet in hot water, and then
preſſed and ſtrained between two tables or bords. After which manner, they are good to be laid
to the ſtomack; and in a feauer, againſt extremitie of heat. For thoſe that be troubled with the H
oppilation or hardnes of the ſpleen, there is not a more effectual remedy, than to apply ſpunges
to the place affected, wet in oxycrat or vinegre & water together: like as for ſhingles and S. *An-
thonies* euill, with vinegre only. But in this application of them, conſideration muſt be had that
they couer the ſound parts alſo round about as well as the other. Spunges wet in vinegre and
cold water, ſtaunch any flux of bloud. If there be any place of the skin blacke and blew, vpon a
freſh or new ſtripe, lay thereto ſpunges well drenched in ſalt water, changing them often one af-
ter another, and it ſhall recouer the naturall colour againe: in which order, they bring down the
ſwelling of the cods, and allay their paine. Being hacked and cut ſmall, they ſerue to good pur-
poſe for to be laid to the biting of mad dogs; ſo that eftſoones and euer and anon they be wet
and refreſhed with vinegre, cold water, or hony good ſtore, one with another. The ſpunges of I
Africke or Barbarie being burnt or calcined, doe make ſoueraigne aſhes for to be drunke with
juice of vnſet leeks in cold water (ſo there be put vnto a draught thereof, a quantitie of ſalt) by
ſuch as caſt or reach bloud vpward at the mouth. The ſame aſhes reduced into a liniment, ei-
ther with oile or vinegre, and ſo applied as a frontall to the forehead, driue away tertian agues.
Theſe African ſpunges haue this peculiar qualitie, to diſcuſſe any tumors, if they be applied to
them well ſoked in oxycrat or water and vinegre mixed together. The aſhes of any ſpunges
whatſoeuer, burnt together with pitch, ſtaunch the bleeding of any wound: and yet ſome there
be who in this caſe burn thoſe only with pitch which are of a groſſe and looſe making, and not
ſo compact as the reſt. Moreouer, for the accidents of the eies, ſpunges are many times burnt
and calcined, in an earthen pot vnbaked: and the aſhes which come thereof, do much good alſo K
vnto the pilling and aſperitie of the eie-lids, the excreſcenſe of fleſh, and whatſoeuer in thoſe
parts needeth aſtriction, or otherwiſe to be vnited, ſowdred or incarnat: and for theſe effects, it
is much better to waſh the ſaid aſhes. Furthermore, ſpunges, in friction and rubbing of craſie
bodies, may well ſtand in ſtead of currying combs, and courſe linnen cloaths: beſides, they ſerue
right handſomely and fitly, to couer and defend the head againſt the extreame heat of the Sun.
Moreouer, the ignorance of our Phyſitians, is the cauſe that all ſpunges be reduced to two only
kinds, to wit, vnder the name of Affrican, which be of more tough and firme ſubſtance; and the
Rhodiacke, which are ſofter, and therefore meet for fomentations. At this day the tendreſt and
moſt delicat ſpunges are found about the walls of the citie Antiphellus. And yet *Trogus* wri-
teth, that about Lycia, the ſofteſt ſpunges called Penicilli, do grow in the deep ſea, and namely L
in thoſe places, from whence other ſpunges beforetime had been plucked and taken away. Fi-
nally, *Polybius* doth report, that if ſpunges be hung about the teſter or ſeeling of a bed ouer
ſicke perſons, they ſhall take the better reſt and repoſe all night for it. Now is it time for me to
returne vnto Beaſts of the Sea, and other creatures liuing and bred in the waters.

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THE XXXII. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proem.

¶ *Medicines taken from liuing creatures of the Sea.*

HAuing so far proceeded in the discourse of Natures historie, that I am now arrived at the very height of her forces, and come into a world of Examples, I cannot chuse but in the first place consider the power of her operations, and the infiniteneſſe of her secrets which offer themselues before our eies in the Sea: for in no part elſe of this vniuersall Frame, is it possible to obserue the like majestie of Nature: in so much as we need not seeke any further, nay we ought not to make more search into her diuinitie, considering there cannot be found any thing equall or like vnto this one Element, wherein she hath surmounted and gone beyond her owne selfe in a wonderfull number of respects. For first and formost, Is there any thing more violent than the Sea, and namely, when it is troubled with blousting winds, whirlpuffs, stormes, and tempests? Or wherein hath the wit of man beene more employed (seeke out all parts of the whole world) than in seconding the waues and billowes of the Sea, by saile and ore? Finally, Is there ought more admirable, than the inenarrable force of the reciprocall tides of the Sea, ebbing and flowing as it doth, wherby it keepeth a current also, as it were the streame of some great riuer?

Chap. I.

¶ *Of the fish Echeneis, and her wonderfull propertie. Of the Crampe-fish Torpedo, and the Sea-hare. The wonders of the Red sea.*

THe currant of the Sea is great, the tide much, the winds vehement and forcible; and more than that, ores and sails withall to helpe forward the rest, are mighty and powerfull: and yet there is one little sillie fish, named Echeneis that checketh, scorneth and arresteth them all: let the winds blow as much as they will, rage the stormes and tempests what they can, yet this little fish commandeth, their fury, restraineth their puissance, and maugre all their force as great as it is, compelleth ships to stand still: A thing, which no cables, be they neuer so big and strong, no ankers, how massie and weightie soeuer they be, sticke they also as fast and vnmouable as they will, can performe. Shee bridleth the violence, and tameth the greatest rage of this vniuersall world, and that without any paine that she putteth her selfe vnto, without any holding and putting backe, or by any other meanes, saue only by cleauing and sticking fast to a vessell: in such sort, as this one small and poore fish, is sufficient to resist and withstand so great power both of sea and nauie, yea and to stop the passage of a ship, doe they all what they can possible to the contrary. What should our fleets & armadoes at sea, make such terrets in their decks and forecastles? what should they fortifie their ships in warlike maner, to fight from them vpon the sea, as it were from mure and rampier on firme land? See the vanity of man! alas, how foolish are we to make all this adoe? when one little fish, not aboue halfe a foot long, is able to arrest and stay perforce,

perforce, yea and hold as priſoners our goodly tall and proud ſhips, ſo well armed in the beake-head with yron pikes and braſen tines; ſo offenſiue and dangerous to bouge and pierce any enemie ſhip which they do encounter. Certes, it is reported, that in the nauall battell before Actium, wherein *Antonius* and *Cleopater* the queene were defeated by *Auguſtus*, one of theſe fiſhes ſtaied the admirall ſhip wherein *M. Antonius* was at what time as he made all the haſt & means he could deuiſe with help of ores, to encourage his people from ſhip to ſhip, and could not prevaile, till he was forced to abandon the ſaid admirall and go into another galley. Meane-while the armada of *Auguſtus Cæſar* ſeeing this diſorder, charged with great violence, and ſoone inueſted the fleet of *Antony*. Of late daies alſo, and within our remembrance, the like happened to the roial ſhip of the Emperour *Caius Caligula*, at what time as he rowed back and made ſaile from Aſtura to Antium; when and where, this little fiſh detained his ſhip, and (as it fell out afterward) preſaged an vnfortunat euent thereby: for this was the laſt time that euer this Emperor made his returne to Rome: and no ſooner was he arriued, but his owne ſouldiers in a mutinie fell vpon him, and ſtabbed him to death. And yet it was not long ere the cauſe of this wonderful ſtay of his ſhip was knowne: for ſo ſoon as euer the veſſell (and a galliace it was, furniſhed with fiue banks of ores to a ſide) was perceiued alone in the fleet to ſtand ſtill, preſently a number of tall fellows leapt out of their ſhips into the ſea, to ſearch about the ſaid galley, what the reaſon might be that it ſtirred not? and found one of theſe fiſhes ſticken faſt to the very helme: which being reported vnto *Caius Caligula*, he fumed and fared as an Emperour, taking great indignation that ſo ſmall a thing as it, ſhould hold him back perforce, and checke the ſtrength of all his mariners, notwithſtanding there were no fewer than foure hundred luſty men in his galley that laboured at the ore all that euer they could to the contrary. But this prince (as it is for certaine known) was moſt aſtonied at this, namely, That the fiſh ſticking onely to the ſhip, ſhould hold it faſt; and the ſame being brought into the ſhip and there laid, not worke the like effect. They who at that time and afterward ſaw the fiſh, ſay, it reſembled for all the world a ſnaile of the greateſt making: but as touching the forme and ſundry kindes thereof, many haue written diuerſly, whoſe opinions I haue ſet downe in my treatiſe of liuing creatures belonging to the waters, and namely in the particular diſcourſe of this fiſh. Neither do I doubt but all the ſort of fiſhes are able to doe as much: for this wee are to beleeue, that Pourcellans alſo be of the ſame vertue, ſince it was well knowne by a notorious example, that one of them did the like by a ſhip ſent from *Periander* to the cape of Gnidos: in regard whereof, the inhabitants of Gnidos doe honour and conſecrate the ſaid Porcellane within their temple of *Venus*. Some of our Latine writers do call the ſaid fiſh that thus ſtaieth a ſhip, by the name of Remora.

As touching the medicinable properties of the ſaid ſtay-ſhip Echeneis or Remora (call it whether you will) a wondrous matter it is to ſee the varietie of Greek writers: for ſome of them (as I haue ſhewed before) do hold, that if a woman haue it faſtened either about her neck, arme, or otherwiſe, ſhe ſhal go out her full time if ſhe were with child: alſo, that it will reduce her matrice into the right place, if it were too looſe and ready to hang out of her body. Others againe report the contrary, namely, That if it be kept in ſalt and bound to any part of a woman great with child and in paine of hard trauell, it will cauſe her to haue preſent deliuerance; for which vertue, they call it by another name *Odinolion. Well, howeuer it be, conſidering that mighty puiſſance which this fiſh is wel known to haue in ſtaying ſhips, who wil euer make doubt hereafter of any power in Nature her ſelfe, or of the effectuall operation in Phyſicke, which ſhe hath giuen to many things that come vp by themſelues. But ſay we had no ſuch euidence by the example of this Echeneis; the Cramp-fiſh Torpedo, found and taken likewiſe in the ſame ſea, were ſufficient alone to proue the might of Nature in her workes, if there were nothing elſe to ſhew the ſame: for able ſhe is to benum and mortifie the arms of the luſtieſt & ſtrongeſt fiſhers that be; yea and to bind their legs as it were, how ſwift and nimble ſoeuer they are otherwiſe in running: and how? euen by touching only the end of a pole, or any part of an angle rod, which they hold in their hands, although they ſtand aloft and a great way from her. Now if we cannot will nor chuſe, but muſt needs confeſſe by the euident inſtance of this one fiſh, that there is ſome thing in nature ſo penetrent and powerfull, that the very ſmell only or breath and aire proceeding from it, is able thus to affect, or infect rather the principall lims and members of our bodie; what is it that we are not to hope for and expect from the vertue of all other creatures that Nature (through her bounty) hath endued with medicinable power for the remedy of diſeaſes?

* i. Looſe-throws, or eaſe-paine.

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And in very truth, no leſſe admirable be the properties which are reſpected of the ſea-Hare: for to ſome a very poyſon it is, taken inwardly either in meat or drinke: to others againe, the onely aſpect and ſight thereof is as venomous. For if a woman great with child chance but to ſee the female only of this kind, ſhe ſhal ſenſibly therupon feele a ſicke wambling in her ſtomacke, ſhe ſhall preſently fall to vomiting, and anon to vntimely labour, and the deliuerie of an abortiue fruit. But what is the remedy? Let her weare about her arme in bracelets, any part of the male, which ordinarily for this purpoſe is kept dry and hardened in ſalt, ſhee ſhall paſſe theſe dangerous accidents. The ſame fiſh is hurtfull alſo in the ſea, if it be touched only. Neither is there any liuing creature that feeds vpon this fiſh, but it dieth theron, vnleſſe it be the ſea Barbell only: al the harme that this fiſh catches by eating of it is this, that the fleſh is more tender by that
B means, and nothing ſo faſt as it was before; beſides, the meat is more vnpleaſant, & not ſo much ſet by in the market, nor bought vp by Caters for the kitchin. If man or woman chance to be infected by eating of the ſea-Hare, they preſently ſmell and ſent of the ſaid fiſh; and this is the firſt ſigne and argument to proue that they be impoiſoned therby; howbeit, they die not immediatly but may continue ſo many daies as the ſaid Hare liued after it came out of the ſea. And therfore (according as *Licinius Macer* hath left in writing) this poyſon hath no ſet and prefinit time wherin it killeth any body. As touching the ſea-Hares among the Indians, it is conſtantly affirmed, that taken they cannot be aliue; and that by way of counterchange, a man is their poyſon: for if he do no more but touch one of them with his finger in the ſea, it will forthwith die: And it is ſaid withall, that far bigger he is there than in other ſeas: like as all other beaſts whatC ſoeuer. King *Iuba* in thoſe bookes which he wrote to *C. Caſar*, ſonne to *Auguſtus* the Emperor, as touching the hiſtorie of Arabia, ſaith, That their limpins, muskles and cockles, are ſo big in thoſe ſeas, that one of their ſhels wil contain a meaſure of three hemines. Alſo that there haue been known Whales ſix hundred foot long, and carrying a breadth of three hundred and ſixtie foot, to haue ſhot themſelues out of the ſea into the great riuers of Arabia: the fat of which Whales, (like as the greaſe of all other ſea-fiſhes there) is much ſet by and ſought after by merchants, who in all thoſe quarters vſe it for to annoint their trauelling cammels, for to driue away the Breeſe or Gad Bee from them, which indeed cannot abide the ſmell of that oile.

Chap. II.

D ¶ *The naturall wit, docilitie, and gentleneſſe of ſome fiſhes. Alſo where they be ſo tractable, that they will take meat at a mans hand. Finally, in what part of the World fiſhes giue anſwer by way of Oracle.*

WOnderfull in my conceit is the wit and ſubtiltie of ſome fiſhes, if all bee true which *Ouid* the Poët hath reported of them, in that booke of his which he intituled Halieuticon: For firſt and formoſt he ſaith, That the Goldenie *Scarus* perceiuing himſelfe to be taken in a weire, or encloſed within a wicker-net or leape, neuer ſtriueth to get out again with the head forward, or to thruſt his muffle betweene the oiſiers, for feare he ſhould be caught by
E the head: but turning his taile vnto them, keepeth ſuch a flapping therwith, that he makes himſelfe way by that means, and ſo breakes forth of priſon backward. Now, in caſe whiles he ſtrugleth and laboureth thus to get out, another Coldenie that is without happen to eſpie him thus a priſoner, the ſame will take hold with his mouth of his fellowes taile, and helpe to get him forth out of the ſaid net, which he endeauoures to break through. Alſo that the ſea pike Lupus, when he ſeeth that hee is compaſſed about with nets, maketh a furrow with his taile into the ſands, wherin he coucheth and lieth cloſe, that when the fiſhers draw their nets vnto them, they may glide and paſſe ouer him. As for the Lampreis, knowing what a ſmooth, round, and ſlipperie back they haue, they make no more adoe, but ſeeing themſelues within the net, get between the very maſhes, which with their much winding and wrigling they will wreſt wider and wider
F ſtill, vntill they be gotten through and eſcaped.

The Pulpe fiſh or Pourcuttell, maketh at the very fiſhooks which hee ſearcheth after, and thoſe he biteth not at, but claſpeth hard and gripeth round about with his clees and armes that he hath: and neuer letteth he his hold goe, vntill hee hath gnawne and eaten off the bait cleane, vnleſſe before he haue done, he perceiue that he is like to be drawne vp out of the water by the angle;

angle. The Mullet alſo knoweth that the bait hath a hook within it, neither is he ignorant that G
it is laid for to entrap and catch him; howbeit, ſo greedie he is thereof by nature, that he neuer
linneth beating it with his taile, vntill he hath ſhaken off the meat from the hook. The Pike is
not ſo wary and prouident in forecaſt, as to keep himſelfe from the danger of the hooke: but of
great ſtrength and force he is, when he bethinketh himſelf and repenteth that he was ſo fooliſh
as to be caught: for no ſooner hangs he by the hooke, but he runneth and girdeth with it in his
mouth too and fro, forcing and wreſting his wound ſo wide, vntill the ſaid hooke which had faſt
hold on him before, be fallen out of his mouth againe.

The Lampreies deuoure the hookes, yea, they gobble in and ſwallow more than ſo, vntil they
come to the very lines, which they ſet their ſharpe teeth vnto, and neuer reſt vntill they haue
fretted and gnawne them aſunder. And *Pytheas* is mine Authour, who writeth thus of them be- H
ſides, That if they find themſelues to be once vpon the hooke, they turne their bodies and writh
with their backs, as knowing the ſame to be armed with trenchant and keene edged fins like
kniues, & ſo with their very ſharp chine & fins cut the lines atwo. *Licinius Macer* writes of Lam-
pries, that they be all of the female ſex onely, and doe conceiue by ſerpents engendring with
them, as I haue heretofore obſerued: which is the cauſe, that fiſhes lure them with hiſſing like
vnto ſerpents, and by that meanes call them forth of their holes and catch them. Hee ſaith
**Lactatu* ſome reade *jactatu* others *luctatu*, i. with much ſtriuing and ſtrugling. moreouer, That they will feed fat with *milk: and if a man giue them a good knock with a cud-
gill, they will not die thereupon: rap them onely with a Fennell ſtalke or ſome ſuch wand, you
ſhall ſee them dead forthwith. And verily it is held for certaine, that their life lieth in the taile:
which if it be ſmitten, they are very ſoone gone and bereft of vitall breath: ſtrike them vpon the I
head, you ſhall hardly and with much adoe kill them.

There is a fiſh called a Raſoir: looke whatſoeuer toucheth it, ſenteth preſently of yron.

Confeſſed it is and knowne for certaine, that the Lompe, Paddle, or ſea-Owle, a fiſh called in
Latine Orbis, of all others hath the tougheſt and hardeſt body. Shaped round it is without
skales: a man that looketh vpon it, would ſay it were all head.

Trebius Niger mine authour affirmeth, That ſo often as the ſea Kite is ſeene to lance himſelfe
and flie without the water, it threateneth tempeſts.

The Sword-fiſh, called iu Greeke Xiphias, that is to ſay in Latine Gladius, *i.* a ſword, hath a
beake or bill ſharpe pointed, wherewith hee will driue through the ſides and plankes of a ſhip,
and bouge them ſo, that they ſhall ſinke withall. The experience whereof is ſeene in the ocean, K
neere vnto a place in Mauritania called Gotta, which is not farre from the riuer Lixos. And the
foreſaid writer *Trebius Niger* reporteth, That the ſea-cats or Cuttle fiſhes, called Loligines, wil
flie out of the ſea, and ſettle vpon ſhips in ſuch multitudes, that they force them vnder water
and ſo drowne them.

The Emperour *Ceſar* had many faire houſes of pleaſure in the country, where he kept fiſhes
that would ordinarily come to hand and take meat. Our anceſters made no ſuch maruell there-
at, namely, that they ſhould be ſo gentle & tractable in ſmall ſtewes and fiſh-ponds where they
be kept to feed: but they haue written the like of fiſhes in great lakes and ſtanding pooles: And
namely, about Florus, a caſtle in Sicilie, not farre from Syracuſa: likewiſe, in a well or fountaine
of *Iupiter Labradius*, there be yeels wil take meat at ones hand, & theſe wear ear-rings alſo about L
them. Semblably, in Chios neere vnto the chappell of the ancients or elders called Veterum
Delubrum: as alſo in a certaine ſpring of Meſopotamia, called Cabura, whereof I haue alreadie
written. As for the fiſhes which keep about Myræ in Lycia, within the wel or fountain of *Apollo*,
called Curius, they wil ſhew themſelues of purpoſe to giue preſage & foreknowledge of things
to come: and the manner is, to call them to the top of the water with three whiſtles, of a fife or
ſuch like pipe. The order is among thoſe that come to be reſolued by them in ſome future e-
uents, to caſt peeces of fleſh to them: if they ſnatch the ſame & ſwim away therwith, it is a lucky
and fortunat ſigne, preſaging a good iſſue of their affaires about which they come; but in caſe
they reject the ſame, & flurt the meat from them with their taile, that is an ominous token, and
foreſheweth ſome vnhappie euent to follow. About Hierapolis, a citie in Syria, the fiſh within M
the lake or poole of *Venus*, obey the voice of the wardens or ſextons who haue the keeping of her
chappell there; and orderly they come at their call, garniſhed with their ornaments of gold a-
bout them: they will abide to be ſcratched and clawed, they will wag their tailes like a dog in a
fawning and flattering maner; nay, they will gape with their mouths wide open, and ſuffer them

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A to thruſt their hands or fingers into them. At Stabianum neere to the rocke or cape of *Hercules*, the blacke-tailed ruffles or ſea-breames, which the Greekes name Melanuri, if a man caſt crums of bread into the ſea to them, they will catch the ſame, and ſcud away withall: throw them any other meat or bait with a hooke in it, they will not once come neer therto. Neither are theſe to be reckoned among the leaſt wonders and in the laſt place, namely, That about the Iſland Pele and the citie Clazomenæ, all the fiſh that is, taſteth bitter: Contrariwiſe, thoſe that keep about the rock Scylla in Sicilie be ſweet, as alſo at Leptis in Affrick, Eubœa, and Dyrrhachium. Again ſome are ſo ſalt, that they may well be taken for ſalt fiſh that hath lien in brine or pickle, to wit, neer the Iſlands Cephalenia, Ampelos, and Paros: likewiſe about the rockes and cliffes of Delos: and yet in the Bay or hauen of the ſaid Iſland, their meat is ſweet ynough. This difference
B in the taſt of fiſh, proceedeth no doubt from the diuerſitie of their food. Moreouer, *Apion* ſaith, That the greateſt of all other fiſhes is the Mole-bout, which the Latines call Porcus, the Lacedæmonians Orthragoriſcos; and that when he is taken, he will grunt like an Hog, whereupon it ſhould ſeeme he tooke the name Porcus. But as touching the foreſaid accident of the variety in the taſt of fiſh, how ſome be ſweet, others ſalt, that it ſhould be a naturall thing (and therefore the more to be maruelled at) appropriat to certaine places, it may appeare by this inſtance, which fitly proueth the ſame: For take the ſalt fiſh of Italie, what kind ſoeuer you will, for certaine it is knowne, That at Beneuentum they may be made freſh againe, as if they had neuer beene ſalted.

That ſea-fiſh hath been vſed at Rome from time to time, and euer ſince the very foundation
C of the citie, it may appeare by the teſtimony of *Caſſius Hemina*: which I will ſet downe word for word as touching that point, in this very place. King *Numa* (quoth hee) ordained, That fiſhes without skales ſhould not be bought vp by Caters for the furniſhing of any ſolemne funerall feaſt. By which inhibition his policie and purpoſe was, that the great dinners, as well publique as priuat; the feaſtiuall ſuppers alſo which were kept at the ſhrines of the gods, ſhould not be ſo coſtly and chargeable: for feare alſo leaſt the caters who made prouiſion for ſuch ſumptuous feaſts, ſparing for no coſt, nor ſticking at the price were it neuer ſo high, might foreſtall the markets and buy the ſame vp beforehand.

As touching Corall, we (here at Rome) ſet not more by the Indian orient pearles (whereof I haue written at large in place conuenient) nor eſteem them at a greater price than thoſe Indians
D do our Corall. And verily, if we deeme aright, it is the opinion and perſuaſion of people only, that ſetteth the price of theſe and ſuch like things. True it is verily, that there is Corall bred in the red ſea, but blacker it is than that which we haue: likewiſe in the Perſian gulfe, & that is named Iace. Howbeit, the beſt ſimply is that which is found in the gulfe of Marſiles in France, about the Iſlands Stœchades: as alſo in the narrow ſeas of Sicily, toward Helia and Drepanum. There is alſo therof growing at Grauiſcæ, & juſt before Naples in Campaine. But the reddeſt of all other, ſoft & tender withall, and therfore moſt commodious, is engendred about Erythræ in Barbary. Corall reſembles a buſh or ſhrub in forme, & of it ſelfe within the water, is of color greene. The berries therof vnder the water be white and ſoft: no ſooner be they taken forth, but preſently they wax hard and turne red: much like both in ſhape and in bigneſſe to the grains or
E fruit of the gentle garden Corneil tree. It is ſaid that this plant whiles it grows and is aliue, if a man touch it neuer ſo little, becomes as hard immediatly as a ſtone. The fiſhers therfore to preuent that inconuenience (as knowing the nature therof) either pluck it vp with their nets, or cut it with ſome ſharpe edged yron tooles: which is the cauſe that it is commonly called *Curalium, as ſome make interpretation of the word. The reddeſt Corall is taken to be the beſt: the ſame alſo branched moſt, is not rough and ragged vnder the hand to feele to, or ſtone-hard: ſolide likwiſe it is and maſſie, not void and hollow. The berries or beads which it beareth, is of no leſſe account & price with the men of India, than the Indian pearls with our coſtly dames here. And verily among them, their Wiſards, Southſaiers, Prieſts, & Prophets, haue a religious opinion of them, and attribute great holineſſe to the vſe thereof; as being perſuaded, that whoeuer
F weare them, ſhall be ſecured againſt all perils and dangers whatſoeuer; and therefore a ſpeciall reckoning they make of them, as wel in regard of beautie as deuotion. Before that it was known in what eſtimation Coral was with the Indians, the Frenchmen adorned & ſet out their ſwords, targuets, ſhields, morrions, and head peeces therewith: But ſince time that there was a vent into India of this commoditie ſo vendible, great ſcarſitie there is of it, and hardly ſhall a man meet with

*ἀπὸ τῆς κείρω, becauſe it is cut and ſhorne (as it were) in the ſea.

with any Corall,euen in that part of tne world where it growes naturally. The branches of Co- G
rall hanged about the neckes of infants and young children, are thought to be a ſufficient pre-
ſeruatiue againſt all witherafte and ſorcerie. Calcined by fire,and ſo reduced into aſhes or pou-
der and giuen to drinke in water,it helpeth thoſe who are troubled with the wringing paines of
the belly, the griefe of the bladder,and the diſeaſe of the ſtone. The like effect it hath if it be
drunk in wine;or if the patient haue a feauer vpon him,in water for to procure ſleep. This would
be noted, that Corall doth withſtand the power of fire, and long it is before it be burned and
reduced into aſhes: But ſurely a ſingular medicine it is,ſo prepared and vſed,inſomuch as(by re-
port) if a man keepe to it ſtill and continue it long, the ſame will conſume the hardneſſe and
ſchirroſitie of the ſpleen. The pouder of Corall is ſoueraign for ſuch as reach and caſt vp bloud
at the mouth. The aſhes enter into many mixtures and medicines for the eies : for aſtringent H
they be,and cooling withall. Hollow vlcers and fiſtulaes they incarnat and fill vp againe with
new fleſh. Skars and cicatrices they do extenuat.

If I ſhould ſpeak of the repugnancie and contrariety in Nature (which the Greekes call an-
tipathie) found in many creatures, there is not to be ſeen in the whole world any thing more ve-
nomous and aduerſe to plants than the Puffens or Forke fiſh of the ſea,called Paſtinaca:for as I
heretofore noted;it hath a pricke in the tail, which is able to kill any trees that be pierced or
wounded withall. And yet a concurrent and enemie this hath, which doth perſecute & plague
it,and namely the Lamprey called Galeos; ſo eager is it and greedy of the venome and poyſon
of that fiſh. There be other fiſhes alſo which it pnrſueth, but thoſe Puffins eſpecially : and no
Weazill hunteth more after ſerpents. In ſumme, whoſoeuer be hurt or wounded by the ſaid I
Puffin,this Galeos is a preſent remedy; ſo is the Barble alſo,and the gum Laſer or Benjoin.

Chap. III.

¶ *Of certaine creatures which liue as well vpon the land as the ſea. Of Caſtoreum, or the genetoirs of a Bever : the medicinable vertues thereof,and other properties obſerued therein.*

THe power and majeſtie of Nature is very conſpicuous and viſible, euen in thoſe creatures
alſo which liue indifferently on land and in the water: and namely in the Beuers, which
commonly the phyſicians call Caſtores, like as their ſtones alſo Caſtorea. Some hold,that K
theſe Beuers when they be neer driuen and preſſed by hunters,and at the point to be taken, bite
off their owne ſtones. But *Sextius*, who hath written moſt exactly in Phyſicke, denieth it flatly.
He ſaith moreouer, that theſe cods be ſmall,knit ſhort and truſſed vp,ſo as they ſtick cloſe vnto
the chine bone,and canot poſſibly be taken from the beaſt but the life goes away withall. By his
ſaying alſo they are ſophiſticated,and the kidnies of the Beuer which are big,be obtruded and
foiſted to vs many times in ſtead of their ſtones,which indeed are neuer found but very little &
ſlender. Furthermore he affirmeth, That they be not the right ſtones of a Beuer when they are
ſeene without a twofold burſe or skin,which no liuing creature hath beſides. In theſe two bags
there is found (ſaith he) a certain oleous liquor,which ordinarily is kept & preſerued with ſalt:
And therefore among other marks to know falſe and ſophiſticat Caſtoreum,is this, If you ſee a L
paire of cods,hanging (as it were) knit together by one ſtring in one bag. And yet the beſt may
be falſified by the fraud and cunning of ſuch as put gum therto with ſalt Ammoniack,becauſe
the true Beuers ſtones ought to beare the colour of Ammoniacke; to be encloſed alſo within
their ſeuerall tunicles;and to lie in a certaine liquor reſembling cereous hony, ſtanding much
vpon wax;to haue a ſtrong and rank ſmell,a bitter,hot and fiery taſt;and withall,apt to crumble
between the fingers. The beſt Caſtoreum & moſt effectuall,is brought out of Pontus and Gala-
tia:next to it is that of Affrick or Barbarie. The vertue of Caſtoreum is to prouoke ſneeſing,if a
man hold it to his noſe and ſmell thereto. If the head be annointed with Caſtoreum incorporat
with oile of roſes and Harſtrang,it will procure ſleep:ſo will it do alone by it ſelfe giuen in wa-
ter to drinke:in which reſpect,proper it is for the frenſie. And yet the perfume or vapor there- M
of will raiſe thoſe that lie in a ſleepy lethergie:like a ſuffumigation*or peſſarie put vp into the
natural parts of women,is ſoueraign for the riſing of the mother;in which fit they lie as it were
in a trance and out of the world. Coſtoreum giuen to the weight of two drams with Peniroyall
in water to drink,moueth womens monthly ſicknes,and forceth the afterbirth to com away. It

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* *Vulvarum, exanimationes Vel ſubdici.* We practiſe the contrary.

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helpeth thoſe that haue the dizzineſſe or ſwimming of the braine; bee drawne backeward with cramps, tremble and ſhake; are plucked with ſpaſmes and convulſions, diſeaſed in their ſinews; troubled with the Sciatica, ſick of a weak and feeble ſtomacke that keepeth nothing which it takes, and lie bed-rid of the palſie, if they be annointed throughly therewith in parts conuenient. Or if Caſtoreum be reduced into pouder, and together with the ſeed of Agnus Caſtus, be incorporat with vineger or oile roſat, and ſo reduced to the conſiſtence of hony: which being taken as an electuarie, is ſingular not only for the former maladies, but alſo for the falling ſicknes: and if the ſame be giuen in drink, it diſcuſſeth ventoſities, appeaſeth the wrings and torments of the belly, yea, and repreſſeth the malice of any poiſons. But in this caſe of poiſons it ought to be prepared, mixed, and vſed diuerſly, according to the ſundry kinds thereof: for againſt the venome of ſcorpions it would be drunk in meere wine: to withſtand the danger of the Phalangia and ſuch venomous ſpiders, it ought to be giuen in honied wine eſpecially, if the intention bee to caſt vp the ſaid poyſons by vomit; or with Rue, if the drift and purpoſe be to hold and retain all ſtill. To preuent the perill of the Lizards or venomous wormes Chalcidicæ, it ſhould be taken in Myrtle wine. Againſt the ſting of the horned ſerpent Ceraſtes, or the fierie vermine Preſter, with Panax or Rue in wine. But generally for all other ſerpents, the only liquor to receiue it in, is wine. Two drams at a time is thought to be a ſufficient doſe of Caſtor it ſelf, in any of theſe compoſitions: but of other drugs that are put thereto, there ought to be a proportion of the half, to wit, one dram. Moreouer, a peculiar vertue it hath, if it be drunk in vineger, to reſiſt the venomous gum Ixias, growing vpon the plant Chamæleon: but ſoueraigne it is for the poiſon of the herb Aconitum or Libard bane, in milk or faire water. Againſt white Ellebore it is good to be taken with mead of honied water and ſal-nitre. Alſo, if it be pulueriſed and incorporate with oile, a ſoueraigne remedy it is to eaſe the tooth-ach, if it be dropped or poured into the eare of the ſame ſide where the griefe is: but better it were to temper it with the juice of Poppy for pain of the ears. Mix Caſtoreum with the beſt hony of Attica, and bring it into an eie-ſalue, it is paſſing good for to cleare the ſight. Giuen in vineger, it ſtaieth and keepeth downe the yex or hicquet. Furthermore, the vrine of a Beuer is a good counterpoiſon: and therefore it goeth to the making of Antidotes and preſeruatiues. But the beſt way of keeping it (as ſome think) is in the owne bladder.

Chap. IIII.

¶ *Of the Tortoiſe. The medicines taken from many fiſhes, and diuers obſeruations to them pertaining.*

SEmblably, Tortoiſes liue in two places, and haunt both land and waters. Their effectual properties beſides are ſuch as deſerue like honour, as well in regard of their manifold vſes in ſumptuous buildings (whereby they carry a great price) as of their ſundry vertues and operations which Nature hath giuen them: now of theſe Tortoiſes there be many kinds, to wit, land Tortoiſes, and ſea Tortoiſes. Tortoiſes found in muddy waters & marraies: Tortoiſes alſo that keep in freſh riuer water; and theſe laſt named, ſome Greeke writers call Emydes. The fleſh of land Tortoiſes ſerueth wel in perfumes & ſuffumigations, for ſo it is as good as a countercharm to put by and repell all ſorceries and inchantments: a ſingular counterpoiſon alſo to reſiſt any venome whatſoeuer. Great ſtore of Tortoiſes be found in Affricke: where they vſe to cut away the head and feet, and then employ the reſt of the body as a ſoueraigne remedy againſt all poyſons. If their fleſh be eaten together with the broth wherein they are ſodden, it is held to be very good for to diſcuſſe and ſcatter the wens called the kings euil, & to diſſipat or reſolue the hardneſſe of the ſwelled ſpleene: likewiſe to cure the falling ſicknes, and to driue away the fits thereof. The bloud of Tortoiſes clarifieth the eyeſight & diſpatcheth the cataracts, if they be anointed therewith. Many incorporat the ſaid bloud in meale, and keep them reduced into the forme of pils; which when need requireth, they giue in wine as a preſent help for the poyſon of all ſerpents, ſpiders, and ſuch like, yea, and the venome of toads. The gall of Tortoiſes mixt with Atticke hony, ſerueth to cure the fiery redneſſe of the eyes, if they be annointed therewith: The ſame is good to be dropt into the wounds inflicted by the prick of ſcorpions. The aſhes of the Tortoiſe ſhel incorporat with wine and oile and ſo wrought into a ſalue, heals the chaps & vlcers of the feet. The skales ſcraped lightly from the vpper part of the ſhell giuen in drink, coole

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the heat of luſt. And I maruell the more hereat, becauſe the pouder of the whole ſhell indeed G
hath the name to heat the appetite and deſire to venery. As touching their vrin, I hold it impoſ-
ſible to meet with the ſame, vnleſſe it be found in their bladder when they be cut in twaine.
And yet the Magitians hold this to be one of the moſt rare things in the world, and that which
worketh wonders, ſaying it is right foueraigne for the biting or ſtinging of the Aſpis, howbeit,
much more effectuall (ſay they) if punaiſes be mixed with it. Tortoiſe egs dryed and hardened,
are good to be applied to the wens called the kings euill; to any exulcerations, cauſed either by
extreame cold or burning: The ſame being ſoft, are ſingular to be ſupped off in the paine of the
ſtomacke.

The fleſh of ſea Tortoiſes, mixed and incorporat with the fleſh of frogs, is a ſoueraign reme-
dy againſt the venome of Salamanders: neither is there any thing more contrary in nature to H
the Salamander, than is the Tortoiſe. The bloud of the ſea Tortoiſe ſerueth to recouer haire in
places naked and bare, by occaſion of the diſeaſe called Alopecia: it riddeth away likewiſe the
skales and dandruffe, yea, and healeth all the ſcalds of the head: but the ſame muſt dry vpon the
head, and be waſhed off at leiſure by little and little. If it be dropped into the eares with breaſt-
milk, it eaſeth their paine. If it be chewed or eaten, tempered with the fine floure of wheat, it cu-
reth the falling ſicknes. But for the better preparing and ordering of this bloud in theſe caſes,
it ought to be mingled in 3 hemines of vineger, one hemine of wine put thereto, with an additi-
on alſo of Barly meale, and the ſame tempered with vineger: of which compoſition the patient
is to take and ſwallow down the quantity of a bean euery day, morning and euening; and after
ſome daies paſt, in the euening only: this bloud is likewiſe ſingular to be dropt into the mouths I
of thoſe that be fallen of the epilepſie or falling ſicknes, ſo the fit be but ſmal, for which purpoſe
they muſt be forced to gape. In caſe of cramps & convulſions, the ſame is to be clyſterized with
Caſtoreum. Whoſoeuer rubbeth their teeth with Tortoiſe bloud, and vſe ſo to do a whole yeare
together, ſhal be freed from the pain therof for euer. If it be mixed with barly groats, and giuen
to them that draw their winde ſhort, it diſcuſſeth the cauſe of that difficulty; yea, helpeth ſuch
as cannot breath but ſitting vpright. The gall of Tortoiſes cleareth the eieſight, it doth ſubtili-
at the cicatrices and films that grow in the eyes: the inflammation of the tonſils it repreſſeth,
aſſuageth the ſquinancy, and helpeth all the accidents of the mouth: and more particularly, a
property it hath to heale the cankerous and corroſiue ſores there breeding: as alſo to cure the
inflammation of the genitoirs. The ſame conueied vp into the noſthrils, fetcheth thoſe again to K
themſelues who are in a fit of the falling ſickneſſe, and ſetteth them vpright vpon their feet.
And with the ſlough of a ſerpent incorporat in vineger, and dropt into the ears that run, it is an
excellent medicine to ſcoure them. Some put a Bœufes gall among, together with the broth of
the Tortoiſe fleſh ſodden, and an addition of a ſnakes ſlough in equall quantity; but firſt they
ſeeth the ſaid Tortoiſe a long while in wine. Moreouer, the gall of Tortoiſes mixed with hony,
amendeth all the imperfections incident to the eies, if they bee annointed therewith: yea, if it
were a cataract, the gall of a ſea Tortoiſe tempered with the bloud of a riuer Torroiſe and wo-
mans milk, riddeth and ſcoureth it away. The ſaid gall is very proper to giue a yellow die or co-
lour to womens haire. Againſt the poiſon of Salamanders, ſufficient it is to drinke the broth or
decoction of a Tortoiſe. L

As touching thoſe kind of Tortoiſes that liue and breed in mud and moorie waters, which I
reckoned to be the third kind: broad they be and flat in the backe as well as vpon the breſt: nei-
ther doth their ſhell ariſe arch-wiſe in manner of a vault: theſe are ilfavored to ſee to, and yet as
loueleſſe as they be, they are not without ſome medicinable vertues and remedies: for take 3 of
them and throw them into a fire made of Vine twigs, or their cuttings; when their ſhels or co-
uers begin to diuide in ſunder and part one from another, pull them haſtily out of the fire, pluck
the fleſh out of their ſhels, ſeeth them in a gallon of water, with a little quantity of ſalt put
thereto; thus let them boyle vntill a third part of the liquor be conſumed: This broth or deco-
ction if it be drunken, is thought to be ſoueraign for thoſe that be troubled either with the pal-
ſie, gout, or paine of joints. The gall of theſe Tortoiſes purgeth alſo phlegmaticke humours and M
corrupt bloud out of the body. And after that this medicine hath don his part, and ſet the belly
in a looſeneſſe, a draught of cold water knitteth it againe, and ſtaieth all.

To come now vnto the fourth kind of Tortoiſes which keepe in freſh riuers, they affoord an
excellent remedy for to rid away a quartane ague, in this manner prepared and vſed: firſt take
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A certain tortoiſes, diuide one piece from another & take out the fat within, ſtamp the ſame with the herb called houſleek and Lineſeed; incorporate all into an ointment, let the patients be annointed therewith before the fit commeth, all ouer the body ſaue the head only, and when they be well lapped with cloathes about them, giue them ſome hot drink: This (I ſay) is thought to be a ſoueraigne medicine againſt the ſaid ague. But a tortoiſe to be applied for this purpoſe, ought to be taken at the full of the moone, becauſe there may be more fat found in her. Mary the ſick body muſt not be anointed (men ſay) at any time but two daies after. The bloud of tortoiſes which are of this fourth kinde, if it be dropped on the head by way of embrochation, appeaſeth the head-ach that vſeth to return and come often by fits: the ſame alſo applied vnto the kings euill cureth it. Some are of opinion, that the better to let tortoiſes bloud, and according
B to art, (as requiſit it is in ſuch caſes of phyſick) they ought to be laid along with their bellies vpward, and ſo their heads to be cut off with a braſen knife: and then they giue order to receiue the bloud in a new earthen veſſel neuer occupied before: which bloud is excellent to anoint the ſhingles, or any kind of S. *Anthonies* fire: likewiſe the running ſcalls of the head, and alſo werts. The ſame Authors doe promiſe and warrant, That with the dung of all ſorts of Tortoiſes, the biles called Pani may be diſcuſſed and reſolued. And although it be incredible and not to be ſpoken, yet ſome there be who haue written, That any ſhip maketh way more ſlowly at Sea, that carrieth within it the right foot of a Tortoiſe. And thus much ſhall ſuffice as touching Tortoiſes.

And now from henceforth as touching the fiſhes and other water creatures, I meane to diſ-
C courſe of them and their medicinable properties, according to euerie diſeaſe which they ſerue for. And yet I am not ignorant, that many a one will be deſirous to know all at once, the vertues of each liuing creature, which indeed maketh them to ſeem more admirable a great deal. Howbeit this courſe that I meane to take, I hold to be more expedient and profitable to this life; namely, to ſet downe receits and remedies digeſted by order, of each diſeaſe and malady: conſidering that one thing may be good for this Patient, and another for that; and ſome medicines are ſooner found and gotten than others.

Chap. V.

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¶ *Sundry medicines and receits taken from thoſe liuing creatures which conuerſe in waters, and the ſame digeſted orderly into diſeaſes. And in the firſt place, ſuch as be appropriat to poyſons and venomous beaſts.*

HEretofore haue I written of venomous honey, and the countries wherein ſuch is gathered and made: now if any be poiſoned therewith, good it is to eat the fiſh called Arata, *i.* a Guilt-head. Or ſay one be glutted with pure hony, or haue taken a ſurfet thereof, being of all other moſt dangerous, wherby the appetite is clean gon, and the ſtomack oppreſſed with
E crudities: for to preuent farther danger, *Pelops* ordained for a ſpecial antidote or defenſatiue the meat of tortoiſes boiled, after the head, feet, and taile were cut away. But *Apelles* in this caſe attributeth as much to Scincus. Now what this Scincus is I haue declared heretofore. Shewed alſo I haue oftentimes in many places, how venomous the monthly fleurs of women are, but yet (as hath bin ſaid already) the fiſh called a Barble is a ſingular remedy againſt the poiſon ther-of: like as, both applied outwardly in a liniment, and taken inwardly as meat, it is a ſoueraigne thing for the prick of the Puffin or Forkfiſh, of Scorpions as well of the land as the ſea, and of the malicious ſpiders Phalangia. The aſhes of a Barble freſh taken and calcined, is a generall counterpoiſon; but more particularly it helpeth thoſe who haue eaten deadly Muſhroms. Alſo it is ſaid, That if the fiſh called a Sea-ſtar, wel beſmeared and anointed all ouer with the bloud
F of a Fox, be faſtned to the lintell, or hanged to the braſen naile or ring of a dore, it will put by all charmes, ſorceries, and witchcrafts, that none ſhall come into the houſe; or if any doe, yet they ſhall not worke any harme. As for the pricke or ſting of ſea-dragons and ſcorpions, a cataplaſme of Sea-ſtars fleſh applied thereto healeth them: ſo it doth alſo the venomous bit of ſpiders. In ſum, the broth of their decoction is thought to be a ſoueraigne remedie againſt all

manner of poiſons; whether it be that a man haue taken it by the mouth, or be ſtung and bitten G
by any venomous beaſt.

As touching fiſhes kept in ſalt, they are not without their medicinable vertues: for to eat ſalt fiſh is very good for them who are ſtrucken with ſerpents, or otherwiſe bitten or ſtung by any venomous beaſt, ſo they drink to it eftſoons pure wine of the grape, and withal be ſure to caſt vp again by vomit toward euening their foreſaid meat which they did eat that day. The ſame ſalt fiſh more peculiarly ſerueth for them who haue bin hurt and wounded with the venomous Li-
*or Chalcidica. zard * Chalcis, the horned ſerpent Ceraſtes, or the venomous horn-fretters called Sepes: being otherwiſe ſingular to heale thoſe who haue bin ſmitten with the ſerpent Elops, or bitten with the thirſty tooth of the worme Dipſas: but if a man be pricked by the Scorpion, good it is for him to feed fully of ſaltfiſh, howbeit in no wiſe to vomit the ſame vp again, but rather to indure H
the drineſſe & thirſt occaſioned thereby: and many hold, that it is a proper remedy to apply to the ſore a cataplaſm made of the foreſaid ſaltfiſh. Verily againſt the biting of Crocodils there is not thought to be a more preſent and effectual remedy, than it. But to grow vnto particulars, Sprots ſalted haue a ſpecial propertie to heal the biting of the beetle or venomous fly Preſter: alſo in caſe a man be bitten with a mad dog, it is very good to lay ſalt fiſh vnto the ſore; yea although the wound were not cauteriſed with a red hot iron, nor the patients body emptied by a clyſtre, this cataplaſm alone of ſaltfiſh is thought ſufficient to cure it: the ſame ſoked in vineger ſerues alſo to be laid vnto the place that is hurt with a ſea dragon. Of the ſame operation
*Cybium. and effect is a * ſquare piece or canton of the fiſh Tuny ſalted and condited. And ſince I haue named the ſea-Dragon, this would be noted, That himſelf outwardly applied, is a remedie for I
the venom inflicted by the prick or fin of his ridge bone, wherwith his manner is to ſtrike: yea & his very brains alſo, if you take nothing els, are as effectual. The decoction of ſea frogs ſodden in wine and vineger, is a ſouerain drink for all poiſons, but eſpecially for the venome of the hedge toad and ſalamander. As for the frogs of riuers and freſh waters, if a man either eat the fleſh or drink the broth wherin they were ſodden, he ſhal find it very good againſt the poiſon of the ſea-hare, or the ſting of the ſerpents abouenamed; but more particularly againſt the prick of ſcorpions they would be boiled in wine. Moreouer, *Democritus* ſaith, That if a man take out the tongue of a ſea frog aliue, ſo that no other part thereof ſtick therto, & after he hath let the frog go again into the water, apply the ſaid tongue vnto the left pap of a woman while ſhe ſleepes, in the very place where the heart beateth, ſhe ſhall anſwer truly and directly in her ſleepe, to any K
interrogatorie or queſtion that is put vnto her. But the magitions tell more wonders than ſo of the frog, which if they be true, certes frogs were more commodious & profitable to a Commonwealth, than all the poſitiue written lawes that we haue. For they would make vs beleeue, That if the husband take a frog and ſpit her (as it were) alength vpon a reed, ſo as it go in at the skut or mature behinde, and come forth againe at the mouth, and then pricke the ſaid Reed or broch in the menſtruall bloud of his wife, ſhe ſhall neuer haue minde afterwards to entertaine any adulterers, but deteſt and loath that naughty kinde of life. Certaine it is, That if froggs fleſh be put within a net, or that a hooke be baited therewith, Purple fiſhes aboue all others wil come flocking thither. Moreouer, it is commonly ſaid, That a Frog hath a double liuer, the which ought to be layd before Ants, and looke which of the two lobes or flaps thereof they L
make vnto, and ſeeme to gnaw, the ſame is a moſt ſingular antidote againſt all poyſons whatſoeuer.

Some frogs there be that liue only among buſhes and in hedges, which thereupon we call in
*Our Toads. Latine by the name of * Rubetæ, and the Greeks term them Phrynos: the biggeſt they are of all other, with two knubs bearing out in their front like horns, and full of poiſon they be. They that write of theſe toads, ſtriue a-vie, who ſhal write moſt wonders of them: for ſome ſay, that if one of them be brought into a place of concourſe where people are in great number aſſembled, they ſhall be all huſht and not a word among them. They affirme alſo, that there is one little bone in their right ſide, which if it be thrown into a pan of ſeething water, the veſſel will coole preſently, and boile no more vntil it be taken forth again. Now this bone (ſay they) is found by M
this means: if a man take one of theſe venomous frogs or toads, and caſt it into a neſt of Ants, for to be eaten and deuoured by them, and looke when they haue gnawed away the fleſh to the very bones, each bone one after another is to be put into a kettle ſeething vpon the fire, and ſo

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A it will ſoon be known which is the bone, by the effect aforeſaid. There is another ſuch like bone (by their ſaying) in the left ſide; caſt it into the water that hath done ſeething, it will ſeeme to boile and waulme again preſently: this bone (forſooth) is called Apocynon: and why ſo? becauſe ywis, there is not a thing more powerfull to appeaſe and repreſſe the violence and furie of curſt dogs than it. They report moreouer, that it inciteth vnto wanton loue; and yet natheleſſe if a cup of drinke be ſpiced therewith, it will breed debate and quarrels among thoſe that drinke thereof: alſo, whoſoeuer carrieth it about him, ſhall be prouoked to fleſhly luſt: and contrariwiſe, if the bone in the right ſide bee likewiſe vſed, it will coole as much, and take downe the pride of fleſh and heat of concupiſcence. Others there be who are of opinion, that if it bee but worne about one, either hanging to the necke, or faſtened vnto any other part of the body, infol-
B ded within a little piece of a new lambs skin, it will cure a quartane ague, or any other feuer beſides. The ſame alſo repreſſeth the affection of loue. Moreouer, they beare vs in hand, that the milt of theſe toads is a counterpoiſon againſt their owne venome: but the heart (ſay they) is much more effectuall.

There is a certaine kind of ſerpent or Snake haunting the water, called in Latine Coluber; the fat and gall of which Serpent, if they haue about them who vſe to hunt after Crocodiles, it is wonderfull (ſay they) how they be armed and defenced againſt them, for they wil not attempt to turne againe vpon the hunters and giue any aſſault: and yet of greater effect and force they ſhall finde it, in caſe there be incorporat withall, the pond-weed or water-ſpeeke called Potamogiton.

C The riuer Creifiſhes, if they be taken freſh, ſtamped and giuen in water to drinke, are ſoueraigne againſt all poiſons: ſo is their aſhes alſo a counterpoiſon; but more particularly againſt the ſting or pricke of Scorpions, if it be drunke in aſſes milke; or for default thereof, in goats milke, or any other whatſoeuer: but then the patient ought to drinke wine vpon it. And verily, ſo aduerſe and contrary are they vnto Scorpions, that if they be punned with Baſill into a certaine compoſition, it will kill them, if the ſame be but laid vpon them. Of the ſame force they are againſt the ſting or biting of any other venomous beaſt beſides, and more eſpecially of the pernicious hardiſhrew Scytale, of ſnakes, ſea-hares, and hedge-toads. Many there be who vſe to ſaue the aſhes of Creyfiſhes calcined, as a ſoueraigne remedy for all ſuch as be in danger to fall into the ſymptome of feartulneſſe to drink, incident to thoſe that are bitten by mad-dogs: ſome
D adde thereto the herbe Gentian, and giue both together in wine to drink: but if the ſayd ſymptome of Hydrophobie haue ſurprized them already, then the ſaid aſhes or powder ought to bee reduced (by the meanes of wine) into troſches or pils, which they preſcribe vnto their patients for to be ſwallowed downe. The Magitians proceed farther and affirme, that if a man take ten Creifiſhes and tie them all together with a good bunch or handfull of baſill, all the Scorpions that be thereabout, will aſſemble together to that one place: and they giue order, that if a man be hurt already with a ſcorpion, there ſhould be a cataplaſme made of them, or at leaſtwayes of their aſhes mixed with Baſill, and ſo applied to the place affected. The ſea-crabs are nothing ſo good of operation in all theſe cauſes, as the Land-crabs or Creifiſhes aforeſaid, according as *Thraſillus* mine Authour doth report. Howbeit, hee ſayth neuertheleſſe, that there are no ſuch
E enemies to ſerpents, as Crabs: and he affirmeth moreouer, That if ſwine be ſtung or hurt by ſerpents, they helpe and cure themſelues by feeding vpon ſea-Crabs onely, and ſeeke for no other helpe or remedie. Hee addeth furthermore and auoucheth, that ſerpents are ill at eaſe, yea and much tormented with paine when the Sunne is in the ſigne of the crab, called commonly Cancer.

To come now to the riuer ſhell-ſnailes: moſt certaine it is, that their fleſh, whether it bee raw or boyled, is ſingular good to reſiſt the venome of ſcorpions inflicted by their pricke or ſting: and ſome there be, who for to haue them in a readineſſe to ſerue in thoſe caſes, keep them in ſalt: and they ordaine them to be applied vnto the very ſore it ſelfe, occaſioned by their foreſayd ſting.

F As for the [blacke] fiſhes named Coracini, they are peculiar and appropriate vnto the riuer Nilus: howſoeuer my determination and purpoſe is to deliuer medicines profitable and beneficiall to all parts of the earth in general. Their fleſh is good to be applied vnto the ſores cauſed by ſcorpions.

The Sea-ſwine or Porpuis, hath pricky fins vpon his back, and thoſe are counted amongſt other venomous things that the ſea yeeldeth, putting them to much paine that are wounded or hurt thereby: but what help therfore? ſurely the very muddy ſlime that gathereth about the body of the ſame fiſh, is the onely remedy. G

The Sea-calfe, otherwiſe named a Seale, hath a certaine greace, wherewith it is good to annoint the face or viſage of thoſe, who by reaſon that they are bitten with a mad dog, are afraid to drink and cannot away with water: but it will worke the better, if there be mingled therewith the marrow of an Hyæna, the oile of the Maſtich tree and wax, that all may be reduced into a liniment.

As for the biting of a Lamprey, there is not a better thing to heal it than the aſhes of a lampreys head. The Puffin likewiſe or Fork-fiſh, cureth the wound that himſelfe inflicted; namely, if the place be annointed with his own aſhes, tempered with vineger, or mixt with the aſhes of any other fiſh. If a man would make meat of this fiſh, there ought to be taken out of the backe whatſoeuer is there found like to ſaffron: likewiſe the head all and whole would be taken away: and yet to maintain and keep the taſt thereof, the ſame muſt be waſhed but a little and no more than all ſhell fiſhes, for otherwiſe all the pleaſantneſſe in the eating would be clean gone. H

The miſchieuous venome of the ſea-hare, [called otherwiſe Imbriago] is quenched clean and mortified, by taking the fleſh of the ſea-Horſe any way in drinke.

Againſt the poiſon of deadly dwale, the meat of ſea-vrchins is ſoueraigne: & whoſoeuer haue drunk the dangerous juice of * Carpaſum, find much eaſe and help eſpecially by ſupping their decoction. To conclude, the broth of ſea-crabs likewiſe taken, is thought to be effectual againſt the foreſaid dwale named Dorycnium. I

*Named afterward *Opocarpaſum.*

Chap. VI.

¶ *Of Oiſters and Purple ſhell-fiſhes: of Sea-moſſe, or Reits: and the remedies which they afford.*

MOreouer, Oiſters haue a ſpeciall vertue to reſiſt the venome of the ſea-hare. And albeit I haue written already of oiſters, yet me thinks I cannot ſpeak ſufficiently of them, ſeeing that for theſe many yeres they haue bin held for the principal diſh & daintieſt meat that can be ſerued vp to the table. This fiſh loueth to haue freſh water, & joieth to be in thoſe coaſts where moſt riuers do run into the ſea: which is the reaſon, few of them are found in the deep, called therupon Pelagia; and thoſe thriue not, but are in compariſon very ſmall. Howbeit, they breed and ingender otherwhiles among rocks, & in ſuch holes which want the recourſe of ſweet waters; as for example, about Grynia and Myrina. They wax big and full according to the encreaſe of the Moon, as I haue ſhewed already in my treatiſe of creatures liuing in waters: but principally about the ſpring prime, when they be full of a certain humour or moiſture like vnto milk; and in thoſe ſhallow places where the ſun pearceth with his beams to the very bottom of the water. And this ſeemeth to be the reaſon, that in other coaſts and parts of the ſea, they bee found far leſſe: for ſhade hindreth their growth, and for want of the cheerfull ſight of the ſunne, they haue leſſe appetite to meat & feed not: moreouer, this is to be noted, that oiſters differ one from another in colour. In Spaine they be reddiſh, whereas in Sclauonia they be brown and duskiſh: but about the cape Circeij in Italy, their ſhell and fleſh both, be blacke. In what coaſt or countrey ſoeuer they be found, the beſt and principall thoſe are held to be, which be maſſie and compact; not glib and ſlippery without, with their owne humour and moiſture: and rather bee they choſen which are thicke, than broad and flat: ſuch alſo as bee taken neither in muddy nor yet in ſandie places, but vpon the ſound and firme ground in the bottome; hauing their white meat truſſed vp ſhort and round, and not flaggie as fleſh: the ſame not jagged and fringed about in the edges with ſmal ſtrings, but lying all cloſe vnited together as it were couched within the belly. They that be more expert and practiſed in the choice of oiſters, adde one marke more to chuſe them by, namely, if there be a purple thread or ſtring that compaſſeth them about the edges: and by this ſigne they know the oiſters of the beſt kind and race, from others, and call them by a proper name Calliblephara. Oiſters delight (as I may ſo ſay) to trauell into ſtrange quarters, to be tranſported from their naturall ſeat into other vnknown waters. Thus the oiſters bred about Brindis, and remoued from thence to the lake Auernus; and beeing there fed, are ſuppoſed K L M

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poſed by that means to keep ſtill their own natiue juice and humidity,and beſides to gain nouriture by the moiſture of Lucrinus. Thus much as touching the ſubſtance and body of Oiſters: it remaineth now to ſpeake of thoſe parts and tracts where the beſt oiſters are to be had; to the end that ſuch coaſts may not be defrauded of the honour due and appertaining vnto them. But of this point ſpeake I will by the tongue of another,and alledge his ſpeech who is thought to haue written hereof with beſt judgement of any man in our time. Theſe therefore bee the verie words of *Mutianus*,which I will put downe as followes: The oiſters(quoth he) of Cyzicum taken about the ſtraights of Callipolis,be the faireſt of all other,and bigger than thoſe which are fed or bred in the lake Lucrinus,ſweeter than thoſe of Brittain,more pleaſant in the mouth than the Edulian,quicker in taſt than thoſe of Leptis,fuller than the Lucenſian, drier than thoſe of
B Coryphanta,more tender than the Iſtrian,and laſt of all,whiter than the oiſter of Circeij: and yet there haue not bin found any oiſters either more ſweet or tender than theſe laſt named. The Hiſtoriographers who wrote of *Alexanders* voiages and exploits,haue left in writing, that within the Indian ſea there be oiſters found a foot long euery way. Moreouer, there is among vs a certain Nomenclator or Controller belonging to one of our prodigall and waſtful ſpendthrifts here at Rome,who haue giuen a proper name to certain oiſters,and termed them Tridacna: his deſire was by that ſignificant name, to expreſſe thus much,That they were ſo big as that they would make three good bits or mouths-full a piece.

Now proceed I will to their medicinable vertues,& before I go any further,in this very place ſet down how far forth they ſerue in phyſick.Firſt and formoſt, they be the only meat to com-
C fort and refreſh a decaied ſtomack:they recouer an appetite that was cleane gone. Bnt ſee the practiſe of our delicat wantons!to coole oiſters forſooth,they muſt needs whelm & couer them all ouer with ſnow;which is as much as to bring the tops of mountaines and bottom of the Sea together,and make a confuſed medley of all. This good moreouer do oiſters, that they gently looſe the belly,and make a body ſoluble: ſeeth the ſame with honied wine, they cure the Tineſme,which is an inordinat and bootleſſe deſire to the ſtoole without doing any thing,eſpecially if the tiwil(which is the place affected)be not exulcerat:oiſters likewiſe ſo prepared,clenſ and mundifie the vlcers of the bladder:eat them in their ſhel with their water,as they came cloſed and ſhut from the ſea,you ſhall find them wondrous good for any rheumes or diſtillations. The aſhes of an oiſter ſhell calcined,and incorporat with honey,be ſingular for the paine of the
D uvula,and aſſuage the inflammation of the tonſils:ſemblably,they repreſſe the ſwelling kernels that riſe vnder the ears,aſſuage the biles and botches called Pani,mortifie the hard tumours of womens breſts,and heal the ſores or ſcalls of the head,if they be applied accordingly with water:and in the ſame order prepared,they rid away wrinkles,and make womens skin to lie ſmooth and euen. Theſe aſhes are a ſoueraigne powder to be caſt vpon any place that is raw, by reaſon of a burne or ſcalding:and the ſame is commended for an excellent dentifrice to clenſe & whiten the teeth withall:temper the ſaid aſhes with vineger,it killeth the itch, and healeth angrie wheales;the ſmall pocks alſo and meazils. Oiſters punned raw and reduced into a cataplaſme, heale the kings euill and kibed heels,if they be applied accordingly.

Moreouer,the Shell-fiſhes called Purples,are very good againſt poiſon.

E As for the reits Kilpe,Tangle,& ſuch like ſea-weeds,*Nicander* ſaith,they are as good as treacle. Sundry ſorts there be of theſe reits,going vnder the name of Alga, as I haue already declared:ſome are long leafed,ſome large;others of a reddiſh colour;and ſome haue curled and jagleaues: the beſt ſimply of all others, be they of the Iſland Creta,which grow near the ground vpon rocks;and namely for to dye wooll & woollen cloth;for they ſet ſo ſure a colour,as neuer will ſhed or be waſhed off afterwards. *Nicander* giueth direction,to take the ſaid treacle in wine

Chap. VII.

¶ *Medicines againſt the ſhedding of haire. For to colour the haire of the head. Alſo againſt the accidents of the eares,teeth,and viſage.*

F

IF by occaſion of ſome infirmity the haire be fallen off or grow very thin,the aſhes of the fiſh called the Sea-horſ,mingled with ſal-nitre and ſwines greaſe,or applied ſimply with vineger, repleniſh the bare places with new haire,and cauſe it to come vp thick again:and for to apply ſuch medicines for this purpoſe,the pouder of a cuttle bone prepareth the skinne well before-

*Muris marini hand. Alſo the aſhes of the ſea-Tortoiſe incorporat with oile: of a ſea-vrchin likewiſe burnt and G
calcined fleſh and all together: as alſo the gall of a ſcorpion, be appropriat medicines to recouer haire that was loſt. In like maner take the aſhes of 3 frogs burnt together aliue in an earthen pot, meddle them with hony, it is a good medicine to cauſe haire to grow: but the operation will be the better, in caſe the ſame be tempered with liquid pitch or tar. If one bee diſpoſed to colour the haire of the head black, let him take horſe-leeches which haue putrified and been reſolued together in ſome groſſe red wine for the ſpace of 60 daies, he ſhall find this to be an excellent medicine. Others there be who giue order, to put as many horſe-leeches as a ſextar will hold, in two ſextars of vineger, and let them putrifie within a veſſell of lead as many daies together; and when they be reduced into the form of a liniment, to annoint the haire in the ſunſhine for the ſame purpoſe. And *Sornatius* attributeth ſo much power vnto this compoſition, that vn- H
leſſe they that haue the annointing of the haire with it hold oile in their mouths all the while, their teeth alſo (by his ſaying) who haue the doing of it, wil turn black. The aſhes of Burrets or Purples ſhels incorporat in hony, ſerue paſſing well in a liniment to heale ſcald heads: and the pouder of the foreſaid fiſh ſhels (although they be not burnt and calcined) tempered with water, is as good for the head-ach. Of the ſame operation is Caſtoreum, incorporat with Harſtrang in oile roſat. The fat or greaſe of all fiſhes whatſoeuer, as well thoſe of the ſea as riuers, beeing diſſolued in oile and tempered in honey, is ſoueraigne for to cleare the eyes: and of the like effect is Caſtoreum applied with hony. The gal of the fiſh Callionymus, healeth the cicatrices
*i. Looking vp to heauen or ſcars that ouergrow the skin about them: and the ſame eateth & conſumeth the excreſcence of ſuperfluous fleſh in the corners of the eies. And verily there is not a fiſh that hath more gall I
than it, as teſtifieth *Menander* the Poet in his comedies: the ſame fiſh is otherwiſe called * Vranoſcopus, by reaſon of the eies which he hath in the vppermoſt part of his head. Semblably the gall of the black fiſh Coracinus quickneth the eie-ſight. Alſo the gall of the reddiſh ſea-ſcorpions, mixt with old wine or the beſt hony of Athens, ſerueth to diſcuſſe the filmes of the eies like to breed a cataract: and thrice muſt the eies be annointed therewith, letting a day goe euer betweene. The ſame cure ſerueth likewiſe to take away the pearle in the eie. As for Barbels, it is commonly ſaid, that if one do feed ordinarily vpon them, hee ſhall ſenſibly feele his eies to decay and wax dim thereby. The ſea-hare it ſelfe verily is venomous; but the aſhes keep the diſorderly and hurtfull haires of the eie-lids from growing any more, if they be once pluckt vp by the roots: and for this purpoſe, the leaſt of this kind are the beſt. In like manner, the little K
Scallops kept in ſalt, and ſtampt together with the roſine or oile of cedar: the ſmall frogs likewiſe which vſually they call Diopetes and Calamitæ, haue the like effect to hinder the comming vp of hairs in the eielids, after they be once pulled vp; in caſe their bloud be tempered with the gum of the vine-tree, and therewith the edges of the ſaid eie-lids be annointed. The ſwelling and redneſſe of the eies is by nothing better delaied and diſcuſſed, than by a liniment made of a cuttle bone puluerized and mixt with womans milk. And in very truth, the ſaid cuttle bone ſimply by it ſelfe, cureth the aſperity and roughneſſe of the ſaid eie-lids. But to worke this cure, the chirurgion vſeth to turne vp the ſaid eie-lids, and to apply therto the medicine, which he ſuffereth not to ſtay there long, but taketh it away within a while: he annointeththe place alſo with
oile roſat, and ouer night laieth thereto white-bread crums [with breſt milke] for to aſſuage the L
paine. The ſelf-ſame ſhell or couer of the cuttle-fiſh beaten to pouder and brought into a liniment with vineger, cureth thoſe who can ſee neuer a whit towards night. The aſhes of the ſayd cuttle-bone draw forth the ſcales or films which grow in the eies: the ſame incorporat with hony, heale the skars of the eies; but tempered with ſalt or braſſe-ore, of each one dram, they rid away the pin and web growing in the eie: the ſame help horſes of the haw that offendeth their eies. Some ſay moreouer, that the little bones within the cuttle, if they bee ſtamped to powder heale the eie-lids of any ſore or accident befalling vnto them. The ſea-vrchins fleſh applied with vineger, taketh away the accidents of the eies called Epinyctides. The Magitians giue direction to burne the ſame with vipers skins and frogs, and to ſpice the drink with the aſhes that
come thereof, aſſuring thoſe who vſe to drink the ſame, that they ſhall haue a very cleare ſight. M
[A fiſh there is named Ichthyocolla, which hath a glewiſh skin, and the very glue that is made thereof, is likewiſe called Ichthyocolla. The ſame glue taketh away the night-foes, commonly named in Greek Epinyctides. Some affirm, That the ſaid glue Ichthyocolla is made of the belly and not of the skin of the ſaid fiſh, like as Buls glue. This fiſh glue is thought to be beſt that

20030
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A is brought out of Pontus: the ſame alſo is white without any veines, ſtrings, or ſcales, and verie quickly melteth and reſolueth. Now the ſame ought firſt to be cut or ſhred ſmall, and then to lie infuſed or in ſteep a whole day and a night in water or vineger, which done, to be punned and beaten with the pebbles found about the ſea-ſhore, that the ſame may the ſooner melt and diſſolue. This glue thus ordered, is held to be ſoueraigne for the head ach: and a good thing to enter into thoſe medicines or compoſitions which are deuiſed to ſmooth the skin & rid away the wrinkles. Take the right eie of a frog, lap it within a piece of ſelfe ruſſet cloth (ſuch as is made of black wooll as it came in the fleece from the ſheep) and hang it about the neck, it cureth the right eie, if it be inflamed or bleared. And if the left eie be ſo affected, do the like by the contrary eie of the ſaid frog, &c. Now, if it were poſſible to pluck out theſe eies as the frog is ingende-
B ring, it would heale alſo the white cicatrices or ſcars in the eie, if it were hung about the necke of the patient in like ſort within an egge-ſhel. The reſt of the frogs fleſh applied to the eie, ſucketh out and conſumeth the bloud that is congealed vnder the tunicles of the eie, and lies there black and blew. They affirme moreouer, That the eies of a crab or craifiſh being hanged about the neck, are a ſoueraigne remedy for bleared eies.

A little frog there is, delighting to liue moſt among graſſe & in * reed plots: mute the ſame is and neuer croaketh, green alſo of colour: if kine or oxen chance to ſwallow one of them down with their graſſe, it cauſeth them to ſwell in the belly, as if they were dew blown. And yet (they ſay) that if the ſlime or moiſture wherewith their bodies be charged outwardly, be ſcraped off with the edge of ſome penknife, it cleareth the ſight, if the eies be annointed therewith. As for
C the fleſh it ſelfe, they lay it vpon the eies for to mitigat their pain. Furthermore, ſome there are who take 15 frogs, pricke them with a riſh, & draw the ſame through them, that they may hang thereto; which done, they put them in a new earthen pot: and the humour or moiſture that paſſeth from them in this manner, they temper with the juice or liquor which in manner of a gum iſſueth out of the white wine Brionie, wherewith they keep the eielids from hauing any haires growing vpon them. But firſt they pluck vp thoſe diſorderly haires which grew there to offend and hurt the eies: & with a fine needle point drop the foreſaid liquor into the very places where the haires were fetched out by the roots. *Meges* the Chyrurgian deuiſed another depilatory for to hinder the growing of hairs, made of frogs which he killed in vineger, and permitted them therin to putrfiie and reſolue into moiſture: and for this purpoſe his manner was to take many
D freſh frogs, euen as they were ingendred in any rain that fel during the Autumne. The ſame depilatory effect, the aſhes of Horſe-leeches are ſuppoſed to haue, if they bee reduced into a liniment with vineger, and vſed accordingly: now muſt they be burnt and calcined in a new earthen veſſel that neuer before was occupied. And of the like operation is the liuer of the ſea-fiſh Tænia, if the ſame be dried, and thereof the weight of foure deniers Romane incorporate in oile of Cedar to the forme of a liniment, for to annoint the haires of the eie-lids by the ſpace of nine moneths together.

The freſh gall of a Ray or Skeat, yea, and the ſame preſerued and kept long in old wine, is an excellent medicine for the eares: ſo is the gal likewiſe of the fiſh * Bancus, which ſome cal Myxon: alſo of Callionymus the fiſh aforeſaid, if it be dropt into the ears with oile roſat: ſemblably
E Caſtoreum with the juice of Poppie. There be alſo in the ſea certaine creepers ingendred, called Pedunculi, *i.* ſea-lice, which being ſtamped and tempered with vineger, they giue counſell to drop into the eares. Alſo a lock of wooll died in the bloud of the purple ſhell-fiſh Conchylium, of it ſelfe alone is a very good thing to be applied to the eares: howbeit, ſome doe wet the ſame in vineger and ſalniter mixed together. But the ſoueraigne remedy in the opinion of moſt Phyſitians for any grieuance and infirmity of the ears, is this, namely, *Recipe* of the beſt ſauce or pickle called Garum Sociorum that may be gotten, one cyath, of hony one cyath and an halfe, of vineger one cyath, ſeeth them all together gently ouer a ſoft fire in a new pot, eft ſoon skimming it in the boiling with a feather; and when it hath left caſting vp a ſcum and is ſufficiently purified, take it from the fire: and of this decoction warm drop into the pained eares. If the ears
F be ſwelled withall, they ordain and preſcribe to mitigat & aſſuage the ſame firſt, with the juice of Coriander. The fat of frogs dropt into the eares, allaieth their paine preſently. The juice or decoction of craifiſhes incorporat with fine Barly meale, is a ſingular and moſt effectuall ſalue to heale the wounds of the eares. As for ſwellings and inflammations riſing behind the eares, there is not a better thing to cure them, than to apply therto the aſhes of Burrets ſhels tempered with

hony,

* *Calamettes.*

* *ganchi.* Some reade *Bacchi.*

hony, or of the Purples Conchylia, with honied wine.

If the teeth ake, the ready means to aſſuage them, is to ſcarifie the gums and let them bloud with the ſharp bones of the ſea-dragon: and withall, to make a collution with the brains of the ſea dogfiſh boiled in oile and ſaued for the purpoſe, to waſh the mouth and teeth therwith once in a yere. Likewiſe in the pain of the teeth, found it is moſt ſoueraigne to ſcarifie the gums with the pricky bone or fin of the Puffin or Forkfiſh, vntill they bleed againe. The ſame alſo beeing puluerized, brought into a liniment with white Ellebore, and applied to the teeth, cauſeth them to fall out of the head without any great paine. Moreouer, the aſhes of ſalt fiſh burnt in a new earthen veſſell, and mixt with the pouder of the marble ſtone, is reckoned among the remedies for the teeth. In like maner the quadrants or ſquare cantons of the old Tuny fiſh, *burnt to a cole in a new earthen pan, and afterward beaten to pouder, are thought to be good for the tooth-ach. Of the like operation and effect (they ſay) be the pricks and fins of all kindes of ſalt fiſh, if they be firſt burnt to a coale, then puluerized, and therewith the teeth well rubbed. Furthermore, to make a collution to waſh the teeth withall, and to hold the liquor in the mouth, ſome ſeeth frogs in vineger, with this proportion, that to euery frog they take one hemine of vineger. But becauſe many a mans ſtomack lothed & abhorred ſuch a medicin, *Salluſtius Dionyſius* found the means to hang many of them by the hinder legs ouer the veſſell or pan of ſeething vineger, that out of their mouth there might fall the humor within their bodies into the ſaid vineger. But to thoſe who had good ſtomacks & were of ſtronger complexions, he preſcribed to eat the very frogs broth & all wherein they were ſodden. And in very truth, many are of this opinion, that if the grinders and great jaw teeth do ake, this is a ſpeciall medicine for them, but in caſe they be looſe in the head, then the beſt way to confirm and ſet them faſt, is a collution with the vineger aforeſaid. And for this purpoſe ſome there be, who after they haue cut off the feet of 2 frogs, lay their bodies to infuſe and ſteep in one hemine of wine, and ſo aduiſe their patients to waſh their vnſteedy teeth with the ſaid infuſion. Others apply them whole as they be, legs and al outwardly to the chawes, and keep them faſt thereto. Whereas ſome again ſeeth ten of them in 3 ſextars af vineger, vntill a third part of the liquor be conſumed, and with this decoction thinke to faſten the teeth ſure that ſhake in their ſockets. Moreouer, others you ſhall haue who take the hearts of 36 frogs, and bake or boile them in one ſextar of old oile vnder a pan or ouen of braſſe; the grauie or liquor whereof they poured into the eare of that ſide where the cheek or jaw doth ake: whereas many others beſides ſeeth the liuer of a frog, and when they haue ſtamped and incorporat it with hony, put it into the hollow teeth, or apply it thereto. But all theſe medicines aboueſayd you muſt thinke to be more effectuall, if they be made of ſea-frogs. Now if the teeth bee worme eaten and ſtinke withall, they giue order to dry a hundred of them in an ouen all night long: afterwards to put vnto them as much ſalt in proportion as they come to in weight, and therewith to rub the ſaid faulty teeth. There is a kind of ſerpent or water-ſnake called in Latine Coluber, and of the Greeks Enhydris: diuers there be, who with foure of the vpper teeth of this ſerpent, ſcarifie the gums of the vpper chaw, in caſe the teeth therin do ake: and ſemblably with foure of the nether teeth, if the other bee in paine: and yet ſome there bee who content themſelues with the eye-tooth onely. They vſe alſo the aſhes of Sea-crabs, and no maruell: for the aſhes of Burrets is a dentifrice well knowne for to keepe the teeth cleane, and make them neat and white.

The fat of a ſea-Calfe or Seale taketh away the foule tettars called Lichenes, and the filthy leproſie: ſo do the aſhes of Lampreys, if the ſame be incorporat with hony to the weight of 3 oboli. The liuer alſo of the Puffin boiled in oile. Finally, the aſhes of a ſea Horſe and a Dolphin mixt with water, ſo that the part affected be well rubbed withall vntill it bliſter. Now, when it is thus exulcerat, it muſt be followed with that manner of cure which is appropriat thereto, and namely, vntil it be healed and skinned againe. Some take the liuer of a Dolphin, and fry or torrifie it in an earthen pan, vntil there come from it a kind of greaſe in manner of oile, & therwith annoint the patients in the caſes aboueſaid.

If women deſire to be rid of the foule freckles, ſpots, and morphew that do injury vnto their beautie; if they would looke young, and haue their skin plumpe and void of all riuels, let them take the aſhes of Burrets and purple ſhels calcined, incorporat the ſame with honey into the form of a liniment: within one weeks ſpace if they ply it with annointing, they ſhal ſee the effect thereof; namely, the skin cleare and neat, euen and ſmooth without wrinkles, & the cheekes

not

* *Exuſta*, not *Eluta*, according to *Galen*.

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not hollow, but faire and full. Mary vpon the 8 day they muſt not forget to foment and bath the place with the white of an egge wel beaten. Among the kinds of Burrets called Murices, are to be ranged thoſe ſhell-fiſhes which the Greeks ſome call Colycia, others Corythia, ſhaped in the ſhell like to the reſt in manner of a turbant, but that they be far leſſe, howbeit more effectuall: for that beſides the other properties abouenamed, this ſpeciall gift they haue, to maintaine a ſweet breath. As for the fiſh or glue called Ichthyocolla, it hath vertue to lay the skin euen without riuels, and to make it riſe and appear firm, but then it ought to boile in water the ſpace of 4 houres, afterwards to be ſtamped, * ſtrained, and wrought to the liquid conſiſtence of hony and no more. Thus prepared, it muſt be put vp into a new veſſell neuer occupied, & there kept. When time ſerues to vſe it, to euery 4 drams weight thereof proportion two of brimſtone, of Orchanet as much, of litharge of ſiluer 8 drams: put them all together, and ſtampe them, with ſome ſprinkling of water among. Herewith let the face bee annointed, and after foure houres waſh it off againe. For the ſpots and pimples in the face, called Lentils, as alſo for all other deformities, the aſhes of Cuttill bones are thought ſingular, if the skin be rubbed therewith: and the ſame conſume the excreſcence of proud and rank fleſh, like as they dry vp any moiſt and rheumaticke vlcers.

* Colata.

Chap. VIII.

¶ *Diuers receits, ſet downe diſorderly one with another, for ſundry maladies.*

C ONe Frog boiled in fiue hemines of ſea-water, is ſingular to cauſe the ſcurfe of the mange or wild ſcab to fall off: but ſodden ſo long it muſt be, vntill the decoction bee riſen to the height of hony.

There is ingendred in the ſea alſo that which is called Halcyoneum, made as ſome thinke of the neſts of the birds Halcyones and Ceyces: but as others ſuppoſe, of the filthy ſome of the ſea thickened and indurat: and according to the opinion of ſome, it proceedeth from the muddie ſlime or a certaine * hoary dry ſcum or froth of the ſea. Foure kinds there bee of it. The firſt of an aſh colour, thick and maſſie, of a quick and hot ſmell. The ſecond is ſoft and more mild, fauoring in manner like to ſea weeds. The third reſembleth the whiter kinde of checquer worke in D marquettry. The fourth is more hollow and fuller of holes in maner of a pumiſh ſtone, & in that reſpect reſembleth a rotten ſpunge, inclining much to the colour of purple: and this is ſimply the beſt, called alſo by the name of Halcyoneum Mileſium; yet in this kind the whiter that it is the worſe it is to be liked. The property of them all in generality, is to exulcerat and mundifie. Vſed they are being torrified, euen without any oile. Wonderfull is their operation, if they bee tempered with Lupines, and the weight of two oboli in ſulphur, for to take away the wilde ſcab or leproſie, the foule tettars Lichenes, and the pimples or ſpots of the skin called Lentils. Halcyoneum alſo is commonly emploied about the ſcars or thick filmes appearing in the eyes. *Andreas* the Phyſitian vſed much the aſhes of a ſea-crab incorporat with oile in curing the leproſie. *Attalus* occupied as vſually the fat of a freſh Tuny, new taken, for the healing of vlcers. The E pickle of Lampreies, together with the aſhes of their heads calcined, and brought into a liniment with hony, healeth the kings evill. And many are of opinion, that to prick the wennes named the Kings euill aforeſaid, with the ſmall bone or pricke that ſticketh in the taile of that ſea fiſh which is called * Rana marina, with this gage and rule of the hand that it wound not deep, is very good for that diſeaſe: but the ſame muſt be done euery day vntil they bee throughly cured and whole. Of the ſame operation is the ſharp prick in a Puffen: of the ſea-hare alſo applied to them, ſo as neither the one nor the other be ſuffered to lie long to the place, but bee ſoone renewed. Alſo the ſhelly skin of the ſea-Vrchin ſtamped to pouder and brought into a liniment with vineger: as alſo the aſhes of the ſea Scolopendre incorporat with honey: and the riuer craifiſh either puluerized or calcined, and the duſt or aſhes thereof likewiſe tempered with honey, F are good to be applied to the ſame diſeaſe. Wonderfull effectuall be the bones alſo of the cuttill fiſh beaten to pouder, and with old ſwines greaſe brought into the form of a liniment: and in this manner they apply this medicine to the tumors behind the ears: like as the liuers of the ſea fiſh Scarus. Moreouer, the ſheards of ſuch earthen veſſels wherin ſalt fiſh was pouderd & kept, beaten to pouder, & tempered with old ſwines greaſe: the aſhes alſo of Burrets ſhels incorporat in oile, ſerue in right good ſtead for the ſwellings behinde the eares, and the tumours or wennes called

* Halotichnes.

* The Frenchmen terme it *Diable de mer*, i. the diuell of the ſea.

called the kings euill. The ſtiffe cricke in the neck is mollified and made pliable againe, ſo as it G
may turne which way a man would haue it, with drinking of one dram weight of thoſe creepers or inſects which be called ſea-lice; and yet ſome take for the ſame Caſtoreum in honied wine, adding thereto a little pepper, and drinke this compoſition in the broth of frogs boiled in oyle and ſalt. After which manner, many Phyſitians cureth the crampe that draweth the neck backward: the generall convulſion alſo that ſtretcheth the body ſo, as if it were of one piece: and other particular ſpaſmes and cramps of any part, ſo there be ſome pepper put thereto. The aſhes of ſalt Cackerels heads burnt and reduced into a liniment with honey, diſcuſſe and reſolue the Squinancy cleane, like as the broth of frogs boiled in vineger; and the ſayd broth is ſingular alſo for the inflammation of the tonſils. The Creifiſhes of the riuer dried and beaten to pouder, then put into water (ſo as there be to euery one a hemine of water) make a good liquor to garga- H
rize withall for the ſquinancy. The ſame alſo drunke in wine or hot water, worke the like effect. The ſauce made of Maquerels called Garum, put with a ſpoon vnder the uvula, and there held a while, putteth it vp, and reduces it again to the right place. The fiſh * Silurus eaten at the table either freſh or poudered, helpeth the voice much. The barbels kept vntill they be dried, & then puluerized, prouoke vomit, if a cup of drinke be ſpiced with the pouder. If a man or woman bee ſhort winded, there is not a medicine again ſo good to helpe that difficulty of breath, as to drink whiles they be faſting, Caſtoreum, with a little quantity of Ammoniack in honied vineger. The ſame potion taken likewiſe with honied vineger hot, allaieth the convulſion of the ſtomack proceeding from exceſſiue yexing or hicquets. *Item*, it is ſaid, that Frogs boiled in ſome broth be- I
tween two platters after the manner of fiſhes, are good for a cough: and beeing hanged by the heeles, after that their ſaliuation and humidity is dropt from them into a pan or platter vnderneath, they are to be rid of their garbage, & when the ſame is flung away, they ought to be kept and preſerued for the purpoſe aforeſaid. There is a little Frog that vſeth to climb trees, & from thence crieth and croaketh: if a man ſpit into the mouth of one of them, & then let her go again, it is thought hee ſhall bee deliuered by that meanes from the cough. To conclude, many giue counſell for the cough that bringeth vp bloud withall, to drinke in hot water the fleſh of a raw perwinckle well punned.

* Some take it for the Sturgeon, but vntruly

Chap. IX.

¶ *Proper receits for the accidents of the Liuer and the ſides: for the infirmities alſo of the Stomacke and Belly. Beſides other medicines huddled together confuſedly.* K

MAny vſe to ſuffocate and kill in wine a ſea Scorpion, and to drink thereof for the paine of the liuer. For the ſame purpoſe many are wont to take in honied wine and water of each a like quantity, the fleſh of the long muskles or ſhell fiſhes: or if they haue a feuer, in honied water. In caſe of pleuriſie or paine of the ſides, the fleſh of the ſea horſ roſted, eaſes the ſame: ſo doth the fiſh Tethea, which reſembleth an Oyſter, taken as meat. The pickle of the fiſh Silurus injected by way of clyſtre allaieth the pain of the ſciatica. To the like effect there are giuen for 15 daies together, Cockles, or Muskles, to the weight of 3 oboli infuſed in two ſextars of L
wine. The broth of Silurus ſofteneth the belly: like as the crampefiſh Torpedo, eaten as meat. The * ſea-wort is like to that of the garden, hurtful to the ſtomack, but moſt eaſily it purges the belly. In regard of the acrimony that it hath, they vſe to ſeeth it with ſome fat fleſh. The broth of any fiſh whatſoeuer is laxatiue: the ſame prouokes vrine, eſpecially if it be made of wine. The beſt fiſh broth comes from the Sea Scorpions, and thoſe which they call Iulides: of ſtone fiſhes alſo that keep about rocks, and haue no rank or ſtrong taſte; and ſuch muſt be ſodden with dill, parſely, coriander, and leeks, putting therto oile and ſalt. The ſquares alſo or cantons of the Tunie, that haue bin old kept, are purgatiue, for particularly they euacuate crude and wateriſh humors, beſides flegme and choler. The ſhel-fiſhes alſo named Myaces, haue a quality purgatiue: as touching whoſe nature I purpoſe to write fully in this very place. They gather together by M
heaps after the manner of Burrets; they liue in places giuen to breed reits and ſea moſſe; moſt delicat and pleaſant meat they be in Autumne, & eſpecially in thoſe coaſts where good ſtore of freſh water is intermingled in the ſea, which is the reaſon that thoſe of Ægypt bee moſt commendable: as winter grows on, they begin to gather a kind of bitterneſſe, & a red colour beſides.

* *Olus marinũ*: haply he meaneth *Braſſica marina*, i. *oleracea*, yet it is nothing like to our Colewort

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A The broth of theſe fiſhes hath the name to euacuat both the belly & bladder, to ſcour & mundifie the guts, to open any obſtructions whatſoeuer, to purge the reines, to take down the rankeneſſe of bloud and fat. In which regards they be ſouerain for the dropſy, for the monthly termes of women, the jaundiſe, all gouts and diſeaſes of the joints whatſoeuer, and ventoſities. Singular they are holden to be for to clenſe the humors either cholerick or phlegmatick, which anoy and ſtuffe the lights, or which ingender obſtructions about the liuer: likewiſe to cure infirmities of the ſpleen, and all rheums or deſcent of humors to any place. Only they be hurtfull to the throat, and make a man to loſe his voice, this is al the harm they do. The vlcers that corrode and be full of filthy matter, and require mundification, they heal: ſo do they all cankerous ſores. Being calcined after the order of Burrets, they cure the biting both of dog and man, if their a-
B ſhes be incorporat in hony: and ſo they cleanſe the leproſie, and rid away the pimples or ſpots in the skin called Lentils, Their aſhes * taken in drinke, haue a vertue to diſcuſſe the dimneſſe and miſtineſſe of the eie-ſight, to cure the accidents of the gums and teeth; and beſides, to drie vp the ſmall pocks and ſuch like breaking out of wheals by occaſion of flegm. Moreouer, they are as good as a counterpoiſon againſt the iuice of the deadly Dwale called Dorycnium, or of Carpaſum, which is commonly named Opocarpaſum. Beſides, this would be noted, that they grow all to be of two kinds of them; the one * Mituli [*i.* Limpins] which haue a taſt of ſalt, & cary a ſtrong ſauor; the other * Myſcæ, which differ from the other in roundneſſe: leſſe alſo they be a good deal, and hairy: and as their ſhels be thinner, ſo their fleſh is more firm and hard. The ſaid Limpins alſo, as well as Burrets, yeeld aſhes when they be calcined, which haue a cauſtick
C quality, whereby they ſerue properly to mundifie the skin from leproſie, lentils, and other pimples and ilfauored ſpots. The ſame being waſhed afrer the maner of lead, be ſingular for to ſubtiliat the thick eie lids, to ſcatter and diſcuſſe the pearls in eies, to diſſipat the cloudy & miſty dimneſſe, to clenſe filthy vlcers in any part of the body, and namely the puſhes and bliſters that ariſe in the head. As touching the fleſh that they haue, it ſerueth in a cataplaſm to be laid vnto the biting of mad dogs. The Palours alſo do ſoften and mollifie the belly: ſo doth Caſtoreum, being drunk to the weight of two drams in honied water. They that would haue this medicine more quick in operation, and to work throughly, put therto of the garden cucumber root dried one dram, & of ſalt-petre two drams. As for the fiſhes named Tetheæ, they are ſingular againſt the wringing torments [and gripings] of the belly and all ventoſities. Theſe fiſhes be found
D ordinarily about the rocks of the ſea, ſucking the leaues of Reits and ſuch like weeds, more like indeed to Muſhroms and Puffes, than to fiſhes. But the ſame haue a ſpecial propertie to cure the Tineſme and the accidents of the kidnies.

Moreouer, there growes in the ſea a kind of Wormwood, which ſome call Seriphium, and principally towards * Tapoſiris in Egypt, the which is more ſmal and ſlender than that of the land: it looſeth the belly, killeth the worms in the guts, and expelleth them. The Cuttil fiſh alſo is laxatiue: and ordinarily giuen it is to be eaten, after it hath bin ſodden with oile, ſalt, and meal. Salt Cackerels likewiſe prouoke vnto the ſtoole, in caſe they be reduced into a liniment with buls gall, and therewith the nauil anointed. Generally, the broth of fiſh ſtewed betweene two platters with Lectuce, diſpatcheth thoſe ſharp and fretting humors which are the cauſe of
E the Tineſm. Craifiſhes of the riuer ſtamped and drunk in water, ſtop a lask, and be diureticall. But yet in wine they moue appetite to the ſiege. Take away their feet and armes whereby they crawle, then pun and incorporat the reſt of their body with Myrrh, they driue out the ſtone. But this proportion muſt be obſerued, that to euery dram weight of them there be put three oboli of Myrrh.

To appeaſe the painefull paſſion called Iliaca, to allay and reſolue ventoſities alſo and inflations, there is not a better thing than to take in 4 cyaths of mead or honied wine hot, Caſtoreum, with carot and parſly ſeed, as much as may be comprehended with 3 fingers. The ſame is ſingular to allay the wrings and torments of the belly, with vineger & wine mixt togeather. The
F fiſhes named Erythini eaten as meat, ſtay the looſneſſe of the belly. For to cure the dyſenterie or bloudy flix, ſeeth frogs with the ſea onion commonly named Squilla, and thereof make certain trochisks to be giuen to the patient in that caſe. The ſame effect hath their gall or heart ſtamped and incorporate with honey, as *Niceratus* myne author doth teſtifie. Eat ſalt fiſh with Pepper, ſo as you abſtain from all fleſh beſides, if you would be cured of the jaundiſe. Lay the fiſh named a Sole to the region of the ſpleene, it doth cure the oppilation and hardneſſe there-
of:

* *Potus*, rather *illitus*, for it is brought into a liniment, & to vſed outwardly.

* *Salem.* Some read *Scilla.* *i.* ſea Onion or Squilla.

* Muskles.

* Haply Cockles.

* *Taphoſiris.*

of: ſo doth the cramp-fiſh Torpedo: and a Turbet in like manner, being applied aliue; but afterward you muſt let it looſe againe into the ſea. A ſea ſcorpion killed in wine healeth the infirmities of the bladder, is breaketh and expelleth the ſtone. The ſame effect hath the ſtone which is found in the tail of a ſea ſcorpion, if it be drunk to the weight of one obolus: the liuer alſo of the water ſnake Enhydris, and the aſhes likewiſe of thoſe kind of Mullets called Blennij, if they be taken with Rue. Moreouer, there be found alſo in the head of the fiſh Banchus, certain little ſtones as it were, which if they be drunke in water, are ſoueraigne for them which be troubled with the grauel and the ſtone. And it is commonly ſaid, That the ſea fiſh called a Nettle taken in wine, is very good therefore: like as another named in Latine Pulmo Marinus, boiled in water. The egs or ſpawn that the Cuttill fiſh doth caſt be diuretical, and prouoke vrine, whereby alſo they clenſe the kidnies from the phlegmatick humors there gathered. Riuer crabs or crai- H fiſhes ſtamped and taken in aſſes milke eſpecially, doe cure ruptures and inward convulſions. And as for ſea Vrchins, if they be ſtamped prickes and all, and ſo drunke in Wine, they expell ſtone and grauell: but to euery Vrchin there muſt be taken one hemine of Wine, and the Patient ought to drinke it continually vntill he find help: and otherwiſe their meat is good to be eaten ordinarily for this purpoſe. To feed alſo vpon Cockles and Scalops is wholſome for to ſcoure the bladder. Of theſe ſhel-fiſhes thoſe of the male ſex be called by ſome Donaces, by others Auli, wheras the female are named Onyches. The male do prouoke vrin, but the female are the ſweeter in taſt, and of one colour. The egs or ſpawn alſo of the Cuttill fiſh moue vrin, as hath bin ſaid before, and purge the reins. For that rupture wherein the guts fall downe into the cods, it is ſaid, That the ſea Hare punned and applied to the place in form of a cataplaſm with I hony, is ſingular to reduce them vp into their place. The liuer alſo of the water-ſnake or adder, called otherwiſe Hydrus or Enhydris, beaten to pouder and put in drink, helpeth thoſe that be giuen to breed the ſtone and grauel. The pickle that comes of the fiſh Silurus ſalted, infuſed or injected by a cliſtre into the guts, ſo that the belly were before emptied from the groſſe excrements, cureth the Sciatica. The aſhes of Barbles and Mullets heads calcined, heale and skin vp the galls and frets of the fundament. Now the manner of burning or calcining them is in an earthen pot: and reduced they ought to be into a liniment with hony, before the place be therewith anointed. The aſhes alſo of Cackerels burnt do cure and cloſe vp againe the chaps in the ſeat: which alſo are good for the ſwelling piles and bigs in thoſe parts: Like as the aſhes of the yong Tunies heads ſalted, called Pelamides: or the Squares named Cybia, with hony. If the ti- K will be ſlipped down and ready to hang out of the body, apply thereto the cramp fiſh Torpedo, it preſently reduceth it and ſtaieth it vp. The aſhes of craifiſhes brought into a liniment with oile and wax, healeth the chaps and fiſſures in thoſe parts: ſo doth the fine pouder of the Sea-crab dried and puluериſed. The pickle alſo of the fiſhes Coracini diſcuſſeth and reſolueth the biles called Pani. The ſame effect work the aſhes of the garbage and ſcales of the ſhadow-like Sciæna. The ſea Scorpion alſo boiled in wine, ſo that the ſaid biles or impoſtumes be fomented therewith. But the hard and ſhel-like skins of ſea-Vrchins being wel ſtamped, and with water brought into a liniment, keepe the ſaid biles downe and repercuſſe them in the beginning. The aſhes likewiſe of Murrets or Purple fiſhes ſerue both waies, whether it be needfull to diſcuſſe them in the beginning, or to ripen them, and after they be brought to maturation, for to L break them and let them forth. Some phyſitians for this intent compound a medicine or ointment in this maner: *Recipe* of wax and flax 20 drams, of litharge of ſiluer forty drams, of Burrets aſhes ten drams, of old oile one hemin, *fiat vnguentum*. The very fiſhes alone by themſelues, ſalted, ſodden, and ſo applied, ſerue in this caſe. Craifiſhes of the riuers punned into a cataplaſme and applied vnto the ſecret parts, reſolue & diſcuſſe the puſhes that there ariſe: ſo do the aſhes of Cackerels heads: their fleſh alſo boiled and laid to the place affected. In like manner, the aſhes of Perches heads ſalted and reduced into a ſalue with honey. The aſhes of yong Tunies heads, whiles they are Pelamides, or the rough skin of the fiſh called * Squatina, burnt. This is the skin which, as I ſaid before, is proper to poliſh wood and make ſmooth any workes made thereof: whereby you may ſee, that euen the ſea alſo doth afford inſtruments to fit the Ioiners M and Carpenters hand. The ſmall fiſhes named Smarides applied vnto the puſhes of the ſayd priuy parts in the forme of a liniment, do much good. As alſo the aſhes of Burrets or Purples ſhells incorporate with honey: and the ſame would be more effectuall, in caſe that the Fiſhes bee burned whole, ſhell, fiſh and all. Salt fiſh ſodden in honey, and applied, ſerueth particu-

larly

* Some take it for a Sole, others for a Skeat.

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larly to extinguiſh the heat of carbuncles & botches in the ſaid ſecret parts. If one of the cods hang down flagging vnſeemely lower than his fellow, ſome would haue it annointed with the froth that commeth from ſhell-ſnails or periwinckles. The fleſh of the ſea horſe roſted, helpeth them that cannot hold their vrin, in caſe they vſe ordinarily to eat therof: likewiſe the little fiſh called Ophidion, ſo like vnto a Congre, if it be taken with a Lillie root. The ſmall fiſhes found in the bellies of the greater who haue deuoured and ſwallowed them down, taken forth & burned to aſhes, are good in this infirmity to be drunk in water. The aſhes of ſhel-ſnailes, meat and all, burnt, are preſcribed by ſome phyſitians to be giuen in Signine wine againſt incontinency of vrin; but principally of Barbary ſnails. For the gout in the feet, & the diſeaſes of other ioints, the oile wherein a frog was boiled, is ſoueraigne: ſo are the guts of the ſaid frog, and the aſhes of a toad incorporat with old oile: ſome put thereto the aſhes of all the three kinds of barly, of ech an equal weight. And they giue direction to rub alſo the goutie feet, with a Sea-hare: alſo to be ſhod with the skins of Beuers, eſpecially thoſe which are bred in Pontus: like as to weare ſhoos made of Seals skin: the fat of which fiſh, is likewiſe very good. Alſo the ſea-moſſe or reits called Bryon, like to lettuce, but that the leaues be more riueled, and grow to no ſtalke; whereof I haue written heretofore: of a ſtyptick and aſtringent nature it is; no maruell therfore, if being applied vnto the gout, it mitigat the fury and violence thereof. Moreouer, the common ſea-weeds named Alga, of which alſo I haue treated already; but this caution there would be in the application thereof, That it be not dry. The ſea-fiſh called Pulmo-Marinus, cureth the kibes in the heels: the aſhes alſo of the ſea-crab, tempered with oile: yea, and the riuer-crabs or Creifiſhes burnt and calcined to aſhes, if the ſame be incorporat with oile: like as the fat of the fiſh Silurus. Moreouer, if other joints be diſeaſed, it were very good for the eaſement of their griefe, eftſoons to lay thereto frogs, freſh and new taken: mary the beſt way, by the direction of Phyſitians, is to ſplit them through, and ſo to apply them warme. The broth of Limpins, Muſcles, cockles, and Wilkes, is very nutritiue, and maketh them fat that vſe it. Thoſe that be ſubject to the falling ſickneſſe, vſe ordinarily (as hath bin ſaid before) to drink the rennet of the Seale or Sea-calfe, either with mares milke or aſſes milk, or els with the juice of the pomgranat: and ſome are woont to take it in oxymell or honied vineger: and yet there be others that ſwallow the ſame downe by it ſelfe in forme of pils. And for the ſame purpoſe, Caſtoreum is vſually giue vnto ſuch patients faſting, to be drunke in 3 cyaths of honied vineger or oxymell aforeſaid: but thoſe that eftſoons be ſurprized with the fits, and oftentimes fall thereof, find wonderfull much good by this clyſtre following: Take of Caſtoreum two drams, of honey and oile one ſextar, and of water as much. But ſay that one be preſently in a fit, the ready meanes to raiſe him and ſet him vpright vpon his feet again, is to preſent vnto his noſthrils Caſtoreum with vineger, for to ſmel vnto. The liuer alſo of the fiſh named the Sea-cat or Weazill, is giuen in like caſe: euen as the bloud either of Sea-mice or Tortoiſes.

Chap. X.

¶ *Remedies for feuers of all ſorts: alſo for diuers other infirmities.*

THe liuer of a Dolphin eaten before the acceſſe, cureth all thoſe agues which be not continuall, but returne by fits and keep their courſe. Oile roſat wherein the fiſhes called Sea-horſes were ſuffocated and killed, is ſingular good to annoint thoſe that be ſicke of ſuch agues as come with a cold fit: and the very fiſh it ſelfe is moſt effectuall to rid away the ſame, in caſe it be hanged about the necke, or to the arme of the patient. Semblably, the little ſtones which are found in a Haddocks head at the full of the moone, if they be taken forth and hung about the patient, lapped handſomly in a little linnen bag, ſerue to driue away ſuch feuers. Moreouer, it is ſaid, that the longeſt tooth in the head of a riuer Fiſh called Pagrus, tied to one of the hairs of the patients head, ſo as he do not ſee the party who faſtened or hung it therto, in 5 daies ſpace will doe the deed: as alſo the oile wherein a frog hath beene boyled in ſome carrefour or croſſe ſtreet turning three waies, cureth thoſe who are ſicke of a quartane ague, if they be all ouer annointed therewith; prouided alwaies, that the fleſh be firſt throwne away. And yet ſome ordaine, that they ſhould be ſtrangled or ſtifled in oile, and then the bodies hung priuily about ſome part of the patient without his knowledge; and that he be afterwards well rubbed and annointed with the foreſaid oile. If one carry about him the heart of a frog either hanging by his

necke or tied to his arme, ſurely it will diminiſh and ſhorten the cold fit of an ague: like as the G
oile will do no leſſe, wherein the entrails of the ſaid frog were boiled, in caſe he be annointed
therewith. But aboue all, either frog or toad (the nailes wherof haue been clipped) hanged about
one that is ſicke of a quartan ague, riddeth away the diſeaſe for euer: alſo, whoſoeuer haue about
him hanging to any part of his body the heart of a toad, infolded within a piece of cloth of a
white ruſſet colour, he ſhall be deliuered from the quartan ague. Stampe riuer crabs or creifi-
ſhes, concorporat them with oile and water, and herewith annoint the patient all ouer before
the fit of any ague, you ſhall find it to do very much good, but ſome put pepper thereto: other
for the quartan particularly, boile the ſame in wine vntill a fourth part be ſodden away, & then
giue counſell vnto the ſicke parties to drinke of that broth preſently after they be come out of
the baine. You ſhall haue ſome aduiſe, for to ſwallow downe whole, the left eie of a creifiſh in H
this caſe. Moreouer, the Magitians ſeem to aſſure vs, that whoſoeuer be ſicke of a tertian ague,
ſhal be rid of it, in caſe the eies of the ſaid creifiſhes be tied or hanged about them one morning
before the Sun be vp; ſo as withall, they that haue the doing hereof, let them go again blinde as
they are, into the water: and they would beare vs in hand, That if the ſaid eies plucked out of
the head of a creifiſh, be wrapped together with the fleſh of a Nightingale, within a piece of a
ſtags skin, and ſo worne either about the neck, or otherwiſe tied faſt to ſome part of the bodie,
they will cauſe him or her that weareth them, to be watchfull & not inclined one whit to ſleep.
They vſe likewiſe the rennet of a Whale or els of a Seale, giuing it vnto thoſe that be growing
into a lethargie, for to ſmell vnto: and ſome of them annoint thoſe that be already in a lethar-
gie, with the bloud of tortoiſes. The fiſh likewiſe called Spondylus, is ſaid to rid away the ter- I
tian ague, in caſe the patient weare one of them without any thing elſe, about the necke: like
as the riuer ſhel-ſnails eaten freſh and new gathered, cure the quartan: howbeit, ſome there bee,
who for that purpoſe keep them condite in ſalt, and giue them after they be punned for to drink.
The wilks alſo or wrinkles called Strombi, ſuffered to lie and putrifie in vineger, do with their
very ſmell awaken and raiſe thoſe that lie in a lethargie. The ſame are good likewiſe for ſuch as
be ready to faint and fall into cold ſweats, through feebleneſſe of the heart and ſtomacke. The
fiſhes named Tetheæ, eaten with rue and hony, are ſoueraigne for to reſtore them whoſe fleſh is
fallen away in a conſumption. The fat of a dolphin melted and drunk in wine, cureth ſuch as be
in a dropſie. In caſe the head be heauie and ready euermore to * fall aſleepe, there is not a better
* Grauitati ſoporis. thing than to rub the noſthrils with ſome conuenient ointment, or to hold thereto ſome per- K
fume, or els to ſtop the ſame any way it makes no matter how. Alſo, the meat of the foreſaid
wilks or wrinkles, ſtampt & giuen in 3 hemines of honied wine, with as much water, or in mead
or honied water if the patient haue a feuer withal, is ſingular good againſt the ſaid drowſineſſe:
likewiſe the juice or decoction of creifiſhes with honey. Moreouer, water-frogges boiled in old
wine with the red wheat Far, and eaten as meat, ſo as the patient drinke alſo of the broth out of
the ſame veſſell where they were ſodden, are thought to be ſoueraigne for ſuch ſleepie diſeaſes:
or elſe take a tortoiſe, cut away his head, feet, and taile, plucke out his guts and garbage; the reſt
of the fleſh condite, ſo as it may be taken without any lothing or riſing of the ſtomack, for this
is held to be ſingular in this malady. Moreouer, freſh-water creifiſhes eaten with their broth,
haue the name to reſtore ſuch as be in a phthyſicke or conſumption of the lungs. The aſhes ei- L
ther of a ſea-crab or riuer creifiſh, be excellent either for burne or ſcald, and this manner of cure
alſo ſerueth for to reſtore haire again; but then they hold opinion, that together with the aſhes
of the riuer creifiſhes, there be wax vſed & bears greace. Alſo the aſhes of frogs gal is thought
good for a feuer. As for Shingles and S. *Anthonies* fire, the bellies of liue frogs applied to the
place, doe extinguiſh and quench the extremitie of their heat: but in any caſe order is giuen,
that they be tied by the hinder leggs with their mouths bending forward; to the end, that their
often breathing alſo vpon the place, may coole and do good. Furthermore, many there be who
vſe for that purpoſe, the aſhes of the heads of the fiſhes called Siluri: as alſo of ſaltfiſh with vi-
negre, and apply the ſame to ſuch wildfires and inflammations. The liuer of a Puffen or Forke-
fiſh ſodden in oile, being outwardly applied, killeth not onely the itch and ſcab of men, but alſo M
the ſcurfe and mange of four-footed beaſts, moſt effectually. The callofitie or thick skin where-
with Purple fiſhes couer their heads and hollow concauitie, if it bee punned and applied vnto
wounded ſinews, doth conſolidat and ſowder them againe though they were cut aſunder. The
rennet of a Seale or Sea-calfe taken in wine to the weight of one obolus, helpeth thoſe that lie
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A in a lethargie: ſo doth fiſh-glew Ichthyocolla. Such as are giuen to the ſhaking and trembling of their lims, find much benefit by Caſtoreum, if they bee rubbed and annointed with it and oile together. I read, that Barbles are hurtfull meat for the ſinews: and many are of opinion, that as much feeding vpon fiſh * cauſeth bleeding, ſo the ſame may be ſtanched with the poulpe or pourcuttle, if it be ſtamped and applied to the place: of which fiſh, thus much moreouer is reported, That of himſelfe he yeeldeth a certain ſalt pickle, and therefore there ſhould be no ſalt put into the liquor while he is ſeething: *Item*, that it ought to be ſliced and cut with an edged reed; for with an yron knife it will take infection, and the nature of it is ſuch as to *keep and retaine it ſtill. For the ſtanching of bloud, they vſe alſo the aſhes of frogs, or els their bloud dried, to be applied accordingly. But ſome would haue the aſhes to be made of that kind of frog,

B which the Greeks name Calamites, becauſe it liueth among reeds, buſhes, and ſhrubs, & of all others is the leaſt and greeneſt: and yet many do ordain, if the flux of bloud be from the noſtrils, to take the aſhes of young frogs breeding in the water, whiles they be tadpoles, and haue little wriggling tailes, (and thoſe muſt be calcined for that purpoſe in a new earthen veſſell) & to put vp the ſaid aſhes into the noſe. On the contrary ſide, the horſleeches which we call in Latine Sanguiſugas, [*i.* Bloudſuckers] are vſed for to draw bloud. And verily it is iudged that there is the ſame reaſon of them, as of ventoſes and cupping-glaſſes vſed in phyſicke, for to eaſe and diſcharge the body of bloud, and to open the pores of the skin. But here is all the harme and diſcommoditie of theſe horſleeches, That if they be once ſet too for to draw bloud, the body will looke for the ſame phyſick again euery yere after, about the ſame time, & be ill at eaſe for want

C thereof. Many phyſicians haue thought it good to vſe them for the gout of the feet alſo. Well, ſet them to the hæmorrhoids, and where you will, they fall off lightly when they are full and ſatisfied, euen with the very weight of the bloud which pulleth them downe; or els by ſtrewing ſome ſalt about the place where they ſticke too: and otherwhiles it falleth out, that they leaue their heads behind them faſt fixed in the place where they ſettled, and by that means make the wound incurable and mortall, which hath coſt many a man his life: as it happened to *Meſſalinus* a noble man of Rome, and who in his time had bin a Conſull, whoſe forturne it was to die therupon, hauing ſet them to his knee: whereby we may ſee, that oftentimes they bring a miſchiefe for a remedy: and the red ones are they that in this reſpect ought to be feared. To preuent therfore this dangerous inconuenience, they vſe with a paire of ſizzers to clip them at the very

D mouth as they be ſucking; and then ſhall you ſee the bloud ſpring out, as it were at the cocke of a conduit, and ſo by little and little as they die, they will gather in their heads, and the ſame will fall off, and not tarrie behind to do hurt. Theſe horſleeches naturally are enemies to Punaiſes, in ſo much as their perfume killeth them. Furthermore, the aſhes of Beuers skins burnt and calcined together with tar, ſtancheth bloud guſhing out of the noſe, if the ſame be tempered & mingled wel with the juice of porret. The ſhels of cuttles applied to the body with water, draw forth arrow heads, pricks, or ſpils, that ſticke deepe within the fleſh: ſo doth any ſalt fiſh if the fleſhie ſide be laid therto; yea, and freſh-water creifiſhes haue the ſame effect: likewiſe the fleſh of the freſh water Silurus (for this fiſh breedeth in other riuers beſides Nilus) applied to the place, either freſh or ſalted it makes no matter, worke with the ſame ſucceſſe. The aſhes of the

E ſame fiſh, and the fat, be of the ſame operation, and very attractiue. As for the aſhes of their ridge-bone, and prickie finnes, they are taken to bee as good as Spodium, and are vſed in ſtead thereof. As touching thoſe vlcers which be corroſiue, as alſo the excreſcence of proud fleſh growing in ſuch ſores, there is not a better thing to repreſſe and keepe them downe, than the aſhes of Cackerels or the fiſh Silurus aforeſaid. The heads of ſalted Perches be ſingular good for cancerous vlcers: and the more effectually they will work, in caſe there be ſalt mingled with their aſhes, and together with knopped Majoram or Sauorie and oile, be incorporat into a liniment. The aſhes of the Sea-crab burnt and calcined with lead, repreſſe cancerous ſores: and for this purpoſe, ſufficient it were to take the aſhes only of the riuer creifiſh, medled with hony and lint: but ſome chuſe rather to mingle alume and hony with the ſaid aſhes. As for the ea-

F ting ſores called in Greeke Phagedænæ, they may be healed well with the fiſh Silurus, kept vntill it be dried, and ſo together with red orpiment, reduced into a pouder. Likewiſe morimals, and other conſuming cankers, and thoſe ſores which be filthy and growing to putrefaction, are commonly healed with the old ſquares of the Tunie fiſh. Now if there chance to be wormes and vermine breed in the ſaid vlcers, the only means to cleanſe them is with the gall of frogs.

* *Sanguinem cieri.*

* *Retinente.*

But the hollow ſores commonly knowne by the name of Fiſtuloes, are enlarged, kept open, yea and brought to drines, with tents made of ſaltfiſh conueied into them within fine linnen rags: and within a day or two at moſt, they will rid away all the calloſitie, together with the dead and putrified fleſh within the ſores, yea and repreſſe the eating and corroſiue humor in them, if they be wrought into the forme of a ſalue or emplaſter, and ſo applied. To mundifie vlcers, there is not a fitter thing than ſtockfiſh made into a tent with fine lint of rags, and ſo put into the ſore. Of the ſame effect are the aſhes of the ſea-vrchins skin. The pieces of the fiſh Coracinus ſalted, diſcuſſe and reſolue the hot apoſtems named carbuncles, if they be applied: ſo doe the aſhes of the Barble ſalted and calcined. Some vſe the aſhes of the head of the ſaid fiſh onely with hony, or els the very fleſh of Coracinus. The aſhes of murrets tempered with oile, delay & take down any ſwelling. The gall likewiſe of the Sea-ſcorpion, taketh off the roufe of ſores, and bringeth skars that ouergrow the fleſh vnto the leuell of the other skin. The liuer of the fiſh Glanus, cauſeth werts to fall off, if they be rubbed withall. Alſo, the aſhes of Cackerell heads do the like, if they be tempered with garlick: but for the thyme werts particularly, they vſe them raw: the gall likewiſe of the reddiſh ſea ſcorpion, and the ſmall ſea fiſh Smarides, punned and brought into a liniment do the like. The groſſe pickle ſauce called Alex, if it be made through hot, cures the raggedneſſe of nails: the aſhes alſo which come of Cackerell heads, do extenuat and make them fine. The fiſh Glauciſcus eaten in the own broth, cauſeth women to haue ſtore of milke: ſo doe the ſmall fiſhes called Smarides, taken with ptiſan or barley gruell; or els boiled with fennell: and in caſe they haue ſore breſts the aſhes of Burrets or Purple ſhells incorporat with honey, doe heale effectually. A liniment made of Sea crabs or freſh-water Creifiſhes, takes away the offenſiue haires that grow about womens nipples or breaſt heads: the fleſhie ſubſtance alſo of the Burrets applied to them, work the ſame effect. A liniment made of the fiſh called a Skate, will not ſuffer womens paps to grow big. A candle-weike or match made of lint, and greaſed al ouer with the oile or fat of a dolphin, and ſo ſet a burning, yeeldeth a ſmoake which will raiſe women againe, lying as it were in a trance and dead vpon a fit of the mother: the ſame do Macquerels putrified in vinegre. The aſhes either of Pearch or Cackerel heads tempered and incorporat with ſalt, ſauerie and oile, ſerue for all the accidents of the matrice, and more particularly in a perfume, bring down the after-birth. Semblably, the fat of a Seale or Sea-calfe, conueighed by meanes of fire in a perfume vp into the noſthrils of a woman lying halfe dead vpon the riſing and ſuffocation of the matrice, bringeth her to her ſelfe againe: ſo doth it alſo, if with the rennet of the ſame Seale, it be put vp in wooll after the manner of a peſſarie, into the priuie parts. The aſhes of the Sea-fiſh called Pulmo, applied conueniently to the region of the matrice, and kept faſt thereto, purgeth women paſſing well of their monethly fleurs: of the ſame operation are Sea-vrchins ſtamped aliue, and drunk in ſome ſweet wine: but the riuer Creifiſhes likewiſe punned and taken in wine, do contrariwiſe ſtay the immoderat flux thereof. Likewiſe it is ſaid, that a ſuffumigation of the fiſh Silurus, eſpecially that which breedeth in Africa, cauſeth women to haue more ſpeedie and eaſie deliuerance in childbirth: as alſo, that Crabfiſhes drinke in water, doe ſtop the exceſſiue ouerflowing of their monethly terms; whereas with *hyſſop they ſet them a going and purge them away. Say that the infant ſticke in the birth, and by reaſon of painfull labour be in danger of ſuffocation, let the mother drinke the ſame in like manner, there will preſent help enſue. Women with child vſe alſo either to eat them freſh, or drink them dried, that they may go out their full time, and not ſlip an abortiue fruit. *Hippocrates* vſeth the ſame, and preſcribeth vnto women for the bringing down of their ſickneſſe, and likewiſe to thruſt out the infant dead in their wombs, to drinke them in honied wine with fiue dock roots, ſtamped together with rue and ſoot: and in very truth, ſodden with ſorrel or docks and parſley, they force womens monthes to come downe ſpeedily, if the broth be drunke; and withall, bring plentie of milke into nurces breaſts. If women haue an ague, and the ſame accompanied with head-ach & much twinkling or inordinat palpitation of the eies, it is thought they ſhall find much good by drinking them in ſome hard and auſtere wine. Caſtoreum taken inwardly in honyed wine, is ſingular to helpe forward womens monethly purgation: the ſame being held to their noſthrils with vinegre and pitch to ſmell vnto; or put vp beneath in manner of a ſuppoſitorie, after it is reduced into the forme of trochiſques, helpeth them when by riſing of the mother they are in danger of ſtrangulation. For to bring away the after-birth, it auaileth much alſo for women to drinke the ſaid Caſtoreum with Panaces in foure cyaths of wine: as alſo it is certaine, that whoſoeuer

*Hyſſope, otherwiſe Oeſype, is the tried greace of vnwaſhed wooll.

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A ſoeuer take the weight of three Oboli thereof, ſhall auoid the danger that may come to them by extremitie of cold. Moreouer, if a woman great with child chance to goe ouer a place where lieth Caſtoreum, or to ſtep ouer the Beuer it ſelfe (which is the beaſt that beareth it) ſhe ſhal be deliuered before her time; yea ſhe ſhall be in great danger vpon her deliuerance, if the ſame be but born ouer her where ſhe lieth. A wonderfull thing it is that I read of the crampfiſh Torpedo, namely, That if it be taken while the moone is in the ſigne Libra, and be kept for three daies together abroad in the open aire; ſo often afterwards as it is brought into the roume where a woman is in trauell of childbirth, ſhe ſhall haue eaſie and ſpeedie deliuerance. In this buſines alſo it is thought expedient, that the prick which a Puffin or Forkfiſh hath in the taile, be applied and tied faſt to the nauell of a woman; prouided alwaies, that if it be taken forth of
B the fiſh aliue, and then the ſame fiſh be let goe againe and throwne into the ſea. I read in ſome writers of that which they call Oſtracium, to be the ſame that others name Onyx; but call it what you will, a ſuffumigation made thereof, is of wonderfull effect to eaſe the pain and griefe of the matrice. I find, that it hath the ſmell of Caſtoreum, and if it be burnt together therwith in a perfume, the more good will enſue: as alſo that the aſhes thereof calcined, beale all inueterat vlcers, and ſuch as are morimals and ſcorne any ordinary cure. And verily, the ſame authors doe report, that for carbuncles, cancers, and ſuch vntoward ſores, as ariſe ſometimes about the priuities of women, the moſt preſent & aſſured remedy that is to heale them, is the female Sea-crab, ſtamped after the full of the moone with the fineſt powder of ſalt, called the floure thereof, and water together, and ſo reduced into the forme of a ſalue or liniment. The bloud, gall, and liuer
C of the fiſh Tunie, ether taken freſh or old kept, be all of them depilatories, for they fetch away hair and hinder it from growing: the liuer therof punned, and together with the roſin or oile of cedar incorporat and kept in a leaden box, hath the ſame effect. This was the deuiſe that the famous midwife *Salpe* had for boies, to make them beardleſſe and appeare alwaies young, and to ſet them out the better for ſale. Of the ſame operation is the fiſh called Pulmo Marinus, the Sea-hare likewiſe, I meane the bloud and gall of them both: and as for the ſaid Sea-hare, being but ſtifled & killed in oile, it is as effectuall. The aſhes of the Sea-crab and Scolopendre both; the Sea-nettle [a fiſh ſo called] incorporat with vinegre ſquillitick; the brains of the crampfiſh Torpedo tempered with alume, be all depilatories, if the place be anointed therewith the morrow after the moon is at the full. The bloudy moiſture that coms from the little frog, which I
D deſcribed heretofore in the cure belonging to eies, is the ſtrongeſt depilatorie that is, and worketh moſt effectually, in caſe the part be dreſſed therwith while it is freſh and new: and the frog it ſelfe dried and ſtamped, and anon after boiled in three hemins of vinegre till one of them be conſumed; or in oile after the ſame manner in ſome braſen pan, is a ſure medicine to take away haire, and hinder the comming vp of it againe. In the ſame meaſure of liquor, ſome put fifteene frogs, and make thereof an excellent depilatorie; like as I haue ſaid already among the remedies appropriat to the eies. Moreouer, horſleeches torrified in ſome earthen pan, and brought into a liniment with oile, worke the ſame effect in the hairs: the very perfume or ſmoke which they caſt as they be burnt or torrified, killeth Punaiſes, if they either flie or be brought into the aire thereof. Furthermore, diuers haue beene knowne to vſe Caſtoreum and hony in a liniment for
E many daies together, as a notable depilatorie. But in vſing any depilatorie what ſoeuer, this one point is generally to be obſerued, That the haires be firſt pulled vp by the roots, in any place, where they would not haue them to grow.

To come now vnto the gumbs of children, and their breeding of teeth: the aſhes of dolphins teeth mixed with hony, is a ſoueraign medicine: yea, or if you do but touch their gumbs with a dolphins tooth all whole as it is, the effect thereof is admirable: the ſame hanged about their necks, or tied to any part of the body, riddeth them of ſodain frights, wherunto infants are much giuen. Of the ſame effect is the tooth alſo of a dogfiſh. As for the vlcers or ſores incident to their eares, or any other part of their body, the broth of riuer creifiſhes thickned with barly meale, heales them. For other diſeaſes alſo of breaking out, a liniment made of them and oyle
F incorporat together in a mortar, is ſingular good, if they be anointed all ouer therwith. Touching the hot diſtemperatures and inflammations of the head, wherto little babes be much ſubject, a ſpunge actually cold applied to the place, and oftentimes wet, is a good meanes to cure the ſame: but a frog turned inſide outward hath no fellow, if it be bound faſt vnto the head: for they ſay, that it may be found all drie vpon the head with drawing the heat ſo forcibly to it.

A Barble drowned in wine,or the fiſh called a Rochet,or alſo two Eeles; likewiſe the fiſh named the Sea-grape putrified in wine, do infuſe this vertue into the foreſaid wine, That whoſoeuer drinke thereof, ſhall haue no mind afterwards to any wine beſides, but fall into a diſlike and loathing thereof. G

The ſtay-ſhip Echeneis, the skin of a Sea-horſe forehead, eſpecially toward the left ſide, wrapped within a little linnen cloth, and ſo hanged about one; or the gall of a liue Crampe-fiſh, applied vnto the genitall members in manner of a liniment, be all means to coole the wanton luſt of the fleſh: contrariwiſe, the fleſh of riuer Creifiſhes powdred and kept in ſalt, giuen in wine to drinke, do ſtir and prouoke the appetite vnto venerie. Moreouer, to feed vpon the fiſhes called Erythrines ordinarily at the table: to hang about the necke the liuer of the frog called Diopetes or Calamita, within a little piece of a cranes skin; or the jaw tooth of a Crocodile faſtened to any arme; either els the Sea-horſe, or the ſinewes of a Toad, bound to the right arme, incite greatly to wantonneſſe and lecherie. Put a toad within a piece of a ſheeps skin newly flaied, and let one weare it tied faſt about him, he ſhall forget all loue and amitie for euer. H

The broth of froggs boiled in water, do extenuat the ſcuruie thicke rouſe in the farcins or mangè of horſes, and make way that they may be bathed and anointed: and verily it is credibly affirmed, that if they be cured after this manner, the ſcab will neuer returne againe. The expert midwife *Salpe* affirmeth for certain, That doggs will not barke, if there be giuen vnto them in a morcell of bread or gobbet of fleſh, a liue frog.

In this diſcourſe of Water, and the things concerning it, ſomwhat ought to be ſaid as touching Calamochnus, which otherwiſe in Latine is named Adarca: it groweth about ſmall canes or reeds, and is engendred of the froth of ſea water and freſh water together, where they both meet and are intermingled: a cauſticke qualitie it hath; in regard whereof, it entreth into the compoſitions called Acopa, which ſerue for laſſitude, and thoſe that are benummed with cold. It is emploied alſo in taking away the pimples or ſpots in womens faces like to lentils. I

As for Reeds and Canes, this is their very proper place alſo, wherein they ſhould be treated of. And to begin with that reed or cane called Phragmitis, which is ſo good for mounds & hedges; the root thereof greene gathered and punned, is ſingular for diſlocations, and the paine of the backebone, if the place affected be annointed with it, incorporat in vinegre. But the rind of the Cyprian cane, which alſo is named Donax, burnt into aſhes, is ſingular for to recouer haire againe where it was ſhed by occaſion of ſickneſſe, and to heale old vlcers. The leaues alſo ſerue very well to draw forth any ſpills, pricks, or arrow heads that ſticke within the fleſh, yea and to extinguiſh S. *Anthonies* fire. As for the floure or downe of their catkins, if it chance to enter into the eares, it cauſeth deafeneſſe. The blacke liquor reſembling inke, which is found in the cuttle-fiſh, is of that force, that if it be put to the oile of a lamp burning (*Anaxilaus* ſaith) it will drown and put out the former cleare light, and make all thoſe in the room to looke like blackamores or Æthiopians. The hedge frog, otherwiſe called a toad, boiled in water and giuen to ſwine among other draffe to drinke, cureth all their diſeaſes: and of the ſame effect are the aſhes of any other frogs beſides. Rub a piece of wood with the fiſh called Pulmo Marinus, it will ſeem as though it were on a light fire; in ſo much as a ſtaffe ſo rubbed or beſmeared with it, may ſerue in ſtead of a torch to giue light before one. K L

Chap. XI.

¶ *That there be of fiſhes and other creatures liuing in the Sea, one hundred ſeuentie and ſix ſeuerall and diſtinct kinds.*

HAuing thus treated before ſufficiently of the natures and properties of Fiſhes, and ſuch creatures as the water doth yeeld; it remaineth now for a finall concluſion, to preſent vnder one view, all thoſe fiſhes name by name, which are engendred and nouriſhed not only in thoſe mediterranean and inland arms of the ſea, which for many a mile take vp a great part of the continent and firme land, but alſo in that vaſt and wide ocean without the main, bounded as it were limited onely by the compaſſe and circumference of the heauen: and thoſe, namely as many as be knowne, may be reduced all into 176 kinds: a thing which cannot be done either in the beaſts of the land or foules of the aire. For how is it poſſible to decipher & particularize the wild beaſts and foules of India & Æthyopia, of the deſarts, and of Scythia, which we are not M

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A come to the knowledge of, ſeeing we haue found ſo many different ſorts in men, of whom wee haue ſome notice and intelligence? to ſay nothing of Taprobane, and other Iſlands lying within the Ocean, whereof ſo many fabulous reports are deliuered: certes, there is no man but hee muſt needs confeſſe and agree to this, that it was not poſſible in this hiſtorie of Nature to compriſe all ſorts of creatures which the earth & aire do yeeld. Howbeit, thoſe that are bred in the Ocean, as huge and vaſt as it is, may be comprehended vnder a certaine number: a wonderfull matter that we ſhould be better acquainted with thoſe, conſidering how Nature hath plunged and hidden them in the deepe gulfes of the maine ſea!

To begin then with the greateſt monſters and beaſts that this vnruly Element of the water doth breed: we find therin the ſea-Trees, Whirlepooles, greater Whales, Prieſts, Tritons [*i.* ſea
B Trumpetters] Nereides [*i.* Meremaids] Elephants, ſea Men and Women, Wheeles, ſea Tuns or Pipes, [1]Rams, and ſmaller Whales accompanying the bigger. Beſides, other [2]Rams that reſemble the ordinary ſhape of fiſhes; Dolphins, and the ſea Calues or Seales, whereof the Poët *Homer* writeth ſo much. Furthermore, the ſea Tortoiſes, which ſerue for [3]roiot, wantonneſſe, and exceſſe: the Beuers, which are ſo much in requeſt among [4]Phyſicians. As for the Otters, albeit a kind of Beuers they are, yet becauſe I neuer heard that they came into the ſalt water, I make no great reckoning of them; for my purpoſe is to rehearſe thoſe only which inhabit or haunt the ſea: moreouer, the ſea Dogs: the Curriors, Poſts, or Lacquies of the ſea: the horned fiſhes: the Swordfiſh or Emperour of the ſea, and the Sawfiſh. Ouer and beſides, thoſe which liue indifferently in the ſea, the land, & the riuer, to wit, the water Horſes and the Crocodiles: others again
C that ordinarily keepe in the ſea, and yet come vp into the riuers, but neuer land, to wit, the Tunies, as well the growne Thunnies, as the yonger ſort, [5]Thunnides or Pelamides. The Siluri, the blacke Coracini, and Perches. As touching thoſe that neuer came forth of the ſea, the [6]Sturgeon, the Guilthead, the cod, the Acarne, Aphya, Alopecias, the Yeels, and [7]Araneus. The billowing fiſh Box, Batis, Banchus, [8]Barrachus, and Belone, with all the kind of thoſe which wee call Needle fiſhes, and alſo Balanus. The ſea Rauen Corvus, and [9]Cytharus: all the ſorts of the Chrombi: the Carpe, Chalcis, and [10]Cobio: Callarius of the Cods kind, but that it is leſſe: Colias, whether it be Parianus [of Parium the Colony] or Sexitanus, ſo called of a city in Granado or Bætica, a fiſh *reſembling Lizards: of which and of the young Tunie Pelamis (both bred in
D Mœotis) being chopped and cut into pieces & ſo ſalted are made thoſe Quadrants or Squarerands, called Cybia. For this you muſt vnderſtand, that the Tunie is called Pelamis, *when after 40 daies he returneth out of Pontus or the Euxine ſea into Mœotis: wheras the ſaid ſmal Pelamis taketh the name of Cordyla, when it goes firſt forth of the ſaid great lough or lake Mœotis, and enters into the ſea beforenamed. Moreouer, in the ſaid meer Mœotis be theſe fiſhes beſides, to wit, Cantharus, Callionymus, otherwiſe named Vranoſcopus, and Cinædi, which bee the only fiſhes that be all ouer yellow; Cnide, which we in Latin Cal Vrtica, *i.* the Nettle, al the
E ſorts of Crabs, the gaping ſmal Cockles and Muskles, whether they be the rough Chamæ-trachæ, the ſmooth Chamæ-leoi, or the Chamæ-pelorides: which be of diuers kinds diſtinct one from another, both in forme of roundneſſe, and variety of colours: as alſo the Cockles named Chamæ-glycimerides, which be bigger than the former Pelorides, together with thoſe that the Greekes call Colycia or Corophya. Moreouer, ſundry ſorts of other ſhell fiſh, and among them thoſe that engender and beare pearles, and therof be called Mother-pearls. The wilkes alſo and winckles which reſemble ſhel-ſnailes: of which kind are the Pentadactyles, Melicembales, and the prickly Echinophoræ, whoſe ſhels ſerue to ſound or wind withal. Ouer & beſides theſe ſhel fiſhes, are thoſe winkles of a round forme, the ſhels whereof are much vſed to lade vp oyle. Furthermore, the ſea Cucumber and Cynopus, the ſea Craifiſh Cammarus, Cynoſdexia, and the
F ſea Dragon. As for that which is named Dracunculus, ſome are of opinion, That it differeth from the foreſaid Draco, and like it is to the Chough-fiſh Gracculus, ſharpe prickes it hath in the gils, and thoſe pointing toward the taile: like as the ſea Scorpion, which thereby woundeth and hurteth thoſe that would ſeem to take it vp in their hands. There is beſides the Erythinus, the ſtay-ſhip Echeneis, & the ſea Vrchin. The black Elephants alſo, which be the black kind of the Lizards, hauing foure feet, and thoſe clouen & two-forked; beſides two arms with two joints apiece, and each of them armed with a little forked cley, and cloſing in manner of teeth. Then haue you the fiſh called Faber or Zeus, that is, the Goldfiſh or Doree. All the ſorts of Glaucif-
cus, the Glanis, the Gonger, or Conger, the Hearing or Pilchard Gerries, Galeos, and * Garus.

Alſo

[1] So called of the forme of warlick engins of batterie, called in Latin *Arietes.*

[2] And yet haue ſome proportiõ of the land beaſt ſo called.

[3] *Luxuriæ*, haply becauſe the form of a Lute was deuiſed firſt by the ſhel thereof: or ſumptuous buildings either framed archwiſe according to thẽ, or els adorned & ſeeled with their ſhels by Marquetage.

[4] By reaſon of their ſtones, which yeeld Caſtoreum.

[5] Some take *Thunni* for the Milters and *Thunnides* for Spawners.

[6] *Acipenſar.*

[7] A kind of Crab, which ſome call S. Barnards Hermite.

[8] *Diable de mer.*

[9] A kind of Turbot.

[10] A Gougeon.

* *Lacertorum æmulus*, as *Dalechampius* readeth.

*Dalechampius readeth it contrariwiſe, and correcteth the place out of *Ariſtotle.*

* Which ſome take for the Pikerell.

Alſo the coaſt Crabfiſh called Hippeus, or Sea-horſeman Hippuros; the ſea Swallow fiſh, Ha- G
lipleumon, or Pulmo Marinus; the ſea-lights, heart-fiſh, the liuer of the ſea, and Helacathenes.
All the ſorts of the ſea-Lizards: the flying Calamarie: the Locuſts and Lanternes of the ſea, Ly-
paris, Lamyrus, the ſea Hare and ſea Lions, which haue cleies or armes in maner of Crabfiſhes,
but in other reſpects reſembling Locuſts. The Barble, the Merling or Whiting (among ſtone-
fiſhes well eſteemed) and the Mullet: the black taile Perch [which ſome take for a Ruffe, others
for a ſea Breame:] the Cackerell, the Meryx, the Lamprey, the little Muskle, the Limpin, the
* Which are a kind of oyſters Myſcus, and the Burret. The ſeuen-eye Oculata, the Ele-pout Ophidion, the Oiſtre, the * eares
of the ſea called Otia, & Orcynus. This fiſh of the Tunie kind named Pelamides is the biggeſt,
and neuer returneth again into Mœotis, like vnto a Triton; & the meat therof is the better for
age. The Lompe, Paddle, or ſea Owle, and the grunting Molebout: moreouer, the fiſh Phager, the H
Mole or Lepo counted among ſtonefiſhes, and the Pelamis, the greateſt of which kind is called
Apolectus, and harder it is than the Triton, alſo the ſea-god Phorcus, and Phtitharus: the Plaice
or Hallibut, & the Puffin: all the kinds of Pulpes or Pourcuttils. The greateſt Scallops alſo, and
thoſe which during Summer be blackeſt, whereof the beſt ſort be thoſe which are taken about
Mytelenæ, Tyndaris, Salonæ, Altinum, Antium, and the Iſland Pharos neere to Alexandria in
Ægypt. Alſo the little Scallops, the Purples, & the ſea Perches, named Percides: the Nacres and
their hunters, called Pinnotheræ. Ouer and beſides, the fiſh called Skate, which ſome will haue
to be Rhina in Greek, & named by vs in Latine, Squatus, and the birt or Turbot: the Guilthead
Scarus, which at this day is thought to be a principal fiſh: the Sole, the Sargus, the Shrimp, and
the Sarda, for ſo they call the long Pelamis when he coms out of the Ocean. The Maquerel or I
Scomber, the Stockfiſh, the Sparus, Scorpæna, Scorpios, Sciadeus, Sciæna, the Scolopendra,
the ſerpent fiſh Smyrus, the Scepines; the ſhel-fiſh pointed like a Turbant, Strombus: & Solen,
otherwiſe called Aulus, Donax, Onyx, or Dactylus, all ſhell-fiſhes made like kniues: the aſſe-
houſe oyſter Spondilus, and the ſhel-fiſh Smarides, the Star, and the Spunge. Then follow the
noble ſtonefiſh Turdus, and the Thomus Thurianus, ſold in pieces or rands cut forth, which fiſh
ſome call Xiphia, or the Sword-fiſh. The Theſſa, Torpedo or Crampfiſh, and Tethea. Triton al-
ſo, which is reckoned among the greater kind of the Pelamides, whereof are made thoſe ſquare
taile-pieces of the Tunie, called Vræa Cybia. Laſt of all, the Vrenæ, the ſea Grape or the Empe-
rour with a ſword, called Xiphias. And here I thinke it not amiſſe to annex the names of diuerſe
fiſhes ſet downe by the Poët *Ouid*, which are not to be found in any other Authour: But haply K
thoſe breed in the great ſea of Pontus, in which realme he began that booke *De Ponto*, in his la-
* Some read *Bos-piger.* ter daies. In the firſt place he nameth * Bopgyrus, which liueth among the rockes: the red Or-
phus, and the blacke Rhacinus, the painted and ſtreaked Mormyræ, and the golden coloured
Chryſos. Moreouer, the little Teragus, and Labrus with the faire & pleaſant taile. Likewiſe the
Epodes, which are of the broad or flat kind, named Lati. All theſe be notable fiſhes: but ouer
and beſides, he reports the ſpeciall properties and nature of ſome: as namely that the Chaune
doth conceiue of it ſelfe without a mile: that the Glaucus neuer is to be ſeene in Summer: that
Pompilus alwaies accompanieth the ſhips vnder ſaile: and Chronius buildeth a neaſt in the
very water. He ſaith moreouer, That Helops is a ſtranger to vs in this part of the world, and
not known in our ſeas: whereby it is euident that they be deceiued who take it for the Sturgeon L
Acipenſer; and yet many reckon this Elops to haue the daintieſt taſt, and to be the moſt delicat
meat of all fiſhes. There are ouer and beſides other fiſhes, named as yet by no writer, to wit,
that which in Latine wee call Sudis, the Greekes Sphyræna, which (as it ſhould ſeeme by the
name) hath a ſnout or muffle reſembling a ſharpe ſtake or ſpit, and may for quantitie be coun-
ted among the biggeſt: a rare fiſh, but of no baſe and baſtard kind. There be alſo of the Nacres
thoſe which are called Pernæ, taken and gathered in exceeding great plenty about the Iſlands
of Pontus: their manner is to ſtand or ſticke faſt planted vpon the ſea ſand, and made they are
in faſhion of the long ſhanke of a ſwine; they gape alwaies toward the coaſt which is cleare;
and neuer doe they hunt for their food, but they yawne at leaſt a foot wide. Teeth there bee
growing round about the edges of a ſhell, and thoſe ſtand thicke together, and when they M
ſhut or cloſe their ſhels, the foreſaid teeth run one betweene another in manner of a combe. In
ſtead of a calloſitie within, they haue a great lumpe of fleſh. As for the fiſh Hyæna, I my ſelfe
haue ſeen one of them taken in the Iſland Ænaria, which vſed to put forth and draw in his head
at his pleaſure.

Thus

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A Thus much of Fiſhes worth the naming. For beſides theſe, I am not ignorant that there be other baſe excrements that the ſea voideth and purgeth, which I hold to be very vnfit and not worthy to be ranged among Fiſhes and liuing creatures, but rather to be reckoned as Kilpes, Reike, and other ſea weeds.

B

THE XXXIII. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

C

Of Mettals and Minerals, and their natures.

The Proem.

D K *NOw is it time to enter into the diſcourſe of the Mettals and Minerals, the very riches and precious treaſure of the World, which men ſo curiouſly and carefully ſeeke after, as that they ſticke not to ſearch into the very bowels of the earth by all the meanes they can deuiſe: for ſome you ſhall haue (to enrich themſelues) for to dig into the ground for mines of gold and ſiluer, baſe mettall Electrum, Copper and Braſſe: others againe vpon a deſire of daintie delights and brauerie, to lay for gems and precious ſtones, for ſuch Minerals (I ſay) which may ſerue partly to adorne their fingers, and partly to ſet out the walls of ſumptuous buildings with coſtly colours, rich marble, and porphyries. Laſtly, there bee many, who maintaine raſh quarrels and audacious attempts, ſpare for no labour to get yron and ſteele, and eſteeming it better than gold, for cruell warres and bloudie murthers. In ſumme there is not a vaine in the whole earth but wee prie and ſearch into it: we follow it alſo ſo farre as it goeth. Thus hauing vndermined the poore ground, wee liue and goe aloft vpon it, as ouer hollow vaults and arches vnder our feet: and yet we would ſeeme to wonder, that otherwhiles ſhe cleaueth aſunder into wide and gaping chinkes, or elſe trembleth and quaketh againe: and wee* E L *will not ſee how theſe be apparant ſignes of the wrath of this our bleſſed mother, which we bring and force from her, to expreſſe the indignation that ſhe taketh for this wrong and miſuſage. We deſcend into her entrailes: we goe downe as far as to the ſeat and habitation of the infernall ſpirits, and all to meet with rich treaſure: as if the earth were not fruitfull ynough and beneficiall vnto vs in the vpper part thereof, where ſhe permitteth vs to walke and tread vpon her. Howbeit, in all this paines that wee take to ranſacke the mines therof, the leaſt matter of all other is to ſeeke for any thing that concerneth Phyſick and the regiment of our health: For among ſo many maſters as there be of mines, where is there one that would be at ſuch expence of digging, in regard of any medicines. And yet I muſt needs ſay, that as the earth otherwiſe is no niggard, but bounteous and liberall, readie alſo and eaſily entreated to bring forth all things good and profitable for vs: ſo in this behalfe ſhe hath furniſhed vs ſufficiently with wholeſome drougs and medici-* F M *nable ſimples growing aboue and fit for our hand, without need of digging deepe for the matter. But the things that ſhee hath hidden and plunged (as it were) into the bottome, thoſe be they that preſſe vs downe, thoſe driue and ſend vs to the diuell in hell: euen thoſe dead creatures (I ſay) which haue no life nor doe grow at all. In ſuch ſort, as to conſider the thing aright, and not to captivat our ſpirits to ſuch baſe matters, How farre think we, will couetous minded men pierce and enter into earth? or when will they make*

an end of these mines, hollowing the ground as they doe in all ages from time to time, and making it void G
and emptie? Oh how innocent a life, how happy and blessed, nay, how pleasant a life might we lead, if we
coueted nothing else but that which is aboue the ground: and in one word, if we stood contented with that
which is ready at hand and euen about vs. But now, not sufficed with the gold which we fetch out of the
* Chrysocolla, i. Gold-soder. *mines, we must seeke for the greene earth Borras also, which lieth hard by, yea, and giue it a name respective*
vnto gold, whereby it might be thought more deare and pretious. For why? we thought not the inuention
and finding out of gold alone to be enough for to infect and corrupt our hearts, vnlesse we made great ac-
count also of that vile and base minerall, which is the very ordure of gold and no better. Men vpon a co-
uetous mind would needs seeke for siluer, and not satisfied therwith, thought good withall to find out Mine-
rall vermilion, deuising meanes how to vse that kind of red earth. Oh the monstrous inuentions of mans
wit! What a number of waies haue we found to enhaunce the price and value of euery thing! for painters H
of the one side with their artificiall painting and enameling: the grauers on the other side with their cu-
rious cutting and chasing, haue made both gold and siluer the dearer by their workemanship: such is the
audacitie of man, that hee hath learned to counterfeit Nature, yea, and is so bold as to challenge her in her
workes. And wherein is the art and cunning of these artificers so much seene, as in the workemanship
of such pourtraitures vpon their gold and siluer plate, which might incite and prouoke men to all kind of vi-
ces: for in processe of time we tooke pleasure to haue our drinking boles and goblets engrauen all ouer with
those workes which represent lust and wantonnesse: and our delight was to drinke out of such beastly cups
which might put vs in mind of sinfull and filthy lecherie: but afterwards these cups also were cast aside
and laid away, men began to make but base account of them; gold and siluer was so plentifull and common,
that we had too much thereof. What did we then: Forsooth we digged into the same earth for Cassidonie I
and Crystall, and we loued to haue our cups and other vessels of such brittle minerals; and the more preci-
ous we held them, as they were more subiect to breaking: so as now adaies hee is thought to haue his house
most richly furnished, who hath his cupbourds best stored with this tickliſh ware: and the most glorious
shew that we can make of excesse and superfluitie, is this, To haue that which the least knocke may breake,
and being once broken, the pieces thereof might be worth nothing. Neither is this all, for stay we cannot
here, we are not yet at cost enough, vnlesse we may drinke out of a deale of precious stones. Our cups other-
wise chased, engraued, and embossed in gold, must be set out with hemeraulds besides: to maintaine drun-
kennesse, to make a quarrell to caronse and quaffe, we must hold in our hand and set to our mouth the riches
of India. So as, to conclude, our golden plate comes behind pretious stones and pearles, and we count it but
an accessarie and dependant, which may be spared. K

Chap. I.

¶ When mines of gold grew first into request. The beginning of gold rings. The quantitie of gold in treasure among our ancestors in old time. Of the Cavallerie and Gentrie of the Romanes. The priuiledge of wearing golden Rings.

OH that the vse of gold were cleane gone: Would God it could possibly be quite abolished among men, setting them as it doth into such a cursed and excessiue thirst after it, if I may vse the words of most renowmed writers: a thing that the best men haue alwaies reproched and railed at, and the onely meanes found out for the ruine and ouerthrow of mankinde. What a blessed world was that, and much more happier than this wherein wee liue, at what time as in all the dealings betweene men, there was no coine handled, but their whole trafficke stood vpon bartering and exchanging ware for ware, and one commoditie for another; according as the practise was in the time of the Trojane war, as *Homer* (a writer of good credit) doth testifie. And in that manner (as I take it) began first the commerce of negotiation among men for the maintenance of their society and liuing together: for so he reporteth, That some bought that which they stood in need of, for Bœufes hides, others, for yron or such commodities as they had gotten in bootie from their enemies. And yet I must needs say, that euen *Homer* himself esteemed gold of great price, as may appeare by the æstimat that he made thereof in comparison of brasse, when he saith, That *Glaucus* exchanged his golden armour, worth 100 * oxen, for the [brasen] harneis of *Diomedes*, which

L

M

* It is thought that hereby are meant certaine pieces of siluer coine, stamped with the portraiture of a bull or ox, called *Didrachma* & were worth two drams or diniers Romã.

χρύσεα χαλκείων, ἑκατόμβοια ἐννεαβοίων.

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A which was valued but at nine Bœufs: according to which manner practiſed in thoſe daies, euen at Rome alſo (as may appeare by the old records) there were no other penalties and fines impoſed vpon thoſe that tranſgreſſed the lawes, but ſuch as conſiſted in Bœufes and Muttons, and vnder that name paſſed all the amercements that were leuied. Well, a bad example and preſident gaue he vnto the world, who firſt deuiſed to weare rings vpon the fingers: but who he was that did this harm vnto mankind, it appeareth not for certaine vpon any record. For as touching the reports that go of *Prometheus*, I hold them all but fabulous tales: and yet in all the antient pictures and portraitures of him, he is to be ſeen by a generall conſent of antiquity, with a ring of yron: howbeit, I ſuppoſe that they repreſented thereby his bonds and his impriſonment, rather than any cuſtome that he had to weare a ring as an ornament vpon his finger. And verily

B concerning the ring of K. * *Midas*, which if the collet were turned about toward the palm of the hand, cauſed them to go inuiſible that ſo wore it: is there any man (thinke you) that judgeth it not more fabulous than the other of *Prometheus*? But to come more particularly vnto gold, the greateſt credit and authority that it got, was by wearing it in rings vpon the fingers, and thoſe only and altogether vpon the left hand. And yet this was no faſhion at firſt among the Romans, whoſe manner was to vſe no other but of yron, to ſhew that they were good ſouldiers, skilfull and expert in feats of arms. Whether the antient kings of Rome were wont to haue gold rings vpon their fingers, I am not able to ſay for certaine. Sure it is, that the ſtatue of king *Romulus* in the Capitoll hath none. Neither is there any to be ſeen in the other ſtatues of the Roman kings, ſaue only of *Numa*, and *Servius Tullius*; no nor in that of *Lucius Brutus*: Whereat I maruel much,

C and eſpecially at the two *Tarquines* kings of Rome, conſidering that they were deſcended of the Greeks, from whence came vp the firſt vſage of theſe gold rings, how ſoeuer yet at this day in Lacedæmon there be none worne but of yron. Howbeit, this is recorded and known for a truth, That *Tarquinius Priſcus*, the firſt of all the *Tarquins*, honoured a ſonne of his with a brooch or tablet of gold pendant at his neck, for that whiles he was vnder 16 yeares of age, and as yet in his Prætexta, hee had killed an enemy in plain fight. And thereupon was taken vp the manner firſt, (which alſo continued afterward) to hang that *ornament about the necks of thoſe gentlemens

D ſonnes who were men at armes and ſerued in the wars on horſe-backe, in token of knighthood and cheualrie: whereas other mens ſonnes ware a riband onely. And therefore great maruell I haue at the ſtatue of the ſaid prince king *Tarquine*, ſurnamed *Priſcus*, that it ſhould be without a ring on his finger. And yet beſides all this, I reade, that there hath been ſome variance and difference in old time about the naming of rings: The Greekes impoſed a name deriued from the finger, and called it Dactylios. The Latines here with vs in old time named it Vngulus: but afterwards, as well we as the Greeks termed it Symbolum. Certes, long it was firſt (as appeareth evidently by the Chronicles) ere the very Senators of Rome had rings of gold. For plaine it is, that the State allowed and gaue rings only to certain eſpecial lieutenants when they were to go in embaſſage to forrein nations: and in mine opinion, it was for their credit and countenance, for that the moſt honorable perſonages in ſtrange countries were diſtinguiſht from others by that ornament. And verily, no perſon (of what degree ſoeuer) was wont to weare rings, but ſuch as had receiued them firſt from the common-wealth vpon that occaſion: & ſo it ſerued them or-

E dinarily in triumph, as a token and teſtimoniall of their vertue and valour. For otherwiſe, he that triumphed in Rome, although there was a Tuſcan coronet al decked with ſpangles of gold, born vp behind and held ouer his head, had no better than a ring of yron vpon his finger, no more than the ſlaue at his back, who haply carried the ſaid Tuſcan chaplet. For certainly in that maner triumphed *C. Marius* ouer K. *Iugurtha*: aud as the Cronicles do ſhew, receiued not a golden ring, nor tooke vpon him to weare it before his third Conſulſhip. And euen thoſe alſo who from the State had golden rings giuen them, in regard of embaſſage aforeſaid, I neuer vſed them but when they came abroad into open place, for within dores they might ware none but of yron: which is the reaſon, that euen at this day the wedding ring which the bridegroom ſendeth as a token *of eſpouſals to his bride, is of yron ſimply without * any ſtone ſet in it. Neither, ſo farre as I can

F finde by reading, were there any golden rings in vſe and requeſt about the time of the Trojane war: for ſure I am, that the Poet *Homer* maketh no mention of them at all, who otherwiſe ſpeaketh of the brauery and rich attire of thoſe times. And when he talketh of writing tablets, ſent ordinarily in ſtead of letters miſſiue; when he writeth of cloths and apparels beſtowed in chiſts and coffers; when he telleth vs of veſſels, as well gold as ſiluer plate; he ſaith they were all bound and

*Gyges rather, as appeareth by *Plato*, and *Cicero*.

*Called *Bulla*, which was in forme of the heart: & after they were growne to bee men, *i.* at 17 yeares of age they offered it vp to the Lares: like as yong maidens mariageable preſented *Venus* with yong babies of clouts ſuch as they were wont to make and play withall, as being now deſirous to haue babes indeed of their owne bodies. *Alex. ab Alex. lib. 2 cap. 25. & lib. 6 cap. 18.*

*It was called *Pronubus Annulus*.

and truſſed faſt with ſome ſure knot,and not ſealed vp with any mark of a ring as the order is in G
theſe daies. Moreouer,when he reporteth of any challenge made by the enemy to ſingle fight,
and ſheweth how the captains fel to caſt their ſeuerall lots for the choiſe of them which ſhould
performe the combat,this was neuer done by the ſignet of rings, but by ſome other eſpeciall
marks that euery one made. Alſo,when he taketh occaſion to ſpeak of the workmanſhip of the
*As of *Vulcan* gods,he rehearſeth buckles,claſps,and buttons of gold,other jewels and ornaments alſo belon-
ging to the attire of women,as eare-rings and ſuch like of their making,which at the beginning
were commonly made,but he ſpeaketh not one word of golden rings. And verily in my conceit
whoſoeuer began firſt to weare theſe rings,did it couertly by little and little,putting them vpon
the fingers of the left hand,the better to hide them,as if they were aſhamed to haue them open-
ly ſeene: whereas if they might haue auowed the honouring of their fingers by that ornament, H
they ſhould haue ſhewed them at the firſt vpon the right hand. Now if any man obiect and ſay,
that the wearing them on the right hand might be ſome impeachment to a ſoldier for vſing his
offenſiue weapon which he beareth in that hand; I alledge again,that the hinderance was more
in the left hand,which ſerueth to hold and manage the targuet or buckler defenſiue. I reade in
the ſame Poet *Homer* aforeſaid,that men vſed to plait & bind vp the treſſes of their haire with
gold:and therefore I wot not well whether men or women firſt began the manner of ſuch brai-
ding the locks of the haire.

As touching gold laid vp for treaſure,little was there of it at Rome for a long time;for ſure-
ly,when the city was taken & ſacked by the Gauls,and that the Romans were to buy & redeem
their peace for a ſum of mony,there could not be made in all Rome aboue one thouſand pound I
weight of gold. Neither am I ignorant,that in the third Conſulſhip of *Cn. Pompeius* there was
embezeled and ſtolne 2000 pound weight of gold out of the throne or ſhrine of *Iupiter* within
*By *M.Craſſus* the Capitoll,which had bin there beſtowed and laid vp by **Camillus* : whereupon many men
haue thought,that there was 2000 pound weight of gold gathered for the ranſome of the city.
But ſurely looke what ouerplus and ſurcreaſe there was aboue the foreſaid weight of one thou-
ſand pound,it was of the very booty and pillage of the French,and taken out of the temples and
chappels in that part of the city whereof they were maſters. Moreouer, that the Gaules them-
ſelues were wont to goe to the wars brauely ſet out and inriched with gold,it appeareth by this
one example of *Torquatus*,who ſlew a Gaule in combat , and tooke from him a maſſie collar of
gold. Apparant it is therefore,that all the gold,as well that of the Gaules, as that which came K
from the temples aboueſaid,amounted to the ſaid ſum,and no higher : to the light and know-
ledge whereof we come by meanes of reuelation from Augurie, which gaue vs to vnderſtand,
that *Iupiter Capitolinus* had rendered againe the foreſaid ſum in duple proportions. And here by
the way there commeth to my remembrance another thing,not impertinent to this place: con-
ſidering I am to treat againe of rings: when the ſexton or keeper of this cell was apprehended,
and the queſtion demanded,What was become of the treaſure aforeſaid of 2000 pound which
Iupiter had in cuſtody, and which now was out of the way and gone? Hee tooke the ſtone that
was in the collar of his ring which he ware,crackt it between his teeth,and preſently dyed ther-
upon: wherby the truth was not bewraied and reuealed,as touching the theefe that robbed the
ſaid treaſure. Wel,reckon the moſt that can be,ſurely there was not aboue 2000 pound weight L
of gold to be had in Rome,when the city was loſt;which was in the 364 yere after the firſt foun-
dation therof,at what time(as appeareth by the rols of the Subſidie booke)there were in Rome
to the number of 152580 free citizens. And what was 2000 pound in proportion to ſuch a mul-
titude of people. Three hundred and ſeuen yeres after,when the temple of the Capitoll was on
fire,all the gold to be found therein,as alſo in al the other chappels and ſhrines aroſe to thirteen
thouſand pound weight,which *C.Marius* the yonger ſeized vpon and conueied away to the city
Prænеſte. And all the ſame was recouered againe and brought backe againe by *Sylla* his enemy,
who vnder that title carried it in triumph,beſides ſeuen thouſand pound weight of ſiluer,which
he raiſed out of the ſpoile of *Marius*. And yet neuertheleſſe, the day before hee had cauſed to
be carried in a pompe of triumph fifteene thouſand pound weight of gold,and one hundred and M
fifteene thouſand pound of ſiluer, which came of the reſt of the pillage gotten by that victorie
of his.

But to returne againe vnto our diſcourſe of gold rings:I doe not read that they were ordina-
rily vſed,before the daies of *Cn.Flavius* the ſonne of *Annius*: This *Flavius* beeing otherwiſe a
man

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A man of mean and baſe parentage, as whoſe grandſire by the fathers ſide had bin no better than a
ſlaue infranchiſed: howbeit hauing a pregnant wit of his own, & brought vp daily vnder a good
ſchoolmaſter *Appius Claudius* ſirnamed the Blind (whom he ſerued as his Scribe, Clerke, or Se-
cretarie) he grew into inward credit and fauor with his maſter, that for his better aduancement
he opened vnto him the whole courſe of dayes pleadable and not pleadable, exhorting and per-
ſuading him withal, to publiſh that ſecret and myſterie to the view & knowledge of the whole
city: which the ſaid *Flauius* (after much conference and conſultation had with *Appius*) did, and
effected accordingly; wherupon he became ſo gratious with the whole body of the people (who
were alwaies before wont to hang euery day vpon the lips of ſome few of the chief & principal
Senators, for to haue the information and knowledge of the ſaid daies) that in the end a bil pro-
B mulged by him, paſſed by generall aſſent of them all, for to be created Ædile Curule together
Q. Annicius of Prænеſte (who not many years before had bin a profeſſed enemy, and born armes
againſt the Romanes) without any regard had in this election, either of *C. Petilius*, or *Domitius*,
who were nobly born, & had two Conſſ. to their fathers, who notwithſtanding ſtood for the ſaid
dignitie and honorable place. Nay more, This *Flauius* had a ſpeciall grace beſides granted, To
be at the ſame time one of the Tribunes alſo or Prouoſts of the Comminaltie. At which indig-
nitie the Senat took ſuch diſdaine, and chafed ſo for deſpight and anger, that as we reade in the
antient Annals and Chronicles of our city, there was not one Senator of them all but laid away
his golden rings and gaue vp his place. Many are of opinion (although they be farre deceiued)
that the knights and men of arms alſo did the ſemblable, and left off their rings the ſame time.
C And this likewiſe goeth currant and is generally receiued, That they caſt aſide the capariſons
and trappings of their bard horſes; for theſe be the two badges or markes which cauſe them to
be called Equites, as one would ſay, knights, men of arms, or horſmen. True it is beſides, that in
ſome annals we find it recorded, that it was the nobility only of Rome that gaue ouer their gold
rings, and not generally the whole body of the Senat. Wel, howſoeuer it was, this hapned when
P. Sempronius Longus and *L. Sulpitius* were Conſuls. But *Flauius* aboueſaid, ſeeing what trouble
and diſcontentment was riſen hereupon throughout the city, vowed to erect and build a temple
in the honor of *Concord*, if he could reconcile the eſtate of the Senat, and the order of the gentle-
men again to the common people. And ſeeing that he could not be furniſhed with mony out of
the common treaſure of the city, for defraying of charges requiſit to this piece of work, he made
D means to haue certaine extreme vſurers condemned to pay good round ſums of mony: & with
theſe fines a little chappell he cauſed to be made all of braſſe, and reared it in the place appoin-
ted for Embaſſadors out of ſtrange countries to wait and giue attendance in, called Græco-
ſtaſis, the which was at the head of the publique grand place or hal of aſſemblies called Comi-
tium: where in a table of braſſe he tooke order there ſhould be cut and engrauen the veritie of
the dedication of the ſaid temple, which was 104 yeres after the temple in the Capitol was de-
dicated, and in the 448 yere from the foundation of the city. This is the firſt and moſt antient
euidence that may be collected out of all the antiquities of Rome now extant, as touching the
vſage and wearing of Rings. Another teſtimonie we haue thereof in the ſecond Punicke War:
which implieth, that rings in thoſe daies were vſed more ordinarily, as wel by commons, as gen-
E tlemen and Nobles: for otherwiſe, if they had not bin ſo vſually worn as wel by one as another,
Annibal could neuer haue ſent to Carthage thoſe three Modij of rings, which were pluckt from
the fingers of thoſe Romans who were ſlain in the battell of Cannæ. Moreouer, the Chronicles
beare witneſſe, that the great quarrell betweene *Cæpio* and *Druſus* (from which aroſe the ſociall
war of the Marſians, and the ruin of the ſtate) grew by occaſion of a ring ſold in port ſale, which
both of them would haue had, the one as well as the other. Neither at that time verily did all
Senators weare gold rings; for known it hath bin within the remembrance of our grandfathers,
that many of them (and ſuch as beare the Pretorſhip) in their old age, and to their very dying
day, neuer wore any other rings but of iron. The ſame doth *Feneſtella* report of *Calphurnius*; and
of *Manilius* alſo, who was Lieutenant vnder *Caius Marius* in the war againſt King *Iugurtha*. And
F many other hiſtorians affirme the like of *L. Fuſidius*, him I meane vnto whome *Scaurus* dedica-
ted that Booke which he compiled of his Life. There is a whole houſe or family at Rome of
Quintij, wherein (by antient cuſtome and order) there was neuer any known, ſo much as the very
women, to weare any gold about them. And euen at this day, the greater part of thoſe nations
and people who liue vnder the empire of Rome, know not what theſe rings meah. All the coun-

tries of the Eaſt throughout, and Egypt generally, at this time content themſelues with ſimple writings and bare ſcripts, without any ſeale or ſigne manuel ſet vnto them. But ſo far off are we in theſe daies from keeping vs to the plain hoop rings of our anceſtors, that as in all things els, ſo in them alſo we loue to change and alter euery day, ſo giuen we are to exceſſe and ſuperfluitie: for now, many muſt haue curiouſly ſet in their rings, pretions ſtones of excellent beautie and moſt exquiſit brightneſſe; and vnleſſe their fingers be charged and loden again with the riches and reuenues of a good lordſhip, they are not adorned and decked to their mind. But I purpoſe more fully to ſpeake hereof in my treatiſe of gems and pretious ſtones. Others again wil haue in their rings and ſtones ſundry figures and portraitures as they liſt themſelues engrauen, that as there be ſome rings coſtly for the matter, ſo others again ſhould be as pretious for the workmanſhip. Yee ſhall haue many of theſe wantons and delicate perſons make conſcience (forſooth) to cut and engraue ſome of their pretious ſtones, for hurting them; and (to ſhew that their rings ſerue for ſomewhat elſe than to ſeale and ſigne withall) doe ſet the ſaid ſtones whole and entire as they be. And diuers there are who will not encloſe the ſtone with gold on the inſide of the colet which is hidden with the finger, to the end (forſooth) that it may touch the naked skin and be ſeene through. And ſuch an opinion they haue of theſe ſtones, that gold is worth nothing in compariſon of many thouſands of them now in vſe and requeſt. Contrariwiſe, many there are who will haue no ſtone at all in their rings, but make them all of maſſiue gold, and therewith do ſeale: a deuiſe that came vp in the time of *Claudius Cæſar* the Emperor. Furthermore, in theſe our daies ſome ſlaues ſet iron within a collet of gold, in ſtead of a ſtone; and others again hauing their rings of iron, yet they adorn and ſet them out with the moſt pure and fine gold that may be had. This licence (no doubt) and libertie of wearing rings in this order, began firſt in Samothrace, as may appeare by the name of ſuch rings, which therefore are called Samothracia. Now to come again to our golden rings: The manner was in old time to weare rings but vpon one finger onely, and namely that which is the fourth or next to the little finger, as we may ſee in the ſtatues of *Numa* and *Servius Tullius*, Kings of Rome: but afterward they began to honour the fore-finger which is next vnto the thumbe, with a ring, according to the manner which we ſee in the images of the gods: and in proceſſe of time they took pleaſure to weare them vpon the leaſt finger of all: and it is ſaid, that in France and Brittaine they vſed them vpon the middle finger. But this finger now adayes is excepted onely and ſpared, whereas all the reſt be ſped and charged with them; yea and euery joint by themſelues muſt haue ſome leſſer rings and gemmals to fit them. Some will haue the little finger loden with 3 rings; others content themſelues with one and no more vpon it, wherewith they vſe to ſeale vp the ſignet that is to ſigne ordinarily; for this ſigne manuel (I may tell you) the manner was to lay vp ſafe among other rare and pretious things: this might not come abroad euerie day, as beeing a jewell that deſerued not to be miſuſed by handling commonly, but to be taken forth out of the cabinet or ſecret cloſet neuer but when need required: ſo that whoſoeuer weareth one ring and no more vpon the leaſt finger, hee giueth the world to vnderſtand, that he hath a ſecret cabinet at home ſtored with ſome ſpeciall things more coſtly and pretious than ordinarie. Now, as ſome there bee that take a pride and pleaſure to haue heauy rings vpon their fingers, and to make a ſhew how maſſiue and weighty they are; ſo others againe are ſo fine and delicat, as they thinke it a paine to weare more than one. Some hold it good, for ſauing of the ſtone or collet (if the Ring ſhould chance to fall) to haue the round hoope or compaſſe thereof wrought hollow or enchaſed within, yea and the ſame filled vp with ſome lighter matter than is gold, that it may fall the ſofter. You ſhall haue many that vſe to carry poyſon hidden within the collet vnder the ſtone, like as *Demoſthenes* did, that renowned Prince of Greeke Orators; ſo as their rings ſerue for no other vſe or purpoſe but to carry their owne death about them. Finally, the greateſt miſchiefes that are practiſed by our mighty men in theſe dayes, are for the moſt part performed by the meanes of rings and ſignets. O the innocence of the old world! what a heauenly life led men in thoſe dayes, when as there was no vſe at all of ſeale and ſignet? But now we are faine to ſeale vp our ambries and hogſheads with our ſignets, for feare we be robbed and beguiled of our meat and drinke. This is the good that commeth of our legions and troupes of ſlaues, which we muſt haue waiting and following at our heeles: this commoditie we haue by our traine and retinue of ſtrangers that wee keepe in our houſes: inſomuch as wee are driuen to haue our Controllers and *Remembrancers to tell vs the names of our Seruants and people

*Nomẽclatores.

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people about vs, they are ſo many. It was otherwiſe ywis by our anceſtors and fore-fathers daies, who had no more but one yeoman or groome apiece, and thoſe of the linage and name of their Lords and Maſters: as may appeare by the ordinary names of * *Marci-pores*, and *Luci-pores*: and theſe had all their victuals and diet ordinarily at their maſters bourd. And therefore there was no great need to keep ſafely any thing vnder lock and key from ſuch houſhold ſeruitors: whereas now adayes the cater goeth to the market to prouide cates and viands for to be ſtollen and carried away as ſoon as they come home, and no remedy there is againſt it: for no ſeale will ſerue to make ſure either ſuch lurchers themſelues for filching, or keep the very locks and keies ſafe and whole that lead to the prouiſion. And why? an eaſie matter it is to plucke the rings from their lord and maiſters fingers that are oppreſſed with dead ſleep, or when they lie a dying. And verily we hold in theſe daies a ſeale to be the beſt aſſurance in contracts that may be: but I wot not how long it is ſince that cuſtom firſt came vp. And yet if we conſider the faſhions and manners of ſtrange Nations, we may peraduenture find how theſe ſignets came into ſuch credit and authoritie: and namely by the Hiſtory of *Polycrates* the Tyrant or King of the Iſle Samos: who hauing caſt into the ſea a ring which he loued and eſteemed aboue all other jewels, met with the ſame againe by meanes of a fiſh which was taken, in the belly whereof the ſaid ring was found. Now this king was put to death, about the two hundred and thirtieth yeare after the foundation of our citie. Howbeit, the ordinarie vſe of theſe ſignets (as I ſuppoſe by all reaſon and likelihood) began together with vſurie: for proofe whereof, marke how ſtill at this day, vpon any ſtipulation and bargaine paroll made, off goes the ring preſently to confirme and ſeale the ſame. The which cuſtome no doubt came from old time, when there was no earneſt nor gods-pennie more ready at hand than a ſignet. So as we may conclude aſſuredly and affirme, That amongſt vs here at Rome, when the vſe of money and coyne was taken vp, ſoone after came the wearing of rings in place. But as touching the deuiſe and inuention of mony, I will write anone more at large.

* i, the pages or groomes of *Marcus* or *Lucius*.

And now to return againe to my diſcourſe of rings: after they began once to bee in any requeſt, there were none at Rome vnder the degree of a knight or gentleman that carried rings on their fingers; inſomuch, as a man might know a gentleman from a commoner by his ring, like as a Senator was diſtinguiſht from the Gentlemen, wearing rings, by his coat embroidered with broad gards and ſtuds of purple. Howbeit, long it was before this diſtinction was obſerued: for I find that the publicke criers wore ordinarily ſuch coats likewiſe embroidered, as Senators do: as appeareth by the father of *L. Ælius Stilo*, ſyrnamed vpon that occaſion *Præconimus*, becauſe his father had bin a publicke Crier. Certes, theſe rings certified the middle degree, inſerted between the Commons and the Nobles: and that name which in times paſt horſes of ſeruice gaue to men of armes and * gentlemen of Rome; the ſame now adaies ſheweth men of worth, and thoſe who are of ſuch and ſuch reuenues. But long it is not ſince this diſorder and confuſion begun. For when as *Auguſtus Cæſar* late Emperour of happy memory, ordained decuries of Iudges in criminal matters, the greater part of them conſiſted of thoſe who wore no other rings but of yron: and thoſe were ſimply called Iudges, and not Knights or Men of armes: for this name continued ſtill appropriat to the troups of thoſe gentlemen, who ſerued vpon horſes allowed by the Senat. Moreouer, at the firſt there were no more but foure decuries of Iudges, and hardly might there be found in each of thoſe decuries, a bare thouſand: for as yet thoſe of our prouinces might not be admitted to this eſtate to ſit and judge vpon criminall cauſes: and euen at this day preciſely obſerued it hath bin, That none but antient citizens might be Iudges: for neuer any that came newly to their free burgeoiſie, were taken into this order and degree.

* Who therupon were called *Equites*.

Chap. II.

¶ *Of the Decuries or Chamber of Iudges vpon record at Rome. How often the name and title of the Romane Cavallerie changed. The gifts and rewards repreſented vnto valiant ſouldiers for their braue ſeruice. And at what time Coronets of gold were ſeene.*

THe chamber of the foreſaid judges conſiſted of diuers eſtates and degrees, diſtinguiſhed all by ſeuerall names: for firſt and foremoſt, there were of them called Tribuni æris, as it were

Generall receiuers or Treaſurers: ſecondly, Selecti, choſen from among the Senators: and laſt of all, thoſe who ſimply were named Iudices or Iudges, taken from among the knights or men of armes. Ouer and beſides theſe, they had others called Nongenti, choice men ſelected from out of all the eſtates, who had the keeping of thoſe chiſts or caskets wherin were put the voices of the people in their ſolemn elections. And by reaſon of a proud humor in men, chuſing themſelues names to their owne liking, great diuiſions and factions aroſe in this houſe and chamber of the foreſaid Iudges; whiles one would needs be called Nongentus; another Selectus, and a third gloried in the title of Tribune or Receiuer. But at length, in the ninth yere of the reigne of the Emperor *Tiberius Cæſar*, the whole eſtate of the gentrie or cauallerie of Rome, was reduced to an vniformitie; and an order was ſet downe whereby it was knowne who might weare rings, and who might not? which fell out to be in that yeare when *C. Aſinius Pollio*, and *C. Antiſtius Vetus* were Conſuls together, and in the 775 yere after the foundation of Rome city. And verily this vniforme regularity was occaſioned by a trifling cauſe to ſpeak of, and whereat wee may well maruell: and thus ſtood the caſe: *C. Sulpitius Galba* deſirous in his youth to win ſome credit with the foreſaid Emperour *Tiberius*; and namely, by deuiſing meanes how to bring Tauerns, Cooks ſhops, and victualing houſes in danger of the law, and to forfeit penalties; pleaded againſt them, and complained before the Senat, That thoſe who were the vndertakers and Tenants as it were of the foreſaid Tauerns, &c. and made their gaine thereby, had no other meanes to beare themſelues out, nor plea to defend their faults and diſorders, but their rings. The Senat taking knowledge hereof, ordained an act, That none from that time forward might bee allowed to weare the ſaid rings, vnleſſe he were free borne, and that both himſelfe, his father, and grandfire by the fathers ſide were aſſeſſed in the Cenſors booke 400000 ſeſterces; and by vertue of the law Iulia as touching the publicke Theatre, had right to ſit and behold the plaies in the firſt and foremoſt 14 ranks or ſeats for knights appointed. Howbeit afterwards, euery man labored and made means one with another, to be allowed to weare this ornament of a ring. Now in regard of theſe diſorders and variances aboue rehearſed, prince *Caius Caligula* the Emperour, adjoyned to the former foure, a fifth Decurie. And ſhortly after, men grew to that height and pride in this behalfe of wearing rings, and the company ſo ſurcreaſed, that whereas in *Auguſtus Cæſars* dayes there could not be found knights and Gentlemen ſufficient throughout all Rome to furniſh thoſe Decuries, by this time they could not be contained all within the Chamber of Iudges or Decuries aboueſaid: inſomuch as now adaies, no ſooner are there any ſlaues manumiſed and affranchiſed, but preſently (by their good will) they muſt be at their rings. A thing that neuer before was knowne in Rome: for aforetime when a man ſpake of the iron ring, he was vnderſtood preſently to point at the Gentlemen and Iudges before named: but the ſaid ornament or badge became ſo commonly to be taken vp by one as well as another, that a gentleman of Rome (*Flauius Proculus* by name) indited 400 at once before *Claudius Cæſar* Cenſor for the time being, and declared againſt them for this abuſe and offence. See what inconuenience inſued vpon the act of rings! for whiles thereby a diſtinction was made between that degree & other free-born citizens, ſtreight-waies baſe ſlaues leapt in, and were ſo bold as to take that ornament vpon them. And here by the way, it is to be noted, that the two *Gracchi*, *Tiberius*, and *Caius*, brethren, vpon a certain deſire and inbred affection that they had to maintaine and nuzzle the people in ſedition, and to beare a ſide alwaies againſt the Senat, for to currie fauour with the Commons and to do them a pleaſure, deuiſed firſt to haue al them called Iudges, who by vertue of the foreſaid ſtatute or edict, might weare rings: and this he did to croſſe and beard the* Senat. But after the fire of this ſedition was quenched, and the popular authors thereof who ſtirred & blew the coles were murdered, the denomination of theſe criminall Iudges (after diuers troubles and ſeditions with variable and alternatiue fortune) fell in the end to the Publicans and Farmers of the reuenues of the State; and being thus deuolued vpon them, there continued: inſomuch as for a good while the ſaid Publicans made vp the third degree betweene the Senatours and the Commons. Howbeit, *M. Cicero* when he was Conſull re-eſtabliſhed the Knighthood & Cauallerie of Rome in their former eſtate and place; and ſo far preuailed, that hee reconciled them againe vnto the Senat: giuing out openly, that he himſelfe was come of that degree, and by that means by a certain popularity, ſought to draw them all to ſide with him. From this time forward, the men of arms were inſtalled as it were in the third eſtate of Rome; inſomuch as al edicts and publick acts paſſed in the name of the Senat, People, and Cauallerie of the citie. And for

* Who onely indeed were to judge cauſes.

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that theſe knights or gentlemen were laſt incorporated into the body of the Common-weale,
A this is the only reaſon that euen now alſo they are written in all publicke Inſtruments, after the People.

As touching the name or title, attributed to this third eſtate or degree of Horſemen or men of Arms, it hath bin changed and altered oftentimes: for in the daies of *Romulus* and other KK. of Rome, they were called Celeres, afterwards Flexumines, and in proceſſe of time Troſſuli, by occaſion that theſe horſmen without any aid at all of the Infanterie, had woon a towne in Tuſcane nine miles on this ſide Volſinij, called Troſſuli: which name continued in the Cauallerie of Rome, vntill the time of *C. Gracchus* and afterward. And verily *Iunius* (who vpon the great amitie betweene *Gracchus* and him, was ſyrnamed *Gracchanus*) hath left theſe words in writing as touching this matter: concerning the degree of knights (quoth hee) thoſe who now are called Equites, [*i.* Horſemen] beforetime had to name Troſſuli: the change of which name aroſe vpon this; that many of theſe Gentlemen, ignorant in the originall and firſt occaſion of the foreſayd name Troſſuli, and what the meaning thereof was, were aſhamed ſo to be called. He alledgeth moreouer the cauſe of the ſaid name: and yet notwithſtanding (quoth hee) they cannot away with the name at this day, but are ſo called againſt their wils.

To come again vnto our former diſcourſe of gold. There be yet ſome other points beſides to be conſidered therein, which cauſe diſtinction in diuers conditions of men: for our anceſtours, willing at all times to honour thoſe ſouldiers who had borne themſelues valiantly in wars, were
C wont to beſtow chains of gold vpon ſtrangers and auxiliaries, ſuch I meane as came to ayd and ſuccour the Romans: but vnto their owne naturall citizens they gaue none other but of ſiluer: and true it is, that Roman citizens had bracelets giuen them ouer and aboue, which forreiners had not. They were wont alſo (a thing to be maruelled at) to giue vnto citizens, coronets of gold: but who he was whom they honored firſt with this reward, I could neuer find in any Chronicle; and yet *L. Piſo* hath ſet downe in his Annals, the firſt giuer thereof: for *A. Poſthumius* L. Dictator (quoth he) vpon the winning of the fortified campe of the Latines neare the Lake Regillus, was the firſt that beſtowed vpon that ſouldier, by whoſe valorous ſeruice principally the ſaid hold was forced, a coronet of gold; which he cauſed to be made of the pillage taken from the enemie. *L. Lentulus* in like manner, being Conſull, gaue a crowne of gold vnto *Sergius Cornelius*
D *Merenda*, at the winning of a certaine towne within the Samnites countrey. Semblably *Piſo* ſyrnamed *Frugi*, beſtowed vpon his owne ſonne a Coronet of gold weighing fiue pound, which hee cauſed to bee made of his owne priuate money: and yet amongſt other Legacies in his laſt Will and Teſtament, the ſaid Coronet hee bequeathed to the State and Common-wealth of Rome.

Chap. III.

¶ Other vſes beſides of gold, as well in men as women. Of Gold, in money. When Braſſe, Siluer, and Gold, were firſt ſtamped and coined. Before Braſſe was conuerted into ſtamped money, how they vſed it in old time. At what rate and proportion of money were aſſeſſed the beſt houſes of Rome, at the firſt leuying of Subſidies. And at what time gold came into credit and requeſt.

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ALl the gold imploied in ſacrifices to the honor of gods, was in guilding the horns of ſuch beaſts as were to be killed, and thoſe onely of the greater ſort. But in warfare among ſouldiers, the vſe of gold grew ſo exceſſiue, that the field and campe ſhone againe withall, inſomuch as at the voiage of Macedony, where the Marſhals of the field and colonels bare Armour ſet out with rich buckles and claſps of gold, *M. Brutus* was offended and ſtormed mightily at it, as appeareth by his letters found in the plaines about Philippi. Well done of thee, O
F *M. Brutus*, to find fault with ſuch waſtfull ſuperfluitie: but why ſaidſt thou nothing of the gold that the Roman dames in thy time wore in their ſhoos? And verily this enormity and abuſe, I muſt needs impute vnto him (whoſoeuer he was) that firſt deuiſed rings, and by that means cauſed gold to be eſteemed a mettall of much worth: which euill precedent brought in another miſchiefe as bad as it, which hath continued a long time; namely, that men alſo ſhould weare about their arms, bracelets of gold next to their bare skin: which deuiſe and ornament of the arm

is called Dardanium, becauſe the inuention came from the Dardanians: like as the fine golden carkanets Viriæ, we tearme Celticæ; and the necke-laces of gold Viriolæ. Celtibericæ. Oh the monſtrous diſordes that are crept into the world! But ſay that women may be allowed to weare as much gold as they will, in bracelets, in rings on euery finger and joynt, in carkanets about their necks, in earings pendant at their ears, in ſtaies, wreaths, & chinbands; let them haue their chains of gold as large as they liſt vnder their arms or croſſe ouer their ſides, ſcarfe-wiſe; be gentlewomen and miſtreſſes at their collars of gold, beſet thicke and garniſhed with maſſie pearls pendant from their necke, beneath their waſt; that in their beds alſo when they ſhould ſleepe they may remember what a weight of gold they carried about them: muſt they therfore weare gold vpon their feet, as it were to eſtabliſh a third eſtate of women anſwerable to the order of knights, betweene the matrons or dames of honour in their ſide robes, and the wiues of meane commoners? Yet me thinkes, we men haue more reaſon and regard of decencie, thus to adorne with brooches and tablets of gold, our youths and yong boies, and a fairer ſight it is to ſee great men attended vpon to the baines by beautifull pages thus richly decked and ſet out, that all mens eies may turne to behold them. But what meane I thus bitterly to inueigh againſt poore women; are not men alſo growne to ſuch outragious exceſſe in this kind, that they begin to weare vpon their fingers either *Harpocrates, or other images of the Ægyptian gods engrauen vpon ſome fine ſtone? But in the daies of the Emperor *Claudius* there was another difference and reſpect had, That none might carrie the pourtraiture of that prince engrauen in his ſignet of gold, without expreſſe licence giuen them by thoſe gratious enfranchiſed ſlaues who were in place to admit vnto their lord the Emperor, whom it pleaſed them: which was the occaſion and means of bringing many a man into danger, by criminall imputations. But all theſe enormities were happily cut off as ſoon as the Emperour *Veſpaſian* (to the comfort and joy of vs all) came once to the crowne: for by an expreſſe edict, he ordained, That it might be lawfull for any perſon whatſoeuer to haue the image of the Emperour in ring, brooch, or otherwiſe without reſpect. Thus much may ſuffice concerning rings of gold, and their vſage.

* Called alſo *Sigalion.*

To come now to the next miſchiefe that is crept into the world; I hold that it proceedeth from him who firſt cauſed a *denier of gold to be ſtamped: although, to ſay a truth, I know not certainly who he was that deuiſed this coine. As for the people of Rome, ſure I am that before king *Pyrrhus* of Epirus was by them vanquiſhed, they had not ſo much as ſiluer mony ſtamped and current. Well I wot alſo, that in old time the manner was to weigh our braſſe by the Aſſe, which was a pound weight, and thereupon called As Libralis; and yet at this day, Libella: like as the weight in braſſe of two pound, they named Dipondius [As.] And hereupon came the cuſtome of adjudging any fine or penaltie vnder the tearme of [Æris grauis] that is to ſay, of braſſe Bullion or in Maſſe. From hence it is alſo, that ſtill in reckonings and accounts whatſoeuer hath bin laid out or deliuered, goeth vnder the name of Expenſa [*id eſt*, Expences] as a man would ſay, weighed forth, becauſe in times paſt all paiments paſſed by weight. The Latines likewiſe vſe the nowne Impendia, for coſt beſtowed, or the charges of intereſt in vſurie aboue the principall; euen as the verbe Dependere, betokeneth (to pay) becauſe paiments ordinarily were performed by poiſe. Moreouer, the vnder treaſurers of war, or paimaſters in the camp, were in ancient time named Libripendes, for weighing out vnto the ſouldiers their wages; and their very pay thereupon was called Stipendiam, from whence commeth Stipend, a word commonly receiued. According to which manner and cuſtome, all buyings and ſellings at this day which paſſe with warrantiſe, are vſually performed by interpoſition of the ballance, which ſerueth to teſtifie the realitie of the contract and bargaine on both parts.

* He ſpeaketh κατα χαρακτῆρα, as I take it; for *Denarius* was a ſiluer piece: but he meaneth any piece of coine.

Touching braſſe mony, *Servius Tullius* a king of Rome, cauſed it firſt to be coined with a ſtampe, for before his daies, they vſed it at Rome rude in the maſſe or lumpe, as *Remeus* mine author doth teſtifie. And what was the marke imprinted thereupon? euen a ſheepe, which in Latine they call Pecus: and from thence proceedeth the word Pecunia, that ſignifieth mony. And note here by the way, that during the reigne of that king, the beſt man in all Rome was valewed to be worth in goods not aboue 120000 Aſſes in braſſe: and at this rate were aſſeſſed the principall houſes of the city in the kings bookes: and this was counted the firſt Claſſis.

Afterwards, in the 485 yere from the foundation of the city, when *Q. Ogulnius* and *C. Fabius* were Conſuls, fiue yeares before the firſt Punicke warre, they began to ſtampe ſiluer mony at Rome, and three ſeuerall pieces were coined. At what time ordained it was, That the Denarius

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A or Denier ſhould goe for tenne Aſſes or pounds of braſſe mony; the halfe Denier, Quinarius, ſhould be currant for fiue; and the Seſterce reckoned worth two and a halfe. Now, for as much as during the firſt Punick war againſt the Carthaginians, the city was growne much behind hand and farre indebted, ſo as they were not able to goe through the charges which they were to defray, agreed it was and ordained to raiſe the worth of the braſen mony by diminiſhing the poiſe: wheras therfore the Aſſe weighed a pound of twelue ounces, they made the Aſſe of two ounces: By which deuiſe, the Commonwealth gained fiue parts in ſix; and the Fiſque or city chamber by that means was ſoone acquit of all debts. But if you would know what was the marke of this new braſen Aſſe: of the one ſide it was ſtamped with a two faced *Ianus*, on the other ſide with the beake-head of a ſhip, armed with braſen pikes. Other ſmaller pieces there were, according
B to that proportion, to wit, Trientes, the third part of an Aſſe; and Quadrantes the fourth; which had the print of *punts or ſmall boats vpon them. As for the piece Quadrans, it was before time called Triuncis, becauſe it weighed three ounces. Howbeit in proceſſe of time, when *Annibal* preſſed hard vpon the city, and put them to an exigent for mony to maintaine the wars againſt him, driuen they were to their ſhifts and forced (when *Q. Fabius* was Dictator) to bring downe the foreſaid Aſſe of two ounces vnto one. Yea, and enacted it was, That the ſiluer denier, which went beforetime for ten Aſſes, ſhould be worth * ſixteene; the halfe Denier or Quinare, eight; and the Seſterce foure: and by this means the State gained the one halfe full. And yet I muſt except the mony paied to ſouldiers for their wages: for a Denier vnto them was neuer reckoned aboue ten Aſſes. As for the ſiluer Deniers, ſtamped they were with the pourtraiture of coches
C drawne with two horſes or foure horſes, whereupon they were called Bigati and Quadrigati. Within a while after there paſſed an act promulged by *Papyrius*, by vertue whereof the Aſſes weighed not aboue halfe an ounce. Then came *Liuius Druſus* in place, who being one of the Prouoſts or Tribunes of the commons, brought in baſe money, and delaied the ſiluer with one eight part of braſſe. Touching that piece of coine, which now is called Victoriatus, ſtamped it was by an Act propoſed by *Clodius*; for before his time, thoſe pieces of mony were brought out of Sclauonia, and reckoned as merchandiſe: and ſtamped it is with the image of Victorie, of which it tooke that name.

* And therfore they were called *Ratiti* of *Rates*.

* Ordinarily the Romane ſiluer Denier had the letter *X.* ſtamped vpon it, but theſe Deniers had *XVI. Vrſino.*

Concerning gold coined into mony, it came vp threeſcore and two yeres after the ſtamping of ſiluer pieces: and a ſcriptule of gold was taxed and valued at twenty ſeſterces, which ariſeth
D in euery pound according to the worth of ſeſterces as they were rated in thoſe daies, to nine hundred Seſterces. But afterwards it was thought good to caſt and ſtampe pieces of gold, after the proportion of fiftie to a pound: And thoſe, the Emperors by little and little diminiſhed ſtil in poiſe, till at length *Nero* brought them downe to the loweſt, and cauſed them to be coined after the rate of fiue and fiftie pieces to the pound. In ſumme, the very ſource and originall of all auarice proceedeth from this mony and coine, deuiſed firſt by lone and vſurie, and continued ſtill by ſuch idle perſons that put forth their mony to worke for them, whiles they ſit ſtill, and find the ſweetnes of the gaine comming in ſo eaſily. But this greedy deſire of hauing more ſtill, is growne after an outragious manner to be exceſſiue, and no more to be named couetouſneſſe, but rather inſatiable hunger after gold: inſomuch as *Septimuleius*, an inward and familiar friend
E of *C. Gracchus*, forgat all bonds of amitie, and hauing cut off his friends head, vpon promiſe to haue the weight of it in gold, brought the ſame vnto *Opimius*: howbeit, he poured molten lead into the mouth thereof to make it more heauie, and ſo together with this parricide and vnnaturall murtherer, couſened alſo & beguiled the Commonweale. But to ſpeak no more of any particular citizen of Rome, the whole name of the Romanes hath beene infamous among forraine nations for auarice and corruption in this kind: as may appeare by the conceit that king *Mithridates* had of them, who cauſed *Aquilius* (a Generall of theirs, whoſe hap was to fall into his hands) for to drinke molten gold. See what couetouſneſſe brings home with it in the end.

Now when I behold and conſider no more but theſe ſtrange names of our veſſell in plate, which are newly deuiſed in Greek from time to time, according as the ſiluer is either double or
F parcell gilt, or the gold encloſed and bound within worke, I am aſhamed of it; and the rather, for that in regard of theſe deuiſed names and daintie toies, ſuch plate as well of beaten gold, as guilded only, ſhould be ſo vendible and ſell ſo deare: eſpecially knowing as we do full well, the good order that *Spartacus* held in his campe, expreſſely commanding that no man ſhould haue any plate of gold or ſiluer. A great reproch to vs Romans, that our fugitiues & baniſhed perſons

ſhould

ſhould ſhew a more nobler ſpirit than we our ſelues. *Meſſala* the great Oratour hath left in wri- G
ting, That *M. Antonius* vſed to diſcharge all the ordure and filthy excrements of the body into veſſels of gold; yea, and allowed *Cleopatra* likewiſe to do the ſame by her monthly ſuperfluities, moſt ſhamefully. Noted it was among forrein Nations for exceſſiue licentiouſneſſe, and that in the higheſt degree, that K. *Philip* of Macedony was neuer wont to go to bed and ſleepe without a ſtanding cup of gold vnder his pillow: alſo, That *Agnon Teius* (a great captain vnder *Alexander* the Great) was giuen to ſuch waſtfull prodigality, as to faſten his ſhooes and pantophles with buckles of gold. But *Antony* aboue named, to the contumelie and contempt of * Nature, abuſed gold, and imploied it to the baſeſt ſeruice that is: an act (as much as any other) deſeruing proſcription and outlawing indeed.

*Which had giuen vs gold for veſſels of honour.

But among diuers things beſides, I wonder much at this, That the people of Rome, vpon the H
conqueſt of ſo many Nations, impoſed vpon them a tribute to be paied alwaies in ſiluer, & neuer made mention of gold: as for example, when Carthage was ſubdued, & *Annibal* vanquiſhed, the Carthaginians were injoined for 50 yeres together to make paiment yerely of * [12000] pound of ſiluer only, and no gold at all. Neither can it be thought that there was little gold at that time to be had abroad in the world; for *Midas* and *Cræſus* both, were poſſeſt of infinit ſums and huge maſſes of gold: and *Cyrus* vpon his conqueſt of Aſia, met with 34000 pound weight of gold, beſides the golden plate and veſſell, and other gold which he found ready wrought: and among the reſt, certain *leaues, a Plane and a vine-tree, both of beaten gold. In the pillage alſo of this victory, he gaue away 500000 talents of ſiluer, and one ſtanding cup that he tooke from *Semiramis*, that weighed 15 talents. And *Varro* mine Author ſaith, That the poiſe of the Ægyp- I
tian talent ariſeth to * 80 pound. Beſides, there had raigned before time ouer the Colchians, *Salauces*, and one *Eſubopes*: who hauing newly broken vp a piece of ground in the Samnians country, is reported to haue gotten out thereof great ſtore of ſiluer and gold: notwithſtanding that the whole kingdome is renowned for the golden fleeces there. And verily this prince had the arched and embowed roufes of his pallace made of ſiluer and gold: the beames and pillars alſo ſuſtaining the ſaid building, yea, the jambes, poſts, principals, and ſtandards, all of the ſame mettall; namely, after he had vanquiſhed *Seſoſtres* K. of Ægypt, ſo proud a prince, that (as Chronicles make mention) he was wont euery yere to haue one or other (as the lot fell out) of thoſe kings who were his tributaries and did homage to him, for to draw in his charriot like horſes, when he was diſpoſed to ride in triumph. Theſe and ſuch like things haue bin thought K
fabulous tales: but haue not our Romans done ſemblable acts, which the age and poſterity hereafter wil think incredible? *Cæſar* afterwards Dictatour, was the firſt that in his Ædileſhip, when hee exhibited a ſolemne memoriall in the honour of his father departed, did furniſh the whole Cirque and ſhew-place, with all things meet for ſuch a ſolemnity, of cleane ſiluer; inſomuch as the chaſing ſtaues and bore-ſpeares were of ſiluer, wherewith the wild beaſts were aſſaulted: a ſpectacle neuer ſeene before. And not long after, *C. Antonius* ſet forth his plaies (when he was Ædile) vpon a ſtage or ſcaffold of ſiluer: after whoſe example, diuers free cities and townes of the empire haue don the like. Semblably, *L. Muræna* and *C. Caligula* the Emperor, erected a frame or pageant to go and riſe vp of it ſelfe with vices, ſupporting images and jewels in the place of publick paſtimes, which was thought to haue in it 124000 pound of ſiluer. *Claudius Cæſar* who L
ſucceeded Emperor after him, when he rode in triumph for the conqueſt of Brittaine, among other crownes of beaten gold, ſhewed two that were principall, the one of 7 pound weight, which high Spaine had giuen to him; the other weighing 9 pounds, ſent vnto him as a Preſent from that part of Gaule which is called Comata: as appeared by the inſcriptions and titles which they bare. *Nero* his ſucceſſour, to ſhew vnto *Tyridates* king of Armenia what abundance of treaſure he had, kept the great Theatre of *Pompeius* for one whole day couered all ouer with gold. But what was that furniture in compariſon of his golden houſe, which tooke vp a great part of the city, and ſeemed (as it were) to compaſſe it about. In that yeare when *Sex. Iulius*, and *Lucius Aurelius* were Conſuls (which fell out to be 7 yeares before the third Punicke warre) there was found in the treaſury or chamber of Rome, * 700026 pound weight of gold, in Maſſe or Ingots; M
of ſiluer likewiſe in Bullion, 92000 pound weight; beſides the coine and ready money, which amounted to 375000 Seſterces. The yeare wherein *Sex. Iulius* and *L. Marcius* were Conſuls, to wit, in the beginning of the ſociall warre againſt the Marcians and other Romane allies, the treaſure of Rome aroſe to 846 pounds of gold in Bullion. *C. Cæſar* at his firſt entrance into

*For in al they were to pay 10000 talents: reckon a talent at 60 pound, which is the leſſe Attick.

* *Folia*, I think rather *ſolia*, i. bathing veſſels.

*Some ſay 75.

*According to *Budæus*.

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A the city of Rome, when the ciuill war between him and *Pompey* was begun, took out of the citie chamber 15000 wedges or ingots of gold, 35000 lumps or masses of siluer, and in ready money 40000 Sesterces. And to say a truth, neuer was the city of Rome wealthier than at this time. Moreouer, *Æmylius Paulus*, after he had defeated and vanquished *Perseus* the Macedonian King, brought into the Treasurie of the Citie a bootie of 3000 pound of gold in weight. After which time the common people of Rome had neuer any tributes or taxes leuied of them by the State.

* According to *Budæus*.

Moreouer, this is to be obserued, That after the ouerthrow and destruction of Carthage, the beames began first to be guilded within the temple of the Capitoll, whiles *Lu. Mummius* was Censor. And now adaies you shall not see any good house of a priuat man, but it is laid thicke
B and couered ouer with gold. Nay, the brauery of men hath not staid so, but they haue proceeded to the arched and embowed routs, to the walls likewise of their houses, which we may see euery where as wel and throughly guilded as the siluer plate vpon their cupbourds. And yet *Catulus* was diuersly thought of in the age wherein he liued, because he was the first that gilded the brasen tiles of the Capitoll.

Touching the first inuentors, as well of gold, as also of all other mettals to speake of, I haue already written in my seuenth booke. As for the estimation of this mettall, that it should bee chiefe as it is, I suppose it proceedeth not from the colour, for siluer hath a brighter lustre, more like to the day, and in this respect more agreeable to the ensignes of war than that of gold, because it glittereth and shineth farther off: and hereby is their errour manifestly conuinced, who
C commend the colour of gold, in this regard, that it resembleth the starres: for well it is knowne that their colour is not reputed richest, either in precious stones or in many things besides. Neither is gold preferred before other mettals, because the matter is more weighty or pliable than the rest; for lead surmounteth it, both in the one and the other. But I hold, that the reputation which it hath, commeth from hence, That it alone of all things in the world, loseth nothing in the fire: for say that a house be burnt wherein gold is, yet it wasteth not: and looke what gold is committed to the funerall flames, it consumeth not with the dead body, but is found all againe among the ashes. Nay, the ofteuer it hath bin in the fire, the better it is, and the more refined: in such sort, that the best gold which they call Obryzum, is knowne by this, if it be of the same deep red colour that the fire is wherein it is tried. And a principal argument this is of fine gold,
D if it hardly be kindled & set on fire red hot. Moreouer, this is wonderful in the nature of * gold: that in a fire made of light straw or chaffe, it wil most quickly become red hot and melt; put the same among the hottest burning coles that can be of wood, vnneath or hardly wil it yeeld to the heat thereof and resolue: as also for the purifying thereof, it ought to be melted with lead. A greater reason there is besides that maketh gold so precious: for that with vse or handling there is little of it lost and wasted; whereas siluer, brasse, and lead, if you draw any lines therewith, colour as they go and leaue somewhat behind: they soile their hands also who occupie the same with the substance and matter that sheddeth from them. Ouer and besides, there is not a mettall will be driuen out broader with the hammer, or diuide easily into more parcels than gold, insomuch as euery ounce of it may be reduced into 750 leaues, or more, and each one of them foure
E fingers large euery way. The thickest gold foile beareth the name at this day of Prænestium, for that the Image of Fortune at Prænestè is aboue all other most richly guilded. The next thereto in goodnesse is the foile or leafe of gold named Quæstoria. In Spaine they vse to call by the name of Strigiles, the small pieces of that fine gold which is found naturally alone aboue al the rest either compact in some masse, or in manner of sand or grauell; whereas all other parcels of gold taken out of the Mines, need to be fined and brought to their perfection by the meanes of fire. But this gold that I speake of, is gold presently at the first, and no sooner is found, but the matter thereof by and by is consummat and accomplished. Loe how gold is found in the owne nature pure and perfect! As for the other manner of finding and fining gold, whereof I meane to speake anone, it is forced (as it were) and vpon constraint. But aboue all other properties to
F commend the goodnesse of gold, this especially is to bee obserued, That there is no rust nor canker, no nor any filth besides breeding of it selfe therein, which is able either to corrupt the goodnesse, or diminish the weight and substance thereof. What should I say how firme it continueth and dureable against salt and vineger, scorning all their iniuries: and yet otherwise their moysture is able to eat into any other mettals, yea, and to consume and tame all things

* This haply may be true in ore, for otherwise in fined gold it is not so: & the finer that it is, the stronger fire it asketh to bee melted by.

else

els whatſoeuer. But this paſſeth all, that ſpun it may be as wooll and ſilke, wouen alſo in manner G
of yearn, chuſe whether you wil work it twiſted with [ſilke] thred, or ſingle in wire by it ſelfe.
Verrius the Hiſtoriographer reporteth, that K. *Tarquinius*, ſurnamed *Priſcus*, rode in triumph in a
robe of wrought gold. I my ſelfe haue ſeene the Empreſſe *Agrippina*, wife to *Claudius Cæſar*, ſit-
ting by her husband the Emperor to behold the braue ſhew of a nauall skirmiſh vpon the wa-
ter which he exhibited, all gorgeouſly arraied in a roiall mantle, wouen without any other mat-
ter ſaue onely pure gold. Cloth of gold and tiſſue I know there is beſides, called Veſtis Attali-
ca, wherein gold is wrought with other ſtuffe: and long ſince it is, that this inuention hath been
deuiſed by the rich and ſumptuous kings of Aſia. Furthermore, to guilde marble or any other
thing that wil not abide to be guilded by the fire, gold foile muſt be laid on with the white of
an egge. As for wood and timber, they vſe to guild it by the means of a certaine compound glue H
*or Chryſoperõ. or ſize, which is commonly called * Leucophoron: but what a glue this is, and how it is made,
I will declare in place conuenient. As touching the manner how to guild braſſe, it was perfor-
med ordinarily heretofore by quick ſiluer naturall, or els artificiall named Hydrargyron: & here-
in there hath bin deuiſed much fraud and deceit; according as I wil hereafter ſhew in their pro-
per chapters, when I purpoſe to ſet down their nature and properties. But now after that braſſe
hath bin much knocked and beaten, they vſe to put it into the fire: and ſo ſoon as it is perceiued
red hot, they quench it again in ſalt, vineger, and allum. Now afterward, when it is well ſcoured
and clenſed with ſand, and knowne by the brightneſſe and luſtre thereof that it hath bin ſuffici-
ently frobiſhed and purified, again it muſt into the fire to take a new heat by the ardent exha-
lation thereof; that beeing thus (as it were) mortified and beſmeared with a ſize of the pumiſh I
ſtone, allum and quick ſiluer mixt together, it may take vp gold foile laid vpon it the better, and
keep it more ſurely. To conclude, allum hath the very ſame vertue to trie and clenſe gold, as I
ſaid before Lead had.

Chap. IIII.

¶ *The manner of finding gold naturally in the Mine. When were knowne the firſt ſtatues of gold. The medicinable vertues and properties of gold.*

IN theſe parts of the world wherein we liue, gold mines are found: ſo that we need not to ſtand K
ſo much vpon the gold of India, nor that which the ants caſt vp out of the ground, or the grif-
fons gather in Scythia. And verily the gold here with vs commeth naturally in three ſorts;
to wit, among the ſands of ſome great riuers, like as Tagus in Spaine, the Po in Italy, Hebrus in
Thrace, Pactolus in Aſia, and the Indian Ganges do yeeld it: neither is there any gold more fine
and perfect, as being throughly poliſhed by that rubbing and attrition which it meets withall,
in the courſe and ſtream of the water. Another manner there is to come by gold; namely, by dig-
ging it out of pits which are ſunk of purpoſe for it, or els to light vpon it within the caues and
breaches happening by the fals of mountains vndermined or cut through. And my meaning is
to diſcourſe of the one way as well as the other, of ſearching for gold.

To begin then with thoſe who ſeek for this mettall: firſt aboue all they hit vpon a vaine of L
earth called Segullum, and this is it that giueth them the firſt light and ſhew that gold is there
to be had. This they take vp: the bed and couch wherein it lieth: the grauell likewiſe & the ſand
about it they waſh, obſeruing diligently that which ſetleth in the bottome, for by it they haue
a good gueſſe and aim that directeth them to gold, whether it lie deep or ſhallow. And by this
conjecture, otherwhiles their hap is ſo good, as to find that which they deſire, aloft, euen ebbe
vnder the vpmoſt coat of the earth: but I muſt needs ſay, a rare felicity is this: & yet of late daies
during the Empire of *Nero*, there was found in Dalmatia a vaine of gold ore within one ſpades
griffe in the firſt turfe of the ground, which yeelded euery day the weight of fifty pound. This
manner of earth, if it be found alſo vnder a vaine of gold, they call Alutatio. Moreouer, this is to
be noted, That ordinarily the dry and barren mountains in Spaine which beare and bring forth M
nothing elſe, are forced (as it were) by Nature to furniſh the world with this treaſure, and doe
yeeld mines of gold. As for that gold ore which is digged forth of pits, ſome call it in Latine
Canalitium, others Canalienſe. And verily this is found ſticking to the grit and vtmoſt cruſt of
hard rocks of marble; not after the manner of drops or ſparkes glittering in orient Saphire, or

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A The Thebaick marble, and in many other pretious ſtones, which are marked here and there with ſpecks of gold: but this ore or mettall doth claſp and embrace whole pieces of marble & ſuch like, found in rocks. And commonly theſe canales (as I may ſo ſay of gold ore) follow the veins of ſuch marble and ſtone in the quarry, diuiding and ſpreading as they do here and there: wherupon the gold tooke the foreſaid name of Canalitium: they wander alſo along the ſides of the pits as they are digged, ſo that the earth had need to be borne vp and ſupported with poſts and pillars for the getting of it, leſt by hollow vndermining it fall vpon the pioners. This mine or vein of gold ore when it is once digged vp and landed aboue ground, the manner is to bray and ſtamp, to waſh, burn, and melt, yea and otherwhiles to grind into pouder. As for that which (as they pun thus and beat in mortars) is knocked from it, they call * Apilaſcus: but the mettall
B which ſweateth out and commeth forth by the violent heate of the furnace where the foreſayd ore is melted, they name Argentum, i. Siluer. The groſſe ſubſtance caſt vp from the pot or veſſel, and ſwimming aloft (whether it be the droſſe comming of gold thus tried, or any other mettal) is named Scoria. Howbeit, this droſſe that gold doth yeeld from it in the trying, is ſet ouer the fire again to take a new melting, & is ſtamped in maner aforeſaid. As for the pans or veſſels wherin gold is thus tried and refined, they be made of a certain earth named Taſconium: and the ſame is white like vnto a kinde of potters clay. For ſurely there is no other earth or matter whatſoeuer will abide either the heate of the fire vnderneath, plied continually with the bellows, or the matter within it when it is melted. And thus much of the two firſt waies of finding out gold.

* Quaſi ad pilas cuſam.

C The third manner of ſearching for this mettal is ſo painfull and toileſome, that it ſurpaſſeth the wonderfull works of the * Geants in old time. For neceſſary it is in this enterpriſe & buſines, to vndermine a great way by candlelight, & to make hollow vaults vnder the mountains. In which labor the pioners work by turns ſucceſſiuely, after the maner of the reliefe in a ſet watch, keeping euery man his houres in iuſt meaſure: and in many a moneths ſpace they neuer ſee the Sun or day light. This kind of work and mines thus made they call Arrugiæ, wherin it falleth out many times that the earth aboue head chinketh, and all at once without giuing any warning ſetleth and falleth, ſo as the poore pioners are ouerwhelmed & buried quick: inſomuch as conſidering theſe perils, it ſeemes that thoſe who diue vnder the water into the bottom of the Lenant ſeas for to get pearls, haſard themſelues nothing ſo much as theſe pioners: a ſtrange thing,
D that by our raſhneſſe and folly wee ſhould make the earth ſo much more hurtfull to vs than the water. Wel then, to preuent as much as poſſibly may be theſe miſchiefes and dangerous accidents, they vnderprop the hils, and leaue pillars and arches as they go, ſet thick one by another to ſupport the ſame. And yet ſay they worke ſafe enough, and be not in jeopardy of their liues by the fall of the earth, yet there be other difficulties that impeach their work: for otherwhiles they meet with rocks of flint and rags, as wel in vndermining forward, as in ſinking pits downeright; which they are driuen to pierce and cleaue through with fire and vineger. But for that the vapor and ſmoke that ariſeth from thence, by the means, may ſtifle and choke them within thoſe narrow pits and mines, they are forced to giue ouer ſuch fire-work, and betake themſelues to great mattocks and pickaxes, yea and to other engines of iron, weighing 150 pounds apiece,
E wherewith they hew ſuch rocks in pieces, and ſo ſinke deeper, or make way before them. The earth and ſtones which with ſo much ado they haue thus looſed, they are fain to cary from vnder their feet in ſcuttles and baskets vpon their ſhoulders, which paſſe from hand to hand euermore to the next fellow. Thus they moile in the dark both day and night in theſe infernal dungeons, and none of them ſee the light of the day; but thoſe that are laſt and next vnto the pits mouth or entry of the caue. If the flint or rock that they work into ſeem to run in a long grain, it will cleaue in length, and come away by the ſides in broad flakes, and therefore the pioners with eaſe make way, trenching and cutting round about it. Howbeit, be the rock as ragged as it will, they count not that their hardeſt work: for there is a certaine earth reſembling a kinde of tough clay which they call white Lome, and the ſame intermingled with gritty ſand ſo hard
F baked together, that there is no dealing with it; it ſo ſcorneth and checketh all their ordinary tooles and labour about it, that it ſeemeth impenetrable, What doe the poore labourers then? They ſet vpon it luſtily with iron wedges, they lay on lode vnceſſantly with mighty beetles; and verily they thinke that there is nothing in the world harder than this labour, vnleſſe it bee this vnſatiable hunger after gold, which ſurpaſſeth all the hardneſſe and difficulty that is. Wel,

* Who were ſaid to reare one mountain vpon the head of another.

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when the work is brought to an end within the ground, & that they haue vndermined & hollo- G
wed the ground as far as they think good, down they go with their arch-work abouesaid, which they builded as they went: they begin first at those props which are fartheſt off, cutting the heads of the ſtancheons ſtill as they return backward to the entrance of the work. Which don, the ſentinel only, which of purpoſe keeps good watch without vpon the top of the ſame mountain that is thus vndermined, perceiues the earth when it begins to chink and cleaue, menacing by that token a ruin thereof anon. Whereupon preſently he giues a ſigne either by a loud cry, or ſome great knock, that the pioners vnderneath may haue warning thereby to get them ſpeedily out of the mines, and runneth himſelfe apace down from the hil as faſt as his legs will giue him leaue. Then all at once on a ſudden the mountain cleaueth in ſunder, and making a long chink, fals downe with ſuch a noiſe and crack, as is beyond the conceit of mans vnderſtanding, H
with ſo mighty a puf and blaſt of wind beſides, as it is incredible. Wherat theſe miners & pioners are nothing troubled, but as if they had done ſome doughty deed, and atchieued a noble victorie, they ſtand with ioy to behold the ruin of Natures workes which they haue thus forced. And when they haue all don yet are they not ſure of gold, neither knew they all the whiles that they labored and vndermined, that there was any at all within the hill: the hope only that they conceiued of the thing which they ſo greatly deſired, was a ſufficient motiue to induce them to enterpriſe and endure ſo great dangers, yea & to go through withall and ſee an end. And yet I cannot wel ſay that here is all; for there is another labor behind, as painfull euery way as the other, and withall of greater coſt and charges than the reſt, namely, to waſh the breach of this mountaine (that is thus clouen, rent, and laid open) with a currant: for which purpoſe they are I
driuen many times to ſeek for water a hundred miles off, from the creſts of ſome other hils, and to bring the ſame in a continued channel and ſtream all the way along vnto it. Theſe Riuers or
*or rather *Corrivi.* furrows, thus deuiſed and conueyed, the Latines expreſſe by the name of * Corrugi, a word as I take it deriued *à Corrivando, i.* of drawing many ſprings and rils together into one head & chanel. And herein conſiſteth a new piece of worke as laborious as any that belongs to mines. For the leuel of the ground muſt be ſo taken aforehand, that the water may haue the due deſcent & currant when it is to run: and therefore it ought to be drawn from the ſources ſpringing out of the higheſt mountains; in which conueiance regard would be had as well of the vallies as the riſing of the ground between, which requireth otherwhiles, that the waters be commanded by canels and pipes to aſcend, that the carriage thereof be not interrupted, but one piece of the K
work anſwer to another. Otherwhiles it falleth out, that they meet with hard rockes and crags by the way, which do impeach the courſe of the water; and thoſe are hewed through, and forced by ſtrength of mans hand to make room for the hollow troughs of wood to lie in, that carrie the foreſaid water. But a ſtrange ſight it is to ſee the fellow that hath the cutting of theſe rockes, how he hangeth by cables and ropes between heauen and earth; a man that beheld him afar off would ſay it were ſome flying ſpirit or winged diuell of the aire. Theſe that thus hang for the moſt part take the leuel forward, and ſet out by lines the way by which they would haue the water to paſſe; for no treading out is there of the ground, nor ſo much as a place for a mans foot to reſt vpon. Thus you ſee what ado there is. And theſe good fellowes whiles they bee
* *Manus trahuntur ad omen* aloft, * ſearch with the hands and pluck forth the earth before them, to ſee whether it be firme L
*or rather *Aræum, Græci dicunt.* and faſt, able to beare the trunks or troughs for the water; or otherwiſe looſe and brittle, which defect of the earth they call * Vrium: for the auoiding whereof the fountainers feare neither rocks nor ſtones to make paſſage for their pipes or trunks aforeſaid. Now when they haue thus brought the water to the edge & brow of the hils where theſe mines of gold ſhould be, & from whence as from an head there is to be a fall thereof to ſerue their purpoſe, they dig certaine ſquare pooles to receiue the water, 200 foot euery way, and the ſame ten foot deep: in which they leaue fiue ſeuerall ſluces or paſſages for the deliuerie of water into the mines, and thoſe commonly three foot ſquare. When the ſaid pools ſtand full, as high as their banks, they draw vp the floud-gates: and no ſooner are the ſtopples driuen and ſhaken out, but the water guſheth forth amaine with ſuch a force, and carrieth ſo violent a ſtreame therewith, that it rolleth M
downe with it any ſtones, be they neuer ſo big, lying in the way. And yet are we not come to an end of the toile, for there remaineth a new piece of work to do in the plaine beneath. Certain hollow ditches are to bee digged for to receiue the fall of the water both from the pooles that are aboue, and the mines alſo. Theſe trenches the Greekes tearme Agogæ, as a man would ſay,

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A Conduits,and thoſe are to be paued by degrees one vnder another. Beſides, there is a kinde of ſhrub or buſh,named Vlex, like to Roſemarie, but that it is more rough and prickely,and the ſame is there planted becauſe it is apt to catch and hold whatſoeuer pieces of gold do paſſe beſide. The ſides moreouer of theſe canals or trenches,are kept in with planks and bourds,and the ſame borne vpon arches pendant through ſteep places,that by this means the canale may haue paſſage and void away at length out of the land into the ſea.

Lo what a worke it is to ſearch out and meet with gold! and verily by this means Spaine is grown mightily in wealth,and ful of treaſure. In the former work alſo of ſinking pits for gold, an infinit deale of labour there is to lade out the water that riſeth vpon the workemen, for feare it choke vp the pits; for to preuent which inconuenience,they deriue it by other drains. As touB ching the gold gotten by cleauing and opening mountains (which kind of work I called Arrugia) it needeth no trying by the bloome-ſmithie, for fine it is naturally & pure of it ſelfe: and found there be whole lumps and maſſes of this kind,and in this manner. In pits likewiſe ye ſhal haue ſuch pieces,weying otherwhiles ten pounds and more. Theſe groſſe and maſſie pieces of gold,the Spaniards call Palacræ or Palacranæ: but if they be but ſmall,they haue a prety name for them,and that is Baluces. But to come again to the ſhrub or plant Vlex,whereof I ſpake before; after it is once dried,they burn it,and the aſhes that come thereof, they waſh ouer turfs of greene graſſe,that the ſubſtance of gold may reſt and ſettle therupon. Some writers haue reported,that the countries of Aſturia, Gallæcia,and Luſitania,were wont to yeeld euery yere 20000 pound weight of good gold gotten after this ſort: yet ſo, as they all doe attribute the greateſt C proportion thereof to Aſturia:and there is not any part of the world comparable to it either for ſo great fertility of mines,or ſo long continuance,holding out as they do ſo many ages. As for Italy,our antient Senat in old time thought good to haue it ſpared, and they made an Act, forbidding expreſſely to break any ground for mines: otherwiſe there is not,I dare be bold to ſay, a land more plentifull in gold and other mettals. And here there commeth to my remembrance an Act of the Cenſors extant vpon record,as touching the gold mine of Ictimulum, a towne in the territory or countrey of Vercelles; which Act contained an inhibition, that the publicanes who fermed that mine of the city, ſhould not keepe aboue fiue thouſand pioners together at worke there.

Moreouer,there is one deuiſe to make artificiall gold,to wit,of Orpiment,a minerall digged D out of the ground in Syria,where it lyeth very ebbe,and the painters vſe it much:in colour it reſembleth gold,but brittle it is in ſubſtance like as glaſſe ſtones. And verily *Caligula* the Emperour (a couetous prince and greedy of gold) was in great hope to extract gold out of this minerall,and thereupon cauſed a huge maſſe thereof to bee boiled, melted,and calcined:and in truth he made therof moſt excellent gold,but in ſo ſmal a quantity,that it would not quit for the coſt & pains about it; inſomuch,as he loſt by the bargain:yet his auarice was ſuch,as he would needs make the experiment,notwithſtanding that orpiment it ſelfe was worth fourteene deniers the pound:but he ſped ſo bad,that no man afterwards would go about to try the like concluſion.

Gold vntried is of a diuers touch; & generally there is not any but it hath ſiluer in it more or leſſe:for in ſome places,the gold ore hath a tenth part in weight of ſiluer,in others a ninth, and E there is again that hath a mixture of the eight part. In one gold mine within France,called Albicrarenſe,there is found in gold the 36 part of ſiluer,and no more:ſuch mettall is not elſwhere found to my knowledge,and therefore it paſſeth all other whatſoeuer.

There is a baſe kind of pale and whitiſh gold,which hath in it a fifth part of ſiluer:and wherſoeuer this is found,they call it Electrum. Such mettall lieth commonly in trenches and pits minerall, and namely with that gold which I called before Canalienſe. Moreouer,there is an artificiall Electrum made,namely,by intermingling gold with ſiluer according to the naturall mixture; but if it exceed that proportion of one part to fiue,it wil not abide the hammer and the anuill. This white gold alſo hath bin of great account,time out of mind,as may appeare by the teſtimony of the Poet *Homer*, who writeth, that the pallace of prince *Menelaus* glittered with F gold,electrum,ſiluer,and yvorie. At Lindos (a city within the Iſland of the Rhodians) there is the temple of *Minerua*,wherein Lady *Helena* did dedicate vnto that goddeſſe a cup made of Electrum:and as the ſtory ſaith moreouer,it was framed and wrought juſt to the proportion & bigneſſe of one of her own paps. This property hath Electrum naturally, To ſhine by candle-light more cleare and bright than ſiluer. This ſingularitie and proper vertue it hath beſides (if it

be naturall) to diſcouer and ſhew any poiſon: for be there poiſon in a cup of this mettall, a man ſhal ſee therein certain ſemicircles reſembling rainbows, & perceiue beſides the liquor to keep a hiſſing and ſparkling noiſe as the fire doth; which 2 ſigns do certainly giue warning of poiſon. G

As touching ſtatues of gold: it is ſaid, that the firſt image that euer was knowne to be ſolid and maſſie, was that of the goddeſſe *Diana* ſyrnamed *Anaitis*, which ſtood within a temple dedicated to her, which in my Coſmography I haue ſignified vnder that name, and this was before any braſen ſtatue of that making. This temple in thoſe parts was accounted in regard of the diuine power of this goddeſſe, moſt holy and ſacred; and ſuch a kind of Image they cal Holoſphyraton. Howbeit, as religious as the church was, *Antonie* in his voiage into Parthia, ſpoiled it, and carried away the ſaid Image. And here I cannot forget to put downe a pretty ſpeech, which (by report) an old gentleman and ſouldier of Bononie deliuered to *Auguſtus Cæſar*, at what time as he was entertained as a gueſt and ſupped with the ſaid Emperour at his owne table: for beeing asked by *Auguſtus*, whether it was true, that the man who firſt violated this goddeſſe, died blind, lame, and bereaued of all his lims? he anſwered, Yea ſir, that it is; and that me thinks you ſhould know beſt, for euen now a leg of his you haue at ſupper, and * all your wealth beſides is come to you by that ſaccage. H

* For *Auguſtus Cæſar* defeited *Antony*, & was mightily enriched by the ſpoile of him.

The firſt man that * cauſed his owne ſtatue to be made of gold, and the ſame ſolid & maſſie, was *Gorgias Leontinus* the great Orator and Rhetoritian, which (to immortalize his owne name) he ſet vp in the temple at Delphos; and this was about the 70 Olympias: whereby we may ſee what wealth and gain was gotten in thoſe daies by teaching Oratory and the Art of Rhetorick.

* And yet other writers ſay, that al Greece erected that image to honor him withall.

But to come at length vnto the medicinable vertues of gold: certes, diuers waies effectuall it is in the cure of many diſeaſes: for firſt of all, ſoueraign it is for green wounds, if it be outwardly applied: and if yong children weare it about them, leſſe harme ſhal they haue by any ſorcery, witchcraft, or inchantments, that be brought into the houſe, or practiſed where they are: howbeit, gold it ſelfe if it be carried ouer one, is thought to be miſchieuous and hurtfull: for in that ſort it doth harme alſo to hens that couve and ſit, or ews that are great with lambe and ready to yeane. But what is the remedy to preuent this miſchiefe? marry take the ſame gold that is thus brought in place to do a ſhrewd turn, waſh it well, and with that water beſprinkle them that you would cure. Moreouer, gold may be torrified once with cornes of ſalt taken to the triple weight thereof; and a ſecond time with two parts of ſalt, and one of the ſtone which they call Schiſtis: by this manner of preparing, all the venomous and hurtfull quality that is therein, it doth tranſfuſe into the other things that be calcined or burnt therewith (which muſt be done vpon an earthen veſſell) and it ſelfe continueth pure and incorrupt ſtill. Now the reſt of the aſhes ſeparated from the gold, ſaued in an earthen pot, and incorporat with water into the forme of a liniment, healeth the foule tettar that appeareth in the face: it cureth the ſame diſeaſe alſo, if the face be rubbed with the ſaid aſhes and beane floure together, but then it muſt be afterwards waſhed off. Theſe aſhes thus prepared, cure the hollow vlcers called fiſtuloes, and alſo the hæmorrhoids: but in caſe you put thereto the * floure of ſalnitre, it healeth corrupt and putrified vlcers, & ſuch as ſtink again: the ſame being boiled in hony with Nigella Romana, doth gently looſe the belly, if the naual be anointed therwith. To conclude, *M. Varro* ſaith, that gold wil cauſe werts to fal off. I K L

* *Nitriſpuma*, or *Aphronitrũ*, i. Sal-petre.

Chap. V.

¶ *Of Borras, and the ſix medicinable properties that it hath: the wonderfull Nature thereof in ſodring one mettall with another, and in bringing all mettals to their perfection.*

Chryſocolla, called otherwiſe Borax, or green earth, is found in thoſe pits and mines that are digged for gold: and a humor it is at the firſt, running along the veine of gold, which as it thickneth and groweth muddy, congealeth at length by the extreame cold of winter to the hardneſſe of a pumiſh ſtone. Howbeit, the beſt kind of Borax we haue known by experience to be ingendred in mines of braſſe; and the next to it for goodnes, in thoſe of ſiluer: otherwhiles alſo men meet withal in leaden mines, but the ſame is not ſo good as that which the gold mines doe yeeld. Moreouer, there may be an artificiall Borras made in all the ſaid mettall mines, but far inferior to that which is naturall; namely, by letting water gently to run among their veines all winter long vntill the month of Iune: the which water, in Iune & Iuly wil grow to be dry and M

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A prooue Borras; whereby a man may perceiue plainely, that Borras is nothing els but a putrified vein of mettall. But this Minerall, if it be of the own kind, differeth from this other which is made by art of man, eſpecially in hardneſſe, for much harder it is, and called the yellow Borax, or in Latine Lutea: and yet it may be brought to that colour by artificiall means, namely by dying with an herb called likewiſe *Lutea: for of this nature it is, that it will take color & drink it in, as well as linnen or woollen. But for to dreſſe and prepare it for the purpoſe; firſt, they pun it, in a morter, then they let it paſſe through a fine ſerce; afterwards it is ground or beaten againe, & ſo it is ſerced a ſecond time through a finer ſerce; whatſoeuer paſſeth not through, but remaineth behind, muſt be punned once more in a mortar, & ſo ground into a ſmall pouder: and euer as they haue reduced any into pouder, they put it into ſundry pots or cruſes: then they let the B ſame to lie enfuſed and ſoked in vinegre, till the hardnes therin be wholly reſolued: which done, to the mortar it goeth againe, where it muſt be throughly ſtamped for altogether, and ſo when it is well waſhed out of one trey or boll into another, they let it dry: after it is thus prepared they giue it a colour with the herb Lutea (beforeſaid) and alume de plume: and thus you ſee it muſt be painted and died firſt, before it ſelfe ſerue to paint or die withall. And herein it skilleth much how pliable & apt it is to receiue the ſaid color; for vnleſſe it haue willingly taken a deep tincture, they vſe to put therto Schytanum and Turbyſtum, for ſo they call two drugs which ſerue to make it take a color the better. This Borax thus died, our painters vſe to call Orobitis: and two kinds they make therof; to wit, Lutea, *i.* the yellow, which they keep for the pouder or colour *Lomuntum; the other liquid, namely when the ſaid grains or pellets be reſolued into a C kind of moiſture, like drops of ſweat. This Borax of both ſorts, is made in the Iſle Cypros. The principall and beſt of all other comes from Armenia: in a ſecond degree, from Macedonia: but the greateſt quantity therof is in Spain. The excellent Borax is known by this mark eſpecially, If it reſemble perfectly in colour the deep and full green that is in the blade of corn wel liking. In our time, & namely in the daies of the Emperor *Nero*, the floore of the grand cirque or ſhew-place at Rome, was ſeen paued all ouer with greene Boras, at what time as he exhibited goodly fights and paſtimes to the people; and namely, when he meant himſelfe to run a race with charriots, and took pleaſure to driue his horſes vpon a ground ſutable to the colour of the cloth or liuerie that he *wore himſelf at that time: and in truth, a world of workemen he brought thither to lay the ſaid pauing. Al the ſorts of Boras may be reduced into three diſtinct kinds: to wit, the D rough, valued at ſeuen denarij a pound; the meane, which is worth fiue; and the poudred Boras, called alſo the graſſe-green Borax, which coſteth not aboue three deniers the pound. As for the ſandie or poudred Boras, the painters before they vſe it, lay the firſt ground vnderneath it, of vitrioll and *Parætonium, and then the Borax aloft: for theſe things take it paſſing well, & beſides giue a pleaſant luſtre to the color. This Parætonium (for that it is moſt fattie & vnctious by nature, & for the ſmoothnes beſides moſt apt to ſticke too and take hold) ought to be laid firſt; vpon which muſt follow a courſe of the vitrioll ouer it, for feare leaſt the whitenes of the foreſaid Parætonium do pall the greeneſſe of the Borax, which is to make the third coat. As for the Borax called Lutea, ſome thinke it tooke that name of the herbe Lutea; which alſo, if it be mixed and tempered with azure or blew, maketh a greene, which many do lay and paint withall in ſtead E of Borax; which as it is the cheapeſt greene of all other, ſo is it a moſt deceitfull colour.

Borax doth not onely ſerue painters, but is much vſed alſo by Phyſicians; and namely, to mundifie wounds and vlcers, if it be made into a ſalue with wax and oile: and dry as it is of it ſelfe in pouder, it hath a deſiccatiue qualitie, and doth conglutinat and ſodder very well: being mixed with hony into an electuarie, they giue it inwardly vnto thoſe that haue the ſquinancie, and cannot draw their wind but ſitting vpright, and ſo it prouoketh vomit. Moreouer, it entreth into many collyries or eie-ſalues, eſpecially to conſume and diſcuſſe the cicatrices and filmes growing within the eie: it goeth alſo to the making of green plaſters, ſuch as be applied either to mitigat paine, or to heale the skin. And verily this Borax not artificially died, thus emploied in Phyſick, the Phyſicians call Aceſin; and is not that which men name Orobitis, and which F receiueth a tincture from mans hand.

Furthermore, there is a Borax or Chryſocolla, that goldſmiths occupie eſpecially about ſodring their gold: & of this kind al the reſt take the name alſo of Chryſocolla. This is altogether artificiall, and is made of Cyprian Verdegris or ruſt of braſſe, the vrin of a yong lad, and ſalnitre, tempered all togeather & incorporat in a braſen morter, ſtamped with a peſtill of the ſame mettall.

* Some take it to be weld or yellows.

* *Lomuntum*, See the beginning of the next booke.

* For ſome were called *Praſſina* that ran for the priſe, *i.* Greenkins.

* A kind of chalkie earth, or clay, growing neare the ſea ſhore.

* Wherevpon it tooke the name *Chryſocolla*, *i.* gold, glew, or ſodet.

tall. Our countrymen in Latin call this Borax Santerna: with it they vſe to ſodder that gold e- G
ſpecially which ſtandeth much vpon ſiluer, and is therefore called Argentoſum. This kind of gold may be known thus; namely, if it will look bright and cleare vpon the putting of Santerna to it: whereas contrariwiſe if it hold much vpon braſſe (and ſuch gold is named Æroſum) it will haue no luſtre at all, but looke dim and duskiſh vpon the laying of Borax vpon it, and beſides will hardly be ſodred. But to ſoder ſuch gold, there is a proper glue or ſoder made, with an addition of gold and the ſeuenth part of ſiluer to the reſt abouenamed, and all the ſame ſtamped and vnited together. And ſince I am entred into the feat of ſodring, it were very meet and conuenient to annex vnto this preſent diſcourſe, all things els concerning it, that we may vnder one view behold the admirable works of Nature in this kind. The ſoder of gold then is Borax, which I haue ſhewed already. Iron is ſodred with the ſtiffe potters cley Argilla. Braſſe ore or Chalamine called Cadmia, ſerues to vnite and knit pieces of braſſe together in maſſe. Alume is good H
to hold plates of braſſe one to another. Roſin doth ſoder lead, and beſides is the proper cement of marble: but black lead will joine well, by the means of the *white: and one piece of tin with another, with the helpe of oile. In like manner, tin will hold ſure with a ſoder of braſſe file-duſt; and ſiluer, with tin. Both braſſe or copper, & alſo yron ore, melt beſt with an yron made of Pine-wood; as alſo with the Papyr reed in Ægypt: but contrariwiſe gold ſooneſt melts with a fire of chaffe and huls. Quickelime will catch an heat and burne, if water be caſt vpon it, and ſo doth the * Thracian ſtone: but the ſame oile doth quench. Fire is moſt of all extinguiſhed and put out with vinegre, with birdlime, and the white of an egg. No kind of right earth will burn light or flame. Finally, charcole which hath beene once one fire, then quenched and afterwards ſet a burning againe, is of more force and giueth a greater heat, than that which commeth new from I
the earth.

* Some take this for Tinglaſſe.

* Which ſome take for pitcole, or ſeacole rather, ſuch as commeth frō Newcaſtle by ſea: or rather a kind of jeat.

Chap. VI.

¶ *Of Siluer, Quick-ſiluer naturall, Stibium, or Alabaſtrum. The droſſe or refuſe of ſiluer, and litharge of ſiluer.*

IT followeth by good order to write in the next place, of ſiluer mines, from whence proceedeth the ſecond rage that hath ſet men a madding: where firſt and formoſt this is to be noted, that there is but one means to find ſiluer, and that is in pits ſunke of purpoſe for it: neither is there any ſhew at all of ſiluer to giue light thereof, and to put vs in hope of finding: no ſparkes ſhining, like as there be in gold mines which direct vs to it. The earth that engendreth the veine K
of ſiluer, is in one place reddiſh, in another of a dead aſh color. But this is a generall rule, that it is not poſſible to melt and trie our ſiluer ore, but either with lead, or the veine and ore of lead. This minerall or mettall they call * Galena, found for the moſt part neer to the veins and mines of ſiluer. Now by the means of fire, when theſe are melted together, part of the ſiluer ore ſetleth downeward and turneth to be lead, the pure ſiluer floteth aloft, like as oile vpon water. In al our prouinces, yea and parts of the world to ſpeake of, there be mines of ſiluer to be found: howbeit the faireſt be in Spaine, and yeeld the fineſt and moſt beautifull ſiluer: and the ſame alſo like as gold, is engendred in a barraine ſoile otherwiſe and fruitleſſe, and euen within mountains: look alſo where one vein is diſcouered, there is another alwaies found not farre off: which is a rule obſerued not in mines of ſiluer only, but alſo in all others of what mettals ſoeuer; and hereupon L
it ſeemeth that the Greekes doe call them * Metalla. And verily, ſtrange it is and wonderfull, that the mines of ſiluer in Spaine which were ſo long agoe begun by *Anniball*, ſhould continue ſtill as they do, and retaine the names of thoſe Carthaginians who firſt found, diſcouered and brought them to light: of which, one named then Bebelo, & ſo called at this day, yeelded vnto *Anniball* daily 300 pound weight; which mine euen at that time had gone vnder the ground and hollowed the mountain a good mile and a halfe: and all that way the Aquitans at this day ſtanding iu water, lade the ſame vp, labouring night and day by the candle or lampe-light, euery man in his turne, and during the burning of a certaine meaſure of oile, in ſuch wiſe as they diuert the water from thence, and make a good big riuer thereof, to paſſe and run another way. M
A veine of ſiluer which lieth but ebb within the ground, and is there diſcouered, the miners call Crudaria, as it were a raw vein. In old time thoſe that digged for ſiluer, if they met once with allum, were wont to giue ouer their worke and ſeeke no farther: but of late daies it happened, that vnder alume there was found a veine of white braſſe or laton, which fed mens hopes ſtill,

* or, *Molybdæna*.

* ἐφεξῆς, one after another.

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A and cauſe them now to ſink lower,and neuer reſt ſo far as they can dig. And yet there is a damp or vapor breathing out of ſiluer mines, hurtfull to all liuing creatures, and to dogs eſpecially. Moreouer,this point is well to be marked,that gold and ſiluer both, the ſofter that they be and tender,the better they are eſteemed: and ſiluer being white as it is, moſt men maruell how it commeth to paſſe,that if one rule paper or any thing therewith,it will draw black lines & ſully as it doth.

Furthermore,within theſe veines and mines aboueſaid, there is a certaine ſtone found which yeelds from it an humor continually,& the ſame continues alwaies liquid:men cal it * Quick-ſiluer (howbeit being the bane and poiſon of all things whatſoeuer, it might be called Death-ſiluer well enough) ſo penetrant is this liquor, that there is no veſſel in the world but it wil eat B and breake through it,piercing and paſſing on ſtil,conſuming and waſting as it goes:it ſupports any thing that is caſt into it,and wil not ſuffer it to ſettle downward, but ſwim aloft, vnleſſe it be gold only;that is the only thing which it loueth to draw vnto it and embrace: very proper it is therefore to affine gold; for if gold and it be put together into earthen pots, and after often ſhaking be poured out of one into another,it mightily purifies the gold& caſts forth al the filthy excrements thereof; and when it hath rid away all the impurities and groſſe refuſe, it ſelfe ought then to be ſeparated from the gold: for which purpoſe poured forth the one & the other ought to be,vpon certaine skinnes of leather well tewed and dreſſed vntill they be ſoft,through which the quick-ſiluer may paſſe: and then ſhall you ſee it ſtand in drops vpon the other ſide like ſweat ſent out by the pores of our skin,leauing the gold pure and fine behind it: and verily C the affinitie betwixt gold & quick-ſiluer is ſo great,that if any veſſels or pieces of braſſe are to be gilded,rub the ſame ouer firſt with quick-ſiluer before the gold foile be laid on, it will hold the ſame moſt ſurely:mary this one diſcommodity there is in it,that if the leaues of gold be either ſingle or very thin,the whiteneſſe of the quicke-ſiluer will appeare through, and make the gilding more pale and wan: wherefore our cunning goldſmiths who would make their Chapmen to pay for their plate as double gilt,when it is indeed but thin laid and ſingle,and ſo picke their purſes,ſet a rich and deep colour vpon their work for the time,by laying vnder the gold in ſtead of quick-ſiluer natural,the white of an egg,and then vpon it artificial quick-ſiluer named Hydragyrum, whereof I purpoſe to write in place conuenient. And to ſay a truth, the right quick-ſiluer which is of the own kind,is not commonly found in great plenty.

* or Life ſiluer

D Ouer and beſides,within the ſame mines and among the veines of ſiluer,there is found a minerall,which to ſpeak properly is a ſtone concrete of a certain ſcum or fome,white and ſhining, howbeit not tranſparent,which is called by ſome Stimmi,by others * Stibium, Alabaſtrum,or Larbaſon:and hereof there be two kinds,the male and the female;but the female Antimony or Stibium is the better eſteemed: for the male is more rude,rough,and rugged,& yet for all that not ſo weighty,bright and radiant; beſides that, it is more charged with ſand: whereas the female contrariwiſe ſhineth and glittereth plentifully,being alſo brittle & tender, apt to cleaue eaſily into plates or flakes,and not to breake into lumps and gobbets.

* We call it *Antimonium.*

Touching the vertues of Stibium pertinent vnto phyſick,aſtringent it is and refrigerant,but a principal and peculiar medicine to be imployed about the eies; for therupon it was that moſt E men called it Platyophthalmon,for that being put into thoſe ointments that are to * beautifie the eies of women,(named thereupon Calliblephara) it ſeemes to extend the compaſſe of the eies,and make them appeare open,faire,and * large withall. Antimonie pulueriſed and incorporat with the pouder of frankincenſe,by the means of gum withall, ſtaieth the flux of humors into the eyes, and healeth the fretting and exulcerations incident thereto: being otherwiſe a proper medicine to ſtaunch the bloud that guſheth or iſſueth from the braine. But for to ſtop the bleeding of any freſh wound, the pouder of Antimony alone is thought to be more effectuall if the place be ſtrewed withal: which alſo is a ſingular thing to heal the old bitings of dogs. It cureth moreouer any burn occaſioned by fire, in caſe it be tempered in ſome conuenient ſuet and wax, with Litharge of ſiluer, and Ceruſe or White lead, and ſo reduced into a ſalue. But F for to prepare Antimonie aright, it ought to be well luted all ouer with a certain kinde of paſte made of Cow-dung,and then dunged and calcined in an ouen; which beeing done,to bee quenched with Womans milke, and then ſtamped and brayed very well in a mortar, putting thereunto raine water alſo among, and euer and anon the troubled water ought to bee transfuſed into a veſſell of braſſe,and clarified therein together with Sal-nitre. As for that which ſetled in

* And therfore *Ion* called it μίλανας ὀμμα ἰμμαινχέφω, when he reckons vp the deuices that *Qu. Ompbale* had to paint and trim her ſelfe.

* Which was eſteemed a grace in old time,as may appeare by *Homer*, who giueth vnto *Qu. Iuno* the Epithet of βοῶπις, (id eſt) broad eyed, as is a Cow or Heifer.

the bottome of the mortar, is held to be the droſſe and dregs thereof, ſtanding moſt vpon lead, G
and is throwne away as good for nothing: but the pot or veſſell whereinto the troubled water aforeſaid was poured, after it is well couered and ſtopped with a linnen cloth, muſt be ſuffred to ſtand all night to take a ſetling; and the next morrow that which floteth aloft is to be poured out by little and little, and the reſt of the liquor to be ſoked forth with ſpunges, and ſeparated from the Antimonie. Now, that which reſteth in the bottom is taken to be the floure of Antimonie, and ſo called; which they lay forth in the Snn a drying, couered with a fine linnen cloth that it ſhould not be ouermuch dried: which done, they beat this fine floure againe in a mortar, and ſo reduce it into trochiskes. But in this operation of preparing antimonie, aboue all things regard would be had in the burning thereof, that it be not ouermuch calcined, and ſo turne into lead. Some in the burning of antimonie vſe not dung, as is beforeſaid, but rather lap the ſame about with ſome greaſe or tallow: others, after it is well beat and punned, ſtreine it with water H
through a threefold linnen cloth, & caſt away the dregs remaining behind: but the liquor that paſſed through, they poure out of one veſſel into another, and the reſidence alwaies they gather and ſaue, which they mix in the compoſition of plaiſters and eie-ſalues, or collyries.

As touching the droſſe or refuſe in ſiluer, the Greeks call it Helcyſma: the nature thereof is reſtringent & refrigeratiue: it entreth into plaiſtres like as lead ore doth (which is named Molybdæna, and whereof I intend to write in my treatiſe of lead) eſpecially thoſe that are made to heale, cicatrice, and skin. Alſo being injected by way of cliſtre with oile of myrtles, it cureth tineſms and dyſenteries. It is vſed much alſo in thoſe lenitiue and vncteous plaiſtres named Lipatæ, and ſerueth likewiſe for the excreſcence of proud fleſh in vlcers, & for thoſe exulcerations which come of rubbing and fretting, or the running ſores and ſcalls in the head. I

Within the mettal mines aforeſaid there is ingendred another minerall, known by the name of Spuma argenti [*i.* the ſome of ſiluer] commonly called litharge, & three ſorts there be found of it. The beſt litharge, of gold, which they call Chryſitis: the ſecond, of ſiluer, named Argyritis: and a third of lead, which is Molybditis: and many times all theſe kinds ſo diſtinct in color, are found in one and the ſame lump or puffed loaf of litharge. The beſt litharge is brought out of the region Attica: the next in goodneſſe comes from Spain. Litharge of gold, named Chryſitis, is made of the very mine and vein of ſiluer; Argyritis, of ſiluer it ſelfe; and Molybditis, of the lead which is melted with the ſiluer: as wee may ſee at Puteoli, where great ſtore of it is made, and of that place took the name Puteolana. All the ſorts of them are made, after that the mettal or matter appropriat vnto them, is throughly melted and tried; for it runneth downe from K
the vpper pan into that vnderneath, out of which it is taken vp with iron broches; and to the end that it might be of a ſmall weight, ſome wind it about the broch in the very flame of the furnace; and as it may appeare by the very * name, it is no other thing but the ſcum of the ore or mettal boiling and melting ouer the furnace: from droſſe it differeth as much as ſcum or froth aboue, may from dregges or lees beneath: and as the one is an excrement caſt vp from a matter whiles it is purging it ſelfe, ſo the other is the refuſe or grounds thereof after it is purged and ſetled. Howbeit many there bee who make but two kindes of this ſome or litharge; the one
* Spuma argenti. * Stereſitis, as it were ſolid and maſſiue; the other * Peumene, as one would ſay, puffed vp and
* or rather, Stereoma. full of wind. As for the third named Molybdæna, they reckon as a thing by it ſelfe, to be treated of in the diſcourſe or chapter of lead. Now the litharge aboueſaid ought for the vſe that it L
is emploied about, for to be prepared in this manner: firſt the lumps aforeſaid are to be broken into ſmall pieces as big as Haſel nuts, and ſet ouer the fire againe: thus when it is once red hot by the blaſt of bellows, to the end that the coles and cinders might be ſeparated one from another, there is wine or vineger caſt vpon it, both to waſh, & alſo withall to quench the ſame. Now if it be Argyritis, to the end it may look the whiter, they vſe to break it to the bignes of beans, and giue order to ſeeth it in water within an earthen pot, putting thereto wheat and barly lapped within pieces of new linnen cloth, and ſuffer them to boil therwith till they * burſt: which
* Rumpuntur. done, for ſix dayes together they put it in mortars, waſhing it thrice euery day in cold water, and in the end with hot, and ſo at length put to euery pound of the ſaid Litharge, the weight of one M
Obolus of Sal-gem. The laſt day of all they put it vp into a pot or veſſel of lead. Some there be who ſeeth it with blanched beans and husked barly, and after that dry it in the ſun: others think it better to ſeeth it with beans and white wool, vntill ſuch time as it colour the wooll no more black: then they put thereto Sal-gem, changing eftſoones the water, and dry it for the ſpace of

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A forty daies together in the hotteſt ſeaſon of the Summer. There be again who think it beſt to ſeeth it in water within a ſwines belly, and when they haue taken it forth, rub it wel with ſal-nitre, and pun it in mortars, as before, with ſalt. Ye ſhall haue them that neuer beſtow ſeething of it, but only beat it with ſalt, and then put water thereto and waſh it. Well, thus prepared as is beforeſaid, it ſerueth for collyries and eie-ſalues; in a liniment alſo, to take away the foule cicatrices or ſcars, the pimples and ſpecks likewiſe that mar the beauty of women, yea & our dames waſh the haire of their head withall, to make it clean and pure. And in very truth, Litharge is of power to dry, mollifie, coole, and attemper; to clenſe alſo, to incarnat vlcers, and to aſſwage or mitigate any tumors. Being reduced into the vnguents or plaiſters aforeſaid, and namely with an addition of rue, myrtles, and vineger, it is ſingular for S. *Anthonies* fire. Semblably, being in-
B corporat with oile of myrtles and wax into a cerot, it healeth kibed heeles.

Chap. VII.

¶ *Of Vermilion; and of what eſtimation it was among the old Romans: the firſt inuention thereof. Of Cinnabaris, the vſe thereof in Pictures and in Phyſicke. The ſundry ſorts of Minium or Vermilion: and how it is to be ordered to ſerue painters.*

C THere is found alſo in ſiluer mines a mineral called Minium, *i.* Vermilion, which is a colour at this day of great price and eſtimation, like as it was in old time: for the antient Romans made exceeding great acount of it, not only for pictures, but alſo for diuers ſacred & holy vſes. And verily *Verrius* alledgeth and rehearſeth many authors, whoſe credit ought not to be diſproued, who affirm, That the maner was in times paſt to paint the very face of *Iupiters* image on high and feſtiual daies with Vermilion: as alſo, that the valiant captains who rode in triumphant maner into Rome, had in former times their bodies * coloured all ouer therewith: after which manner (they ſay) noble *Camillus* entred the city in triumph. And euen to this day, according to that antient and religious cuſtom, ordinary it is, to colour all the vnguents that are vſed in a feſtiuall ſupper at a ſolemne triumph, with Vermilion. And no one thing doe the Cenſors
D giue charge and order for to be done, at their entrance into office, before the painting of *Iupiters* viſage with Minium. The cauſe and motiue that ſhould induce our anceſtors to this ceremony I maruel much at, and canot imagin what it ſhould be. True it is and well known, that in theſe daies the Æthiopians in generall ſet much ſtore by this colour, and haue it in great requeſt, inſomuch as not onely the Princes and great Lords of thoſe countries haue their bodies ſtained throughout therewith, but alſo the images of their gods are painted with no other colour: in which regard I am moued to diſcourſe more curiouſly and at large of all particulars that may concerne it.

Theophraſtus ſaith, that 90 years before *Praxibulus* was eſtabliſhed chiefe ruler of the Athenians (which falls out iuſt vpon the 249 yere after the foundation of our city of Rome) *Callias* the
E Athenian was the firſt that deuiſed the vſe of Vermilion, and brought the liuely colour thereof into name: for, finding a kinde of red earth or ſandy grit in the mines of ſiluer, and hoping that by circulation there might be gold extracted out of it, he tried what he could do by fire, and ſo by that means brought it vnto that freſh and pleaſant hue that it hath: which was the firſt original of Vermilion. Hee ſaith moreouer, That euen in thoſe daies there was found Minium in Spain, but the ſame was hard and full of gritty ſand. Likewiſe among the Colchi, in a certaine rock inacceſſible; by reaſon whereof the people of the country were conſtrained by ſhooting at it, to ſhake and driue it down: howbeit the ſame was but a baſtard Minium. But the beſt ſimply (ſaith he) was gotten in the territorie of the Cilbians, ſomewhat higher in the country than Epheſus: in ſum, That the ſaid Minium or Vermilion is a certaine ſandy earth of a deepe ſcarlet
F colour, which was prepared in this order: firſt they pun and beat it into pouder, and then waſhed it being thus pulueriſed. Afterwards, that which ſetled in the bottom they waſhed a ſecond time. In which artificiall handling of Minium this difference there is, that ſome make perfect Vermilion of it with the firſt waſhing: others think the Vermilion of that making to be too pale and weake in colour, and therefore hold that of the ſecond waſhing to be beſt. And verily

* To ſhew the bloudy battels they had fought, and what carnage of their Enemies they had made: for without much effuſion and drawing of their bloud they might not triumph.

I won-

I wonder not that this colour was ſo highly eſteemed: for euen beforetime during the ſtate of Troy, the red earth called Rubrica was in great requeſt, as appeareth by the teſtimony of *Homer*; who being otherwiſe ſpary enough in ſpeaking of pictures & colours, yet commends the ſhips * painted therwith. The Greeks call our Minium by the name of Miltos, and yet ſome terme it Cinnabari: and hereof aroſe the error occaſioned by the Indian name Cinnabari. For ſo the Indians call the bloudy ſubſtance of a dragon, cruſhed and ſqueeſed with the weight of the Elephants lying vpon them ready to die, to wit, when the ſaid dragons are full with ſucking out the Elephants bloud before: and now their owne and it are mingled together, according as I haue ſhewed before in the ſtory of thoſe beaſts. And verily there is not a color beſides, which expreſſeth the liuely colour of bloud in pictures ſo properly as Minium. As for that other Cinnabaris of India, it is moſt wholſom to be put into antidots, preſeruatiues, and countrepoiſons, yea and other ſouerain medicines to be taken inwardly. But our phyſitians (beleeue me) for that by an error Minium or vermilion is called Cinnabaris, vſe in ſtead of Sanguis draconis, the ſaid Minium, which in very truth is no better than a meere poiſon, as I will ſhew anon. Wel, in old time they vſed to draw thoſe pictures and pourtraits which conſiſt of one ſingle colour, and bee called Monochromata, with this colour Cinnabaris. They painted alſo with the Minium of Epheſus, but they gaue it ouer in proceſſe of time, becauſe ſuch colors were ſo coſtly, & required ſuch pains ere they were prepared and made perfect. Beſides, both the one and the other were thought to be ouer-quick and ſtinging in hand; and therfore they betook themſelues to the red earth Rubrica and Sinopis, of which colours I will ſpeak more in their proper places. But to returne again to Cinnabaris or Sangdragon, it is ſophiſticated and corrupted either with Goats bloud, or elſe with the fruit of Seruoiſes punned. But the true Cinnabaris or Sangdragon is worth fifty Seſterces by the pound. As for Minium or Vermilion aforeſaid, K. *Iuba* ſaith, that it groweth plentifully alſo in Carmania. And *Hermogenes* affirmeth, that Æthiopia likewiſe is not without good ſtore of it. But from neither of thoſe two countries is it brought vnto vs, nor (to ſay a truth) out of any other place but Spain. The beſt and moſt excellent is that which comes out of the territory of Siſapone in the Realm of Granada or Bœtica a part of Spain, euen from a Mine of Vermilion there, which payeth a great cuſtome, and yeelds much reuenue to the people of Rome: and there is nothing looked to more ſtreightly for feare of fraud and impoſture; for lawfull it is not there to dreſſe and refine it, but vncocted and crude is it brought to Rome in the maſſe as it lay within the vein, ſealed by the ſworn maſters of the mine, which yeelds one yeare with another 10000 pound weight or much thereabout. At Rome it is waſhed, and a price there is ſet vpon it by an expreſſe Act, namely, That it ſhould not be ſold aboue ſeuentie deniers the pound. But many wayes is it ſophiſticated, whereby the ſocietie and fellowſhip of the Publicanes, who had the ordering of it at Rome, robbed the Commonweale, and gained themſelues. For a ſecond kind there is of Minium, found almoſt in euerie mine of ſiluer & lead, the which is made of a certain ſtone intermingled in the veins of thoſe mettals after the ſame is burnt; and not of that red ſtone which yeeldeth forth the humor that I named before Quickeſiluer: for this ſtone may it ſelfe by boiling be brought to ſiluer, but of other red pieces of earth found together with the ſaid true Vermilion, which are knowne to be barraine and void of the right Vermilion, onely by the leaden hue which they haue: for vnleſſe it be in the furnace they neuer wax red, and then being fully burnt and calcined, they are beaten to pouder. This is that Minium of a ſecond ſort, and much inferiour vnto thoſe naturall pouders and ſands of the true Minium, notwithſtanding very few there bee that know it. Well, this is that Minium wherewith the true Vermilion is ſophiſticated in the Worke-houſes and ſhops of thoſe Publicanes, whoſe Companie and Fellowſhip had the ordering of it; like as it is corrupted alſo with Scyricum. But how this colour Scyricum is made I will in due place write hereafter. Certes our painters, to giue the better luſtre vnto Minium, yea and to ſaue charges, haue deuiſed to lay the firſt ground vnder it of this Scyricum. Beſides this, they haue another caſt to gain (or ſteale rather) by Minium; for by reaſon that it ſticketh to their penſils euer and anon, they waſh it off when they be full: this ſetleth down to the bottom of the water, where it remaines, and the painters take it for their auailes; but they were as good pick their maſters purſe who ſetteth them aworke. But if a man would know the true and ſincere Vermilion indeed, it ought to haue the rich and freſh colour of skarlet. As for the brightneſſe that is in the ſecond ſort, if a wall bee painted therewith, the naturall moiſture and dankeneſſe that commeth from thence will abate the

* Such are called by *Homer*, μιλτοβρεῖς.

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A the luſtre ſoon. And yet this Minium is taken to be but a kind of ruſt in mettals, either ſiluer or lead, as they lie in the mines. Moreouer, the minerall Vermilion found naturally in the foreſaid Minium mines of Siſapona, haue no ſiluer mixed therwith, boyle and trie it in the fire as much as you will. Alſo the way to find true Minium from falſe, is by the means of gold: for touch the ſophiſticat Minium with a piece of gold red hot, it will wax blacke, whereas the true Minium keepeth colour ſtill. [Where by the way note, That I read it may be falſified with Quicklime:] And after the ſame maner, if there be no gold at hand to trie it by, you ſhal ſoon ſee the proofe and find the falſehood by a plate of yron red hot, and vſed accordingly. Furthermore this hath beene obſerued, That the ſhining beams either of Sun or Moone, do much hurt to the luſtre of Vermillion, or any thing painted therewith. But what meanes to preuent this inconuenience?

B Euen to verniſh the wall after the colour is dried vpon it in this manner: Take white Punicke wax, melt it with oyle, and while it is hot, waſh the ſaid painting all ouer with penſils or fine bruſhes of briſtles, wet in the ſaid verniſh. But when this vermiſh is laid on, it muſt be well chafed & heat again with red hot coales made of Gall-nuts held cloſe to it, that the wall may ſweat and frie again: which done, it ought afterwards to be rubbed ouer well with cerecloths, and laſt of all, with cleane linnen cloths, that it may ſhine again and be ſlicke as ſtatues of marble be.

Moreouer, the workemen that are emploied in their ſhops about the making of Vermillion, doe bind vnto their faces in manner of Maskes, large bladders, that they may take and deliuer their wind at libertie, and yet not be in danger of drawing in with their breath that pernicious and deadly pouder, which is no better than poyſon: yet ſo, as they may ſee out of the ſaid

C masks neuertheleſſe.

To conclude, Vermillion is vſed much in limming the titles and inſcriptions of roles and books, it ſetteth forth the letters alſo, and maketh them more faire and beautifull which are written in tables ouer ſepulchres, be they enriched otherwiſe either with gold or marble ſtone.

Chap. VIII.

¶ *Of quickſilver artificiall, called Hydragyrum. Of guilding ſiluer. Of Touch-ſtones for to trie the diuerſe kinds of ſiluer.*

D So inuentiue is the wit of man, that there hath beene deuiſed in the world a means to make an artificiall Quickſiluer in ſtead of the true and natural, and that out of the ſecond kind of Minium which before I called Secundarium. I ſhould erewhile haue ſpoken therof in the chapter of the right Quickſiluer, but deferred it I haue no further than to this preſent place. Firſt therfore this is to be vnderſtood, that made it is two maner of waies, ſomtimes of the Minium aforeſaid punned with vinegre in morters, and with peſtles all of braſſe; otherwhiles it is drawn by fire: for they put ſecondarie Vermilion in an earthen pot wel luted all ouer with cley, vpon which is there ſet a pan of yron, & the ſame couered ouer the head with another pot, well cemented, vnder which earthen pot abouenamed, there ought to be a good fire made, & the ſame kept continually with blowing: and thus by circulation there wil appeare a dew or ſweat in the vppermoſt veſſel proceeding from the vapors reſolued, which being wiped off, will in ſubſtance

E ſhew liquid as water and in color reſemble ſiluer: The ſame liquor is eaſie to diuide into drops, and as apt again by the lubricitie thereof, to run into an humor. This quickſiluer being by the judgement of all men a rank poyſon, I ſuppoſe, that al things reported of Minium as medicinable, be dangerous remedies, vnleſſe haply that by inunction of the head or belly, it ſtaies all flux of bloud; with this caution and charge notwithſtanding, that it neither perce and enter into the inward noble parts, nor touch the wound: for otherwiſe my conceit is, that it ought not to be vſed. I ſee that now adaies ſiluer only, and in maner nothing els, is guilded by the means of this artificiall Quickſiluer: wheras gold foile ſhould be laid alſo after the ſame maner vpon veſſels, or any workmanſhip of braſſe: but (as I haue beforeſaid) the deceit & fraud that is euery where in the world, which makes men ſo wittie as they be, hath deuiſed other means of guilding, and

F thoſe of leſſe diſpence & charge than with any Quickſiluer, according as I haue before declared

I canot thus write as I do ſo much of gold and ſiluer, but me thinks I muſt of neceſſity ſpeak of the ſtone which they cal in Latin *Coticula, which in times paſt was not vſually found in any place but in the riuer Tmolus, as ſaith *Theophraſtus*: but in theſe daies we find it euery where: ſome call it Heraclius, others Lydius. Now theſe ſtones all the ſort of them are but ſmall, not

* i. The touch-ſtone.

excee-

exceeding foure inches in length,and two in bredth. That part or ſide which lies aboue toward G
the Sunne when it is found,is thought better for touch,than the other which lieth to the earth.
By meanes of theſe touchſtones,our cunning and expert mine-maſters,if they touch any ore of
theſe mettals,which with a pickax or ſoile they haue gotten forth of the veine in the mine,will
tell you by and by how much gold there is in it, how much ſiluer or braſſe, and they will not
miſſe a ſcruple : a wonderfull experiment and the ſame infallible.

As touching ſiluer,two degrees there be of it, different in goodneſſe, which may be knowne
and diſcerned in this maner : For lay a piece of ſiluer ore vpon a ſcliſe, plate,or fire pan of yron
red hot,if it continue white ſtill,it is very good,if the ſame become reddiſh,go it may for good
too in a lower degree;but in caſe it looke blacke,there is no goodnes at all in it. Howbeit,there
is ſome deceit alſo in this triall and experiment : which may croſſe a man in his iudgement:for H
let the ſaid ſcliſe or plate lie a time in a mans vrine,be the ore neuer ſo baſe that is laid thereup-
on when it is burning red hot,it will ſeeme to take a white colour for the time,and deceiue him
that ſhall ſee it. To conclude, there is another pretty proofe of ſiluer fine, if it be brought and
burniſhed,and that is by breathing vpon it : for if the breath be ſeene thereupon preſently as a
ſweat,and the ſame paſſe away incontinently as a cloud,it is a ſigne of perfect ſiluer.

Chap. IX.

¶ *Of mirroirs or looking glaſſes. And of the Ægyptian ſilver.*

AN opinion it was ſomtime generally receiued and beleeued, That no plates might be dri- I
uen by the hammer,nor mirroirs made,but of the beſt and pureſt ſiluer: And euen this ex-
periment is falſified and corrupted by deceit. But ſurely a wonderful thing in Nature this
is of theſe mirroirs of ſiluer,that they ſhould repreſent ſo perfectly the image of any thing that
is before them,as they do:which muſt needs be(as all men confeſſe)by the reuerberation of the
aire from the ſolid body of the mirroir, which being beaten backe againe from it, bringeth
therwith the ſaid image expreſſed therin. The ſame reuerberation is the cauſe that ſuch looking
glaſſes as by much vſage are poliſhed and made ſubtile, doe in that ſort gently driue backe the
image repreſented within them,that it ſeemes infinitely big in proportion of the body it ſelfe:
ſuch difference there is in them,& ſo materiall it is,whether they repercuſſe and reject the aire, K
or receiue and entertaine it. Moreouer, there be drinking cups ſo framed and faſhioned with a
number of mirroirs within,that if there do but one look within them, he ſhall imagine that he
ſaw a multitude of people,euen as many images as there be mirroirs. There are deuiſed looking
glaſſes alſo,which will repreſent monſtrous ſhapes;and ſuch be thoſe mirroirs that are dedica-
ted in the temple at Smyrna:but this comes by reaſon that the matter wherof they be made,is
in that ſort faſhioned. For it skilleth much whether mirroirs be hollow, either in manner of a
drinking pot, or of a Threcidian buckler : whether the middle part lie low and inward, or riſe
and beare out with a bellie : whether they be ſet croſſe and ouerthwart,or ſtand bias, whether
they hang with their heads bending backward, or bolt vpright : For according as the matter
which receiueth the image, is diſpoſed to this or that faſhion, or ſet one way or other, ſo it tur-
neth the ſhadowes back againe:for verily the ſaid image repreſented in a mirroir,is nothing els L
but the brightneſſe and cleareneſſe of the matter which receiueth the ſame,returned and beaten
backe againe. But to go through in this place with all things concerning ſuch looking glaſſes,
the beſt known in old time vnto our anceſtors,came from Brindis,and thoſe conſiſted of tin and
braſſe tempered together. But when ſiluer mirroirs came in place, thoſe went downe, and theſe
were preferred before them. The firſt that made them of ſiluer, was *Praxiteles* in the daies of
Pompey the great. Of late,men had this opinion of ſiluer mirroirs, That they would repreſent an
image more liuely and truly,in caſe their backe part were laid ouer with gold.

But to return again to ſiluer,the Ægiptians vſe a deuiſe to paint it,to the end that they would
drinke more deuoutly,ſeeing their god *Anubis* painted within their pots. And in truth they reſt
contented with painting their plate,and neuer graue or chaſe any pieces. This deuiſe is growne M
into ſuch credit by the precedent receiued from thence, that the ſtatues of ſiluer caried in a
ſhew at triumphs,be nought ſet by,vnleſſe they be alſo enamelled & painted black:& wonder-
full it is how much more pretious they are thought to be when the natiue brightnes thereof, it
hid and the light quite put out or blindfolded. The manner of making this black ſiluer, is thus:

They

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A They take of siluer and sulphur vif as much of the one as the other, of Cyprian brasse or latton plates (which brasse they call Coronarium) as thin as may be, a third part: these they mix together and melt them in an earthen pot wel luted all ouer with cley: and boile they must so long, vntill the lid of the pot doth rise vp and flie open of it self. Moreouer, siluer wil look black with the yolke of an egge rosted hard and well beaten with vineger and Tripoli.

To come now vnto those that counterfeit mony. *Antonius* whiles hee was one of the three vsurping Triumvirs, mixed yron with the Roman siluer denier. He tempered it also with the brasen coine, and so sent abroad false and counterfeit mony. Others there be that make money too light (namely, vnder the lawful proportion) which is, to coin and stamp for euery pound weight of siluer 84 deniers. This enormity grew to this passe, that *M. Gratidianus* published a law, by
B vertue whereof there was an act instituted and ordained for the proofe and allowance of siluer deniers, what touch and what poise they should haue: by which act of his hee so pleased the Commons of Rome, that there was not a street throughout all the city, but they erected a siluer statue, pourtraied all whole in a gowne in the fauor and honour of *M. Gratidianus*. But strange it is, and a man would not think it, that this art and cunning deuised for the detecting of falshood and forgerie, is the only means to teach deceit and wickednesse, for many a man wil giue too too much for false mony: yea, and many siluer deniers for one counterfeit, well and cleanly made: to take forsooth a pattern thereby, and learne to deceiue others.

CHAP. V.

C ¶ *Of excessiue summes of money in mens hands. Who they were in old time that were thought richest. And when there began largesses at Rome, and mony to be scattered and cast abroad to the people.*

IN old time men knew no number aboue 100000: and therefore at this day also in stead of a million we multiply the said number by ten, and say thus in Latine, *Decies centina millia, i.* A hundred thousand ten times told, and so forward, * repeating alwaies a hundred thousand to the numerall aduerbe, as the sums doth amount. Vsuries, interests, and coined money haue been the cause of these multiplications: and by that occasion also came debts to be called euen vnto
D this age, by the name of *Æs alienum*. And thereof arose the proud name of *Diuites, i.* Rich, for great monied men were so called. Yet take this withall, That the first man that euer was knowne by that syrname * *Diues*, brought a shilling to nine pence in the end, proued Banquerout, & defeated his creditours. As for *M. Crassus*, one of that same house, and who gaue the same armes, would commonly say, That no man was to be counted rich, and worthie of that title *Diues*, vnlesse he were able to dispend by the yeare as much in reuenues as would maintaine a legion of souldiers. And verily his owne lands were esteemed worth *Bis millies sestertium*, that is to say, Two hundred millions of sesterces, Roman: & setting aside *Sylla*, he was the richest Roman that euer was knowne. And yet such was his auarice, that hee could not content himselfe with that wealthy estate, but vpon a hungry desire to haue all the gold of the Parthians, would needes vn-
E dertake a * voiage against them. And albeit by his inestimable wealth he vsurped the title & addition of *Optimus i.* The best, in his time, yet (for me thinks it doth me good to prosecute stil, and inueigh against this insatiable desire of hauing more) we haue known many after him, & those otherwise of base condition, and no better than slaues newly infranchised, to haue growne vnto greater wealth; and namely three at one time, to wit, during the Empire of *Claudius Cæsar*; and those were *Pallas*, *Callistus*, and *Narcissus*, late bond slaues all to the said Emperor. But to let these men passe, as if they were lords still of worldly wealth: in that yeare wherein *C. Asinius Gallus* & *C. Marcius Censorinus* were Consuls of Rome, died *C. Cæcilius Claudius*, who signified by his last will and testament, bearing date the 6 day before the Calends of February, the yere aboue written, That albeit he had sustained exceeding great losses during the troubles of the ciuil war, yet
F he should leaue behind him at the houre of his death, of slaues belonging to his retinue foure thousand one hundred and sixteen; in oxen, three thousand and six hundred yoke; of other cattell 257000 head, and in ready coine, H.S. DC, *i.* threescore millions of sesterces Romane. And besides, he set out for defraying of his funerall charges, * eleuen thousand sesterces, and gaue order expressely, to be enterred so sumptuously. But what of all this? Set case these and such like men

* To wittwentie times, or a hundred times, a hundred thousand, &c.

* *i. Crassus.*

* In which expeditiō he was taken prisoner by *Surinas*, lieutenant general for the king of Parthia: who strake off his head, and poured gold melted into his mouth to satisfie his hūger after it.

* H S. XI. which if you read by the numerall aduerbe (*vndecies*) amounteth to the said sum a hundred times told.

men gathered together innumerable ſums of mony,and an infinit maſſe of goods,yet they ſhall G
come nothing neare to the wealth of K.*Ptolomæus*,who according to the teſtimony of *M.Varro*,
(at what time as *Pompey* the great warred about Iury)maintained 8000 horſmen in pay continu-
ally with his own priuat purſe: kept an ordinary table within his court of a thouſand perſons,
and thoſe had euery man his own cup of gold to drink out of,and at each courſe and change of
meats that came in,new plate was ſerued vp ſtil to the boord.Theſe gueſts of his fared ſo high-
ly,that a man would haue ſaid they had bin franke-fed. But how far ſhort was this mighty and
ſumptuous prince think ye(for I wil ſay no more now of kings) in compariſon of one *Pythius* a
Bithynian,who ſent to *Darius* the king a Preſent of a Plane-tree, all entire of beaten gold, and
withall, that famous gold Vine, ſo much renowned by all writers: feaſted the whole army of
Vide Budæum that mighty monarch,and thoſe were * 788000 men: promiſing ouer and aboue fiue moneths H
pay for them all,and corne for ſo long to ſerue the whole campe,if of fiue ſons that he had of his
owne,the king would ſpare him but one to beare him company in his old age,and not preſt him
for to ſerue in the wars.Certes,a man that heareth thus much of this *Pythius*, might compare
him with that rich *Cræſus* king of Lydia. But what folly and madneſſe in the diuels name is
this,to hunger and thirſt ſo much in this life after that,which either is common to baſe ſlaues,
and may fall vnto them,or els wherof kings themſelues can find no end? And thus much of ga-
thering good and heaping riches together.

To come now to the ſcattering thereof,I finde in the Chronicles,That in the yeare wherein
Sp. Poſthumius, and *Qu. Martius* were Conſuls, they began at Rome to make largeſſes, and to
fling money abroad to the common people. And at that time ſuch plenty of coine there was I
ſtirring at Rome, that the City beſtowed by a generall contribution vpon *Lu.Scipio*,as much as
bare out his charges in exhibiting the ſolemne games and plaies vnto the people. As for that
purſe which was made for the funerals of *Agrippa Menenius*,wherin euery man put his ſextant,
*i.*the ſixt part of an As, I take it to haue been no Largeſſe, but a beneuolence to teſtifie how the
people honoured *Agrippa*, and a ſupply of meere neceſſitie, conſidering how poore the man
died.

Chap. XI.

¶ *Of the ſuperfluitie and frugality both, of men in times paſt, touching plate and ſiluer veſ-*
ſels.Of beds and tables of ſiluer. Alſo when there were deuiſed chargers and K
platters of Siluer to be made of huge capacity beyond
all meaſure.

THe world is giuen to ſo much inconſtancy as touching ſiluer plate, that a wonder it is to
ſee the nature of men how variable they be in the faſhion and making of ſuch veſſel:for no
workmanſhip wil pleaſe them long.One while we muſt haue our plate out of *Furnius* his
ſhop;another while we will be furniſhed from *Clodius*: and againe in a new fit,none wil content
vs but of *Gratius* his making(for our cupboords of plate & tables,forſooth,muſt beare the name
of ſuch and ſuch Goldſmiths ſhops.)Moreouer,when the toy takes vs in the head,al our delight
is in chaſed and emboſſed plate;or els ſo carued,engrauen,and deep cut in,as it is rough againe L
in the hand,wrought in imagery or floure-work,as if the painter had drawne them.And now a-
daies we are growne to this paſſe,that our diſhes are ſet vpon the table borne vp with feet and
ſupporters to ſuſtaine the viands and meat therein,but in any wiſe their ſides muſt be pared ve-
ry neere; for herein I may tell you lieth a great matter, and the more that the ſides and edges
hath loſt by the file,the richer is the plate eſteemed to be.

As touching the veſſell ſeruing in the kitchen: did *Calvus* the noble Oratour complaine in
his time that it was of ſiluer? Why,wee in theſe dayes doe more than ſo, for wee haue deuiſed
that our coaches ſhould bee all ſiluer, and theſe curiouſly wrought and engrauen. And within
the remembrance of man, euen in this age, *Poppæa* the Empreſſe, wife to *Nero* the Emperour,
was knowne to cauſe her Ferrers ordinarily to ſhooe her coach-horſes and other palfreis for her M
ſaddle(ſuch eſpecially as ſhee ſet ſtore by,and counted more daintie than the reſt) with cleane
gold.To what exceſſe and prodigalitie is the world now grown to? *Scipio Africanus* the ſecond
of that name when hee dyed, left no more vnto his Heire in Siluer Plate and Coine than two
and thirtie pound weight: and yet this worthie Knight,when hee rode in triumph for the con-

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A queſt of the Carthaginians ſhewed in that ſolemne pompe, and brought into the chamber of Rome as much treaſure as amounted to * foure thouſand foure hundred and ſeuenty pounds weight of ſiluer, a thouſand times old. This was all the treaſure in ſiluer that the whole ſtate of Carthage was able to make in thoſe daies; Carthage (I ſay) that great and proud city which pretended a title to the Empire of the world, and maintained the ſame againſt Rome: and yet ſee! in this age there is as much laid out in our cupboords of plate, and furniture of our tables. The ſame *Africanus* afterwards, vpon the winning and finall ruine of Numantia, gaue among his ſouldiers in a triumph, 17000 pound weight of ſiluer: O braue ſouldiers, and worthy ſo noble a captain, who ſtood contented with ſuch a reward. A brother of this *Scipio*, ſyrnamed *Allobrogius*, was the firſt knowne to haue in plate, one thouſand pound weight: but *Liuius Druſus*, whiles he B was but Tribune or Prouoſt of the comminalty, had in ſiluer veſſell as much as weighed eleuen thouſand pounds. Now if I ſhould tell you that the Romane Cenſors vpon a time diſgraced, yea and degraded an antient captain and one who in his time had rode in triumph, only for that he had in plate fiue pound weight, it would be taken in theſe daies for a meere tale and vaine fable: as alſo that *Catus Aelius* in his Conſulſhip, was found ſitting at dinner ſerued with earthen veſſell of potters worke, when the Embaſſadors of the Ætolians came vnto him: that he refuſed alſo ſiluer plate preſented to him for the furniture of his boord, and to his dying day had neuer in ſiluer more than two drinking cups, which *Luſius Paulus* his wiues father beſtowed vpon him after the defeiture of K. *Perſeus*, in regard of his valiant ſeruice; wehold it now for no leſſe than an vntruth and incredible. And here I call to minde a merry conceited ſpeech that I haue C read in the chronicles, of certain Carthaginian Embaſſadors, who ſaid, that no men in the world had more good fellowſhip in their houſes, and liued more friendly together, than the Romanes, for why? when they feaſted one another (ſay they) the ſame * ſiluer plate went round about amongſt them all from one to another without change. But howſoeuer this frugality whereof I ſpeak may ſeeme ſtrange and fabulous to the world wherein we liue, certes wee all know this to be true and no fable, that *Pompeius Paulinus* (the ſon of a Roman knight or man of armes borne at Arles) was not only baniſhed out of the country and nation where his father was borne, but confined alſo to the marches of moſt ſauage and barbarous people, and expoſed to their cruelty, only for this, That he had in his campe (to the euil example of the army) as much ſiluer plate as weighed 12 pounds. But long ago it is ſince the faſhion came vp at Rome, that our dames had D their beds couered all ouer with ſiluer, yea, and ſome dining rooms with tables laid with the ſame: which inuention came firſt (as it is reported) from *Caruilius Pollio*, a gentleman or knight of Rome, who deuiſed to garniſh his bourds with ſiluer, not couering them full and whole throughout with plates thereof, nor after the manner of Deliacke workemanſhip, but onely by parcels, and according to the Punicke or Carthaginian faſhion. The ſame *Pollio* made beds and tables of gold: but not long after, thoſe ſiluer beds and boords came to the order of thoſe in the Iſle Delos. But all this ſumptuoſitie was puniſhed ſufficiently and expiat by the ciuill warre of *Sylla*: for a little before thoſe troubles, this exceſſe and theſe ſuperfluities came vp: as alſo about the ſame time, men fel to make great chargers & platters of ſiluer, weighing one hundred pound a piece; of which there were at Rome (as it is well knowne) when the ſaid warre beganne, to the E number of fiue hundred and aboue: which was the cauſe that many a man fell into the danger of proſcription and confiſcation, for that their rich plate ſet their enemies teeth on water; who for the loue and deſire thereof, practiſed by all cunning meanes their vtter vndoing. Certes our Hiſtorians heretofore, who attributed this curſed and vnhappie ciuill warre betweene *Sylla* and *Marius*, vnto ſuch ſuperfluities and vices of thoſe times which reigned ſo rife, might be aſhamed and bluſh to ſay ſo; for our age hath been more hardy, and hath proceeded farther without any ſuch feare of puniſhment from aboue. No longer ſince than in the daies of *Claudius* the Emperour, *Druſillanus* a ſlaue of his ſyrnamed *Rotundus* (the Seneſchol or Treaſurer vnder him in high Spaine) had a ſiluer charger of fiue hundred pound weight (for the working whereof, there was a forge framed beforehand of ſet purpoſe:) and the ſame was accompanied and attended with F eight more of a ſmaller ſize, weighing 50 pound a piece. Now would I gladly know (if it might pleaſe you) how many of his fellowes (ſuch ſlaues I meane as himſelfe) there muſt be to carry the ſaid veſſell and ſerue it vp to the table: or what gueſts they mought bee who were to be ſerued with ſuch huge plate? *Cornelius Nepos* writeth, that before the victorie of the ſayd *Sylla* who defeated *Marius*, two dining tables and no more there were throughout Rome, all of ſiluer.

* *Quater millies, quadringenta ſeptuagena mil lia pondo*: which is foure millions of millions foure hundred & 70 thouſand poũd weight. An incredible ſum, conſidering that which preſently followeth: and therefore I ſuppoſe this place in *Pliny* is corrupted.

* This was ſpoken by way of jeſt, & ἐφυμικῶς: for that al their veſſell being plate of potters clay & no better, ſeemed alwaies the ſame: whereas in ſiluer plate, men were delighted with diuerſitie of workmanſhip, and varietie of faſhion.

Feneſtella ſaith, that in his time (and he died the laſt yere of the reigne of *Tyberius Cæſar* the Emperor) men began at Rome to beſtow ſiluer vpon their cupboords and ſide liuery tables: & euen then alſo (by his ſaying) Tortoiſe worke came in requeſt and was much vſed. Howbeit, ſomwhat before his daies, he writeth, that thoſe cupboords were of wood, round and ſolid of one entire piece, and not much bigger than the tables whereupon men eat their meat: but when hee was a young boy, they were foure ſquare, and of many peeces joyned together; and then they began to be couered ouer with thin boords or painels, either of maple or citron wood. Soone after, they fel to lay ſiluer plates vpon them at the corners only, and along the joints where the planks were ſet together: but by the time that he was come to be a well grown yong man, they were at their drinking mazers or round-bottome diſhes like balances, whereupon they were called Stateræ: alſo at thoſe platters, which in old time were named Magides. Howbeit, men reſted not contented to haue furniſhed themſelues with plenty of ſiluer in their plaine plate and about their houſes, vnleſſe the curious workmanſhip alſo thereof were more coſtly than the mettall and matter it ſelfe. But leſt this ſuperfluity ſhould be imputed vnto vs in theſe daies, be it knowne, that ſuch curioſity was crept into the world long ago: for *C. Gracchus* had in the furniture of his houſe, certain veſſels of ſiluer called Dolphins, which coſt him at the gold-ſmiths hand 5000 ſeſterces a pound: an exceeding price for the faſhion and workmanſhip, conſidering *L. Craſſus* the Orator had two pots artificially engrauen by the hand of *Mentor* that cuuning workman, the faſhion and making whereof coſt * 100 ſeſterces a pound: and yet he confeſſed and proteſted, that hee was abaſhed to vſe them, and durſt not for ſhame bring them abroad. Moreouer, knowne it is, that he had in his cabinet pieces of plate, which to be bought and ſold were worth euery pound 6000 ſeſterces. Briefly, the conqueſt and reducing of Aſia vnder our Empire, was the firſt occaſion that brought into Italy ſuch waſtfull exceſſe: for *L. Scipio* ſhewed in triumph of ſiluer plate, intailed and ingrauen, 400 thouſand and 50 pounds weight, beſides veſſells of gold amounting to the weight of 100 thouſand pound: and this was in the yere from the foundation of Rome, 565. But the free * donation and beſtowing of the ſaid Aſia vpon the city of Rome (which fell vnto the Romans by the death of K. *Attalus*, who in his laſt will and teſtament ordained them his full heires) did moſt hurt vnto our ſtate: and this ſucceſſion which our Antients injoyed by vertue of that gift, did greater dammage to the integrity of manners, and brought more corruption into our city, than the former victory atchieued by force of armes: for from that time forward men grew to be ſhameleſſe, and without regard of modeſty euery mans fingers itched to be tempering with the treaſure of K. *Attalus*, and to buy the ſame at any price, ſold in open port-ſale to them that would giue moſt: which hapned in the 626 yere after the foundation of the city: for in 56 yeres (which was the meane ſpace between the foreſaid ſubduing of Aſia and this feoffement of K. *Attalus*) our city was well nuzzled and trained not onely in the admiration of ſuch puiſſant forrein kings and princes, but alſo in ſome affectionat loue to their wealth and riches. About which middle time between, & namely in the 608 yere, reckoning from the firſt founding of Rome, when Achaia was likewiſe brought vnder our obedience and ſubjection, this victory alſo was a mighty means to bring vs alſo out of al good order, and to ſet vs forward to imbrace ſuperfluities and to ouerthrow al honeſty and vertue: for now were brought in the ſtately ſtatues and proud painted tables, that we ſhould want no inticing delights, but that all the pride and pleaſure of the world might be found at Rome. Finally, the ruin of Carthage, was the riſing of ſuperfluitie with vs, as if the Deſtinies had ſo appointed, that at one & the ſame time we ſhould haue both wil to imbrace vice, & alſo power & liberty withal to perform ſin: ſo that in regard of our times and the enormities thereof, we may juſtifie, yea and honor any of our anceſtors who ſeemed before to offend in this behalfe: for, as it is ſaid, *C. Marius* after he had deſeited the Cimbrians, contented himſelfe to drink in a woodden godet and tankerd, after the example of father *Bacchus*: *C. Marius* I ſay, who of a good husbandman in the country about Arpinum, & of a common and ordinary ſouldier, came to be a braue captaine and commander in the field.

* *Centum ſeſtertiis*: a ſmall matter to the former. and about 15 or 16. *ſh* of our mony. If you read *Seſtertium centum*, or *centum ſeſtertia*, in the neuter gender, it is a thouſad times as much and that were as monſtrous.

* *Donata*, not *Domita*, according to *Budæus*.

Chap. XII.

¶ *Of Statues and Images of Siluer: of the workemanſhip in grauing Siluer, and of other things pertinent thereto.*

MEn commonly haue thought, that the firſt ſtatues of ſiluer ſeene in Rome, were made in the honour of the Emperour *Auguſtus*, by way of courting and flatterie to winne his grace and

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A and fauour, as thoſe times did require: but it is altogether vntrue; for before his daies, we finde that *Pompey* the Great when he rode in triumph, cauſed the ſiluer ſtatue of K *Pharnaces* (the firſt) [of that name] that euer raigned in the realme of Pontus) to be carried in a ſolemn ſhew: like as the image alſo of *Mithridates* his father; beſides chariots as well of gold as of ſiluer.

Moreouer, it falleth out ſometimes, that ſiluer is vſed in ſtead of gold alſo vpon ſome vrgent cauſe and juſt occaſion: as we may ſee by our proud & ſumptuous dames, that are but commoners and artizans wiues, who are forced to make themſelues carquans and ſuch ornaments for their ſhooes, of ſiluer, becauſe the rigour of the ſtatute prouided in that caſe, will not permit them to weare the ſame of gold. And I my ſelfe, as I remember, haue ſeen *Aurelius Fuſcus* (a gentleman of Rome, who being put beſide his place, and hauing loſt the dignity of a man of arms,
B by reaſon of a notable calumniation framed againſt him, when as young gentlemens ſons vſed to accompany him becauſe he had the name of a braue ſouldier) weare his rings of ſiluer. But to what purpoſe do I collect theſe examples, ſeeing our ſoldiers make no reckoning of yvorie, but the hilts of theſe ſwords and the hafts of their daggers, bee garniſhed with ſiluer, damasked and ingrauen; their ſcabberds and ſheaths bee ſet out with ſiluer chapes, and their ſword-girdles, hangers, and bawdricks, gingle again with thin plates of ſiluer. And do we not ſee how our yong boies are * kept in and reſtrained with ſiluer, during the time that they be vnder mans age? how our fine dames vſe to waſh and bath in ſiluer, diſdaining and ſetting light before any other bathing veſſels in the bains; inſomuch as the ſame mettall and matter which we are ſerued with at the table, is imployed alſo in ſhamefull and vncleanly vſes. Oh that *Fabricius* were aliue now a-
C gain to behold theſe things! if hee ſaw our women bathing together with men in one and the ſame bains, and thoſe paued (as it were) vnder foot with ſiluer ſo ſmooth and ſlipperie that they cannot hold their feet: *Fabricius* I ſay, who forbad expreſſely, that any warriours and Generall captains ſhould haue in plate more than one drinking boll or goblet, and a ſaltſellar: if hee ſaw ſiluer (which was wont to be giuen in preſents and rewards to braue men and valiant captains) thus to be melted and broken to ſerue for theſe purpoſes, what would he ſay? but What a world is this! we paſſe not for *Fabricius*, nay, we are aſhamed of him and his frugality.

* I could ſet this downe more plainly: but in ſome reſpect of chaſt minds & eares I am willing enough to leaue it as obſcure in Engliſh, as I found it in Latine.

But to leaue theſe abuſes and complaints: one thing I wonder much at, that among ſo many excellent artizans as haue been, there is not one who took any pleaſure to graue in gold, nor became renowned thereby; whereas many are famous for their workemanſhip in ſiluer: howbeit,
D *Mentor* (of whom I ſpake erewhile) excelled them all in this kinde: and yet I doe not find, that euer he made in all, aboue eight peeces that were curiouſly and exquiſitly wrought, and thoſe (as it is ſaid) be all loſt. And no maruell, for why? the temple of *Diana* at Epheſus lieth along: the Capitoll of Rome likewiſe, and all within it, hath periſhed by fire. Howbeit, *Varro* hath left in writing, That among his antiquities, one braſen image he had of *Mentors* hand-worke. Next to him, the world had *Acragas*, *Boethus*, and *Mys*, in great admiration for their excellent skill: and at this day there be extant, peeces of all their workemanſhip, to be ſeen in the Iſle of the Rhodians: for in the temple of *Minerva* which is at Lindus a city in that Iſland, there is one ſtatue of the ſaid goddeſſe, of *Boethus* his making: within the temple of god *Bacchus* in the very city it ſelfe of Rhodes, there are certain cups wrought by *Acragas*, wherein bee ingrauen the religious
E Prieſtreſſes called Bacchæ, and the Centaurs. Within the ſame Church, are the pourtraicts of *Silenus*, and the pretty *Cupids*, expreſſed liuely in imagerie, by *Mys*. Moreouer, *Acragas* pourtraied the reſemblance of chaces or hunting, in certain pots, moſt artificially; for which he became very famous. After theſe, there are to be ranged in another degree, *Calamis* and *Antipater*; together with *Stratonicus*, who wrought within a broad-mouthed cup, one of the Satyres ſound aſleepe; but with ſuch dexterity and ſo liuely, that he is judged and ſaid to haue couched and fitted him to the cup, rather than barely ingrauen him. Then followes *Tauriſcus* of Cyzicum: ſemblably *Ariſtus* and *Eunicus*, both Mityleneans, are highly commended: as alſo *Hecataus* and *Praxiteles*, who flouriſhed about the time of *Pompey* the Great. *Poſidonius* alſo of Epheſus, and *Ledus* the Stratiat, who was in great name for ingrauing of battels and armed men at the point
F to joyne skirmiſh. Likewiſe *Zopirus*, who made two ſingular cups; in the one, hee repreſented the honourable Court of the Areopagites; in the other, the triall and judgement of *Oreſtes*: which were eſteemed worth twelue talents. In another age liued *Pytheas*, a ſingular Artificer, whoſe workemanſhip was ſo rare and exquiſite, that euery two ounces of his ſiluer plate, was ſold commonly for twentie thouſand Seſterces: and verily a broad goblet or ſtan-

ding piece there was of his making, with a deuiſe appendant to it, for to be ſet too and taken off by a vice, and the ſame reſembled *Vlixes* and *Diomedes*, ſtealing the Palladium out of the temple of *Minerua* in Troy. The ſame workeman deuiſed to ſet into little cups, prettie images or mannikins reſembling cookes, which he termed Magiriſcia, but ſo finely & delicatly wrought they were, that the patterns of them could not be taken out in any mould, without hurting and ſpoiling; ſo ſubiect were they to any outward injuries in the handling. Furthermore, *Teucer* was famous in his time, for his dexterity and light hand in ſhallow imboſſing. Well, in as great requeſt as theſe artificers were in times paſt, yet this cunning decaied all on a ſudden, and grew ſo far out of vſe, that nothing now commendeth ſuch pieces of work, but only antiquity: in which regard, how neare ſoeuer they be worne with continuall handling, inſomuch as the ſhapes and proportions of the imagerie ingrauen cannot be diſcerned, yet great ſtore is ſet by any ſuch antique plate whereſoeuer it is to be had.

Ouer and beſides, it is to be noted, that ſiluer will ruſt in medicinable waters, ſuch as ſtand vpon ſome eſpeciall mine; yea, the ſalt aire breathing from them, is able to infect it: as wee may ſee in the Mediterranean parts of Spaine far remote from the ſea.

Alſo, in mines of gold & ſiluer, there are ingendred certain mineral colours ſeruing for painters; to wit, * Sil and Azur. As for Sil, to ſpeake properly, it is a kind of muddy ſlime: the beſt of this kind is called Atticum: and euery pound of it is worth 32 deniers. The next in goodneſſe is hard as ſtone or marble, and carieth hardly halfe the price of the other named Atticum: there is a third ſort, of a faſt & compact ſubſtance, which becauſe it is brought out of the Iſland Scyros, ſome call Scyricum: and yet of late verily, we haue it out of Achaia alſo, and this is the Sil that painters vſe for their ſhadows: this is ſold after two ſeſterces the pound. As for the Sil which commeth out of France, called the Bright Sil, it is ſold in euery pound two aſſes leſſe than that of Achaia. This Sil, and the firſt called Atticum, painters vſe to giue a luſtre and light withall: but the ſecond kinde, which ſtandeth vpon marble, is not imploied but in tablements and chapters of pillers, for that the marble grit within it, doth withſtand the bitterneſſe of the lime. This Sil is digged likewiſe out of certain hils not paſt 20 miles from the city of Rome: afterwards, they burne it, and by that means do ſophiſticate and ſell it for the faſt or flat kinde named Preſſum: but that it is not true and natural, but calcined, appeareth euidently by the bitterneſſe that it hath, and for that it is reſolued into pouder.

*i. Ochre.

Chap. XIII.

¶ *Of * Sil, * Cæruleum, Neſtorianum, and Cælum. Alſo that all theſe kindes keep not the ſame price euerie yeare.*

*i. Ochre.
* Azur.

Polygnotus and *Mycon* were the firſt Painters who wrought with Sil or Ochre, but they vſed onely that of Athens in their pictures. The age inſuing, imploied it much in giuing light vnto their colours, but that of Scyros and Lydia for ſhadowes. As for the Lydian ochre, it was commonly bought at Sardis, the capitall city of Lydia, but now it is growne out of all remembrance.

As touching Cæruleum or Azur, it is a certaine ſandy grit or pouder: of which, in old time there were knowne 3 kinds: to wit, the Ægyptian, moſt commended aboue the reſt: the Scythian which is eaſie to be diſſolued and tempered, and in the grinding turneth into foure colours: namely, the Azur, which is of a pallet colour, called therefore the whiter; the blacker Azur of a deeper blew; there is the Azur alſo of a groſſer ſubſtance; and the fourth of a finer. The Cyprian Azur is preferred before that of Scythia. Ouer and aboue thoſe Azures before-named, wee haue ſome from Puteoli and Spaine, where they be artificiall, and they haue taken to making it, of a kind of ſand. All the ſorts of theſe Azurs, receiue firſt a dye, and are boiled with a certain hearbe appropriat to it, called Oad, the colour and iuice whereof Azur is apt to drinke in and receiue. As for all the preparation and making of it otherwiſe, it is the ſame that belongeth to Chryſocolla or Borax. Of Azur there is made that powder which wee call in Latine Lomentum, for which purpoſe it muſt be firſt punned, puluerized, and waſhed; and this is whiter indeed than the Azur it ſelfe: ſold it is after three and twentie deniers the pound, whereas Azur may bee bought for eighteene. Herewith they vſe to paint walls that be ouercaſt with plaſtres, for lime it will not abide. Of late daies there is a kinde of Azur growne into requeſt, called Neſtoria-

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num, taking that name of him who firſt deuiſed it: made it is of the lighteſt part of the Ægyptian Azur, and it coſteth 40 deniers the pound. Of the ſame vſe alſo is the Azur of Puteoli, ſaue only in windows; and this ſome call Cœlon. It is not long, ſince another kind of Azur or blew named Indico, began to be brought ouer vnto vs out of India, which is prized at 17 deniers the pound. It ſerueth painters wel for the lines called Inciſuræ, that is to ſay, for to diuide ſhadows from lights in their workes. To conclude, there is another kinde of Lomentum or blew powder of the baſeſt account of all other; ſome call it Tritum, and it is not eſteemed worth aboue fiue aſſes the pound.

But to try the right and perfect Azur indeed, the beſt experiment is to ſee whether it will flame vpon a burning cole. As for the falſe and ſophiſticat Azur, it is thus made: they take the floures of violets dried, and boile them in water: the juice they preſſe forth through a linnen cloth, and mix the ſame with the chaulky earth called Eretria, vntill ſuch time as it be well incorporat with it.

To proceed vnto the medicinable vertues of Azur: It is holden to be a great clenſer, & therfore it mundifieth vlcers: in which regard, it entreth into plaſters: as alſo into potentiall cauteries. As touching Ochre or Sil, it is exceeding hard to be reduced into pouder: and this alſo ſerueth in Phyſicke; for it hath a mild kind of mordacity: aſtringent it is beſides & incarnatiue; in which reſpect, ſoueraigne to heale vlcers: but before that it will doe any good, it ought to be burnt and calcined vpon an earthen pan.

To conclude with the prices of all thoſe things named heretofore: howſoeuer hitherto I haue ſet them downe, yet I am not ignorant, how they vary according to the place; yea, and alter in manner euery yeare: and well I wot, that as ſhipping and nauigation ſpeeds well or ill, as the Merchant buyeth cheap or deare, the price may riſe and fall. Againe, it falleth out, that ſometime one rich munger or other, buying vp a commodity, and bringing it wholly into his owne hands for to haue the Monopoly of it, raiſeth the market, and inhaunceth the price: for I remember well, how in the daies of *Nero* late Emperor, all the ſpicers, druggers, and Apothecaries, preferred a Bill of complaint vnto the Conſuls, againſt one *Demetrius* a regrater. Yet notwithſtanding, I thought it neceſſarie to put downe the prices of things as they are ordinarie valued at Rome one yeare with another, to ſhew in ſome ſort (by a generall æſtimat) the worth of ſuch wares and commodities whereof I haue written.

THE XXXIV. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proem.

CHAP. I.

¶ *The Mines of Brasse.*

IT is now time to go in hand with Mines of Brasse, a mettall esteemed most of all other next to Gold and Siluer, in regard of the vses about which it is imployed: nay, if I should say truly, preferred it is (especially that which is called the laton of Corinth) in diuers respects before siluer, yea, and gold it selfe: for brasse (I may tell you) is of great authority in the campe, and carrieth no small stroke among souldiers in regard of their pay, which (as I haue said before) was weighed them out in brasse: and hereupon their wages-money is vsually called by the name of Æra militum. From this mettall likewise, the generall Receiuers and Treasurers take their title of credit and place: for at Rome they be called Tribuni ærarij, as a man would say, The Tribunes or Officers to the chamber of brasse coine, that is indeed, of the Treasury: hereof also is the Chamber of the city or Treasurie it selfe, called Ærarium: finally, those that be deeply indebted to any man, are in Latine named Obærati, as it were charged and pressed with the heauy burden of brasse, *i.* debt. Moreouer, I haue shewed already (for the greater credit and authority of this mettall) for how many yeres together the people of Rome vsed no other mony but brasen coine. And otherwise, as may appeare by antient records and histories, the credit of brasse took root at the beginning, and hath bin in authority euer since Rome was Rome: an euident proofe whereof we haue from K. *Numa*, who founded and erected a third society or confraternity of brasse-founders. As touching the ore or veine of brasse, digged it is out of the mine in manner aforesaid, but it is tryed, & brought to perfection by fire. Made also it is of the Chalamine stone, named otherwise Cadmia. The best mines of brasse that yeeld the excellent mettall, are now in Asia; howsoeuer in old time Campaine in Italy carried the name. And euen at this day, the brasse digged out of the mines within the territory of the Bergomats in the farthest part of Italy, is in great request: and as it is said, there are good mines thereof discouered lately in Germany, a Prouince vnder the Roman Empire.

CHAP. II.

¶ *Diuers kinds of Brasse: and namely, the Brasse of Corinth, of the Isles of Delos and Ægina.*

IN the Island of Cyprus, where first were found mines of brasse, the same is made of another stone also besides Cadmia, which they name Chalcitis: but this * Cyprian brasse fel soon to beare a low price, by reason of a better kind which other countries did yeeld; and principally the laton called Orichalcum, which for a long time was counted the best and held in greatest admiration. Howbeit, this kind of brasse hath not bin gotten for these many yeres, as if the earth

* i. Copper.

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A were not in heart,and had giuen ouer bearing of it. Next to this Aurichalcum,the moſt reckoning was made of the braſſe Salluſtianum,within the tract or quarter of the Centrones among the Alps: neither held theſe mines out any long time;but after it,ſucceeded the Livian braſſe, diſcouered in France. Theſe two kinds laſt mentioned, take name both of the lords and maſters of the mines wherein they were digged: the former of one *Salluſtius*,a great friend and fauorite of *Auguſtus Cæſar* the Emperor: the other of the Empreſſe *Livia* his wife: and this mine alſo quickly failed. And verily of this Liuian braſſe very little or none there is to be had. But now adaies all the name goes of the Marian braſſe,which alſo is called Cordubenſe:and to ſay a truth ſetting aſide the aboue-named Liuian braſſe,there is not any wil take the yellow tincture of the Cadmia or Calamine ſtone better,or commeth ſo neer in goodneſſe to the latton Orichalcum;
B as if a man would ſay that a piece of coin ſtamped of it,were a ſeſterces,or at leaſtwiſe a double As,to the Cyprian piece,which is but a ſingle As. And thus much concerning the degrees in goodneſſe and credit,of thoſe kinds of braſſe which be naturall.

*As if he wold ſay,this mettal is ſo much better thã the Cypriambraſſe & copper, as the Seſterce and Dupondius,is of more value than As: i. duple,or duple and halfe.

There be other ſorts of braſſe mettall,which ſtand vpon an artificiall mixture and temperature,whereof I purpoſe to write in more ample manner in place conuenient,after I haue ſhewed aboue all other things the excellencie of this mettall in generalitie,thus tempered. In old time there was a mixt mettall made of braſſe,gold and ſiluer,melt and confuſed all together,whereof were made ſingular pieces of worke:and albeit the mettall was rich and precious, yet euermore the workmanſhip was the dearer and went beyond it. But now, it is hard to ſay, whether is
C worſe of the two,the matter or the art that is ſeen in it? But certes, I cannot but maruell much how it commeth to paſſe, That theſe braſen workes, hauing alwaies bin from time to time ſo dear,and growing ſo infinitly as they do ſtil in price to be bought & ſold,yet the magnificence and credit of this art is ſo much decaied & vtterly gone?But I take this verily to be the cauſe, that in times paſt artificers wrought for to win glory and fame;& now,as all things els,for gain and lucre only. Certes,in old time the feat of caſting mettall was counted ſo magnificent, that the Poets aſcribed it to ſome of the principal gods,as a myſtery beſeeming their diuine workemanſhip;inſomuch,as the great lords and noble princes of the world ſought to win an immortall name by this meanſ:and yet I ſay for all that,the manner of tempering and caſting this precious Maſcellin,this compound mettall I mean of gold,ſiluer,and braſſe, is ſo far grown out of
D practiſe and knowledge,that for theſe many yeres paſt Fortune her ſelfe hath had no power either to retain or to reſtore the antient art belonging therto. But ſetting aſide the glorious Maſcellin of old time, the Corinthian braſſe mettall was moſt highly commended: and the ſame mixture happened euen by meere chance and fortune,when the city Corinth was woon, ſacked and burnt to the ground:and wonderfull it is how the minds of many great men was affected to this compound mettall,and how they ſtood vpon the hauing thereof, inſomuch as (by report) there was no other cauſe in the world why *Verres*, whom *Cicero* had cauſed to bee condemned, was together with him proſcribed,outlawed,and baniſhed by *Antonie*,but only this, For that he vaunted that he had as goodly veſſels and pieces of Corinth mettall as himſelfe,and would not part with any of them to *Antonie*:howbeit,in my conceit, moſt part of thoſe men who delight thus in this Corinth Maſcellin,in a certain ſingularity by themſelues,becauſe they would ſeem
E to know more than their fellows,make ſemblance rather of a ſpecial inſight and skill that they haue therein,than know indeed any thing by it of ſuch exquiſit ſtuffe. And this will I ſhew and declare to you in few words: the city of Corinth was won and deſtroied in the 156 Olympias, and the third yere thereof,which fell out to be in the 608 yeare by our computation at Rome: now long before this time,thoſe great maſters and imageurs,ſo famous for mettal-founding and caſting of Images were dead and gon;and yet all the pieces of their making,theſe men forſooth at this day will needs haue to be of Corinthian medley,and ſo they call them. And therefore to diſproue this erronious opinion of theirs,I purpoſe as I proceed in this my diſcourſe, to range all the notable artificers that antiquity hath knowne in this kind,according to the ſeueral ages wherin they liued & flouriſhed in the world. For eaſie it wil be to calculat and collect the yeres
F from the foundation of our city,by the former compariſon of them with the Olympiades. All the veſſels then which our delicats haue,thoſe I mean that would ſeem to be more fine in their houſes than their neighbors,are only of the Corinth mettal and no better,which they caſt,partly into pots and pans and ſuch like kitchin veſſell for to ſeeth meat in;partly into candleſticks, chafers,chamber pots,and ſuch like homely and baſe veſſels, without any regard of cleaneneſſe

and

and neat ſeruice. But this Corrinthian mettall may be reduced well into three principall kinds, G
to wit, the white, which commeth neareſt in brightneſſe to ſiluer, as ſtanding moſt indeed vpon
the mixture of ſiluer: the ſecond yellowiſh, according to the nature and colour of gold, which
beareth the chiefe ſtroke in it: and a third of an equall medley and temperature, wherein a man
ſhall not perceiue any one mettall predominant. Ouer and beſides, theſe 3 ſorts of Corinthian
braſſe, there is another kind of Maſcellin; as touching the mixture whereof preciſely, we are not
able to yeeld any reaſon: for although there be found Images and ſtatues thereof made, wherein
we may ſee the handy worke of man, yet it ſhould ſeem that Fortune in ſome ſort hath giuen
the temperature thereto: and that dainty and precious colour that it hath, is a deep red, much
reſembling that of the liuer, and therefore they call it commonly Hepatizon. Short it commeth
far of the Corinthian mettall, but out-goeth a great way the braſſe either of Ægina or Delos, H
which two mettals for a long time were thought to be the chiefe. And in very truth, for antient
glory and name the Deliake braſſe may challenge the firſt place: for thither, as to a mart or fair,
there was great reſort of chapmen from all parts of the world; & ſpecially of thoſe artificers who
were curious in making of table feet, treſtles, and bed-ſteads: and indeed the fineſt workmanſhip
at firſt was ſeen herein, and thereby artificers came to be innobled. But in proceſſe of time they
went farther, euen to caſt the images of gods, the perſonages alſo of men for ſtatues, yea, & the
ſolid forms and pourtraits of beaſts and other ſuch liuing creatures. After this braſſe of Delos,
the moſt account was made of that which came from Ægina: an Iſland this is without any mine
at al of braſſe in it, howbeit, much renowned for the excellent mettal-founders therein, in regard
of the ſingular temperature that they gaue vnto their braſſe. The braſen Oxe which ſtandeth in I
the beaſt market at Rome was brought from thence. And this may ſerue for a paterne of the Æ-
ginetick braſſe: but the image of *Iupiter*, erected within the chappel of *Iupiter*, ſyrnamed Thun-
dring, in the Capitoll, is the true paterne, teſtifying what kind of braſſe that of Delos was. And,
as *Myron* was wont to caſt the mettall of Ægina in all his works, ſo *Polycletus* vſed ordinarily that
of Delos for this purpoſe; and theſe two were rare Imageurs, liuing at one time, and prentiſes at
the Art together: but they indeauoured to ſurpaſſe one the other in diuers mettalls which they
occupied.

Chap. III.

¶ *Of Candle-ſtickes and Ornaments belonging to Temples, made of Braſſe.* K

IN old time the Iſland Ægina was in eſpecial name for the workmanſhip only of the branches,
ſockets, & heads of candle-ſticks; like as Tarentum, for the ſhanke, ſhaft, & body ſupporting
the ſame: and therefore that candle-ſticke was counted rich indeed, when both theſe places
ſeemed to concur to the making and workmanſhip therof: for ſuch a candle-ſtick ſome haue not
bin aſhamed to giue as much mony as the ſalarie and yearely penſion of a Tribune militarie or
Which was a talēt, or 50000 ſeſterces. Colonell, commeth to: and yet you ſee, an implement or moueable it is, that hath but a vile
& baſe name, for called it is in Latine Candelabrum, of ſticking a candle in it. But wil you know
who was ſo fooliſh as to beſtow ſo much vpon a candle-ſtick, and what a tale belongeth therun-
to, for to mend the hard bargain? thus ſtood the caſe: it was a jolly dame in Rome, named *Gegania* L
who made this wiſe match. And when ſhe had ſo done, ſhe muſt needs forſooth make a feaſt to
ſhew this candle-ſtick to her gueſts, which coſt her 50000 ſeſterces. Now *Cleſippus*, the founder
or Braſier that ſold it her, was miſhapen and bunch-backt. And order was taken by the comman-
Cleſippus fuſor gibber, &c. not Fullo. Who as it ſhould ſeeme, was one of her gueſts, & knew how to play his part well enough. dement of * *Theon* a publick crier of Rome, that he ſhould in the middeſt of ſupper be brought
into the place ſtark naked as euer he was borne (and as foule and ill-fauoured a fellow he was o-
therwiſe as a man ſhould lightly ſee) vnder a colour to make ſport and to ſet the company in a
laughing; but indeed to mocke *Gegania* the Miſtreſſe of the houſe. But what followed therupon?
The woman caſt a fanſie to him by and by, and in that heat of loue, or luſt rather, admitted him
anon to her bed, and after ſet him into her will, and made him her heire. This crooke-backed
ſquire ſeeing himſelfe exceedingly inricht by this double bargaine, adored the ſaid candleſtick M
no leſſe than a god, as the only cauſe of his riſing, and all the wealth he had: and thus by his oc-
caſion, one tale more goeth currant abroad in the world, of Corinthian veſſels. And yet after-
wards (as it were to puniſh his Miſtreſſe for that light behauiour of hers) he cauſed a ſtately and
magnificent ſepulchre to be made for her, whereby the infamy and ſhame of *Gegania*, might be

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A eternized and continue freſh in remembrance with all poſterity. But to return again to Corinthian Braſſe and the veſſels made thereof, although it be well knowne, that there are no Candleſticks indeed made of that Maſcelin, yet there goeth a great name of them, as if they aboue all other things were certainly caſt of that mettall: and the reaſon is, becauſe that *Mummius*, as in the heat of his victorie he ſacked and deſtroied Corinth, ſo withall hee diſperſed the braſſe by parcels and piece-meale, and ſent it away into many other townes and cities of Greece.

Moreouer, this is to be noted, That in old time it was an ordinary thing to make of braſſe, the ſides, lintels, ſils, and leaues of great dores belonging to temples. I reade alſo in Chronicles, that *Cn. Octauius*, who defeated K. *Perſeus* in fight at ſea, and rode in triumph for that naual victorie, cauſed the double gallerie, which ſtandeth neere vnto the Cirque of *Flaminius*, to be erected;
B which was called the Corinthian gallerie, for that the chapters of the pillers were of braſſe. Furthermore, the Annals do teſtifie, that it was thought good, That the rouſe of the chappel of *Veſta*, ſhould be alwaies couered ouer with Braſſe, after the manner of Saracoſſian work. Likewiſe *M. Agrippa* made all the chapters of the pillars, ſtanding in the temple *Pantheon*, of Syracuſian braſſe, which remaine at this day to be ſeene. And not onely publick places and buildings were thus beautified and adorned, but great mens priuat houſes alſo were inriched by this mettall: for it appeareth vpon record, That *Sp. Carvilius*, one of the Treaſurers of Rome, amongſt other criminal imputations that he obiected to *Camillus*, challenged him for this, That the dores of his dwelling houſe were plated and garniſhed with braſſe & copper. Moreouer, as *L. Piſo* reporteth in his Chronicle, *Cneus Manlius* after his conqueſt of Aſia, was the firſt that in the triumph
C wherein he rode in the yeare after the foundation of Rome 568, he made a ſhew of three-ſided tables, cup-bourds, and bourds, ſupported by one foot all of braſſe: And *Valerius Antias* verily doth write, That *L. Craſſus*, heire to that great Orator *L. Craſſus*, made ſale of many ſuch braſen tables, which fell vnto him by right of inheritance. Semblably, I find in the hiſtories, That in old time they were wont to make many large baſons, ſupported with a frame of 3 feet, known by the name of Delphick baſons, for that they were commonly dedicated to *Apollo*, the patron or god of Delphos, for to receiue the gifts and oblations offered to him. In thoſe daies alſo the lamp-branches hanging aloft in churches, ſpreading out their arms abroad and carrying lights like trees bearing fruit were vſually made of braſſe: and ſuch a one is to be ſeen in the temple of *Apollo* within the Palatine hill at Rome: which being found by *Alexander* the great in the ſac-
D cage of Thebes, the ſaid prince dedicated to the god *Apollo* at Cyme, a towne in Æolia. To conclude, this art of founding and caſting braſſe proceeded farther and paſſed on, vntil it was commonly practiſed in making the idols and images of the gods.

Chap. IIII.

¶ *At what time the firſt braſen Image was caſt at Rome. The firſt originall and beginning of ſtatues, and the honour that belonged to ſtatues. Alſo the diuers kinds and faſhions of them.*

E THe firſt Image of braſſe that euer was made at Rome, I finde to be conſecrated to *Ceres*, & raiſed it was out of the goods of *Sp. Caſſius*, who aſpiring to be a king, was therefore ſlaine by his owne father. But this honor continued not long proper to the gods, but paſſed from them vnto the ſtatues of men alſo and their portraitures, and that after ſundry ſorts. In antient time the manner was to verniſh their images and ſtatues of braſſe, with * Bitumen: more mar- * or as ſome
uel it is therefore, that afterwards men ſhould take ſuch pleaſure to guild them as they did: this ſay, with a kind
inuention, whether it came from Rome or no, I know not: but if it did, ſurely it was no antient of Amber.
deuiſe, nor of any long continuance there. Certes, the manner was not in old time to expreſſe the liuely ſimilitude of men in braſſe, vnleſſe they were ſuch worthy perſons as by ſome notable and famous acts deſerued to be immortalized, as namely, for winning the prizes at any of the
F foure ſacred and ſolemn games holden in Greece, and principally at thoſe of Olympia, where it was an ordinary thing to ſee the ſtatues of thoſe erected and dedicated, who had atchieued any victory there. But in caſe any one were ſo happy as to obtain victory at thoſe ſolemnities 3 ſeueral times, his ſtatue in braſſe was ſo liuely & perfectly caſt, that it reſembled his perſon full & whole, according to the proportion of euery member, joint and muskle of the body, yea, euen to

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the haire of the head and beard. And ſuch kind of complete images, the Greeks vſe to call Iconicæ, *i.* perſonages. The manner of the Athenians was to honour men of ſingular vertue and valour, by repreſenting their perſonages in braſſe: but I am not ſure whether thoſe Athenians were the firſt that brought vp that manner or no: true it is, that long ago they cauſed ſtatues of *Harmodius* and *Ariſtogiton*, to be made of braſſe at the charges of the ſtate, and to be erected in publick place, for that they had the courage and heart to kill *Piſiſtratus*, who tyrannized ouer them: and this fell out juſt in that very yeare wherein the kings were alſo depoſed at Rome, and expelled the city for euer. And in proceſſe of time this manner was taken vp in all parts of the world: ſo plauſible to the nature of man, is the ambitious deſire to perpetuate their memorie by ſuch monuments, inſomuch as there is not a good towne within our prouinces, but they haue begun already to beautifie their market places with many ſuch ornaments of braſen ſtatues & images; together with titles, honours, and dignities ingrauen at the baſes or pied-ſtal therof, for the better continuance of mens memoriall, that the poſterity might be informed by ſuch inſcriptions, as well as by their tombs and ſepulchers. And at length the ambition of men proceeded ſo far, that as well their priuat houſes within, as the baſe courts and porches without, were ſo beſet with images, that a man would take them for ſome publicke places within a city: and all this aroſe from the deuote courteſie of vaſſalls, in token of homage and honour done to thoſe their patrons and lords, whom they acknowledged to be the protectors and maintainers of their life and liberty.

Chap. V.

¶ *Of braſen ſtatues in long robes, and diuers other ſorts of Images. Whoſe ſtatues were firſt erected vpon pillars. When they were ſet vp firſt in publicke, and at the common charges. Finally, which were the firſt in Rome.*

In antient time all the images and ſtatues erected to the honour of any men, were in their gowns and robes. Men delighted alſo to haue them otherwhiles all naked, reſting vpon their ſpears which they held in their hands: this pattern came from the Greeks, reſembling the maner of their yong men, which in that ſort did exerciſe naked in their publick wreſtling places, thereupon called Gymaſia: and ſuch images are named Achilleæ. And verily, the Greekiſh faſhion it is, To hide no part of the body, but to ſhew all: wheras the Romanes contrariwiſe (like ſouldiers and military men) vſed to make their ſtatues armed with a cuirace or breſt plate only, leauing the reſt of the body diſcouered and bare. And *Iulius Cæſar* verily the Dictator, was well content that his image ſhould be ſet vp in the Forum or common place at Rome, armed with an habargeon or coat of male. As for ſuch ſtatues which repreſented in habit the prieſts of *Pan*, called *Luperci* (*i.* all diſcouered but their priuities) it is an inuention new come vp, and as lately deuiſed as thoſe which be pourtraied in clokes or mantles. *Mancius* appointed that his image ſhould be erected in that habit and manner, that is to ſay, bound and vnarmed, as he was deliuered priſoner to the Numantines his enemies. As touching the ſtatue of *L. Actius*, a famous Poet, I will report vnto you what writers haue recorded, namely, That being himſelfe a very little man and low of ſtature, he cauſed his image to be made exceeding big and tall, and ſo to be ſet vp within the temple of the Muſes at Rome. As for the ſtatues repreſented on horſe-backe; in great name and requeſt they were among the Romans: but no doubt they had their precedent from the Greeks. At firſt they honoured ſuch horſmen only in this ſort, who had won the price in the race at thoſe ſolemn & ſacred games which were held in Greece, and thoſe horſe-runners they called Celeres: howbeit, afterwards the like honor obtained they, who had born themſelues beſt at the running of chariots, whether they were drawn with 2 horſes or four. And from hence came the manner with vs of our valiant captains and victorious generalls, to haue their ſtatues made riding triumphant in their chariots. Howbeit, long it was firſt ere this faſhion came to be taken vp: and before the daies of *Auguſtus Cæſar*, late Emperour of famous memory, there had not been knowne any ſuch images at Rome riding in chariots either drawne with ſix ſteeds, or Elephants, as now there be. The manner alſo of riding in coches with 2 horſes about the cirque or ſhew place (which vſually they did who had bin lords Pretors of Rome) repreſented in their pourtraitures, is not antient.

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A Concerning ſtatues erected vpon columns or pillars, they be of greater antiquity, as may appeare by that of *C. Menius*, who vanquiſhed the antient Latines that inuaded the territory of Rome: vnto which nation, the people of Rome was woont by vertue of the league, to allow the third part of the bootie and pillage gotten in the wars: during the Conſulſhip of which *C. Menius*, vpon the victory atchieued of the Antiats, the city of Rome ordained, that the beak-heads with their braſen tines, which were taken from them in a conflict at ſea, ſhould be faſtened vnto the pulpit of publicke pleas and Orations, which thereupon was euer after called Roſtra: and this fortuned in the 416 yeare after the foundation of Rome. The like ſtatue vpon a column was ſet vp for the honour of *C. Duillius*, who firſt defeated the Carthaginians by ſea, and for that naual victorie entered Rome in triumph: the ſame remaineth at this day to be ſeen in the Forum
B or grand place of the city. Semblably, *P. Minutius* obtained the ſame honour, who being Purueior generall of corne for the city in time of a dearth, behaued himſelfe ſo well in that office, that his ſtatue of braſſe was erected vpon a piller without the gate of Rome called Trigemina: and that by an vniuerſall contribution of the people, who gaue voluntarily toward the charges thereof, euery man to the value of an * ounce of braſſe coine. And I wot not whether I may boldly ſay that he was the firſt man who receiued that honour at the peoples hands: for before-time I am well aſſured that the Senat only granted ſuch rewards for mens good ſeruice. Certes, theſe were braue and honourable memorials, had they not begun vpon occaſion of ſome trifling matters to ſpeake of. For ſuch a ſtatue was that of *Actius Nauius* the Augur or Soothſayer, which ſtood before the entrie of the Curia or Councell-chamber of Rome: the baſe or foot of which
C pillar was burnt, at what time as the ſaid Curia or Senat-houſe caught a light fire, at the funerals of *P. Clodius*. The like image was ſet vp (by authoritie from the State) in the publicke place of elections at Rome, called Comitium, to the honor of *Hermodorus* the Epheſian; who tranſlated out of Greeke into Latine the lawes of the 12 tables, which the ten Decemvirs had gathered and ſet down for the publicke benefit of the city. As for the ſtatue of *Horatius Cocles*, which remaineth to this day, there was another reaſon of it, and the ſame of greater credit and importance: for that he alone ſuſtaining the charge and brunt of K. *Porſenaes* army, made good the woodden bridge ouer Tybre at Rome, and cauſed the enemies perforce to abandon the place. As touching the Statues of the Propheteſſes *Sibyllæ*, three of them there be neare vnto the Roſtra, before ſaid, but of a leſſe making, whereat I nothing maruell: the one was repaired by *Sex. Pacuvius Taurus*, one of the Ædiles of the Commons; the other two by *M. Meſſala*. And I aſſure you
D I would haue taken theſe Images and that of *Actius Nauius* to haue beene the moſt antique of all others, as being ſet vp in the daies of K. *Tarquinius Priſcus*, but that I ſee the ſtatues of the former kings within the Capitoll.

*i. The twelfth part of their As.

Chap. VI.

¶ *Statues without gowne or robe at all. Of other Statues. Which was the firſt ſtatue on horſe-backe. When and whereupon all the Images, as well publicke as priuat were demoliſhed and put downe. What women they were at Rome who were honoured with braſen ſtatues: and which*
E *were the firſt ſtatues erected publiquely at Rome by ſtrangers.*

AMong the ſaid Statues of Roman kings, that of *Romulus* is without any coat or caſſocke at all; like as that alſo of *Camillus*, which ſtandeth at the pulpit Roſtra. As for the Image of *Q. Martius Tremellius*, which was erected before the temple of *Caſtor* and *Pollux*, the ſame was in a gowne, and ſitting vpon horſe-backe: this noble knight had vanquiſhed the Samnites twice: and by the winning of Anagnia, a city not far from Rome, procured thereby an eaſment vnto the people, from paying tribute vnto the ſtate for the maintenance of the wars. In the ranke of the moſt antique monuments of Rome, I may range the ſtatues of *Tullius Clœlius*, *L. Roſcius*,
F *Sp. Nautius*, and *C. Fulcinius*, which ſtand about the Pulpit Roſtra: and theſe were the foure Roman Embaſſadors, who againſt all law of Nations, were during their embaſſage murdered by the Fidenatians. For this was an ordinary cuſtome with the Romanes, to honour thoſe in this manner, who in the ſeruice of the Commonwealth were vniuſtly killed: as may appear likewiſe by *P. Iunius*, and *T. Coruncanus*, who by *Teuca* the queene of the Illyrians were put to death, notwithſtanding

withstanding they came in embassade to her. And here I cannot ouerpasse one point noted in the Annals, that the measure of the statues erected in the common place at Rome, was set down precisely to be three foot in height: whereby it may appeare, that this proportion and scantling in those daies was thought to be honorable. Neither wil I conceale from you & omit the memorable example of *C. Octauius*, who for one word speaking lost his life: this man beeing sent as Embassadour vnto king *Antiochus*, and hauing deliuered his message vnto him according to his charge and Commission, when hee saw that the king made no haste to giue him his dispatch presently, but said hee would make him an answer another day; made no more adoe, but with a wand or rod that he had in his hand, drew a circle about the king, and compelled him by force to giue him his answer before he stirred his foot without that compasse. But this cost him his life: and for that he was killed thus in his Embassage, the Senat of Rome ordained, That his statue should be erected in the most conspicuous place of the city, and that was in the publick pulpit for Pleas and Orations, the Rostra before named. I read in the Chronicles, that the Senat made a decree, that *Taracia Caia*, or, as some say, *Suffetia*, a Votary or Vestall Nun, should haue her image made of brasse, and this speciall prerogatiue besides, that she might set it vp in what place she would her self: which addition or branch of the decree implieth no lesse honor than the grant it selfe of a Statue to a woman. What her desert might be, in consideration whereof she was thus honoured, I will set downe word for word, as I finde it written in the Chronicles, namely, *For that she had conferred frankely vpon the people of Rome, a piece of medow ground lying vnder the Riuer Tybre, which was her owne Free-land.* I finde moreouer vpon record, That the Statues of *Pythagoras* and *Alcibiades* were set vp in the cornered nouke of the Comitium at Rome, & that by direction from the Oracle of *Apollo Pythius*; vnto which the Senate sent of purpose to know the issue of the Samnites warre, which was then in hand: from whence they had this answere, that if they looked to speed well in their affaires, they should take order to erect two statues of brasse in the most frequented place of the city of Rome, the one in the honour of the most valiant man, and the other in the honour of the wisest person of all the Greekish Nation: which Images remained there vntill such time as *Sylla* the Dictatour built his stately hall or pallace in the same place: But I maruell very much, that those sage fathers (the Senatours of Rome at that time being) preferred either for wisedome *Pythagoras* before *Socrates* (considering that the said *Socrates* by the very same Oracle of *Apollo*, was judged the wisest man, not of Greeks onely but of all others in the world;) or in regard of valour, *Alcibiades*, before so many hardie Captaines in Greece: but most of all I muse, that in both respects, as well of wisedome as vertue, they set any one before *Themistocles*. Now if a man be desirous to know the reason of these Columnes and Pillars, which supported those Statues aforesaid, it was to signifie, That such persons were now aduanced and lifted vp aboue all other mortall men: which also is meant by the triumphant Arches, a new inuention, and deuised but of late daies: yet both it, and all other such honourable testimonies, began first with the Greekes. But amongst many and sundry statues which they granted and allowed vnto such as they affected and liked of, I suppose, there was neuer man had more than *Phalerius Demetrius* at Athens: for the Athenians honoured him with three hundred and threescore: and yet soone after they * brake them all to peeces, euen before one ful yeare went ouer their heads, that is to say, a few daies more than there were Images. Moreouer, all the tribes or wards of Rome set vp a statue in euery street of the city (as I haue said before) in the honor of *Marius Gratidianus*, and those they ouerthrew euery one, against the comming in of *Scylla*.

As touching statues and Images on foot, I doubt not but they haue beene for a long time greatly esteemed at Rome. Howbeit those on horse-backe were very antient: and that which more is, this honour they did communicat also vnto women as well as men; as may appeare yet at this day by the statue of *Clœlia* sitting on horse-backe, as if shee could not haue beene honored sufficiently by making her statue in the habit of a Damosell or Ladie of Rome in a side gowne. And yet neither the Chaste dame *Lucretia*, nor the valiant *Brutus* (who chased the kings and all their race out of Rome, and for whose sake and in whose quarrell the said *Clœlia* was deliuered as an Hostage among others) neuer attayned vnto that honour. And I doe verily beleeue, that this Statue of hers, and that of *Horatius Cocles*, were the first that publique authoritie ordayned: for before time King *Tarquinius Priscus* caused both his owne Statue and also *Sibyllats* to be made, like as the other kings before him and after, as may be presumed by all likelihood

* Others say *Pompilius*.

* *Strabo* saith that they defaced & melted them, yea, and flung them into draughts and priuies.

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A lihood and probabilitie. And yet *Piſo* ſaith, that the other damoſels and young gentlewomen her fellow hoſtages, after they were ſet free and ſent home ſafe againe by king *Porſena* (for the honour that he meant vnto *Clælia* in conſideration onely of her rare and ſingular vertue) cauſed the ſaid ſtatue or image of hers to be caſt in braſſe, and erected. But *Annius Fœcialis* (another antiquarie or heralt at armes of Rome) reporteth this ſtorie otherwiſe; for he writeth, That the ſtatue of a woman ſitting on horſebacke (which ſtandeth ouer-againſt the temple of *Iupiter Stator*, and hard at the gate or entry of king *Tarquinius* the Proud his Pallace) was of ladie *Valeria*, daughter vnto *Valerius* the Conſull, ſurnamed *Publicola*: who ſaith moreouer, that ſhee it was alone who eſcaped from her fellowes, and ſwam ouer the riuer Tiberis; whereas the reſt of the virgins which had been ſent as pledges vnto king *Porſena*, were murdred all, by the ſecret traines
B and indirect meanes of *Tarquin* the Proud.

L. Piſo moreouer hath left in writing, that in the yeare when *M. Æmilius* and *C. Popilius* the ſecond time were Conſuls, the Cenſors for the time being (*P. Cornelius Scipio* and *M. Popilius*) cauſed all the images and ſtatues of thoſe who had been head magiſtrates, that ſtood about the Forum of Rome, to be taken downe; permitting thoſe onely to ſtand which had beene erected and ſet vp either by grant from the people, or warrant and decree of the Senat. As for that ſtatue which *Sp. Caſſius* (him I meane who ambitiouſly ſought to be a king) cauſed to be erected for his owne ſelfe before the church of the goddeſſe *Tellus*, the Cenſors not only pulled it down, but alſo took order that it ſhould be melted. And this (no doubt) did thoſe wiſe and prouident fathers, to cut off all means euen in ſuch things as theſe, that might feed the ambitious ſpirit of
C men. There be yet extant certaine declamations of *Cato*, who being Cenſor, cried out againſt the vain-glorie and pride of certaine Romane Ladies who ſuffered their own images to be ſet vp in the prouinces abroad: yet with all his exclamations, he could not repreſſe their ambition, but that their ſtatues muſt be erected euen in Rome alſo: as for example, *Cornelia*, the daughter of the former *Scipio Africanus*, and mother to the two *Gracchi*, whoſe ſtatue was made ſitting: and this ſingularitie it had beſides from all others, That her ſhooes were pourtraied open and looſe without any ſtrings or latchets at all. This image of hers was ſet vp in the great gallery or publick walking-place of *Metellus*, but now it is to be ſeen among the ſtately workes and buildings of *Octavia*.

Moreouer, (by allowance and permiſſion of the ſtate) there haue been ſtatues ſet vp in Rome
D in publicke place, by ſtrangers: as namely, for *C. Ælius* a Tribune or Prouoſt of the commons, for that he publiſhed and enacted a law, That *Stennius Statillius* a Lucan, who twice had invaded and ouer-run in hoſtile manner, the Territory of Thurium, ſhould be reputed as an enemy vnto the Romanes: In regard of which demerit, the Thurines honoured the ſaid *Ælius* with a ſtatue of braſſe, and repreſented to him a coronet of gold. The ſame Thurines alſo cauſed another ſtatue to be made in the honour of *Fabricius*, for raiſing the ſiege that inueſted and beleaguered their citie. By occaſion of which ſuccour and reliefe giuen vnto ſtrangers and aliens, it came to paſſe in proceſſe of time, that forrein ſtates and cities ſhrouded themſelues ordinarily vnder the protection of ſome great men at Rome; and in deuotion to them, honoured ſuch as their lords and maſters, by ſtatues and all other means, euen as their bounden vaſſels. At length, there grew
E ſuch diſorder and confuſion of theſe ſtatues, that we had them pell mell at Rome without any choiſe or regard at all: inſomuch as it this day, they are no fewer than three ſtatues of *Annibal* to be ſeene at Rome, in three ſeuerall places of that citie, within the walls whereof he was the onely enemy euer knowne to haue launced his jauelin.

Chap. VII.

¶ *Of the Braſſe-founders in old time. The ineſtimable prices of molten Images. Of the moſt renowned Coloſſes and gyant-like Images in Rome.*

F THat the art of Founderie or caſting mettals for Images hath been very antique, practiſed alſo and profeſſen in Italie as well as in other countries time out of mind, may be euidently proued by the ſtatue of *Hercules*, which K. *Evander* conſecrated to the honour of him, in that very place (by folks ſaying) which now is the beaſt market in Rome. This image is called at this day, *Hercules triumphalis*, and at euery triumph is richly clad in triumphant habit. The image likewiſe of *Ianus* with two faces, dedicated by K. *Numa*, teſtified no leſſe; and honoured

he is no lesse than a god, as by whom the times of warre and peace be distinctly knowne. Moreouer, the fingers of his hand are in that sort fashioned and formed, as they represent the number of 365, which are the daies of the whole yere; by which notification of the yere, he sheweth sufficiently, that he is the god and patron of time and ages. The images also which are knowne commonly by the name of Thuscanica, which are so dispearsed abroad in all parts of the world, who will euer doubt but that they were commonly made in Tuscan? I would haue thought verily, that these Thuscanica had beene the images of the gods, and no other, but that *Metrodorus Scepsius* who for the immortall hatred that he bare against the Romans had his * surname giuen him, reproches the Romanes among other imputations, That they had forced and sacked the towne Volsinij, for the loue of two thousand pretty images in brasse which were therein. Considering then, that the inuention of making such molten images hath been so antique in Italie, I cannot chuse but much maruaile, that the idols and images of the gods in times past dedicated in churches and chappels, were either of wood or potters earth, rather than of brasse, vntill the conquest of Asia; from whence to say a truth, first arose and proceeded all our excesse and superfluitie. As touching the first deuise and originall of casting by moulds and forming the liuely similitudes of any thing expressely to the patterne, I shall haue fitter and better occasion to write thereof in my treatise of the art of Pottery, which the Greeks call Plastice; for of more antiquity I take it to be than this feat of Founderie: & yet this craft and cunning so flourished in times past, and brought for art such excellent pieces of worke, and for number so infinit, that if I should put down the greater part of them, it would require many volumes; for, to comprehend them all, what man is able? During the time that *M. Scaurus* was Ædile, there were three thousand molten images shewed vpon the stage when he exhibited his plaies, notwithstanding this theatre of his was made not to continue any time, but to serue for the present. *Mummius*, after the conquest of Achaia, brought in with him so many of these images, that hee filled the citie therewith, and no corner was free: and yet when he departed this life & died, he left not behind him a competent portion for to bestow his daughter in marriage. And this I write not to accuse and condemne so braue a man, but rather to excuse and commend him: for how can I otherwise doe? The two *Luculli* stored Rome with a number of these images. *Mutianus* (a man who of late daies had been twice Consull) reporteth, That there be yet within Rhodes three thousand such images: and verily it is thought, that in Athens, Olympia, and Delphi, there remaine no fewer to be seen. What man liuing is able to particularize them all? and say a man should come to the perfect knowledge of them, what good can he reape therby, or what vse may he make therof? Howbeit, one would take some delight and pleasure lightly to touch the principall pieces of workemanship in this kind, and namely those that be of marke and note for some special singularitie aboue the rest; as also to name therewith the renowmed artificers in times past, who wrought euery one of them a number of pieces, the exquisit and curious workmanship wherof, no man is able to vnfold and vtter as they deserue, since that *Lysippus* (by report) made in his time six hundred and ten, so full of art, so excellent and perfect all, as there is not one of them but sufficient it were to immortalize his name. And how was it knowne that hee made such a number just? It appeared plaine after his decease by a coffer that he had, wherein he treasured vp his gold, and which was then broken open by his heire: for the manner of *Lysippus* was, whensoeuer he tooke mony for the workemanship of any piece that went out of his hands, to lay by in the said coffer one *denier of gold; and so by the number of those deniers it was knowne, how many pieces of worke he made. Incredible it is to what height of perfection this art grew vnto, first by the succesſe of the art, which was so vendible and high prised; afterwards, by the audaciousnesse of the artificer, who ventured to make so huge and monstrous works.

What good speed this art had, may appeare by an example which I will set downe, of an image, deuised to expresse the likenesse neither of god nor man: and a dogg it was in brasse, which many a man hath seene in our time in a chappell of *Iuno* within the Capitoll temple, before it was burnt now last by the **Vitellians*: This dog was made licking his owne wound; but how artificially it was wrought, and how liuely it expressed the proportion & feature of a dog indeed, to the wonder of all those that beholding it could not discerne the same from a liuing creature, is apparant not only by this, That it was thought worthy to stand in that place and to be dedicated to that goddesse, but also by the strange manner of charge laid vpon them that had the keeping and custodie thereof: for no reall caution of mony was thought sufficient to be

* It doth not appeare what it was, but by all likelihood μυσοβιομηχανος.

* It should seeme that the Greekes had a piece in gold answerable in weight vnto the Romane *Denarius* in siluer, which was a dram Attick: and this commeth neer vnto our French crowne.

* i. Those that sided with *Vitellius*.

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A be pledged and pawned for the warrantiſe, or to counteruaile the worth thereof: Order therefore was giuen by the ſtate, and the ſame obſerued from time to time, that the ſextons or wardens of the ſaid chappell ſhould performe the ſafety and forth-comming of it vnder paine of death.

As touching the bold and venturous pieces of worke that haue been performed and finiſhed by this art, we haue an infinite number of ſuch examples: for we ſee what huge and gyant-like images they haue deuiſed to make in braſſe, reſembling high towers more like that perſonages, and ſuch they called Coloſſi. Of this kind is the image of *Apollo* within the Capitoll, tranſported by *M. Lucullus* out of Apollonia, a city within the kingdome of Pontus, which in height was thirtie cubits, and coſt a hundred and fifty talents the making. Such another is that of *Iupiter* within *Mars* field, dedicated by *Claudius Cæſar* the Emperour, which becauſe it ſtandeth ſo
B neere vnto *Pompeys* theatre, men commonly call *Iupiter Pompeianus*, and full as big he is as *Apollo* abouenamed. Like vnto theſe, is the coloſſe or ſtately image [of *Hercules*] at Tarentum, the handiwork of the ſaid *Lyſippus*, but he is forty cubits high: and miraculous is the deuiſe of this coloſſe, if it be true which is commonly reported thereof, namely, that a man may mooue and ſtirre it eaſily with his hand, ſo truly ballanced it ſtands and equally counterpoiſed by Geometry; and yet no wind, no ſtorme or tempeſt, is able to ſhake it. Certes, it is ſaid, that the workeman himſelfe *Lyſippus*, prouided well for this danger, in that a pretty way off he reared a columne or pillar or ſtone full oppoſit to the winds mouth, for to breake the force and rage thereof, from that ſide where it was like to blow and beat moſt vpon the coloſſe: and verily ſo huge it
C was to weld, and ſo hard to bee remoued, that *Fabius* ſurnamed *Verrucoſus*, durſt not meddle withall, but was forced to let it alone & leaue it behind him; notwithſtanding be brought with him from thence another *Hercules*, which now ſtandeth within the Capitoll. But the Coloſſe of the Sun which ſtood at Rhodes, and was wrought by *Chares* of Lyndus, apprentice to the abouenamed *Lyſippus*, was aboue all others moſt admirable; for it carried ſeuenty cubits in height: well, as mighty an image as it was, it ſtood not on end aboue threeſcore yeares and ſix; for in an earthquake that then happened, it was ouerthrowne: but lying as it doth along, a wonderfull and prodigious thing it is to view and behold: for firſt and foremoſt, the thumbs of the hand and great toes of the foot are ſo big, as few men are able to fadome one of them about: the fingers and toes are bigger than the moſt part of other whole ſtatues and images: and looke where any of the members or limbs were broken with the fall, a man that ſaw them would ſay they were
D broad holes and huge caues in the ground: for within theſe fractures and breaches, you ſhall ſee monſtrous big ſtones, which the workemen at the firſt rearing and ſetting of it had couched artificially within, for to ſtrengthen the coloſſe, that ſtanding firme and vpright ſo ballaiſed, it might checke the violence of wind and weather. Twelue yeares (they ſay) *Chares* was in making of it before he could fully finiſh it, & the bare workemanſhip coſt three hundred talents: This mony was raiſed out of K. *Demetrius* his prouiſion which he had ſet by for that purpoſe, & paid from time to time by his officers, for that he would not himſelfe endure to ſtay ſo long for the workemanſhip thereof. Other images there are beſides of the nature of coloſſes in the ſame citie of Rhodes to the number of one hundred, leſſer indeed than the foreſaid coloſſe of the Sun, yet there is not one of them, but for the bigneſſe were ſufficient to giue a name to the place and
E ennoble it, whereſoeuer it ſhould ſtand. Ouer and aboue, there be in the ſaid citie fiue other gyant-like images or coloſſes repreſenting ſome gods, and thoſe of an huge bigneſſe, which were of *Bryaxes* his making. Thus much of workemen ſtrangers.

And to come ſomewhat nearer home: we Italians alſo haue practiſed to make ſuch coloſſes, for ſurely we may ſee (and go no further than to the librarie belonging to the temple of *Auguſtus Cæſar* here in Rome) a Tuſcan coloſſe made for *Apollo*, and the ſame is fiftie foot high from the great toe vpward: but the bigneſſe thereof is not ſo much as the matter and workemanſhip: for hard it is to ſay, whether is more admirable, the beautifull feature of the body, or the exquiſit temperature of the mettall. Moreouer, *Sp. Carvilius* long agoe made the great image of *Iupiter* which ſtandeth in the Capitoll hill, after the Samnites were vanquiſhed in that dangerous war, wherein they bound themſelues by a ſacred lay and oth to fight it out to the laſt man, vnder paine of death to as many as ſeemed to turne backe or once recule; to the making whereof, he tooke the braſen cuiraces, grieues, and morions of the enemies that lay dead and ſlaine vpon the ground: which is ſo exceeding bigg and large, that hee may very plainely and euidently bee diſcouered and ſeene from the other *Iupiter* in Latium, called therefore *Latiarius*.

* *Feſtus* ſaith 105 foot: wherby it appeareth that a cubit was one foot & a halfe. *Chares* the workeman engraued vnder it this Hypogram in Iambicke verſe:

Τὸν ἠέλιον πλοσσον ἐπέβαλε δῆμος,
Χίρας ἐποιες σπ-
ρῶν ὁ Λινδιος.

The pouder & duſt which the filme made in the workmanſhip & poliſhing of this coloſſe, *Carvilius* himſelfe caſt again, and thereof made his own image and pourtraiture, and the ſame ſtandeth (as you may ſee) at the foot of the other. Within the ſaid Capitoll, there be two braſen heads worthy of admiration, which *P. Lentulus* when he was Conſull thought good to dedicat to that place. The one was made by *Chares* the foreſaid founder; the other wrought by *Decius*: but this of *Decius* his making compared with the other, commeth ſo farre ſhort, that one would not take it to be the doing of an artificer that was his crafts-maſter, but rather of ſome bungler, prentice, or learner. But to ſpeake indeed of a great image, and that which ſurpaſſeth in bignes all the reſt of that kinde, looke but vpon the huge and prodigious coloſſe of *Mercurie*, which *Zenodorus* in our age and within our remembrance, made in France at Auvergne: ten yeares he was about it, and the workmanſhip came to foure hundred thouſand ſeſterces. Now when hee had made ſufficient proofe of his Art there, *Nero* the Emperour ſent for him to come to Rome, where he caſt indeed and finiſhed a coloſſe a hundred and ten foot long, to the ſimilitude and likeneſſe of the ſaid Emperor, according as it was firſt appointed, and as he began it: but the ſaid prince being dead and his head laid, dedicated is was to the honour and worſhip of the Sun, in deteſtation of that moſt wicked monſter, whoſe vngratious acts the city condemned and abhorred. Certes, I my ſelfe haue been in that workhouſe of *Zenodorus*, where I beheld and conſidered not onely that great maſter-patterne in cley of the ſaid coloſſe, but alſo another conſiſting of very ſmall pieces, as branches, which ſerued as it were for moulds, and the firſt induction to the worke, as the aſſay and proofe thereof. Surely the workemanſhip of this one ſtatue or coloſſe, ſhewed plainly, that the true ſcience & skil of founderie or caſting braſſe into forms, was clean decaied and gone; conſidering that *Nero* was ready and willing to giue ſiluer and gold enough for the doing thereof artificially and with expedition. *Zenodorus* alſo himſelfe was not thought inferiour to any workeman in old time, either for counterfeiting a ſimilitude, or grauing the ſame: for during the time that he made the ſtatue beforeſaid in Auvergne, he counterfeited two drinking cups grauen and chaſed by the hand of *Calamis*, but belonging to *Vibius Avitus* (the preſident and gouernor at the ſame time, of that prouince) which he had receiued of *Caſſius Syllinus* his vncle by the mothers ſide, tutor and ſchoolemaſter ſomtime to *Cæſar Germanicus*; which prince notwithſtanding that he loued them wel, yet hee beſtowed them freely vpon his ſaid inſtructer *Caſſius*, whom he loued better: and *Zenodorus* did it ſo well, that hardly there could be diſcerned any difference in the workemanſhip. But to conclude, the more conſummat and accompliſhed that *Zenodorus* was for his skill and cunning, the more euidently it appeareth, that the true Art of founderie was in his time cleane loſt, and out of knowledge and practiſe.

Chap. VIII.

¶ *Of 366 excellent pieces of worke in Braſſe, and as many cunning artificers in that kind.*

THe images aad wrought pieces of Braſſe, commonly called Corinthian works, many men take ſuch pleaſure & delight in, that they loue to carry the ſame with them whitherſoeuer they goe; as *Hortenſius* the famous orator, who would neuer be without the counterfeit of *Sphinx*, which hee had from *Verres* his client, at what time as he was in trouble and called into queſtion, for his extortions and oppreſſions in Sicilie: in which triall of *Verres*, wherein *Cicero* was his aduerſarie and accuſer, vpon occaſion that *Hortenſius* who pleaded at the barre againſt him in the behalfe of *Verrus*, among other croſſe words that paſſed betweene, happened to ſay, That he vnderſtood no parables and riddles, and therefore willed him to ſpeake more plainly; *Cicero* made anſwer readily againe, that by good reaſon he ſhould be well acquainted with riddles, ſeeing he had a *Sphinx* at home in his houſe. Likewiſe, *Nero* the Emperour had a great fancie to a piece or counterfeit of an Amazon, (wherof I meane to write more hereafter) which by his good will he would neuer be without. And *C. Ceſtius*, ſomewhat before *Nero*, a man that in his time had bin Conſul, was ſo addicted to a little image that he had, that it went with him into the campe, yea and he would haue it about him in the very conflict and battell with his enemies. Moreouer, K. *Alexander* the Great had four ſtatues or images (by report) which ordinarily were wont and none but they, to ſupport his tent when he lay abroad and kept the field: wherof, twain ſtand now before the temple of *Mars* called the Reuenger, & other 2 before the Palatium.

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A As touching images, ſtatues, and counterfeits of a leſſer ſize, there are an infinite number of artificers who are ennobled & renowned by them: yet to begin with the image of *Iupiter* made at Olympia, *Phidias* the Athenian (aboue all other) was of great name therefore, and wrought it was of yvorie & gold together: howbeit many other pieces of braſſe there were of his making, which greatly commended the workman; he flouriſhed in the 83 Olympias, and about the yere (after our computation at Rome) 300. And at the ſame time there liued thoſe concurrents of his who endeauoured to match him, to wit, *Alcamenes*, *Critias*, *Neſtocles*, and *Hegias*. After theſe, and namely in the 87 Olympias, there ſucceeded and had their time, *Agelades*, *Callon*, *Polycletus*, *Phragmon*, *Gorgias*, *Lacon*, *Myron*, *Pythagoras*, *Scopas*, and *Perelius*: of which, *Polycletus* brought vp diuers braue and worthy apprentices, and by name, *Argius*, *Aſapodorus*, *Alexis*, *Ariſtides*, *Phrynon*, *Py-*
B *non*, *Athenodorus*, *Dameas* of Clitore, & *Myron* the Lycian. In the 95 Olympias there flouriſhed *Naucides*, *Dinomedes*, *Canochus*, and *Patrocles*. In the 102 Olympias there came in place, *Polycles*, *Cephiſſodorus*, *Leochares*, and *Hypatodorus*. In the 104 liued *Lyſippus*, at what time alſo K. *Alexander* the Great flouriſhed: likewiſe *Lyſiſtratus* and his brother *Sthenis*, *Euphronides*, *Soſtratus*, *Ion*, and *Silanion*: of which *Silanion* this is wonderfull, that hauing no maſter at all to teach and inſtruct him in the art, yet he became himſelfe ſo excellent, that he brought vp vnder him, *Zeuxis* and *Iades*. In the 120 Olympias, *Eutychides*, *Euthycrates*, *Lahippus*, *Sephiſſodorus*, *Tymarchus*, and *Pyroma-*
chus were famous artificers for the time. Then lay the art aſleep and as it were dead for a while, vntill ſuch time as about the 155 Olympias it ſeemed to reuiue and awaken again; & then there aroſe *Antheus*, *Calliſtratus*, *Polycles*, *Athenæus*, *Callixenus*, *Pythocles*, *Pythias*, and *Timocles*, indifferent
C good workemen, but nothing comparable to the other before named. Thus hauing ranged the moſt famous Artificers diſtinctly according to their ſeuerall Ages, I will runne ouer them againe, as many I meane as excell the reſt: and yet howſoeuer I make haſte, I will not ouerpaſſe the multitude of others, but interlard (as it were) and diſperſe them among, as occaſion ſhal be offered.

In the firſt place this is to be vnderſtood, that the principal and ſingular of al theſe founders came in queſtion (notwithſtanding they liued in ſundry ages) which of them ſhould be eſteemed chiefe, by reaſon of diuers Amaſons wrought by their hands: for when theſe images ſhould be dedicated in the temple of *Diana* in Epheſus, it was thought good to make choiſe of one that ſhould be deemed & approued beſt, by the iudgment of thoſe workmen who then liued & were
D preſent: for plaine it was, that the image whom they all iudged to be next and ſecond to their own, the ſame was ſimply beſt, and ſo to be reputed. This principal Amaſon hapned to be of *Polycletus* his making: in a ſecond degree was the Amaſon made by *Phidias*: that of *Cteſilas* was counted the third; of *Cydon* the fourth, & in a fift place was reckned the workmanſhip of *Phragmon*. As for *Phidias*, beſides the *Iupiter Olympius* of his making, (wherin no man ſeeketh to come neere vnto him) he made likewiſe *Minerva* of ivorie at Athens, which ſtandeth there in the temple Parthenon. But ouer and aboue the foreſaid Amaſon, there was of his workmanſhip *Minerva* in braſſe, ſo faire and beautifull, that of her beauty ſhe tooke the ſirname [*Kallimorphos*.] Of his doing was the image called * *Cliduchos*, and another of *Minerva*, which *Æmilius Paulus* dedi-
E cated at Rome in the temple of *Fortuna hujuſce diei*, *i*. Of the daies of Fortune. Alſo two other ſtatues or images portraied in clokes or mantles, were his handiwork, which *Catulus* ſet vp in the ſame temple: likewiſe another after the maner of a coloſſus or gyant all naked. In ſum, he was deemed and that iuſtly, to haue bin the firſt that deuiſed and taught the skil of chaſing & embоſſing. As for *Polycletus* the Sicyonian, who learned his cunning vnder *Agelades*, hee it was that made in braſſe *Diadumenus* an effœminat yong man looking wantonly, with a diadem or wreath about his head; a piece of work of great account, & much ſpoke of, for that it coſt 100 talents: and of his making was *Doryphorus*, a yong boy with a manly countenance, hauing a ſpeare in his hand. Moreouer, he made that which workmen call Canon, that is to ſay, one abſolute piece of worke, from whence artificers do fetch their draughts, ſimetries, and proportions, as from a perfect patterne or rule which guideth and directeth them in their worke: ſo as wee may well and
F truly iudge, That *Polycletus* alone reduced the skill of Founderie and imagerie into an Art and method, as may appeare both by that Canon, and by other workes which paſſed through his hands. Of his workmanſhip was the braſen image, repreſenting one ſcraping and rubbing himſelfe in the bath or hot-houſe: as alſo another all naked, and * challenging to the dice. *Item*, two boyes both naked playing at dice, which thereupon be called Aſtragalizontes. And theſe remaine

* Κλειδοῦχος, *i*. Claviger, the key-bearer.

* *Talo inceſſente* ſome read, *talo incedente*.

main to be ſeen in the court or portall belonging to the houſe of *Titus* the Emperor, which is ſo G
exquiſit a piece of worke, that many doe iudge there cannot be ſet another to it more abſolute
and perfect: alſo he it was which wrought the image of *Mercury* which is at Lyſimachia of *Her-*
cules at Rome, and namely how hee heaued and held vp *Anteus* from the ground between heauen
and earth: and the counterfeit of *Artemon*, that effeminate and wanton perſon, who becauſe hee
was ordinarily carried in a Litter, men called *Poryphoretos*. This *Polycletus* was iudged to haue
brought this art of Imagery to a conſummat perfection; the feat alſo of ingraiuing & imboſſing
he was thought to practiſe and promote, like as *Phidias* before him opened the way to it & gaue
inſtructions. This proper and ſpecial gift he had beſides aboue all other, to deuiſe how Images
might ſtand vpon one leg: and yet *Varro* ſaith, that all the images of his making be four ſquare,
and all in manner after one pattern. H

To come vnto *Myro*, born he was at Eleutheræ, and an apprentice likewiſe to *Agelades*: the
piece of worke that brought him into name and made him famous, was an heifer of braſſe; by
reaſon that diuers Poets haue in their verſes highly praiſed it, and ſpread the ſingularity of it a-
broad: for ſo it falls out otherwhiles, that many men are commended by the wit of others, more
than by their own. Other pieces of work there were of his beſides, to wit, a dog, a coit-caſter (or
one hurling a ſtone or weight of lead) *Perſeus* [killing *Meduſa*] ſawyers called Priſtæ, a Satyre
wondring at a pipe or flute, and the goddeſſe *Minerva*: moreouer, the Delphick Pentathli, & the
Pancratiaſtæ: furthermore, that image of *Hercules* which ſtandeth in the temple that *Pompey* e-
rected neere the greateſt cirque or ſhew-place, is the handiwork of *Myro*. Beſides (as it appeares
by the poëſie of *Erinna* the Poëtreſſe) hee it was that made the tombe or monument in braſſe of I
a poore graſhopper and a locuſt; the image likewiſe of *Apollo*, which (after that *Antonius* the
Triumvir had wrongfully taken from the Epheſians) *Auguſtus Cæſar* reſtored againe vnto them,
being warned ſo to do by a viſion appearing vnto him in his ſleep, was of *Myro* his making. This
workman ſeems to haue bin the firſt that wrought not his images after one ſort, but altered his
work after many faſhions, as being fuller of inuention, and giuen more to deuiſe in his art, more
curious alſo and preciſe in his ſymentries and proportions, than *Polycletus*: and yet as exquiſite
as he was, he went no farther than to the outward linements of the body and members thereof;
as for the inward affections of the mind he did not expreſſe in any of his work: the haire alſo as
well of head, beard, as ſhare, he left after a groſſe maner, & wrought them no finer than the rude
and vnexpert workmen in old time had either done or taught. No maruel therefore if *Pythagoras* K
the Imageur of Rhegium in Italy went beyond him in this feat, and namely in that piece of
worke of his which reſembled a wreſtler or Pancratiaſtes, which was dedicated in the temple of
Apollo at Delphos. He came ſhort alſo of *Leontius*, who expreſſed liuely in braſſe, *Aſtylos* the fa-
mous runner in a race; which image is ſhewed for a rare piece of work in Olympia: alſo the boy
Libys, which is to be ſeen in the ſame place, holding in his hand a little table, and withall carry-
ing apples, ſtark naked. He made alſo the pourtraiture of one that ſeemed lame and to halt, vpon
an vlcer; but the ſame is ſo liuely and naturally done, that as many as behold the ſame ſeeme to
haue a compaſſion and fellow-feeling with him of ſome pain and grieuance of his ſore; and this
piece of work a man may ſee at Syracuſa. Furthermore, the ſaid *Leontius* caſt in braſſe one *Apollo*
playing vpon his harpe: as alſo another *Apollo*, and the ſerpent killed with his arrowes; which I.
image he ſirnamed *Dicæus*, *i.* Iuſt: for that when the city of Thebes was won by *Alexander* the
Great, the gold which he hid in the boſome thereof when hee fled, was found there ſafe and not
diminiſhed, when the enemy was gon and he returned. Hee was the firſt that in his images ex-
preſſed the ſinues and veines lying vnder the skinne: hee it was alſo that couched and layd the
haire of the forehead more handſomely, yea and wrought the ſame farre more finely than any
before him.

* or rather *Pa-*
rius, of *Paros*.

Now beſides *Pythagoras* before mentioned, there was another a * Samian both, who by occu-
pation was at the beginning a painter: of his handiwork are thoſe 7 images halfe naked, which
* *Huiuſce dici.* are to be ſeen in the Temple of * This daies *Fortune* at Rome; and one reſembling an old man:
all highly commended for ſingular art. This *Pythagoras* was ſo like vnto the other aboue named, M
eſpecially in face and countenance, that hardly (by report) one of them could be knowne from
the other. As touching *Soſtratus*, it is ſaid he was apprentice to *Pythagoras* of Rhegium, and his
ſiſters ſon beſides. As for *Lyſippus* of Sicyone, *Durus* ſaith, That he learned the art by himſelfe,
and neuer was taught by other. But *Tullius* affirmeth, That hee was an Apprentice vnto it, and
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A hauing bin at firſt by occupation a poore tinker or a plain braſier and copperſmith at the moſt, he began to take heart vnto him and to proceed further, by a ſpeech or anſwer that *Eupompus* the painter gaue him: for when he ſeemed to ask this painters counſel, what pattern and whom he were beſt to follow of all thoſe workmen that were gon before him? hee ſhewed vnto him a multitude of people, and ſaid withall, That he ſhould do beſt to imitate Nature her ſelf, and no one artificer: and that was it (quoth he) which I meant by the former demonſtration of ſo many men. And verily, ſo excellent a workman he proued in the end, that he left behind him the moſt pieces of any man (as I haue ſaid before) and thoſe of all ſorts, and fulleſt of art and good workmanſhip: and among the reſt, the image of a man, currying, rubbing, and ſcraping the ſweat and filth off his own body, which *M. Agrippa* cauſed to be ſet before his own bains: and the Emperor *Tiberius Cæſar* took ſo great pleaſure in it, that notwithſtanding at his firſt comming to the crown he knew well enough how to command and temper his own affections, yet he could not now rule himſelfe, but would needs haue the ſaid image to be remoued from thence, into his own bed-chamber, and another to be ſet in the place of it: wherat the common people (ſee their contumacie and frowardneſſe!) were ſo much offended and diſpleaſed, that they reſted not with open mouth to exclaim vpon him in all their theatres, when they met there together, and cried to haue their Apoxyomenos ſet again in the own place: inſomuch as the Emperor was content ſo to do, notwithſtanding he loued it ſo well. This *Lyſippus* alſo won great credit and commendation by another image that he made, repreſenting a woman piping or playing vpon the flute, and drunken withall: alſo by a kennell of hounds, together with the huntſman and all belonging to the game. But aboue all, he got the greateſt name for making in braſſe a chariot drawne with foure ſteeds, together with the image of the Sun, ſo much honored among the Rhodians. The perſonage of King *Alexander* the Great hee likewiſe expreſſed in braſſe, and many images he made of him, beginning at the very childhood of the ſaid Prince: and verily the Emperour *Nero* was ſo greatly enamoured vpon one image of *Alexander*, that hee commanded it to be gilded all ouer; but afterwards, ſeeing that the more coſt was beſtowed vpon it by laying on gold, the leſſe was the art ſeen of the firſt workman, ſo that it loſt all the beauty and grace that it had by that means, he cauſed the gold to be taken off againe: and verily the ſaid image thus vngilded as it was, ſeemed far more pretious than it was whileſt it ſtood ſo enriched with gold, notwithſtanding all the hacks, cuts, gaſhes, and raſes all ouer the body wherein the gold did ſticke, remained ſtill, which in ſome ſort might disfigure it. Of this mans making was the ſtatue of *Hephæſtion*, a great fauorit and minion of *Alexander* the Great; and yet ſome aſcribed this piece of worke vnto *Polycletus*; whereas in truth he liued almoſt an hundred yeres before the ſaid *Hephæſtion*. He counterfeited alſo *Alexander* the Great how hee rode a hunting, with his hounds and all things belonging to the chace; and this Worke of his reſembling hunting was thought worthy to be conſecrated in the temple of *Apollo* at Delphi. At Athens he made a troupe of Satyrs. As for *Alexander* himſelfe, with all his principall courtiers and friends about him, he reſembled in braſſe moſt liuely. All theſe pieces of his workmanſhip before rehearſed were tranſported to Rome by *Metellus*, after the ſubduing and conqueſt of Macedonie. Finally, Coaches drawne with foure horſes, he made of many ſorts and faſhions, all in braſſe. And in a word, the art of founderie and imagerie was brought to far greater perfection by this Artificer, as it was thought; for hee expreſſed the very haires of the head as fine and ſmall as Nature made them. The heads to the images of his making were nothing ſo big in proportion to the reſt of the body as they were in old time: his images ſhewed not ſo great and corpulent, but more lank, ſlender, and lean; as wel to expreſſe the knitting of joints, the ribs, veins, and ſinues the better, as to cauſe them alſo to ſeem the taller. The Symmetrie, which aboue all things hee obſerued moſt preciſely in all his workes, is a terme that cannot properly bee expreſſed by a Latine word. A new deuice he had that neuer before him any practiſed, and that was, to make his images of a quarry and ſquare ſtature, as the Antients before his time did: for an ordinary ſpeech it was of his, That in times paſt men were made plain, ſuch as they were; but he made them as they would ſeem to be. Finally, it ſeemeth, that this ſingular gift he had aboue all others in all his workes, to ſhew fineneſſe and ſubtiltie, which hee obſerued moſt curiouſly in the ſmalleſt things that paſſed vnder his hand. When he died, he left behind him three ſonnes, which alſo were his apprentiſes: of whom, *Lahippus* and *Bedas* were paſſing good Workemen, and very well regarded; but *Euthycrates* his third ſonne ouerwent his brethren. Although I muſt needs ſay, That hee

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loued rather to follow his father in ſuch Workes as carried ſome conſtancie and maieſty with them, than any dainty geſture or curious elegancie, wherein his father excelled: and hee choſe rather to employ his wit in expreſſing ſad, auſtere, and graue perſonages, than to beat his braine about pleaſant and beautiful works to pleaſe and content the eie. And therefore the portrait of *Hercules* which is to be ſeen at Delphos within the temple of *Apollo*, he expreſſed moſt excellently. The ſtatue alſo of K. *Alexander* the great was of his making, and is thought to be a rare piece of work: the hunter *Theſpis* was of his making, a work highly eſteemed: like as the nine Muſes alſo, known by the name of *Theſpiades*. Hee repreſented alſo in braſſe a skirmiſh on horſebacke, repreſenting that Turnois which was performed at the Oracle of *Iupiter Throphonius*: likewiſe the coches of Queen *Medea* drawne with foure horſes, of which kinde he made many: as alſo an horſe with panniers: and hunters hounds as if there were a cry of them. G H

He brought vp vnder him one *Tiſicrates*, who alſo was a Sicyonian, but hee rather ſeemed to imitate *Lyſippus*, than his maſter *Euthycrates*, inſomuch as many pieces of his making could bee hardly diſcerned from thoſe in the ſame kind, which came out of *Lyſippus* his hand: as for example, the image of an old man reſembling in habit a Theban, the portrait of K. *Demetrius*, and of one *Peuceſtes* who ſaued the life of *Alexander* the Great; in which regard he deſerued well to be immortaliſed by ſo good a hand.

Moreouer, diuers artificers there be who haue written great volumes of ſingular workmen in Imagery, and they commend wonderfully one *Telephanes* a Phocean, whoſe name otherwiſe had bin vnknown, for that in Theſſaly where he dwelt his works lay hidden & neuer came to light: for in regard of his skill and ſufficiency, by all their voices equal he was to *Polycletus*, *Myron*, and *Pythagoras*. And to come vnto particulars, they write much in praiſe of his *Lariſſa*, his *Apollo*, and one *Spinarius* a notable wreſtler, and who had won ſeuerall prizes in all the fiue kinds of maſteries and feats of actiuitie. And yet I am not ignorant, that ſome alledge another cauſe of his obſcureneſſe, and why he was no more talked of, becauſe hee was a feed workman to *Xerxes* and *Darius*, and deuoted himſelfe wholly to their ſeruice, and had the work of thoſe two Kings onely. I

As for *Praxiteles*, his workmanſhip was more ſeene in cutting of marble, and making Images thereof, wherein he had a ſingular grace and rare felicitie, and in which regard his name was the greater. Yet he ſhewed good proofe of his skil in foundery alſo, for there be moſt beautiful caſt images of braſſe which he made, to wit, the rauiſhing of *Proſerpina* by *Pluto*, a Spinſter ſpinning, which he called *Catagnſa*: the image of Drunkenneſſe, god *Bacchus* attended with one of the Satyrs; a noble piece of worke, and which for the great voice and bruit that went of it, the Greekes ſirnamed *Periboetos*. The braſen images likewiſe, which ſtood ſometimes in the forefront of the temple at Rome dedicated vnto *Felicity*, were of his making: as alſo the goddeſſe *Venus*, which when the chappel wherein ſhe ſtood erected was burnt, during the raign of *Claud. Cæſar* the emperor, was melted; an exquiſit piece of work, and comparable to that *Venus* of his cutting in marble, which all the world ſpeakes ſo much of. He portraied alſo in braſſe a woman making coronets and Chaplets of floures, which goes vnder the name of *Stephuſa*: a foule old trot & a naſty, bearing the title of *Spilumene*: a carier alſo of flaggons or wine-pots, knowne by the addition of *Oenophorus*. He expreſſed moreouer in braſſe, and that moſt liuely, *Harmodius* and *Ariſtogiton*, maſſacring the tyrant *Piſiſtratus*: which images being with other pillage taken and caried away by *Xerxes* K. of Perſia, and recouered by King *Alexander* the Great when he had conquered the kingdom of Perſis, the ſaid prince and conquerer ſent them home to the Athenians again. Furthermore, he caſt in braſſe a * youth lying in wait with an arrow to kill a Lizard, which was readie to creepe cloſe vnto him and to ſting; which piece of work hee termed Sauroctonus. Two images there are beſides of his making, which people take much pleaſure to behold, and thoſe in countenance ſhew diuers affections; to wit, a ſober Matron weeping, and a light Courteſan ſmirking: It is thought that this Courteſan was his owne Sweet-heart *Phryne*; for men doe note both (in the curious workemanſhip of the Artificer) the loue of him which fancied her, and alſo (in the pleaſant countenance of the harlot) the contentment that ſhe took by receiuing her hire. There is an image alſo of his making, which doth expreſſe his own benignity & bountifull mind; for to a coach of *Calamis* his doing, drawn with foure horſes, he ſet a choachman of his owne handiworke: and why? becauſe the poſteritie another day ſhould not thinke, That *Calamis* hauing done ſo well in pourtraying the horſes, failed of the like cunning in expreſſing the K L M

* Some thinke he meaneth this of *Apollo*.

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A the man: and to ſay a truth, *Calamis* was not altogether ſo perfect & ready in perſonages of men and women, as in the pourtraiture of horſes. This *Calamis* was he who made many other coaches and chariots, as well with two ſteeds as foure, and verily, for abſolute workmanſhip about horſes, wherein he neuer miſſed, he had not his fellow againe in the world: and yet becauſe hee would not be thought vnlike himſelfe, but be taken for as good an imageur in expreſſing men and women, as in repreſenting horſes, one ſtatue hee made in reſemblance of Ladie *Alcmena*, which is ſo exquiſitly wrought as no man could euer ſet a better piece of worke by it.

To come now to *Alcamenes*, trained vp vnder *Phidias*. A ſingular workman he was, & wrought many pieces in marble, as alſo in braſſe, and namely a braſen *Pentathlus*, knowne alſo by the name of *Encrinomenos*.

B But *Ariſtides*, who learned his skill vnder *Polycletus*, is famous for the chariots that he made as well with foure as two horſes. *Iphicrates* likewiſe caſt in braſſe a Lioneſſe, which is much praiſed, and goes vnder the name of *Læna*, and that vpon this occaſion: There was a certaine ſtrumpet named *Læna*, who being familiarly acquainted with *Harmodius* and *Ariſtogiton* abouenamed, (for that ſhe could play vpon the harpe, and withal ſing ſo ſweetly to it) and priuie to their plots and projects as touching the murder of the tyrant *Piſiſtratus*, would neuer, to die for it, diſcouer and reueale this intention and purpoſe of theirs vnto the tyrant and his fauourits, notwithſtanding ſhe was put to moſt exquiſit & dolorous torments about it. The Athenians therfore deſirous to honour this woman for her reſolute conſtancie accordingly, and yet loth to be thought for to make ſo much of ſuch an harlot as ſhe was, deuiſed to repreſent the memoriall C of her and her act by a beaſt of her name, and that was a Lioneſſe, yet for to expreſſe the particular motiue and reaſon of this honour done vnto the ſaid Lioneſſe, they gaue order vnto *Iphicrates* the workeman, to leaue out the * tongue in the head of this Lioneſſe.

Touching *Bryaxis*, there be two excellent pieces of his making, to wit, *Æſculapius* and *Seleucus*. As for *Bedas*, he reſembled in braſſe old *Battus* adoring *Apollo* and *Iuno*: And all three by him curiouſly wrought, are now ſtanding in Rome within the temple of *Concord*. *Cteſilas* expreſſed in braſſe a man grieuouſly wounded, fainting and ready to die thereupon; which he did ſo liuely, that one might perceiue therin how little life & breath was left within his body. He made likewiſe the image of *Pericles* * *Olympius*, who for his diuine eloquence and holineſſe was worthy of that heauenly name. And here by the way, a wonderfull gift this art hath, that it alwaies hath D made noble and worthy perſons more noble and famous.

As for *Cephiſſodorus*, the admirable image of *Minerva* which is to be ſee in the hauen or harbor of the Athenians, was his workmanſhip: The altar alſo before the temple of *Iupiter*, ſurnamed *Saviour*, neer the ſaid hauen, was of his doing, and few pieces of worke there be comparable vnto it.

Canachus made one excellent image of *Apollo* all naked, which by the title and ſyrname of *Phileſius*, ſtands in the temple called *Didymæum*. And this *Apollo* was caſt of the braſſe of Æginetticke temperature. There is with the ſaid *Apollo* another moſt exquiſit and curious piece of worke by him deuiſed and wrought, to wit, a ſtag ſtanding ſo lightly vpon his feet, that a man may draw a thred vnder them; and the ſame takes hold of the floore vnderneath, ſo daintily that he ſeemeth to touch it with one foot by the clea, with another by the heele, and the ſame after E ſuch a winding manner twining and turning, as well with the one as the other, that a man would thinke one while he were about to bounce and ſpring forward, and another while to ſtart and caſt himſelf backward by turns. The ſame workman inuented a deuiſe of yong lads & youths vaulting and mounting on horſeback. *Cheræas* expreſſed in braſſe the liuely pourtraitures of K. *Alexander* the Great, and king *Philip* his father. *Cteſalaus* repreſented in the ſame mettal, one of theſe Doryphori, which were of K. *Darius* his guard, bearing a ſpeare or pertuiſane: alſo one of thoſe warlick women, Amaſons, wounded. And *Demetrius* woon great credit by making *Lyſimache* in braſſe, who had beene the Prieſtreſſe of *Minerva*, and exerciſed that miniſterie threeſcore and foure yeares. And this artiſane made alſo the image of *Minerua*, ſurnamed *Muſica*, vpon this deuiſe, For that the dragons or ſerpents which ſerue in ſtead of haires vpon her *Gorgon* or *Me*F *duaſes* head, wrought in her targuet, would ring and reſound againe, if one ſtrucke the ſtrings of an Harpe or Citron neer to them. And the ſame imageur made the liuely pourtraiture of *Sarmenes* riding on horſeback; for that he was the firſt that wrote of horſemanſhip. *Dædalus* moreouer, who is ranged among the excellent founders & imageurs of old time, deuiſed in braſſe two boies, rubbing, ſcraping, and currying the ſweat from their bodies in the baine. And *Dinomenes*

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* For this harlot *Læna* fearing leaſt ſhe might for pain and torment let paſſe ſome word, and bewray the thing, ſhee bit out her owne tongue, & ſpit it in the face of the tyrant and the tormetors.

* For he neuer made ſpeech to the people, but with ioint hands litted vp to heauen, he praied firſt.

was the workman, who caſt in braſſe the full proportion and ſimilitude of *Proteſilaus*, and of *Pythodemus* the famous wreſtler. *Alexander*, otherwiſe called *Paris*, was of *Euphranor* his making: The excellent art and workmanſhip wherof was ſeen in this, that it repreſented vnto the eie all at once, a iudge between the goddeſſes, the louer of *Helena*, and yet the murtherer of *Achilles*. The image of that *Minerua* at Rome, which is called *Catuliana*, came out of this mans ſhop: and it it the ſame which was dedicated and ſet vp beneath the Capitoll by *Quintus Luctatius Catulus*, whereupon it tooke that name. Moreouer, the image that ſignifieth good lucke or happie ſucceſſe, carying in the right hand a boule or drinking cup, in the left an eare of corne and a Poppy head, was his handie worke. Like as the princeſſe or ladie *Latona*, newly deliuered of *Apollo* and *Diana*, holding theſe her two babes in her armes: and this is that *Latona* which you ſee in the church of *Concordia* in Rome. He made beſides many chariots, drawne as well with foure as two horſes: as alſo a key-bearer or *Cliduchus*, of incomparable beautie. Semblably two other ſtatues, reſembling Vertue and Vice, both which were of an extraordinary ſtature and bignes, gyant-like, in manner of Coloſſes. He made beſides a woman miniſtring, and yet worſhiping withall. *Item* King *Alexander* the Great, and King *Philip* his father, riding both in chariots drawne with foure horſes. *Eutychides* a renowned imageur, repreſented the riuer Eurotas in braſſe: and many men that ſaw this worke, were wont to ſay, That the water ran not ſo cleare in that riuer, as art and cunning did appeare in this workemanſhip. *Hegyas* the imageur made *Minerva* and King *Pyrrhus*, which be much praiſed for the art of the maker: likewiſe boies practiſing to ride on horſebacke: the images alſo of *Caſtor* and *Pollux*, which ſtand before the temple of thundring *Iupiter* in Rome. In the colonie or city Parium, there is an excellent ſtatue of *Hercules*, the handy worke of *Iſidorus*. *Buthyreus* the Lycian was taught his cunning by *Myron*, who among many other pieces, beſeeming the apprentiſe of ſuch a maſter, deuiſed in braſſe to repreſent a boy blowing at a fire halfe out: and he it was that caſt in the ſame mettall the famous Argonautes, in that voyage to Colchos.

Leocras made the Ægle that rauiſhed *Ganymede*, and flew away with him; but ſo artificially, as if ſhe knowing what a fine & dainty boy ſhe had in charge, and to whom ſhe caried him, claſped the child ſo tenderly, that ſhee forbare with her tallons to pierce through the very cloths. The boy *Autolicos* alſo, winning the prize in all games and feats of actiuitie, was of his making; for whoſe ſake *Xenophon* wrote his booke entituled *Sympoſion*: likewiſe that noble image of *Iupiter* in the Capitoll of Rome, ſurnamed Thundering, which is commended aboue all others: as alſo *Apollo*, with a crowne or diademe.

Lyciſcus counterfeited *Lago* a boy, who in maner of a page or lacquey, ſeemed to be double diligent, & after a flattering and deceitfull ſort performed nothing but eie-ſeruice. *Lycus* alſo made another boy blowing the coales for to maintain fire. *Menechmus* deuiſed to caſt in braſſe a calfe, turning vp the neck & head at the man that ſettteth his knee vpon his ſides, and keepes his body down. This *Menechmus* was a ſingular imageur, and himſelf wrote a book as concerning his own art. *Naucides* was iudged to be an excellent workman, by the making of *Mercury*, & of a diſcobole or coiter: as alſo for counterfeiting in braſſe one that was a ſacrificing or killing a ram. *Naucerus* woon credit by making of a wreſtler, puffing & blowing for wind. *Nicerates* had the name for the curious workmanſhip of *Æſculapius* and **Hygia*, which are to be ſeen at Rome within the temple of *Concord*. *Porymachus* got great reputation by a coach drawn with four ſteeds, & ruled by *Alcibiades* the coachman, all of his making. *Policles* was the maker of that noble piece of work that goeth vnder the name of *Hermaphroditus*. *Pyrrhus* counterfeited in braſſe another *Hygia* & *Minerua*. And *Phœnix* who learned his art of *Lyſippus*, liuely counterfeited the famous wreſtler *Epitherſes*. *Stipax* the Cyprian got himſelfe a name by an image reſembling one *Splanchnoptes*: This was a prety boy or page belonging to *Pericles*, ſurnamed *Olympius*, whom *Stipax* made frying & roſting the inwards of a beaſt at the fire, puffing and blowing therat with his mouth full of breath and wind for to make it burne. *Silanion* did caſt the ſimilitude of *Apollodorus* in braſſe, who likewiſe was himſelfe a founder and imageur, but of all other moſt curious and preciſe in his art, he neuer thought a thing of his owne making well done, and no man cenſured his worke ſo hardly as himſelfe: many a time when he had finiſhed an excellent piece of work, he would in a miſlike vnto it, paſh it in pieces, and neuer ſtood contented and ſatisfied with any thing when it was all done, how ful of art ſoeuer it was, and therfore he was ſurnamed Mad: Which furious paſſion of his, when *Silanion* aforeſaid would expreſſe, he made not the man himſelfe alone of braſſe, but the

* i. Good health.

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A the very image of Anger and Wrath alſo with him, in habit of a woman. Ouer and beſides, the noble *Achilles* was of his making, a piece of worke well accepted and much talked of. Of his doing is *Epiſtates*, teaching men how to wreſtle and exerciſe other feats of actiuitie. As for *Strongylion*, he made one of the Amazons, which for an excellent fine and proper leg that ſhe had, they call *Eucnemos*; and in that regard *Nero* the Emperour ſet ſo great ſtore by this image, that it was carried ordinarily whereſoeuer he went. This artificer made likewiſe another braſen image reſembling a faire and ſweet boy, which for the ſingular beautie *Brutus* of Philippo ſo loued, that it was commonly called by his ſurname *Philippenſis*.

Theodorus who made the Maze or Labyrinth at Samos, cauſed his own image to bee caſt in braſſe, which beſides the wonderfull neere reſemblance and likeneſſe to himſelfe, was contriued
B ſo artificially beſides, and ſo ſet out with other fine deuiſes, that he was much renowned for the workmanſhip, and in the ſight of all men it was admirable: he carrieth yet in his right hand a file, and in his left hand he bare ſomtime (with three fingers) a little pretty coach, and the ſame with four horſes at it; which was afterwards taken from the reſt, and had away to Prænеſte: but both the coach, the teeme of horſes, and the coachman were couched in ſo ſmall a roome, that a little flie (which alſo he deuiſed to be made to the reſt) couered all with her pretie wings.

Xenocrates was apprentice to *Tiſicrates*, or as ſome ſay, to *Euthycrates*; but whether of the twaine ſoeuer was his maſter, he outwent them both in the number of ſtatues and images that he wrought, and beſides compiled bookes of his owne art and workemanſhip.

Many artificers there were, that by imagerie delighted to counterfeit in braſſe the battailes
C that king *Attalus* and *Eumenes* both, fought againſt the Galatians or Gallogreekes; and namely, *Iſigonus*, *Pyromachus*, *Stratonicus*, and *Antigonus*, and this artiſane laſt named, compoſed bookes alſo of his own art. *Boethius*, although he was a better workeman in ſiluer, yet one piece of worke he made in braſſe, which had an excellent grace, and that was a child throtling a Gooſe by the necke.

Of all theſe pieces of antique worke which I haue reckoned vp, the moſt choiſe and ſingular aboue the reſt, *Nero* before time had by his violent edicts and commandements cauſed to bee brought from all parts to Rome, and he diſpoſed them in diuerſe roomes of his golden houſe for to adorne and beautifie the ſame; but now they be conſecrated by *Veſpaſian* the Emperour, in the temple of Peace, and in other ſtately buildings and edifices of his.

D Many other excellent artificers there are beſides theſe aboue rehearſed: but they may be all raunged in one ranke, and counted for their skill and cunning equall, for a man ſhall not find one piece of worke of their making, that carieth any ſingularity aboue the reſt, and namely *Ariſton*, who alſo was wont to graue and chaſe in ſiluer, *Callias*, *Cleſias*, *Cantharus* of Sicyone, *Dionyſodorus* who was an apprentiſe trained vp vnder *Critias*, *Deliades*, *Euphorion*, *Eunicus*, and *Hecataeus*. As touching famous engrauers in ſiluer, I read of *Lesbocles*, *Prodorus*, *Pithodicus*, and *Polygnotus*, who alſo were moſt excellent and renowned painters. Likewiſe, of ſiluerſmiths or grauers in ſiluer, we haue *Stratonicus*, and *Scymnus*, who had for his maſter *Critias*.

Now will I reckon vp thoſe worthy and famous Imageurs, who emploied themſelues in one and the ſame kind of workes. In the firſt place, *Apollodorus*, *Androbulus*, *Aſclepiodorus*, and *Aleuas*
E tooke pleaſure to expreſſe the ſimilitudes of learned men & Philoſophers. As for *Apelles*, he delighted beſides to repreſent women at their deuotions, adoring the gods, and offering ſacrifices *Antigonus* had a grace likewiſe to repreſent one *currying and ſcraping his skin al ouer the body in a ſtoue, as alſo the murderers of the Tyrants abouenamed. *Antimachus* and *Athenodorus* lo- ued to haue in their ſhops the ſtatues of great ladies and noble women. *Ariſtodemus* tooke much pleaſure to buſie himſelfe about the portraying of wreſtlers, coaches with two horſes ſet therto, and a coachman, Philoſophers and great clearkes, old matrons, and king *Seleucus*: There is alſo of his making a *Doryphorus*, reſembling one of *Darius* his guard, which is a proper piece of work & a louely. As touching the *Cephiſſodori* (for two of them there were) the elder had a great dexterity in making *Mercurie* foſtering prince *Bacchus* in his infancie: He made alſo one, preaching
F to the people, and caſting forth his armes; but what perſon of quality he ſhould be, it is not certainely knowne: the younger was wont to repreſent the Philoſophers. *Colothas*, who joined with *Phidias* in the making of *Iupiter Olympius*: He delighted alſo to be doing with the images of Philoſophers. So did *Cleon* and *Cenchramis*, *Callicles*, and *Cephis*. As for *Calcoſthenes*, he buſied and amuſed himſelfe in the counterfeits of Comædians, players of enterludes, and champions. *Dahippus*

Periſcomenon the ſame that Apoxiomenon.

hippus had a very good hand, in making one ſcraping and rubbing his body in an hot-houſe. G
Daiphron, *Democritus*, and *Dæmon*, were as cunning and perfect in the perſonages of Philoſophers and Sages. *Epigonus* would haue his hand in all thoſe works in manner which I haue rehearſed, and laboured to imitate thoſe artificers: but he ſurpaſſed them all in a Trumpetter of his owne deviſing; and a little infant, who ſeeing the mother ſlaine, made toward the dead corps, and hung about it as if it would play and be plaied withall, ful pittiouſly to behold. *Eubolides* made one, as if he were counting vpon his fingers. *Mycon* his cunning was moſt ſeen in the counterfeiting of wreſtlers and ſuch as practiſe feats of actiuitie: and *Menogenes*, in making chariots with foure horſes. *Niceratus* likewiſe enterpriſed all maner of works wherein others were beſt ſeen: and beſides repreſented the perſonage of *Alcibiades*, together with his mother *Demarete*, as ſhee ſacriced with lampe light burning by her. *Piſicrates* ſhewed much skill with a chariot of two horſes, H
wherein he beſtowed * *Pitho* ſitting in the habit of a woman: The images *Mars* and *Mercurie* alſo, which ſtand at Rome in the temple of *Concordia*, be of this mans making. As for *Perillus*, there is no man commendeth him for his workmanſhip, but holdeth him more cruell than *Phalaris* the Tyrant, who ſet him a work, for that he deuiſed a braſen Bull, to roſt & frie condemned perſons in; aſſuring the Tyrant, that after the fire was made vnder it, they would when they cried ſeeme to bellow like a Bull, & ſo rather make ſport than moue compaſſion: but this *Perillus* was the firſt himſelfe that gaue the hanſell to the engine of his own inuention, & although this was cruelty in the Tyrant, yet ſurely ſuch a workman deſerued no better a reward, & juſtly he felt the ſmart of it: For why? The art and cunning foundery, which of all others is moſt ciuile & agreeable to our nature, and which had beene emploied ordinarily in repreſenting the perſonages of I
men and gods, this monſter of men abuſed, and debaſed to this vile and vnnaturall miniſtery of tormenting man. Would one haue euer thought, that after ſo many witty & worthy men who had trauelled in this ſcience to bring it to ſome perfection, all their labours ſhould turne in the end to this proofe, for to make inſtruments thereby of torture? And certes, there being many pieces of his workmanſhip, they be kept and ſaued for this cauſe onely, that as many as ſee the ſame, may deteſt and abhor the wicked hand that made them. But to proceed forward to other workmen in this kinde. Of *Sthenis* making are the images of *Ceres*, *Iupiter* and *Minerva*, which at Rome are within the temple of *Concord*. The ſame man took pleaſure in counterfeiting ancient dames and matrons, weeping, praying, aad offering ſacrifice. *Simon* [of Ægina] was very good at the making of a dog and an archer. *Stratonicus* that famous cutter and engrauer, was neuer well K
but when he pourtraied ſome Philoſopher or other: no more than *Scopas*, both the one and the other. As for wreſtlers and champions, armed men, hunters, and ſacrificers, they were the onely workes that theſe artificers following delighted moſt in, to wit, *Batten*, *Eucher*, *Glaucides*, *Heliodorus*, *Hicanus*, *Leophon*, *Lyſon*, *Leon*, *Menodorus*, *Myagrius*, *Polycrates*, *Polydorus*, *Pythocritus*, and *Protogenes* (who alſo was a moſt excellent & renowned painter, as I will hereafter ſhew more at large) alſo *Patrocles*, *Polis*, *Poſidonius* born at Epheſus, who likewiſe chaſed and engraued in ſiluer moſt finely, *Periclimenus*, *Philon*, *Simenus*, *Timotheus*, *Theomneſtus*, *Timarchides*, *Timon*, *Tiſias*, and *Thraſon*. But aboue all other, *Callimachus* is the workeman of greateſt note, in regard of a by-name giuen vnto him, and that was *Cacizotechnos*: and well he might be ſo called, for hee would alwaies be finding fault with his own workmanſhip, & neuer could ſee when to make an end, thinking ſtill L
that he had not beſtowed art ynough vpon that he had vnder his hand. And ſo he brought forth little or nothing perfect in the end: A notable and memorable example to teach all men not to be ouer curious and exquiſit in any thing, but to hold a meaſure in all. And there is a daunce of Lacedemonian women of his making: a piece of work which he went about alſo to amend, and when he thought to make it better, he marred it clean, ſo that it loſt all the grace it had before. Some ſay, that this *Callimachus* had bin in former time a painter. And ſince I haue entred ſo far into this Treatiſe of ſtatues & images, I may not paſſe ouer in ſilence, but note (as it were) by the way one thing of *Cato*, although haply it may be thought but a meere vanity: In that expedition or voiage wherein Cyprus was conquered and reduced vnder the dominion of Rome, hee made port-ſaile of al the pillage taken there, ſaue only one ſtatue of *Zeno*, not for the excellencie of the M
matter, for it was but braſſe, nor yet for the art and curious workmanſhip thereof, but for that it was the image of a Philoſopher. In this diſcourſe of ſtatues and images, I muſt not paſſe by one, although it is not certainely known who was the maker of it; and this is *Hercules* in his ſhirt and other habit that he wore vpon the mount Oete: ſtanding now at Rome neere vnto the publicke pulpit

* *Suada*, i. Perſuaſiō, or *Diana* as ſome think. Some read *Pitho*, i. the goddeſſe of Credulitie.

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A pulpit called Roſtra: Made he is (whoſoeuer did it) with a grim, ſterne, and ſower countenance, and ſuch indeed as doth bewray and feel thoſe intollerable torments which the body ſuſtained by that poiſoned ſhirt [ſent to him from *Deianira*.] Vpon this ſtatue there ſtand 3 titles or inſcriptions: the firſt is this; *L. Luculli Imperatoris de Manubius, i. L. Lucullus* Lord Generall, erected this ſtatue out of the ſpoile of the enemies: the ſecond, *Pupillus Luculli filius ex S. C. dedicauit, i.* The ſon of *L. Lucullus*, being orphan or ward, dedicated this, by an order or act from the Senat: the third, *T. Septimius Sabinus Ædilis Curulis, ex priuato in publicum reſtituit, i. T. Septimius Sabinus*, Ædile Curule for the time being, hath from a priuat houſe cauſed it to ſtand againe in publick place. This is the image of that worthy *Hercules* that fought ſo many battels, indured ſuch hard conflicts and labors, and was ſo highly honored.

B Now is it time to return to the different kinds and ſundry temperatures of braſſe, from which I haue digreſſed: firſt and foremoſt therefore this is to be noted, That in Cyprian braſſe or copper there is to be conſidered one ſort which is named Coronarium, and the other that they call Regulare; and both the one and the other will abide the hammer & be brought into thin plates As for the Coronarium or Laton, when it is reduced into thin leaues or plates, and then coloured or rubbed ouer with the gal of an oxe, it looketh like gold, and maketh a faire ſhew in thoſe coronets that plaiers weare; whereupon it tooke the name Coronarium: the ſame, after that to euery ounce of it there be put ſix ſcruples of gold, and be reduced into a very thin foile, reſembleth the color of fire, like a rubie or carbuncle ſtone. As touching this braſſe, it is found alſo in other mines of mettal, like as the pot braſſe Caldarium: this only is the difference, that this Cal-
C darium wil melt only, for vnder the hammer it will break; whereas the other ſort of copper named Regulare, yeeldeth to the hammer and will be drawne out, whereupon ſome there be who call it Ductile, *i.* battable; and ſuch is all the kind of copper or Cyprian braſſe. That alſo which is found in the mines of other mettalls, by art refined, differeth from the foreſaid pot-mettal, for out of what mine ſoeuer it commeth, after that the droſſe & imperfections therof be throughly purged by the fire, being thus (I ſay) clenſed, it becommeth Regulare and wil abide the hammer. As for all other ſorts beſides the Cyprian braſſe aboue named, the Campane braſſe is counted beſt: like to which, there is much in other parts alſo of Italy, and in the prouinces: but to euery [hundred pound of braſſe] they put 8 pound of lead: then they boile it as it were and melt it againe with a ſoft fire, for want and ſcarſitie of wood and fuell. And what difference there may
D be in that regard, it is moſt of all ſeen in the heart of France, where it is commonly melted (for lack of other fuel) among ſtones made red hot: for by reaſon that this is a ſwift & ſcorching fire, it becommeth black and brittle withall: beſides, they melt it but once: but ſurely to doe ſo oftner, maketh very much for the goodneſſe thereof.

Chap. IX.

¶ *The difference in Braſſe: the diuers mixtures thereof: and how Braſſe ſhould be kept.*

E Moreouer, it were not amiſſe to note thus much alſo, that all kind of braſſe melteth beſt in coldeſt weather. Now there is another temperature of braſſe which ſerueth for founders, imageurs, and braſen tables, called thereupon in Latine, Statuaria and Tabularis, which is made in this manner following: firſt, the maſſe, ore, or ſtone as it commeth out of the mine, is melted in the bloome-ſmithie; and ſo ſoone as it is melted, they put thereto a third part of the braſſe Collectaneum, that is to ſay, broken pieces of old veſſels that haue bin vſed, and bought vp here and there. In the choice whereof, this care would be had, that for to giue vnto this temperature the kind ſeaſoning as it were, which peculiarly it requireth, there would be gotten ſuch pottain or old mettall which is ouerworne, and by ordinary occupying and vſing to the hand, bright-ſhining, and as one would ſay tamed, made gentle, and pliable. It would not be forgotten alſo, to euery 100 pound weight of the ſaid melted ore, to mix 12 pound and a halfe of Tin.
F But to haue a kinde of Braſſe mettall that is moſt tender and ſoft, there muſt bee giuen vnto it that mixture or temperature which is called Formall, namely, by putting thereto of ordinarie lead a tenth part, and of Tin a twentieth part; and by that means eſpecially it taketh that colour which they call Grecanicke. The laſt temperature is that, which in Latine they call Ollaria, as one would ſay, the pot-braſſe, for it taketh the name of that veſſell whereto it is moſt emploied;

and this is by tempering with euery hundred pound weight of braſſe, 3 or four pound weight of G
argentine lead or tin. To Cyprian braſſe or copper, if you put lead, you ſhall haue that deep red
or purple colour which giueth the tincture to the robes that ſtatues are pourtraied with. More-
ouer, this is to be noted, that the more you do ſcoure any veſſels of braſſe, the more are they ſub-
ject to ruſt, and ſooner will they gather it, than if they were neglected and not medled withall;
vnleſſe they be well annointed with oile. It is ſaid, that a vernith made of tarre, is ſingular for to
preſerue and ſaue any braſſe from ruſt. To conclude, braſſe hath ſerued many a yeare ago, for the
perpetuity of memorials and regiſters, as we may ſee by thoſe braſen tables here in Rome, wher-
in be cut and ingrauen all our publick laws and conſtitutions.

Chap. X. H

¶ *Of Cadmia or Braſſe ore, and the medicines wherein it is vſually employed.*

THe mines and veins of braſſe ore do many waies furniſh vs with medicines: a good proofe whereof this may be, that any vlcers be ſooneſt healed there: but the moſt medicinable of all minerals that belong to braſſe mettall, is Cadmia [artificial.] And verily there is a kind of Cadmia made in the furnaces where ſiluer is fined, of a whiter colour and leſſe ponderous, but nothing comparable to that which commeth from the braſſe furnaces. And ſundry ſorts there be of Cadmia: for the very ſtone of which they make braſſe, is called Cadmia, and as it is neceſſary for founders, ſo it is of no vſe at all in Phyſick. Now is there a Cadmia beſides which I is made in the furnaces, and ſo called, but the reaſon thereof is far different: and this kinde of of Cadmia commeth of the fineſt and thinneſt part of the ore or matter in the furnace, caſt vp aloft by the flame & blaſt, ſticking to the roofe or ſides of the furnace, higher or lower according to the proportion of the lightneſſe that it carrieth, more or leſſe. The fineſt and the floure as it were of Cadmia, is found in the very mouth of the furnace, whereas the flames * do ſtriue to get forth; the Greeks call it Capnitis, for that it is ſmokie and burnt, and for the exceeding leuity thereof reſemble flying cinders. That which is more inward and hangeth downe from the coping and vauted roofe of the furnace, is the beſt: and in that reſpect, becauſe it hangeth ſo as it were by cluſters, they giue it the name Botryitis: heauier this is than the former, but lighter than thoſe that follow after. As for the colour thereof, it is in two ſorts: that which you ſee of a dead K
hew like aſhes is the worſe, whereas the red is the better; the ſame alſo is brittle and will ſoone crumble ſmall: for eie-ſalues and collyries reputed ſoueraign. A third kind of Cadmia ſticketh by the way, to the ſides and wals of the furnace; for by reaſon of the heauineſſe and ponderoſity, it was not able to mount vp to the bending roofe of the furnace: this the Greeks call Placitis: and well it may be ſo named; for a cruſt rather it is than a ſcaly ſubſtance: break it, you ſhal find many colours in it: and this Cadmia for to heale ſcabs and ſcurfe; as alſo to cicatrice or skin a ſore, is better than the former. Out of this kinde, there proceed other twaine; to wit, Onychitis, which in the outſide is after a ſort blewiſh, but within, it reſembleth the flecks or ſpots of the onyx ſtone; and Oſtracitis, blacke throughout, of all the reſt moſt foule and groſſe, howbeit, fitteſt for wounds. L

* *Eluctantur*, or rather, *Eruptantur*, i. are breathed and ſent forth.

Generally, that Cadmia, of what kinde ſoeuer, is beſt, which is found within the furnaces of Cypros: this the Phyſitians doe burne a ſecond time with pure coles; and when it is calcined and turned to aſhes, they quench it with Amminean wine, if they meane to prepare it for plaſters; but with vineger, for ſcabs and ſcurfe. Some there be, who after it is ſtamped groſſe, burne or calcine it in an earthen pot, then waſh it well in a mortar, and afterwards dry it. *Nymphodorus* taketh the very ſtone or the ore as it lieth in the mine, the heauieſt and moſt compact that may be found, which he burneth among coles; and after it is ſufficiently burnt, quencheth it in wine of Chios: he beateth and punneth it then again, anon he driueth or boulteth it through a linnen cloth, and grindeth it finer in a mortar: this done, ſoon after he ſteepeth and ſoketh it wel in rain water, and that which ſetleth in the bottom he ſtampeth: and this he doth, vntill ſuch time as it M
be like ceruſe or white lead, and wil not craſh between the teeth. The ſame maner of preparing vſeth *Iöllas*, but he chuſeth the pureſt and brighteſt ſtone that he can get.

The medicinable operations of Cadmia, bee, to drie, to heale throughly, to ſtay fluxes, to cleanſe the filthineſſe in the eyes, and to ſcoure the pin and web, to extenuate any roughneſſe;

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A and in one word, to worke all those effects which I shall attribute hereafter to Lead.

Furthermore, brasse it selfe may be burnt; and being so prepared, it serueth for all those purposes beforenamed: ouer and aboue, it cureth the pearls, films, and skars in the eies: if it be incorporat with milk, it healeth the vlcers in the eies: the same likewise they vse to grinde vpon hard stones, after the manner of the Ægyptian collyrie; taken as a lohoch inwardly with hony, it causeth vomit. Now as touching copper, the manner is to burn it in vnbaked earthen pans, with the like weight of brimstone; but all the breathing holes of the furnace ought to be well closed and luted vp where they must stand, vntill such time as the said pans be throughly baked hard: some put salt thereto: others in stead of brimstone take alumne; and there be againe, who vse neither the one nor the other, but sprinckle it well with vineger onely: when it is thus calcined, they pun
B it in a morter of Thebaick marble, and then wash it in rain water. Howbeit, this first lotion of it maketh it but weak and of small effect: and therefore it had need of a second washing, in a greater quantity of water, and to be braied againe therein, and left so standing vntill it be setled: this would be reiterated often, vntill such time as it be brought to looke like vnto Minium: after that, it ought to be dried in the Sun, and saued in a brasen box.

Chap. XI.

¶ *Of the drosse or refuse of Brasse: of the skales of Brasse: of Verdegreace or Spanish greene: of Stomoma: of Verdegreace which is the rust of Brasse, and of Hieracium.*

C

THe drosse of Brasse is washed after the same manner, but of lesse effect it is than Brasse it selfe: howbeit the floure of Brasse or verdegreace, is much vsed in Physick: and engendred it is, when Brasse is melted by much blowing, and then transferred out of the furnace into other receptacles; and there, are shaken out certain skales of millet, and this they call Flos æris *i.* Verdegreace. Now these skales vse to fall off, when as the masses of brasse be cooled with water and be red. Likewise of the same masses, there is made that which they call Lepis; and thus the verdegreace may be sophisticated, so as the said Lepis or skales be sold for it. Now these skales come, by being driuen & smitten off from those nails which they vse to forge of the said masses and lumps of brasse, and all these most commonly are found in the Cyprian forges: herin
D only is the difference; that the foresaid skales are driuen forcibly & smitten from the said pains or masses of brasse, whereas the floure of verdegreace fals off by it selfe. And yet there is a second kind of these skales more fine and subtile than the other, to wit, driuen and smitten from the very outside and vppermost part of the brasse, and this they call * Stomoma.

Howbeit, Physitians in these daies (with reuerence to their profession and with their good leaue be it spoken) are ignorant wholly of all these things; yea, and the greater part of them bee not so much as acquainted with the terms and bare names (so far be they from the true composition of medicines:) and yet in times past, it belonged properly vnto Physitians, for to be acquainted with the terms of all simples, and to be perfect in the knowledg of them. But our phytians in this age, when they are to make any composition of simples, they haue recourse straight-
E waies to their books to be directed by them, that is to say, they try experiments by the hazard of their poore patients; and there finding the names of this and that, they set downe a receit, & for the making thereof trust the Apothecaries, as also for the ingredients; which commonly they do sophisticat and corrupt by all deceitfull meanes that possibly they can deuise; selling their emplasters and collyries that are old made, and such drugs as are past all goodnesse, seruing the bils of the Physitians with the very refuse of their shop. And thus the deceitfull wares that they haue, they rid their hands of, to the discredit of the Physitian, and danger of the sicke.

But to come againe vnto our skales, and floure of brasse or verdegreace; the manner is, first to calcine both the one and the other, either vpon earthen vessels or brasse pans; then, to wash the same, as is before said, and for the same vses. But ouer and aboue, these being prepared thus
F accordingly, are singular for the carnosities and excrescences within the nosthrils, or the fundament: for hardnesse also of hearing, if they be blowne into those parts by meanes of a pipe: and the sores or cankers of the mouth they doe heale, by application of their powder: this powder also taketh away the inflammations and accidents of the tonsils or almonds about the throat, if it be tempered and incorporat with honey, and vsed in a collution or gargarisme. There is be-

* *Stomoma is* nothing [illegible] but steel [illegible] therfore [illegible] here doth [illegible] like as in m[illegible] of this chap.

ſide, a ſcale that commeth of laton or white braſſe, farre better than that which the red braſſe or copper doth yeeld. G

Moreouer, there is a deuiſe that ſome vſe, namely, to let firſt the nails and panes of braſſe to lie wet in the vrine of a boy: others, ſo ſoone as the ſcales be driuen off, bray them, and afterwards waſh them in rain water; which they vſe to giue for the dropſie, to the weight of two drams in one hemine of honied wine; and beſides they make a liniment with it and floure, for to vſe outwardly to the belly.

*Which ſome take to be verdegreace. *Ærugo raſilis

As touching the ruſt * of braſſe, great vſe there is of it in Phyſick: but it commeth after many ſorts; for firſt and foremoſt, it is found ſticking (in manner of the floure aforeſaid) vnto the ſtone or ore out of which braſſe is tried, in ſuch ſort, as it muſt be * ſcraped from it before a man can haue it. Alſo it is made after an artificiall manner, by hanging certain plates of laton driuen H full of holes, and hung in a pipe or barrell ouer vineger; but the ſame ought to be cloſe couered and ſtopped with a lid of braſſe, ſo as the ſaid plates do not touch the vineger: and verily, verdegreace thus made, is far better than of skales in the ſame wiſe vſed. Some there be that take veſſels of white braſſe or laton, and put them in earthen pans, where they ſuffer them to lie in vineger for ten daies together, and then ſcrape off the verdegreace or ruſt that is gathered vpon the ſaid laton. Others there are who couer the ſaid veſſels of laton in the refuſe of grapes after they be preſſed (skins I meane and ſtones;) and after ten daies, as is aforeſaid, ſcrape off the Verdegreace which they find vpon the braſſe. There be againe, who take the fine duſt which the file fetcheth from braſſe, and ſtrew the ſame in a veſſell of vineger, ſtirring it with ſpattules or ladles oftentimes in a day, vntill it be reſolued into the vineger and conſumed: and yet many think it I better to work and ſtamp the ſaid file-duſt with ſtrong vineger in a braſen mortar, for to gather verdegreace. But the ſpeedieſt way of ingendring the ſaid ruſt of braſſe or verdegreace, is to take the cuttings, parings, or ſmall pieces of laton plates, ſuch as be emploied about coronets, and to put them in vineger: and you ſhall haue diuers, who will not ſticke to ſophiſticat verdegris (ſuch eſpecially as is brought out of Rhodes) by mixing it and the pouder of marble together; others with the pumiſh ſtone puluerized, or els with gum. But the cunningeſt deuice that they haue to falſifie it and deceiue chapmen by, is to mingle vitrioll amongſt: for all the other deceitfull tricks be ſoone found out by the teeth, becauſe a man ſhall feele the verdegreace to craſh and grate between them like grit, which hee ſhall not perceiue if it be ſophiſticate with vitrioll: howbeit, this ſophiſtication alſo and fraudulent caſt, may be ſoon detected and found out by an K experiment made with a ſlice or fire-pan of yron made red hot in the fire: for caſt vpon it the right and true verdegreace indeed, it will hold and keep the owne colour ſtill; but if it be corrupted with vitrioll, you ſhall ſee it turne red. You may diſcouer likewiſe the fraud aboueſaid with * paper, tempered beforehand and ſoked in gall-nuts; for beſmeare therewith the verdegreace that is falſified, it wil quickly become black. The eie alſo wil ſoon bewray the falſhood that is vſed therein, for if it be naught, a man ſhall perceiue it to looke with a weak green color, nothing full nor freſh. But be the verdegreace true or falſe, the beſt way is, before it be emploied in Phyſick, after it be dried, to calcine it vpon a new earthen pan that neuer was occupied, and in the burning to turne it often with a ſlice or ſpatule, vntil ſuch time as it be reduced into light cinders, and then after it is finely puluerized, to lay it vp for vſe. Others prepare it after another L ſort; they put it in an earthen pot vnbaked, and ſet the ſame into an ouen, where they let it ſtand to be calcined ſo long vntill the ſaid pot of clay be well and throughly baked. Finally, there be, that before they vſe Verdegreace, put thereto the male Frankincenſe, the beſt that can poſſibly be had.

*Of the reed *Papyrus.*

*Olibanum.

The manner alſo is to waſh verdegreace before it be occupied, after the ſame order as Cadmia is vſed. Being thus made & prepared as is aboueſaid, it is excellent to be put into eie-ſalues or collyries, for by a * mordicatiue quality it helpeth weeping and watering eies: in which regard, neceſſarie it is that it be waſhed firſt with pencils well bathed in hot water, ſo long vntill it haue loſt that corroſiue quality.

* *Græce* Ἀνδρα-χνιτης, which *Pliny* tranſlateth *delachrymationibus mor dẽdo proficiens:* which alſo may be turned thus, It helpeth watering eies proceeding of ſome fretting humors.

As touching Hieracium, a compoſition it is or collyrie ſo called, and made in this manner: M Take foure ounces of Sal Ammoniacke, of Cyprian Verdegreace two ounces, of ſhooemakers blacke, or that copperesſe which the Greekes name Chalcanthum as much, that is to ſay, two ounces; of Myſy or yellow vitrioll one ounce, and of ſafron ſix: let all theſe bee ſtamped together and tempered in the vineger of Thaſos vntill they be concorporat, and then reduce them into

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A into trochiques. A ſingular collyrie or eyeſalue this is to withſtand the beginning of pearls, cataracts, and ſuch accidents of the eies; to diſcuſſe alſo the webs that come ouer their ſight, to leuigat the roughneſſe of the tunicles, to diſpatch the white skars, and in one word to cure all the infirmities of the eielids. As for verdegreace, that is not calcined at all, it is excellent good to be put into vulnerarie or healing plaſters: the ſame alſo is of a wonderfull operation to cure the exulcerations of the mouth or the gumbs; the lips alſo exulcerat it heales, being reduced into a liniment with oyle: but if you put wax thereto, it doth mundifie, and withall skin and heale perfitly. Verdegreace is proper to eat away and conſume the calloſitie growing in a fiſtula, and in thoſe infirmities which are incident to the ſeat or fundament, whether it be brought into a liniment with gum Hammoniacke and ſo applied; or elſe in forme of a collyrie, that is to ſay, a
B tent thruſt into the hollow fiſtula. The ſame verdegreace incorporat with a third part of the true roſin called Terpentine, is ſoueraigne for foule leproſies and wild-fires.

Chap. XII.

¶ *Of* [1] *Scolecia, and* [2] *Chalcitis, of* [3] *Myſy,* [4] *Sory, and* [5] *Chacanthum.*

1 A kind of verdegris or ruſt of braſſe in manner of a worme, as *Pliny* taketh it.
2 The floure of copperesſe, whereof is made vitrioll, as ſome think.
3 *Braſauolus* holdeth it to be vitrioll Romane: others take it for yellow coppreſſe.
4 Duskiſh or aſh-colour coppreſſe.
5 Vitrioll.
* It ſeemeth that *Pliny* doth here err, by reading in *Dioſc.* σκωλήκας, for κόνικας; & for ἰὸ σκωλήκιον: σκωλήκιον: for the ſaid mixture is to be reduced into certaine trochiſques or thin cakes called κονίκια, and not into the form of worms σκωλήκια. *

ANother ſort there is of Braſſe-ruſt or Verdegreace, which commonly is called Scolecia: this is made of alume, ſalt or ſalnitre, of each a like weight, ſtamped well together with the ſtrongeſt white wine vinegre that can be gotten, in a morter of Cyprian braſſe or copper: and this muſt not be done but in the hoteſt daies of the yere, to wit, about the riſing of the Dog-
C ſtarre. Now muſt all the ingredients aforeſaid be pnnned and incorporat together, vntill ſuch time as the maſſe become green, and that it gather and draw together in manner of *crawling wormes, whereupon it taketh the name Scolecia. But if ſo be, that this manner of working and making it, chance to faile and doe not well, for to amend the ſame, the two parts of vinegre which entred into the mixture, ought to be tempered with as much vrine of a boy vnder fourteene yeares of age. Now if you would know the medicinable effects and vertues of this kind of verdegreace, both it and the artificiall Borax beforeſaid (which I named Santerna) be of the very ſame operation that the ordinary ruſt of braſſe or verdegreace, called in Latin Ærugo. There is a kind of Scolecia naturall or minerall of it ſelfe, without addition of any thing els whatſoeuer; whereof I purpoſe to ſpeake in this place, and the ſame is ſcraped from the ſtone or ore of
D which commeth braſſe. There is a ſtone lying in the mine which they name Chalcitis, out of which alſo (with burning) they excoct braſſe: differ it doth from Cadmia; for Chalcitis is hewed out of the mines that lye aboue, very ebb and expoſed to the aire, wheras the other is digged from vnder the ground in thoſe mines that lie hidden. *Item*, Chalcitis (as being of a tender and ſoft nature) preſently will crumble into pieces, ſo as it ſeemeth to be a certaine fine moſſe concreat and gathered together. Alſo, there is another difference betweene theſe two Marcaſſins, for that, Chalcitis containeth in it three ſeuerall kinds of matter, to wit, Braſſe, Myſy, and Sory, of which I purpoſe to ſpeak ſeuerally by themſelues in their due place. Now this Chalcitis lies within the braſſe mine in long veins: that which is of a yellowiſh colour like hony, full of ſmall veines running here and there, brittle and apt to crumble, and not of a ſtony hardneſſe, is coun-
E ted the beſt: the freſher alſo and more newly gathered that it is, the more effectuall and wholeſome men take it to be; for that being long kept, it will grow into the nature of Sory. Being thus in the right nature, it hath a facultie (if it be puluerized) to conſume the excreſcence of proud or dead fleſh in vlcers, to ſtaunch bloud, to repreſſe alſo the accidents befalling to the gumbs, uvula, and tonſils: the ſame put vp into the naturall parts of a woman within a locke of wooll in manner of peſſarie, helpeth the infirmities of thoſe places: but if it be tempered and incorporat with the juice of porret, it ſerueth to put into thoſe plaſters which are appropriat to the vlcers and ſores of the priuities or members of generation. Now if you ſteepe it in vinegre, and let it lie ſo infuſed within an earthen pot well luted with beaſts dung, for the ſpace of forty daies, it will come to the colour of ſaffron: put then vnto it of Cadmia ſtone the like quan-
F titie in weight, you ſhall haue that medicine which is called Pſoricum. Alſo, if in this compoſition you put two parts of Chalcitis to one third part of Cadmia, & ſo temper them together, this foreſaid medicine will be more quick & ægre: but in caſe you would haue it yet more mordicant and ſtronger in operation, let the ſaid ingredients be tempered rather with vinegre than wine. Calcine the ſame or torrifie it, you ſhal find it more effectuall in all operations aforeſaid.

*i. The veine or minerall, whereof commeth the duskish Vitrioll.

As for * Sory, that which is brought out of Ægypt is counted beſt, and farre better than the Cyprian, Spaniſh, or African: neuertheleſſe, ſome hold that which commeth from Cypreſſe, to be more appropriat to the cure of the eies. But of what country ſoeuer it be, the principall is that which to ſmell vnto is of the rankeſt and moſt ſtinking ſauour: the ſame alſo in the bruiſing will grow black and be vncteous or fatty, and ſuch lightly is hollow in manner of a ſponge. A minerall this is altogether hurtfull to the ſtomack, and ſo contrary vnto the nature of it, that to ſome the very ſmell thereof is enough to ouerturne it and to cauſe vomit: and eſpecially the Ægyptian Sory is of this operation. That which commeth from other nations, when it is broken or braied, ſhineth againe. G

Touching Myſy, it is of a more hard and ſtony nature than Sory; but good it is for the tooth ache, if either it be held in the mouth, or a collution be made therewith to waſh the teeth and gums: alſo it healeth the grieuous and irkeſome ſores of the mouth, yea though they grow to be cancerous and corroſiue. The manner is to burne and calcine it vpon coles of fire as Chalcitis. Some neuertheleſſe haue written, that Myſy is engendred by the means of a fire made with pine wood, in the hollow veins or mines of braſſe ore: and they hold, that the cinders or aſhes of this pine fewell, being mingled with the yellow greines or floure of the ſaid mettall, is that which begetteth Myſy. But the truth is, of the foreſaid ſtone or ore it is ingendered naturally: howbeit, a thing it is by it ſelfe gathered, diſtinct and ſeparat from it apart: and the beſt is that which is found in the mines and forges of Cypreſſe. You ſhall know it by theſe ſignes: break it (for crumble it will) there appeare within it certain ſparks ſhining like gold: and in the braying or ſtamping, it runneth into the nature of a ſand or earth, like vnto Chalcitis. This Myſy is the Minerall that they put to gold ore, when it is to be tried and purified. H I

To come vnto the medicinable vertues thereof: being infuſed or powred into the eares with oile of roſes, it cureth the running with matter: the ſame being applied in a frontal within wool to the head, eaſeth the ach thereof: it doth extenuat alſo and ſubtiliat the aſperities of the eies, ſuch eſpecially as be inueterat and haue continued long: but ſoueraigne it is found to bee for the inflammation or ſwelling of the tonſils, for the ſquinancy, and all impoſtumat ſores growne to ſuppuration. For which purpoſe, prepared it would be in this wiſe, and after this proportion: Take of it 16 drams, ſeeth the ſame in one hemin of vineger with ſome addition of hony, vntil it begin to yeeld and relent; and in this manner ordred, it ſerueth in caſes aforeſaid: but whenſoeuer need requireth to mollifie the violence thereof, and make it more mild, it were good to wet it with ſome ſprinckling of hony. If there be a lotion or fomentation made with it in vineger, it doth conſume and eat away the hard calloſitie in fiſtuloes, and fortifieth greatly the collyries or tents to be made thereof, and put it into the concauity of the ſore: it ſerueth alſo for the colyries that be eie-ſalues: it ſtancheth bloud, repreſſeth the malice of fretting humors in corroſiue vlcers and ſuch as do putrifie: the excreſcence of proud or ranke fleſh it taketh downe and conſumeth: a peculiar property it hath to cure the accidents of the members of generation in men: and withall ſtoppeth the immoderat flux of the moneths in women. K

As concerning Vitrioll, which wee call in Latine Atramentum Sutorium, *i.* Shooe-makers blacke, the Greeks haue fitted it with a name reſpectiue vnto braſſe, and by a neere affinity therunto call it Chalcanthum: and verily there is not a mineral throughout all the mines, of ſo admirable a nature as it is. There haue been found in Spaine certaine pits or ſtanding pooles, containing a water of the nature of Vitrioll: they vſed to ſeeth the ſame, putting thereto of other freſh water a like quantitie, and poure it into certaine troughs or broad keelers of wood: ouer theſe veſſels, there be certaine barres [of yron] or tranſoms ouerthwart, lying faſt that they cannot ſtirre, at which there hang downe cords or ropes with ſtones at the end ſtretching them outright, that they reach to the bottome of the ſayd decoction within thoſe keelers, to the end that the viſcous ſubſtance of the water may gather about thoſe cords, which you ſhall ſee ſticking faſt thereto in drops, congealed in manner of a glaſſe, and it doth repreſent as it were the forme of grapes; and that is Vitrioll. Being taken forth and ſeparated from the cords aforeſaid, they let it dry for the ſpace of thirtie dayes. In colour it is blew, and carrieth with it a moſt pleaſant and liuely luſtre, ſo cleare, as a man would take it to bee tranſparent glaſſe. Of this being infuſed in water, is made that blacke tincture which Curriers and Coruiners occupie in colouring of their leather. This Vitrioll is ingendred many waies of the copperesſe vein within the mine, being hollowed into certaine trenches: out of the ſides whereof you ſhal ſee in the middeſt of L M

Winter

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A Winter when it is a froſt, certaine yſickles depending, as the drops deſtilled and grew one to another: whereupon this kind of Vitrioll they call Stalagmias, and a purer or clearer thing there is not. But look what part thereof is whitiſh of colour, but not tranſparent, and the ſame incli-
ning to the wall floure or * white violet, the ſame they call Leucoion. There is a Vitrioll like- * *Viola alba.*
wiſe made artificially in receits and concauities (digged of purpoſe in the ſtonie mines of Co-
peroſe) by occaſion of raine water there congealed, which had been conueighed into them, and gathered a viſcous ſlime or mud in the paſſage. Alſo there is a caſt to make it in maner of ſalt by letting freſh water into ſuch hollow receptacles, and permitting the ſame to ferment in the ſun when he is at the height and full ſtrength of his heat in the ſummer, vntil it be gathered and hardened as ſalt. And therefore ſome there be who make two ſorts of Vitrioll, to wit, the Naturall,
B or Minerall, and the Artificiall: this that is made by the induſtry and art of man is paler than the other, and looke how much the colour is abated, ſo much inferior it is in goodneſſe. The Cyprian Vitrioll is thought beſt to be imploied in Phyſicke. For, to expell the wormes out of the belly, it is giuen vnto the patient to the weight of one dram in honey, after the manner of an electuary. If the ſame be diſſolued and conueyed vp into the noſthrils, it purgeth the head. In like manner it purgeth the ſtomacke, in caſe it be taken in hony or honied water. The aſperitie of the eies, their paine, and the dimneſſe or miſts ouergrowing the ſight, it diſpatcheth: and hea-
leth the ſores in the mouth. It ſtaieth bleeding at noſe, and the immoderat running of the Hæ-
morrhoids. It draweth forth ſpels of broken bones: and tempered with the ſeed of Henbane, it
C ſtoppeth the courſe of a rheum running to the eies, if it be laid in a cloth to the forehead in maner of a frontale. Of great effect is it in plaſters, both for to mundifie wounds and to conſume the excreſcence of fleſh in vlcers. If the Vvula be fallen, it putteth it vp againe, by touching it only with the decoction thereof. Moreouer, being incorporat with line-ſeed, it is ſingular good to be applied aloft vpon plaſters, for to mitigat pain. Of this kind, that which is white is prefer-
red before any that are of a yellowiſh colour like * wall-floures aforeſaid. Moreouer, if it be * *Violareis*: hee meaneth thoſe that reſemble *Leucoion*, and which he cal-led before by that name.
blown into the ears by the means of a pipe, it doth remedy the hardneſſe of hearing. A liniment made of Vitrioll alone, healeth vp wounds, but it draweth the skar too neare together: in regard of which aſtringencie of Vitrioll, there hath bin an inuention deuiſed of late, to caſt the pouder of Vitrioll into the mouths of Bears and Lions when they are to be baited: for ſo great a knitter and binder it is, that it will draw their chaws together in manner of a muzzle, that they ſhal not
D be able to bite.

Chap. XIII.

¶ *Of Pompholyx. Of Spodos, Antiſpodos, and of Diphryges. Of the Trient of Seruilius.*

THere be found ouer & beſides in braſſe ſmithies or furnaces, thoſe matters which they cal Pompholyx and Spodos: and the difference of the one from another, conſiſteth in this, that Pompholyx requireth waſhing for to be prepared; Spodos neuer commeth into water or liquor. And yet ſome diſtinguiſh them otherwiſe, calling the whiteſt and lighteſt part, Pom-
E pholyx: holding opinion, that it is nothing els but the very cinders of braſſe, or the Calamine ſtone Cadmia, whereof braſſe commeth: whereas Spodos (ſay they) is blacker and more weighty than Pompholyx, as being ſcraped from the wals and ſides of the furnaces; among which you ſhall ſee many times groſſe ſparks, yea, and otherwhiles coles intermingled. Well, this Pom-
pholyx being tempered or ſoked in vineger, ſmels of braſſe: and if a man touch it at the tongues end, hath a horrible taſt that goeth againſt ones ſtomacke. Proper it is to enter into thoſe com-
poſitions which be ordained for the eies, for it helpeth all the infirmities incident thereto: and in one word, ſerueth for the ſame purpoſes that Spodos doth: herein onely lieth the difference, that Spodos is thought to be more mundificatiue, by reaſon that the ſtrength of Pompholyx is
F delaied by the waſhing aforeſaid. It is one of the ingredients alſo to thoſe implaſters which are deuiſed for gentle refrigeratiues and exiccatiues. And for whatſoeuer it ſhall be imploied, better it is found to be, in caſe it were waſhed firſt with wine.

As touching Spodos, the Cyprian is moſt eſteemed: and ingendred it is, whiles Cadmia and the braſſe ore or ſtone be melted together in the furnace. Exceeding light it is, and apt to mount aloft with the ſmoake of the bloome ſmithie, very ſpeedily, yea, & ready to flie out of the

fur-

furnace: and much of it sticketh to the rouse and vppermost part thereof, differing onely from G
soot in whitenesse. That which is nor so white as the rest, signifies that the furnace was not quick ynough, and that it is not yet come to the full perfection & concoction: and this, some there be who call Pompholyx. But looke how much thereof is found of a redder colour, the same hath much acrimonie in it, and is of a more biting nature: yea, so fretting and corrosiue it is, that in the washing, if it chance to touch a mans eies, it will put out their light and make him blind. There is a kind of Spodos besides that looks yellowish like hony, wherin a man may perceiue that it standeth very much vpon brasse: but of what sort soeuer it is, washing mendeth it much. First, before it be washed, they vse to cleanse it lightly with a wing or a bristle brush: & then afterwards to wash it in grosser manner, till the water be thick and muddie, rubbing it well with the fingers, vntill it haue lost all the roughnesse that it had. That which is washed in wine, is H
thought to be of a middle and indifferent operation. And when I say wine, you must think there is some difference therin also. For being washed in a small & mild wine, it is thought to be very good for those colliries which serue to comfort and fortifie the eies that haue been vearied and weakened with long watching: the same also thus prepared, is more effectual to heale vlcers that be matterie and run: the sores likewise in the mouth that are moist and rheumatick: and generally it serueth well to go into those salues and plaisters which are deuised against gangreenes tending to mortification. Another kind there is besides of Spodos called Laurioris, found in the furnaces where siluer is tried. But commonly it is held, & for certain affirmed, That the best

* *Spodos* is called *Nil*, wherof commeth the prety ambiguous speech, *Nil prodest oculis.*

*Spodos for the eies, is that which commeth in the furnaces where gold is fined. Neither in any
thing belonging to our life, is the wit & inuention of man more admirable than in this. For, be- I
cause we should not take the pains to search into mines & furnaces for such matters, they haue deuised means to help themselues withal in the same cases, euen by the basest things that be in stead of Spodos, which thereupon they tearme by the name of Antispodos; for so they call the ashes of the Figtree, whether it be the gentle or the wild; the ashes likewise of the Myrtle tree leaues, and the tendrest parts of the branches; as also of the wild Oliue, the Quince, & the Lentiske trees. They haue a kind of Antispodos besides made of the vnripe Mulberries, that is to say, whiles they be white, dried in the Sun: like as, of the tops of the box tree or the bastard Cyperus, of brier crops, the leaues of the Terebinth or the wild vine Oenanthe floures. Finally, they vse in stead of Spodos, the ashes of strong Buls glew, or of linnen rags: which is found to be as effectuall as the right Spodos. Now for to haue the said ashes for this purpose, the manner is to K
burne and calcine all these matters abouenamed within some vessell of cley, and to set it into the ouen or furnace, where they are to be torrified vntill the said vessell be throughly baked.

In the smithies where brasse is made and wrought, there commeth a certaine refuse or offall thereof, called Psegma: to wit, when after the brasse ore is sufficiently melted and concocted, there be new coales put thereto, and the same set on fire and kept burning with the blast of bellowes: for then of a suddaine (as it were by some extraordinary strong puffe) there are rejected and cast forth from it certain huls or chaffe (if I may so say) of brasse. Now the ground or floore to receiue this refuse as it falleth, ought to be well paued.

There is another stuffe found in the said forges or bloom-smithies, easily discerned from this Psegma, which the Greeks (for that it is, as it were, twise burnt or concocted) call Diphryges. L
And this is made three maner of waies: For first they say it comes of the Marquesit stone burnt in a furnace vntill it be calcined and reduced in the red chalke Rubrica. It is engendred also of the earth or cley within a certain caue in Cyprus, first dried and soon after gently burnt in a fire round about it, maintained with small sticks put therto by little & little. There is a third way of making it, to wit, of the grosse dregs or drosse of brasse settling downe to the battome of the furnace: in which furnace a man shall perceiue these different matters, to wit, the brasse it selfe, which being melted, runneth into pans and vessels ready for to receiue it; the refuse, called Scoria, which flies out of the furnace; the florey that floteth aloft; & the Diphryges or drosse which remaineth behind. Some yeeld another reason and making of Diphryges in this manner, namely, That there be certain round bals or pellets (as it were) of hard stones found within the mines M
of brasse, which together with the Marquesit or brasse ore doth not melt in the furnace, & a man shall see the brasse it selfe boile about the same: which round hard stones are vnited and soudered only, one to another by this means; but themselues resolue not nor melt perfitly, vnlesse they be translated into other furnaces: for they be the very heart (as it were) of the whole matter.

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A But in the ſecond triall and boiling, that which remaineth behind, is called Diphryges. Well, be it what it will, the ſame reaſon there is of it in Phyſicke, as of the reſt of this kind found in furnaces: for by nature it is deſiccatiue: it conſumeth beſides all excreſcences, & doth cleanſe mightily. The triall of it is by the tongue, for if it bee good Diphryges, no ſooner toucheth it the tongue, but it drieth it, and withall taſteth of braſſe.

But before I depart from theſe braſſe mines and furnaces, I cannot conceale from you one miraculous thing as touching this mettall. There is (you know) a noble family in Rome of the *Seruilij*, well renowned, as may appeare by the Roman Kalender and acts of record: and theſe haue among them a certaine piece of braſſe coine ealled a Triens (*i.* The third part *of a Roman Aſſe) which they do keep and feed with ſiluer and gold. For eat and conſume it doth both the B one and the other: from whence it came firſt, and what the reaſon in nature of this property is, I know not yet. But for my warrant, I will ſet downe as touching this matter the very words of old *Meſſala*: The houſe (quoth he) of the *Seruilij* hath a certain ſacred Trient, in the honor of which piece they do ſacrifice yerely with great deuotion and ſolemnity, omitting no magnificence nor ceremonies thereto belonging. And this Trient the common ſpeech is of them all, that it ſeemeth one while to grow bigger, and another while to diminiſh and be ſmaller: according to which increaſe or decreaſe, the ſaid *Seruilij* take preſage, That their family ſhall either riſe to more honour, or decay in credit and reputation.

*which is our farthing.

CHAP. XIV.

C ¶ *Of Yron, and Yron mines, and the different kindes of Yron.*

IT remaineth now in the next place to diſcourſe of the mines of yron, a mettal which we may well ſay is both the beſt and the worſt implement vſed now in the world: for with the helpe of yron we break vp and ear the ground, we plant and plot our groues, we ſet our hortyards and range our fruitful trees in rewes: we prune our vines, and by cutting off the ſuperfluous branches and dead wood, we make them euery yere to look freſh and yong againe: by meanes of yron and ſteele we build houſes, hew quarries, and cut in ſtone, yea, and in one word, wee vſe it to all other neceſſary vſes of this life. Contrariwiſe, the ſame yron ſerueth for wars, murders, and robberies, not onely to offend and ſtrike therewith in hand, but alſo to reach and kill afarre off, with diuers D ſorts of darts and ſhot; one while diſcharged and ſent out of engines, another while lanced and flung by force of the arme; yea, and ſometime let flie with wings: and this I take to be the wickedeſt inuention that euer was deuiſed by the head of man: for to the end that death may ſpeed away the faſter to a man, and ſurpriſe him more ſuddenly, we make it to flie as a bird in the aire, and to the arrow headed at one end with deadly yron, we ſet feathers at the other: whereby it is euident, that the miſchiefe proceeding from yron, is not to be imputed to the nature of it, but to the vnhappy wit of man. For good proofe wee had already by many experiments otherwiſe, that yron might be imploied and occupied, without any hurt or harme at all to mankinde. And verily in thoſe capitulations of peace, which after the expulſion of the kings, *Porſena*, king of the Tuſcans tendred to the people of Rome, I find this expreſſe article & impoſition, that they E ſhould not vſe yron, but only about tillage of the ground. And as our Chronicles of greateſt antiquity haue left recorded, it was not thought ſafe to permit writing and ingrauing letters with a ſtyle of yron. Certes, in the third Conſulſhip of *Pompey* the great, by occaſion of a tumult and commotion raiſed within the city of Rome for the murder committed vpon the perſon of *P. Clodius*, there was an edict come forth (which now is extant vpon record) after the manner of an inhibition in this form: *Ne vllum telum in vrbe eſſet*, *i.* That no man throughout all Rome ſhould be ſeene to weare a weapon. Neuertheleſſe men did not forbeare and giue ouer to doe ſome honour vnto yron alſo in ſome other occaſions of this life, tending to the entertaining of ciuility and humanity; for *Ariſtonidas* the cunning artificer, minding to repreſent in an image the furious rage of *Athamas*, beginning now to coole and be allaied, together with his repentance for the F cruell murdering of his owne ſonne *Learchus*, whom he flung headlong againſt the hard ſtones, and thereby daſht out his braines; made a temperature of braſſe and yron together, to the end, that the ruſtie yron appearing through the bright luſtre of the Braſſe, might liuely expreſſe a bluſhing red in the countenance, beſeeming a man confuſed and diſmayed for ſo vnnaturall a fact. This Statue is at this day to bee ſeene at Thebes. Within the ſame Citie there is another

*O *Pliny*, what wouldeſt thou ſay, if thou did deſtſee & hear the Piſtols, muskess, Culuerines, & Canons in theſe daies.

Image

image of *Hercules* all of hard yron or ſteele, which *Alcon* the famous workman ma de of purpoſe G
to ſignifie the vndaunted heart of that deified *Hercules*, who vnderwent and indured all labours
and perils whatſoeuer. Here alſo in Rome we may ſee certain drinking cups of ſteele dedicated
in the temple of *Mars* the Reuenger.

But to come vnto the nature of yron, herein appeareth ſtill the ſame goodneſſe of Nature,
that this mettall working ſuch miſchiefe as it doth, ſhould be reuenged of it ſelfe, and receiue
Nihil in rebus mortalius facientè, quam qd. infeſtiſſimum, mortalitati, the grace of this Latine cannot be ſo well expreſſed in Engliſh.
condigne puniſhment by the own ruſt. See alſo the wonderful prouidence of Nature, *who maketh nothing in the world more ſubiect to death and corruption, than that which is moſt hurtfull and deadly to mankind.

As touching mines of yron ore, they are to be found almoſt in euery country, for there is not
ſo much as the Iſland Ilua here within Italy, but it breedeth yron. And lightly whereſoeuer any H
ſuch be, they are eaſily found, for the very leere of the earth, reſembling the colour of ore, bewraieth where they lie. And when it is found out, they burn, try, and fine it, as other veins of mettall.
Onely in Cappadocia there is ſome queſtion and doubt made, whether in the making of yron
they be more beholden to the earth that yeeldeth the ore, or to the water for the preparing and
ordering of it? for this is certain, that vnleſſe the vein of ore bee well drenched and ſoked with
the water of one riuer there, it will neuer yeeld yron out of the furnace. As for the kinds of yron
*Some read *à ſtringẽda (oculorũ atie)* i of dazeling the eies; which irõ red hot, or the bright blade of ſword & other weapons, doth: but nether any copies of the author haue the word (*oculorum*) neither haue I read *ſtringere*, but *perſtringere*, to ſignifie, to dazle: others vnderſtand it of drawing a naked ſword: & yet it is not ſo proper in Latine to ſay in that ſence, *ſtringere aciem*, as *ſtringere ferrũ*, or *gladium*: howbeit, I incline rather to this, for that *Pliny* a little after calls the beſt ſteele *Acies*, which word haply is the primitiue, from whence *acies* alſo is vſed for an edg, &c. and yet it may be, that thoſe *ſtricturæ* i. ſparkling ſkales, flying frõ iron vnder the ſmiths hãmer, & frõ no other mettall, (which do *perſtringere aciem oculorũ*, if any thing els) may giue occaſion herof. *Sed hæc viderint Critici*
many they are, and all diſtinct. The firſt difference ariſeth from the diuerſity of the ſoile and
climats where the mines be found: for in ſome places, the ground & the poſition of the heauens
do yeeld onely a ſoft ore, and comming nearer to the ſubſtance of lead than yron: in another, the
mettall is * brittle and ſhort, ſtanding much vpon a veine of braſſe, ſuch as will not ſerue one I
whit for ſtroke and naile to bind cart-wheels withall, which tire indeed would be made of the other that is gentle and pliable. Moreouer, ſome kind of yron there is that ſerueth onely, if it be
wrought in ſhort and ſmal works, as namely, for nailes, ſtuds and tackes imploied about greeues
and leg-harneis: another againe, that is more apt to take ruſt and canker than the reſt. Howbeit,
all the ſorts of yron ore are termed in Latine Strictura, a word appropriat to this mettall & to
no other, **à ſtringenda acie*, *i.* of dazling the eies, or drawing a naked ſword. But the furnace it ſelf,
where the ore or yron ſtone is tried, maketh the greateſt difference that is: for therein you ſhall
haue to ariſe by much burning and fining, the pureſt part thereof, which in Latine is called *Nucleus ferri*, *i.* the kernell or heart of the yron [and it is that which we call ſteele] and the ſame alſo
of diuers ſorts: for the beſt is it that hardeneth the edge of any weapon or toole: there is of it K
which ſerueth better for ſtithy or anuill heads, the faces of hammers, bits of mattocks, and yron
crowes. But the moſt variety of yron commeth by the means of the water, wherein the yron red
hot is eſtſoons dipped and quenched for to be hardened. And verily, water onely which in ſome
place is better, in other worſe, is that which hath innobled many places for the excellent yron
that commeth from them, as namely, Bilbilis in Spaine, and Taraſſio, Comus alſo in Italy; for
none of theſe places haue any yron mines of their owne, and yet there is no talk but of the yron
and ſteele that commeth from thence. Howbeit, as many kinds of yron as there bee, none ſhall
match in goodneſſe the ſteele that commeth from the Ceres: for this commoditie alſo, as hard
ware as it is, they ſend and ſell with their ſoft ſilks and fine furs: in a ſecond degree of goodneſſe,
may be placed the Parthian yron. And ſetting aſide theſe two countries, I know not where there L
be any bars or gads tempered of fine and pure ſteel indeed, for all the reſt haue a mixtue of yron,
more or leſſe. And generally in this Weſt part of the world wherin wee liue, all our ſteel is of a
more ſoft and gentle temperature than that of the Leuant. This goodneſſe of ſteele in ſome
countries ariſeth from the nature of the mine, as in Auſtrich: in others from the handling and
temperature thereof, like as by quenching, as I ſaid before, and namely at Sulmo, where the water ſerueth eſpecially for that purpoſe: and no maruell, for we ſee a great difference in whetting and ſharpening the edge of any inſtrument, between oyle whetſtones that barbars vſe, and
the common water grind-ſtones: for ſurely the oile giueth a more fine and delicat edge. Furthermore, this is ſtrange, that when the ore or vein is in the furnace, it yeeldeth yron liquid & cleare
as water: and afterwards, being reduced into bars and gads when it is red hot, it is ſpungeous and M
brittle, apt to break or reſolue into flakes. And conſidering the difference that is betweene the
nature of oile and water (as I haue ſaid) this is to be obſerued, that the finer any edge tooles bee,
the manner is to quench them in oile for to harden the edge: for feare leſt the water ſhould
harden them ouer much, and make the edge more ready to breake out into nickes, than to bend

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A and turne again. But wonderfull it is aboue all, that mans bloud ſhould haue ſuch a vertue in it, as to be reuenged of the yron blade that ſhed it; for being once embrued therin, it is giuen euer after eftſoones to ruſt and canker.

Concerning the load-ſtone, and the great concord or amity betweene yron and it, I meane to write more amply in the due place. Howbeit, for the preſent thus much I muſt needs ſay, that yron is the only mettall which receiueth ſtrength from that ſtone, yea, and keepeth the ſame a long time, inſomuch, as by vertue therof, if it be once well touched & rubbed withal, it is able to take hold of other pieces of yron: and thus otherwhiles we may ſee a number of rings hanging together in manner of a chaine, notwithſtanding they be not linked and incloſed one within another. The ignorant people ſeeing theſe rings thus rubbed with the load-ſtone, and cleauing
B one to another, call it quick-yron. Certes, any wound made by ſuch a toole, are more eager and angry than by another. This ſtone is to be found in Biskay, ſcattered here and there in ſmal pieces by way of bubbation (for that is the term they vſe,) but it is not that true Magnet or load-ſtone indeed, which growes in one continued rock. And I wot not whether theſe be ſo good for glaſſe-makers, and ſerueth their turn ſo well in melting their glaſſe, as the other: for no man yet hath made experiment therof. But ſure I am, that if one do rub the edge, back, or blade of a knife therewith, it doth impart an attractiue vertue of yron thereunto, as well as the right Magnet. An here I cannot chuſe but acquaint you with the ſingular inuention of that great architect and maſter deuiſer, of Alexandria in Ægypt, *Dinocrates*, who began to make the arched roofe of
C the temple of *Arſinoe* all of Magnet or this load-ſtone, to the end, that within that temple the ſtatue of the ſaid princeſſe made of yron, might ſeeme to hang in the aire by nothing. But preuented he was by death before he could finiſh his worke, like as K. *Ptolomæe* alſo, who ordayned that temple to be built in the honour of the ſaid *Arſinoe* his ſiſter.

But to returne again to our yron: of all mines that be, the vein of this mettall is largeſt, and ſpreadeth it ſelf into moſt lengths euery way: as we may ſee in that part of Biſcay that coaſteth along the ſea, and vpon which the Ocean beateth: where there is a craggy mountaine very ſteepe and high, which ſtandeth all vpon a mine or veine of yron. A wonderfull thing, and in maner incredible, howbeit, moſt true, according as I haue ſhewed already in my Coſmography, as touching the circuit of the Ocean.

D

Chap. XV.

¶ *The temper of yron. The medicinable vertues thereof, as alſo of the ruſt of Braſſe and yron. Of the skales that ſhed and flie from yron: and of the liquid emplaſter called by the Greekes Hygrimplaſtrum.*

IRon made once hot in the fire, vnleſſe it be hardened with the Hammer, doth ſoone waſte and corrupt. So long as it looketh but red, it is not ready for the hammer, neither would it be beaten before it begin to look white in the fire. Beſmeare it with vineger and Allum, it wil looke like copper or braſſe. If you be deſirous to keep any yron-worke from ruſt, giue it a verniſh with ceruſſe, plaſter, and tar, incorporat all together. And this is that compoſition, which is called
E by the Greeks * Antipathia. And ſome ſay alſo, that there is a kind of hallowing yron that will preſerue it from ruſt: as alſo that there is at this day to be ſeen the chaine of yron within the city called Zeugma, ſeated vpon Euphrates, wherwith king *Alexander* the Great ſomtime bound and ſtrengthened the bridge ouer the riuer there: the linkes whereof, as many as haue been repaired and made new ſince, doe gather ruſt, whereas the reſt of the firſt making, be all free therfrom. * Veſti as ſi imo.

As touching the vſe of yron and ſteele, in Phyſicke it ſerueth otherwiſe than for to launce cut and diſmember withall: for take a knife or dagger and make an imaginarie circle two or three times with the point thereof, vpon a yong child, or an elder body, and then goe round withall about the party as often, it is a ſingular preſeruatiue againſt all poiſons, ſorceries, or inchant-
F ments. Alſo to take any yron naile out of the coffin or ſepulchre wherein man or woman lieth buried, and to ſticke the ſame faſt to the lintle or ſide-poſt of a dore, leading either into the houſe or bed-chamber where any doth lie who is haunted with ſpirits in the night, hee or ſhee ſhall be deliuered and ſecured from ſuch phantaſticall illuſions. Moreouer, it is ſaid, That if one be lightly pricked with the point of ſword or dagger which hath beene the death of a man, it

is an excellent remedy againſt the paines of ſides or breſt, which come with ſudden pricks and ſtitches. An actuall cauterie of yron red hot, cureth many diſeaſes, and eſpecially the biting of a mad dog; in which caſe it is ſo effectuall, that if the poiſon inflicted by that wound, haue preuailed ſo far, that the patient be fallen into an Hydrophobie thereby, and cannot abide drinke or water, let the ſore be ſeared therewith, the party ſhall find help preſently. Gads of ſteele or other yron red hot quenched in water, ſo long vntil the ſame water be hot, cauſeth it to be a wholſome drinke in many diſeaſes, but principally in the bloudy flix. G

The very ruſt of yron alſo is counted medicinable: for ſo *Achilles* is ſaid to haue healed *Telephus*: but whether the head of his ſpeare were yron or braſſe, of which he vſed the ruſt, I doe not certainly know. Certes, he is paynted thus: with his ſword ſcraping and ſhaking off the ruſt into the wound. But if you would fetch off the ruſt from any old nails, ſcrape it with a knife wet before in water. As touching the vertues thereof, it is clenſing, exiccatiue, and aſtringent; it recouereth the haire in places deſpoiled thereof, if they be annointed therewith in the forme of a liniment: being reduced into a ſalue with wax and oile of Myrtles incorporate together, many vſe it for roughneſſe about the eie-lids: the pimples alſo breaking forth all ouer the body. For ſhingles and S. *Antonies* fire, it is ſingular good to apply it in an vnguent with vineger: likewiſe it killeth ſcabs, and healeth whitflawes of the fingers, and the excreſcence or turning vp of the fleſh about the roots of the nails, if linnen rags wet therein be applied conueniently. The ſame conueyed vp in wooll after the manner of a peſſary into the naturall parts of women, ſtaieth the immoderat flux both of whites and reds. The ruſt of yron tempered in wine, and wrought together with Myrrhe, is good for a greene wound: put thereto vineger, and then it helpeth the piles and ſwelling bigges of the fundament. A liniment made with it, mitigateth the paine of the gout. H I

As touching the skales of yron that flie from the edge or point of any weapon wrought in the ſmiths forge: they ſerue in the ſame caſes, that the ruſt doth, and haue the like effects, ſaue only this, that they haue greater acrimonie, and work more eagerly: in which regard they are emploied about the repreſſing of the flux that falleth into watering eies. But marke this one thing: Yron being that which woundeth moſt and ſheddeth bloud, yet the skales that come from it, ſtanch the ſame: a property they haue beſides to ſtop the flux in women: and being applied to the region of the ſpleene, they do open the obſtructions thereof, and eaſe other infirmities incident thereto: the running hæmorrhoids they repreſſe, and ſuch vlcers as are giuen to ſpread farther and corrode as they go. Reduced into a fine powder, and gently ſtrewed vpon the eye-lids, they are good for the accidents thereto belonging. But the principal vſe of them, and for which they are moſt commended, is in a certain liquid plaſter called Hygremplaſtrum; which ſerueth to mundifie wounds, vlcers, and fiſtulaes: to eat away all calloſities, and to incarnate and engender new fleſh about bones that are periſhed. And this is the receit of that compoſition: Take of the ſcouring Tuckers earth the weight of two oboli, of braſſe ſix drams, of the skales of yron as much, and no leſſe of wax, incorporat all theſe according to art in one ſextar of oile. But in caſe there be need to mundifie any ſores, or to incarnat, there would be put therto ſome plain cerot beſides. K

Chap. XVI. L

¶ *Of the Mines of Lead ore: of *white lead and blacke.*

*Which ſome hold to be Tin-glaſſe. *Our ordinary lead.

NOw inſueth the diſcourſe of lead, and the nature of it; of which there be two principall kindes, the blacke, and the white. The richeſt of all, and that which carrieth the greateſt price, is that which we in Latine name *Plumbum candidum*, *i.* the white bright lead, and the Greeks *Caſſiteron*. But I hold it a meere fable and vaine tale, that all of it is fetched as farre as from the Iſlands of the Atlanticke ſea, and that the inhabitants of thoſe parts doe conueigh it in little twiggen boats, couered all ouer with feathers. For the truth is, that there is found of it in theſe daies within Portugall and Gallæcia, growing ebbe vpon the vpmoſt face of the earth, being among the ſands, of a black colour, and by the weight only is knowne from the reſt of the ſoile: and here and there among, a man ſhall meet with ſmall ſtones of the ſame ſtuffe, moſt of all within the brookes that be dry ſometimes of the yere. This ſandie and grauelly ſubſtance, the mine maſters and mettall finers vſe to waſh, and that which ſetleth downeward, they burne M

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A & melt in the furnace. There is found likewiſe in the gold mines a kind of lead ore which they cal Elutia; for that the water that they let into thoſe mines (as I ſaid before) waſheth and carrieth down withall certain little blacke ſtones ſtreaked and marked a little with a kind of white, and as heauy they be in hand as the very ore of gold; and therefore gathered they be with the ſame ore, and laid in the paniers together therewith: and afterward in the furnace when the fire hath made a ſeparation between them and gold, ſo ſoone as they are melted do reſolue into the ſubſtance of the white lead or tinglaſſe aforeſaid.

Moreouer, this is is ſtrange, that throughout all Gallecia you ſhal not find a mine of common black lead, & yet in Biskay (which confineth hard vpon it) there is abundance of it & no other; neither out of the vein of this white lead ſhal you try any ſiluer, wheras out of the black it is an
B ordinarie thing to extract ſiluer. Again, this is certain, that two pieces of black lead canot poſſibly be ſodered together without this tinglaſſe; neither can this be vnited to the other but by means of oile: nay it is vnpoſſible to conioyne a piece of tin-ſoder or white lead with another, but with a ſoder of the black. This white lead or tinglaſſe hath bin of long time in eſtimation, euen ſince the war of Troy, as witneſſeth the poet *Homer*, who calls it Caſſiteron. As for blacke lead, ingendred it is two maner of waies, for either it groweth in a vein of the owne without any other mettal with it, or els it doth participat with ſiluer in the ſame mine, and being intermixt in one piece or lump of ore, it is ſeparated from it at the melting and fining only; for the firſt liquor that runs from it in the furnace is tin, and the ſecond ſiluer. As for the third part of the vein which remaineth behind in the furnace, it is Galæna, that is to ſay, the very mettal it ſelfe
C of lead; which beeing once againe melted and tried in the fire, after two parts thereof be deducted, yeeldeth that black lead whereof we now do treat.

Chap. XVII.

¶ *Of Tin, of Argentine Lead, and other points pertinent to theſe matters.*

D Tin hath a proper vſe to enhuile veſſels of braſſe, partly to take away the euil taſt they haue, and to make them ſweeter, and partly to preſerue them from ruſt, or to qualifie the malitious nature of braſſe: and yet wonderfull it is, that ſuch veſſels thus tinned are neuer a iot the heauier by that means. Alſo in times paſt there were (as I haue already ſaid) excellent Mirroirs made of tin, and the ſame were tempered & wrought at Brundiſe: but thoſe of ſiluer haue put them down ſince, that euery chamber-maid and ſuch like ſeruing creature would be at their looking-glaſſes of ſiluer. But tin is found much counterfeit in theſe daies, by putting to White lead aboue ſaid a third prrt of white braſſe: yea and there is another deuiſe to ſophiſticate tin, to wit, by mixing white and blacke lead one with another by euen weight and portion: and this maſlen ſome call at this day, * ſiluer lead or argentine. As for that mixed matter wherin be two parts of black lead, and one of the white, they cal it Tertiarium: this kind of tinne is ſold after
*30 the pound, and it is that wherewith they vſed to ſoder conduit pipes: but the lewder diſpoE ſed pewterers haue a caſt to put vnto this tin called Tertiarium, an equal quantity of white lead and then they call it Argentarium: which mettall they employ in veſſells for the kitchen, to ſeeth meat or what they liſt in them: and this kind of pewter wanteth no price, for they ſet it at 130 the pound, whereas a pound of white lead or tinglaſſe pure and fine of it ſelfe, is ſould for thirty, and the blacke for ſixteen. As touching the temperature and nature of the white lead, it ſtandeth more vpon a dry ſubſtance; contrariwiſe, that of blacke is wholly moiſt and liquid: which is the reaſon that the ſaid white lead or tinglaſſe will ſerue to no vſe or purpoſe vnleſſe it be mixed with ſome other mettal; neither is it good to lead or ſoder ſiluer with, for ſooner will ſiluer melt in the fire than it. There is a deuiſe to tin pots, pans, and other pieces of braſſe ſo artificially with white lead or tinglaſſe (an inuention which came out of France) that hardly a
F man ſhall diſcerne them from veſſell of ſiluer; and ſuch leaded veſſels are commonly called Incoctilia. After the ſame maner they haue taken vp of late another cuſtome, to ſiluer the trappings eſpecially and capariſons of their horſes of ſeruice, yea and the harneſſe of coach-horſes and draught jades, and namely in the town Alexia. As for the former inuention, thoſe of Bourges haue the honour of it. Neither reſted they ſo, but haue proceeded to adorn and garniſh in

* *i.* Pewter, as ſome take it.

* This place ſeemeth to be corrupt.

that maner their chariots, wagons, and coaches. But our vain and waſtful wantons not herewith G
contented, are come now to their wagon ſeats, not of ſiluer only, but alſo of gold: and that which
in times paſt was condemned as monſtrous prodigalitie, to be put into drinking veſſels; the
ſame to tread vpon now with the feet, and to waſte and conſume about waggons and charriots,
is commended for fineneſſe, neatneſſe, and elegancie. But to return againe vnto our white lead,
if you would know whether it be right and good or no, the proof is to be made in paper: for put
it melted into a ſheet of paper, if it be not falſified, it wil ſeem to break and rend the paper with
the weight, and not with the ſcalding heat thereof.

Moreouer, it is worth the obſeruation, that the Indians haue no mines among them either of
braſſe or lead, but are content to part with their pearles and pretious ſtones vnto merchants, by
way of counterchange for theſe mettals. H

Black lead or common lead is much vſed with vs for ſheets to make conduit pipes; alſo it is
driuen with the hammer into thin plates and leaues. This mettal requireth much labor & toile
in Spain and France, before it be gotten out of the mine, ſo deepe it lieth; whereas in Brittaine
it runneth ebb in the vppermoſt coat of the ground, and that in ſuch abundance, that by an ex-
preſſe act among the Iſlanders themſelues, it is not lawfull to dig and gather ore aboue ſuch a
proportion, ſet down by ſtint. Furthermore, all the black lead which now men haue in requeſt,
is known by theſe names, to wit, Iouetanum, Caprarienſe, and Oleaſtrenſe. As for the droſſe and
refuſe that is purged from it, there is no difference at all, ſo that it haue the due clenſing by the
fire as it ought. Theſe mines alone of lead haue one wonderfull and admirable gift aboue all I
others, That if they be forelet a time and ſuffered to reſt, they will grow againe and be more fer-
tile of ore thereby. And in truth this ſeems to be the reaſon thereof, for that the aire hath good
means and libertie to infuſe it ſelfe, and to enter in at the pores and paſſages which it findes in-
larged and open: much like as we obſerue in certain women, who vpon their ſlips of abortiue
fruit, proue thereby more fruitfull and apt to conceiue. And that this is true that I ſay of lead
mines, it was found of late by good experience in the mines of Santaria in the prouince of Bo-
etica in Spain: for whereas in times paſt for two hundred yeares together, it was wont to be ſet
for a rent of ten pound weight, after it had taken repoſe and was opened againe, it yeelded for
euerie ten, 55. Likewiſe the lead mine named Antimonianum within the ſaid prouince, which
paid in old time but a chiefe of ten pound weight, is come now to a yearly reuenue of four hun- K
dred pound. To conclude, one maruellous quality lead hath beſides, That no veſſel made there-
of will melt ouer the fire, if there be water in it: and yet caſt into the ſaid water a little ſtone, or
a ſmall piece of braſſe coin, although it be no more than a Quadrant, you ſhall ſee it melt, and a
hole burnt through it by and by.

Chap. XVIII.

¶ *The medicines that we haue from Lead, and the refuſe and droſſe of Lead: of the veine of Lead called Molybdæna or Galena: of Ceruſe, white Lead, or Spaniſh White, called Pſimmithyum: and of Sandaracha.* L

GReat vſe there is in phyſicke of lead applied by it ſelfe alone, and namely to repreſſe and
keepe downe the skars and cicatrices that riſe aboue the other skin: alſo by the refrigera-
tiue quality that it hath to coole the heat of fleſhly luſt, if there be bound vnto the loins
and region of the reins a thin plate or leafe thereof. And verily *Calvus* the Orator, who by occa-
ſion of much dreaming in his ſleepe of venereous ſports, fell into mighty pollutions, and ſo
farther into the grieuous maladie of Gonorrhœa or running of the reines, with wearing ordina-
rily theſe leaden plates, ſtayed (by report) all ſuch vaine and wanton fantaſies and imaginati-
ons: by which means he preſerued alſo his ſtrength, and had a body able to endure the labor of M
much ſtudy and ſitting at his booke. And *Nero* the Emperor (ſince the gods would haue it ſo)
vſed ordinarily to weare a plate of Lead to his breaſt, vnder which he would chaunt out luſti-
ly with a wide throat and ſtrong voice, his filthy Sonnets and beaſtly Ballads: but hee ſhewed
thereby that Lead was a ſingular meanes to maintaine a good voice. But to ſerue otherwiſe in

Phyſicke,

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A Phyſick, lead ought to be prepared and baked after this manner: take an earthen pan of potters worke, and lay one bed therin of brimſtone finely poudered; vpon which, beſtow another couch of thin leaues or plates of lead, and a third courſe ouer them of brimſtone and yron file duſt together, for to couer all: this being done, ſet the veſſel into a furnace; but while theſe things are calcining, meet it is and neceſſary that the veſſell or pan aforeſaid be well luted and ſtopped cloſe, that there be no venting or breathing hole at all; for otherwiſe the lead within the ſaid pan would ſend forth a noiſome vapour and peſtilent, moſt dangerous to all that be within the ſent thereof, but to dogges eſpecially, whom it killeth out of hand: and verily, as this exhalation of lead is deadly vnto them, ſo the aire of all mettals in generall, is aduerſe and contrary vnto flies and gnats: which is the reaſon, that a man ſhall neuer ſee any of theſe inſects in mines, forges,
B and bloome-ſmithies, where mettals be vſually tried. Now in the calcining of lead, ſome there be who chuſe rather to take the duſt of lead gotten off with a file, & to mix the ſame with brimſtone: others think it better to vſe ceruſſe rather than brimſtone. Furthermore, lead doth yeeld from it ſelfe a certaine ſubſtance by way of loture, which is of right great and manifold vſein phyſicke: the making whereof is in this manner, They take a leaden mortar, they pun and ſtamp the ſame with a leaden peſtill, caſting in raine water eftſoones; and thus they labour at it continually vntill ſuch time as the water grow to ſome conſiſtence and be thicke againe; this they permit to reſt and ſettle: the pure and cleare portion that is aloft, they ſuck and ſoke away with ſpunges: the groſſeſt part that is ſetled in the bottome, after it is dried, they reduce into trochiſks. There be ſome who ſtamp in the ſame order, the file-duſt which commeth of lead: o-
C thers put thereto ſome lead ore among: and as there be many that vſe vineger or wine in this operation, ſo there are ſome againe who take greace or roſes in lieu thereof. You ſhal haue thoſe that for this purpoſe make choice of a ſtone mortar, eſpecially of Thebaicke marble, but they take a leaden peſtill rather than any other, to bray and pun withall: and by this means the medicinable lead will be the whiter.

Now as touching the lead calcined in manner aforeſaid, it may be waſhed alſo after the order of Antimonie and Cadmia: and in this manner prepared, it is of power aſtringent, good to ſtop any flux or rheume; proper alſo to skin and make a ſmal skar. Much vſe there is of lead thus burnt and waſhed, in collyries or eie-ſalues, and principally if the eies either ſtand out too far, or be ſunke in too deepe: alſo it is ſingular to repreſſe the excreſcence of fleſh in vlcers, to heale
D the chaps in the ſeat or fundament, to cure the running hæmorrhoids, and to diſcuſſe or keepe downe the blind and ſwolne piles: and for all theſe accidents in generall, the loture of lead aforeſaid is moſt excellent. But the aſhes of lead burnt and calcined, is more proper for the cure of corroding vlcers and filthy ſores. And in one word, the ſame effects and operations it hath, that the aſhes of paper. Alſo the manner of burning and calcining lead, is to put into a pan certaine little plates thereof, together with brimſtone, turning the ſame euer and anone either with ſome yron rod or ſtiffe ſtalke and ſtem of Ferula plants, vntil ſuch time as both the one and the other being liquefied, be conuerted & turned into aſhes: the ſame, after that they be once cooled, ought to be punned and beaten againe, and reduced into a moſt pure and exquiſite fine pouder. Some there be who take file-duſt of lead, put the ſame in an earthen pot or greene potters
E clay, ſet the ſame into an ouen, and ſo let it calcine therein vntill ſuch time as the pot be well and throughly baked: others againe there are, who mix with lead the like quantity of ceruſſe, or els of barly, and pun the ſame like crude lead vncalcined in manner aforeſaid, for a loture; and when it is reduced thus into pouder, they make more reckoning of it than of the Cyprian Spodium.

Ouer and beſides, the droſſe or refuſe of lead is medicinable: and the beſt is that accounted, which commeth neareſt to a yellow colour, without any reliques at all of the lead among; or elſe inclining to the hew of brimſtone, and cleanſed from all earthly ſubſtance: this alſo beeing braied and broken into ſmall parcels, may be waſhed in manner aforeſaid, and ſtamped with water in a mortar, vntill ſuch time as the water looke yellow; then muſt it bee powred forth into
F a pure cleane veſſell; and this tranvaſation ought ſo long to be continued out of one veſſell into another, vntill ſuch time as it hauedone caſting any reſidence downeward; for the ſediment that reſteth in the bottome is the beſt, working the ſelf-ſame effect as lead doth, but with more acrimony. When I conſider all this, mee thinkes I cannot ſufficiently admire the diligence of men, who haue made ſuch experiments of al things in the world, ſparing not ſo much as the very

ordure, offall, and filthy excrements, but haue tried concluſions therein ſo many waies, and left nothing vnattempted. G

There is a kind of Spodium alſo made of lead in the furnace, after the ſame manner as I ſhewed before, of copper or Cyprian braſſe: the order of waſhing wherof, is this; to put it in a courſe linnen cloth, and to lay the ſame in rain water, that the terrene ſubſtance may be ſeparated from the reſt that is transfuſed or paſſeth through the cloth with the water: and yet the ſame muſt bee cribled or ſerced afterwards, and beaten to pouder. Some thinke it better to wipe and ſcoure off the duſt from the Calamine with wings, and then to beat it in a mortar with the moſt odoriferous wine they can get.

There is beſides, a minerall named Molybdena, which elſewhere I haue called Galæna; by which I meane in this place, the ore or veine that containeth within it, both ſiluer and lead: the better this is thought to be, the more that it inclineth to the colour of gold, and the leſſe that it ſtandeth vpon lead: the ſame alſo is brittle, apt to crumble, and in proportion of the quantity not very weighty in hand: the ſame, if it be boiled with oile, will in colour reſemble liuer. There is a kind of Galæna likewiſe that ſticketh to the furnaces of gold and ſiluer: but this (whereof I now ſpeake) they call Metallica, that is to ſay, the Minerall: and verily the beſt of this kinde, is that which is found in Zephyrium: the marks whereof are theſe; if it haue little or no earth in it, nor be any waies ſtony: the ſame is burnt, calcined, and waſhed, neither more nor leſſe than the droſſe Scoria. Much vſed this minerall is in thoſe vncteous liniments or ſalues called Liparæ, deuiſed as lenitiue & refrigerant, for vlcers: alſo it entreth into plaſters which are * not mordicant: but being applied to any ſore in tender and delicat bodies, and in the ſofteſt parts, it doth heale faire, and skin throughly. The compoſition of which plaſters, is after this manner; Take three pound weight of this minerall lead Molybdæna, put thereto of wax one pound, and of oile three hemines; which done, incorporat all together (according to art) into the forme of an emplaſtre. Now if it ſo fal out that the patient be an elderly body, there would be an addition put thereto of the lees or mother of oile olliue. This minerall may be tempered alſo to right good purpoſe, with litharge of ſiluer, and the droſſe of lead, and then it is a moſt excellent medicine (to be injected by a clyſtre) for the dyſenterie or bloudy flix; for the tineſm alſo, which is an inordinat deſire to the ſtoole without doing any thing; prouided alwaies, that the belly be fomented beſides with hot water. H I

* *Quæ non alligantur*: it is thought that *Plinie* miſtook in *Dioſcor.* and for *ἐπιδετικὰ*, read *ἐπιπλαστικὰ*, which he hath tranſlated without any ſence at all or congruity to the place.

There is another mineral beſides, called Pſimmithyum, which is al one with Ceruſe: and this, the furnace and mine of lead ore doth yeeld: but the beſt of this kind is brought from the Iſland Rhodes. The manner of making it is this: Take the fineſt pieces that are ſcraped from lead, let the ſame be hung ouer a veſſell of the ſtrongeſt and ſharpeſt vineger that poſſibly can be had, that they may diſtill thereinto: and looke what of it is fallen into the ſaid vineger, muſt be dried afterwards, ground into pouder, and ſearced; & then a ſecond time it ought to be tempered with vineger, and ſo reduced into ſeuerall trochiskes, to be dried in the Sun during Summer. There is another way of making Ceruſe beſides this; namely, to put lead into certaine pots or pitchers of vineger well and throughy ſtopped, that no aire go out, and therein to let it reſt for ten daies ſpace together: after which time, to take it forth, and ſcrape from it the mouldineſſe or vineweing that doth furre or gather about it: which done, to caſt it in againe into the ſaid veſſels, continuing ſo, vntill ſuch time as the lead be conſumed to nothing. Now that which hath been thus ſcraped from it, they take and beat into pouder, they ſerce it alſo very fine, calcin it ouer the fire in a pan, ſtirring and mixing it together with little ſlices or pot-ſtickes, vntill ſuch time as it wax red, and be like vnto Sandaracha. After all this, they waſh it in freſh water ſo long vntil that all the groſſeneſſe be ſcoured off: which when it is dry, in like manner as before, they digeſt into trochiskes. This Ceruſe ſerueth to the ſame purpoſes that the reſt abouenamed (onely of al the other it is lighteſt in operation) and beſides ſerueth to make an excellent blanch for women, that deſire a white complexion: but deadly it is, being taken inwardly in drink; like as letharge alſo. This ceruſe thus made, as white as it is, in caſe it be afterwards burnt againe, turneth to be reddiſh. K L M

As touching Sandarache, I haue already ſhewed in manner all that concerneth the nature of it; howbeit, this would be noted ouer and aboue, that it is found in the mines as well of ſiluer as of gold; the redder it is, and of a more ſtrong and violent ſmell, the better men take it to be; ſuch alſo is pure, clear, and brittle withal, or eaſie to crumble: mundificatiue it is and aſtringent,

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heating alſo and exceeding corroſiue: and the principal vertue that it hath, is to fret and putrifie whatſoeuer it worketh vpon: in a liniment with vineger, it cauſeth the haire to come vp thicke againe in places deſpoiled thereof by any diſeaſe. It entreth iuto collyries or eie-ſalues: reduced into a lohoch with hony, it clenſeth the throat, and maketh a cleare ſhrill, and loud voice: eaten by way of a bole with turpentine, it is a gentle and pleaſant medicine for thoſe that be ſhort-winded and troubled with the cough: a perfume alſo made with it and Cedar together, is good in the ſame caſes, ſo that the ſmoke be receiued vp at the mouth. As for * Arſenicke, it is of the ſame ſtuffe: that which is beſt of this kind, reſembleth burniſhed gold in colour: the paler kind inclining to the colour of Sandaracha, is thought to be the worſe. A third ſort there is, of a middle and medled color, compounded as it were of gold and Sandaracha. Theſe two later kinds be skaly aloft: as for the firſt, which is dry and pure, it is ful of ſmall veins running here and there, whereby it is apt to cleaue as the veine goeth. Of the ſame operation is Arſenicke as the reſt, but that it is more hot and biting; in which regard, it is vſed in potentiall cauteries, and depilatories: it taketh away the carnoſities and apoſtemations about the nailes of the fingers: the ſuperfluous fleſh alſo within the noſthrils: the bigs that hang forth of the fundament: and in one word, it eateth away any excreſcence whatſoeuer. To conclude, much better it is and more powerfull in operation, in caſe it be calcined in a new earthen pan, where it muſt torrifie ſo long vntill it change the colour.

* Yellow orpiment.

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C

D

THE XXXV. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

The Proem.

E *THE diſcourſe of Mines and Metalls, wherein principally conſiſteth the wealth of the world: of other Mineralls alſo growing to them, with the Natures, Operations, and effects of them all, is an argument ſo knit and annexed to Phyſicke, that the handling thereof, (which I haue alreadie well-neare performed) not onely diſcouereth a world of wholeſome medicines profitable for the life and health of man, but alſo inferreth a number of hidden ſecrets, couched within the Apothecaries ſhops; yea, and openeth the way vnto the curious Art and ſubtill deuiſes of Grauers, Painters, and Diers, inducing me withall to take them alſo before me, and to treat thereof accordingly: which when I haue done, there remaineth yet for mee a new worke to take in hand; namely, to write of ſundry kinds of Earth and Stone, and thoſe linked together & carying with them a longer traine by far, than the former minerals. Concerning which, other authors, and the Greeke writers*

F *eſpecially, haue ſo particularized, that of each one of them they haue written many volumes. For mine owne part, I mean not to follow their ſteps, but by way of compendious breuitie, to proceed as I haue begun, and yet to omit nothing that is neceſſary, profitable, and pertinent to Nature.*

Chap. I.

¶ *The honour of flat picture in old time.*

TO begin then with that which remaineth as touching Picture and Painting, this would be knowne, That in times past it was reputed a noble and excellent art: in those daies I meane, when Kings and whole Sates made account thereof; and when those onely were thought innobled and immortallized, whom Painters vouchsafed to commend by their workmanship to posterity. But now, the marble and porphyrit stones haue put painting clean down: the gold also laid vpon them hath woon all credit from painters colours: gold I say, wherewith not only plain and entire walls are richly guilded all ouer, but also the polished works of marble engrauen vpon them after the manner of inlaid work and marquetage of diuers pieces, resembling men, beasts, and floures, and all things else: for in these daies contented we are not with plaine squares and tables of marble, nor with the riches of mighty mountains, coucht vnder couert, & laid within our bed-chambers in that sort as they grew, but come we are now to paint-stones. Deuised this was first in the daies of *Claudius Cæsar:* but when *Nero* came to be Emperor, the inuention was taken vp, to giue those colours to stones in their superficiall outside, which they had not of their own; to make them spotted, which naturally were of one simple colour: that by the helpe of mans hand, the * Numidian red porphyrit should be set out with white spots in *eg-fashion: the *Sinadian grey marble distinguished with marks and strakes of purple: as if our delicate wantons shewed thereby how they could haue wished the stones to grow. Thus would they seem to correct the works of Nature, to supply the wants of mountains and quarries, and to make amends for the hils clouen in sunder for gold, and hewed in pieces for marble. And what is the end of all this prodigious prodigality and wastfull superfluity? but that the fire when it commeth, may consume in one houre a world of wealth.

*Numidicus.
*Ouatus.
*Sinadicus.

Chap. II.

¶ *The estimation and account that was made of Images in times past, represented by liuely pictures.*

THE manner was in antient time, to continue and perpetuat the memorial of men, by drawing their pourtraitures in liuely colours, as like to their proportion and shape as possibly could be; but this custome is growne now altogether out of vse: in stead whereof wee haue shields and scutcheons set vp of brasse: we haue faces of siluer in them, without any liuely distinction of one from another: and as for our sesterces, the heads vpon them otherwhiles bee * changed one for another: which hath giuen occasion long since of many a jest and libel spred abroad in rime and sung in euery street. Insomuch as all men now adaies are more desirous to haue the rich matter seene that goeth to the making of images, than to be knowne by their own personage and visage as it is: and yet euery man delighteth to haue his cabinet and closet well furnished with antique painted tables: the statues & images of other men they think it enough to honor and adore; whiles they themselues, measuring worship by wealth, & thinking nothing honorable that is not sumptuous and costly, see not how by this meanes they giue occasion to their heires for to break open their counters and make spoile of all, or els before that day come, entice a thiefe to be hooking or twitching them away with gins and snares. Considering then, that no man careth for a liuely picture, all the monuments that they leaue vnto their heires, are images rather of their monies, than resemblances of themselues. Howbeit, these great men take pleasure to haue their owne wrestling places and halls of exercise, yea and the roomes where they are annointed, beautified and adorned with the pourtraitures of noble champions: they delight also to haue the face of *Epicurus* in euery chamber of the house, yea and to carry the same about them vpon their rings whersoeuer they go: in the remembrance and honour of his natiuitie, they doe offer sacrifice euery 20 day of the Moone, and these moneth-mindes they keep as holy-daies duly, which thereupon they call Icades: and none so much as they who will not abide to be knowne another day by any liuely image drawne whiles they be aliue. Thus it is come to passe, that whiles artificers play them and sit still for want of worke, noble arts by the means

*for they were so made that they might be taken off and set on againe.

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A means are decaied and periſhed. But I maruel nothing hereat: for thus it is verily and no otherwiſe, when we haue no reſpect or care in the world to leaue good deeds behind vs, as the Images of our minds, we do neglect the liuely portraitures and ſimilitudes alſo of our bodies. In our forefathers daies ywis it was otherwiſe: their hals and ſtately courts were not ſet out with images and pourtraitures after this ſort, there were not in them to be ſeene any ſtatues or images wrought by artiſan ſtrangers, none of braſſe they had, none of marble, their Oratories & Chappels were furniſhed with their own and their anceſtors * pourtraitures in wax, and thoſe liuely and expreſſely repreſenting their viſages; theſe were ſet out and diſpoſed in order, theſe were the images that attended the funerals of any that was to be interred out of that ſtock & linage. Thus alwaies as any gentleman died, a man ſhould ſee a goodly traine of all thoſe which were
B liuing of that houſe, accompanying the corps, cauſing alſo the images of their predeceſſors to march ranke by ranke in order, according to their ſeuerall deſcents: in which ſolemne ſhew, the whole generation that euer was of that family, repreſented by theſe images, is there preſent, ready to performe that laſt duty and honour to their kinſman. Moreouer, whereſoeuer theſe images ſtood within the oratory and chappell beforeſaid, there were lines drawne from them vpon the wall, directing to the ſeuerall titles and inſcriptions which contained their ſtile, their dignities and honors, &c. As for their ſtudies and counting houſes, full they were of books, records, and rols, teſtifying all acts done & executed by them both at home & abroad, during the time they were in place to beare office of ſtate. Ouer and beſides thoſe images within houſe, reſembling the bodily ſhape & countenance, there were others alſo without dores, to wit, about the portals
C and gates of the houſe, which were the teſtimonies of braue minds & valiant hearts: there hung fixed the ſpoiles conquered and taken from the enemies, which notwithſtanding any ſale or alienation, it was not lawfull for the purchaſer to pluck down; in ſuch ſort, as the houſe it ſelf triumphed ſtill and retained the former dignity, notwithſtanding it had a new lord and maſter: and verily, this was to the maſter and owner a great ſpur to valour and vertue: conſidering, that if he were not in heart & courage anſwerable to his predeceſſor, he could neuer come in at the gates, but the houſe was ready to reproch and vpbraid him daily for entering into the triumph of another. Extant there is vpon record, an Oration or act of *Meſſala* (a great Orator in his time) wherin vpon a great indignation he expreſſely forbad that there ſhould be intermingled one image that came from another houſe of the *Leuini*, among thoſe of his owne name and linage, for feare
D of confounding the race of his family and anceſtors. The like occaſion moued and inforced old *Meſſala* to put forth and publiſh thoſe bookes which he had made of the deſcents and pedigrees of the Roman houſes: for that vpon a time as he paſſed through the gallerie belonging to *Scipio Africanus* his houſe, he beheld therein his ſtile, augmented by the addition of *Salutio* (for that was one of his ſyrnames) which fel vnto him by the laſt wil and teſtament of a certain rich man ſo called, who adopted him for his owne ſon: as being greatly diſcontented in his minde, that ſo baſe a name as that (to the ſhame and diſhonor of the *Africans*) ſhould creepe into the noble family of the *Scipio's*. But if I may ſpeak without offence of theſe two *Meſſalæ*, it ſhould in my conceit be ſome token of a noble ſpirit and good mind that loueth and imbraceth vertue, to entitle his owne name, although vntruely, to the armes and images of others, ſo long as they
E be noble and renowned: and I hold it a greater credit ſo to doe, than to demeane our ſelues ſo vnworthily, as that no man ſhould deſire any of our armes or images. And ſeeing that I am ſo far entered into this theam, I muſt not paſſe ouer one new deuiſe and inuention come vp of late, namely, to dedicat and ſet vp in libraries the ſtatues in gold or ſiluer, or at leaſtwiſe in braſſe, of thoſe diuine and heauenly men, whoſe immortall ſpirits do ſpeak ſtill and euer ſhall, in thoſe places where their bookes are. And although it bee vnpoſſible to recouer the true and liuely pourtraits of many of them, yet we forbeare not for all that to deuiſe one Image or other to repreſent their face and perſonage, though we are ſure it be nothing like them: and the want thereof doth breed and kindle in vs a great deſire and longing, to know what viſage that might bee indeed which was neuer deliuered vnto vs: as it appeareth by the ſtatue of *Homer*. Certes, in my
I opinion there can be no greater argument of the felicity & happineſſe of any man, than to haue all the world euermore deſirous to know, What kinde of perſon hee was whiles he liued? This inuention of erecting libraries, eſpecially here at Rome, came from *Aſinius Pollio*, who by dedicating his Bibliotheque, containing all the bookes that euer were written, was the firſt that made the wits and workes of learned men, a publique matter and a benefit to a Commonweale.

But

*Theſe images were no other than theviſage & head as far as to the ſhoulders.

*Ptolomæus. Philadelphus. *Attalus.

But whether the kings of * Alexandria in Egypt,or of *Pergamus,began this enterprise before (who vpon a certain emulation and strife one with another, went in hand to make their stately and sumptuous libraries) I am not able to auouch for certain. But to returne againe to our flat images and pictures;that men in old time delighted much therein, yea, and were carried away with an ardent and extraordinary affection to them,may appeare by the testimony, not only of *Atticus* that great friend of *Cicero's* (who set forth a book intituled, A Treatise of painted images) but also of *M. Varro*,who in all his volumes,whereof hee wrote a great number, vpon a most thankfull and bountifull mind that he carried,deuised to insert not onely the names of 700 famous and notable persons, but also in some sort to set down their physiognomy & resemblance of their visage:not willing as it might seem that their remembrance should perish,but desirous to preserue the shapes and portraits of so worthy personages against the injury of time, which weareth and consumeth all things, indeuoring by this means,& as it were in a kind of emulation striuing to do as much for them in this behalf,as the gods could do,not only in giuing them immortality,but also by dispersing those pourtraits into all parts of the world, to shew them personally in euery place to the eies of men,as if they were present.

Chap. III.

¶ *At what time scutchions and shields,with images ingrauen in them,were first erected in publique place. Where they began to be set vp in priuat houses. The originall of pictures. The first pourtrait that was of one single colour. Of the first Painters. How antient the Art of Painting was in Italy.*

And this verily which *Varro* did,namely,to insert the names & counterfeits of famous men in his books,was to gratifie strangers only. But of those who were desirous in this kinde, to honour Romans,I find in the Chronicles,that *Appius Claudius* was the first (him I meane, who in the 259 yeare after the foundation of the city of Rome,bare the Consulship with *Seruilius*,and namely,by dedicating in temples and publicke places of the city,the shelds of his predecessours by themselues alone. For within the chappell of *Bellona*, hee caused to bee set vp the scutchions and shields of his ancestors;taking great contentment to haue the armes of his predecessors seen on high,and the same accompanied with the titles of their honorable dignities to be read. A goodly shew,no doubt,and a magnificent, in case there should be shewed withall a long descent of petty images representing a number of children, as it were the nest of a faire brood and off-spring: for who would not take great joy and pleasure to see such a sight, who would not fauorably behold the arms of such a race and linage? After that *Appius Claudius* had giuen this precedent at Rome, there followed *M. Æmilius*, companion in the same Consulship with *Q. Luctatius*,who not contented to haue the Armoires and coats of his Progenitors, to be aduanced aloft in the stately hall and pallace Æmilia only,tooke order,that they should stand also at home in his owne house: and this also was a matter of right great consequence, beeing done according to the pattern and example of the martiall worthies in *Homer:* for within these shields & scutchions,resembling those which were vsed in old time in the battels before Troy, were represented the images of such as serued with them,ingrauen therein: for thereupon such shields took the name * *Clypei*,*i.* chased and ingrauen,not of the old word in Latine *Cluere*,which signifieth to fight,or to be well reputed,as our thwarting Grammarians would with their subtile sophistrie seeme to etymologize and deriue it. Certes,this originall of shields and coats of armours,implied a braue mind and noble spirit ful of vertue and valour,when euery mans shield shewed the liuely pourtrait of him that bare it in the warres. The Carthaginians were wont to make their targuets of beaten gold, and those likewise they caused to bee ingrauen with their own portraits,& carried the same with them to the wars. And verily,*Q. Martius* that worthy warriour,and reuenger of the 2 *Scipio's* in Spain,hauing defeated the Carthaginians & taken many of them prisoners,found among other spoils and pillage,the shield of *Asdrubal*,made in maner aforesaid: Which shield was erected & hung vp ouer the porch of *Iupiters* temple vpon Capitoll hill,and remained there vnto the first fire that consumed the temple. And seeing I am fallen vpon this poynt, namely, of erecting the armours woon from enemies,in publicke place; I may not passe ouer in silence the securitie and careless regard that our forefathers had in this behalfe:

* *Quasi glypei, ἀπὸ τοῦ γλύφειν, i. à Cælando.*

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A behalfe: which was so great, that *M. Aufidius*, who farmed and vndertook the custody or keeping of the Capitoll, the temple, and all therein, the same yeare wherein *L. Manlius*, and *Q. Fulvius* were Consuls, and which was from the foundation of the city of Rome 575 yeares, aduertised the Senat, That those shields there, which for so long together were appointed & assigned thither by the Censors, were not of brasse, as they had been taken for, but of siluer.

Concerning pictures, and the first originall of painters art, I am not able to resolue and set downe any thing for certain: neither is it a question pertinent to my designe and purpose. I am not ignorant that the Ægyptians do vaunt thereof, auouching that it was deuised among them and practised 6000 yeres, before there was any talk or knowledge therof in Greece: a vain brag and ostentation of theirs, as all the world may see. As for the Greeke writers, some ascribe the
B inuention of painting to the Sicyonians, others to the Corinthians. But they do all jointly agree in this, That the first pourtrait was nothing els but the bare pourfling and drawing onely the shadow of a person to his just proportion and liniments. This first draught or ground, they began afterwards to lay with one simple colour, and no more: which kind of picture, after that they fell once to more curious workmanship, they called Monochromaton, *i.* a pourtrait of one colour, for distinction sake from other pictures of sundry colours: which notwithstanding, yet this plaine manner of painting continueth at this day, and is much vsed. As for the linearie portraying or drawing shapes and proportions by lines alone, it is said, that either *Philocles* the Ægyptian, or els *Cleanthes* the Corinthian was the inuentor thereof. But whosoeuer deuised it,
C certes *Ardices* the Corinthian, and *Telephanes* the Sicyonian, were the first that practised it: howbeit colours they vsed none, yet they proceeded thus far as to disperse their lines within, as well as to draw the pourfle, and all with a coale and nothing els. And therefore their manner and order was to write also the names of such as they thus painted, and alwaies to set them close to the pictures. But the first that tooke vpon him to paint with colour, was *Cleophantus* the Corinthian, who (as they say) took no more but a piece of a red potsherd, which he ground into pouder, and this was all the colour that he vsed. This *Cleophantus*, or some other of that name, was he who by the testimony of *Cornelius Nepos*, as I will anon shew more at large, accompanied *Demaratus* the father of *Tarquinius Priscus* king of Rome, when he fled from Corinth to auoid the
D wrongs of *Cypselus* the tyrant, who persecuted and oppressed him. But it cannot be so: for surely before this *Tarquines* time, the art of painting was grown to some perfection, euen in Italy: for proofe wherof, extant there be at this day to be seen at Ardea within the temples there, antique pictures, and indeed more antient than the city of Rome: and I assure you, no pictures came euer to my sight, which I wonder so much at, namely, that they should continue so long, fresh, and as if they were but newly made, considering the places where they be, so ruinat and vncouered ouer head. Semblably, at Lanuvium there remaine yet two pictures of lady *Atalanta*, and queen *Helena*, close one to the other, painted naked, by one and the same hand: both of them are for beauty incomparable, and yet a man may discerne the * one of them to be a maiden, for her modest and chaste countenance; which pictures, notwithstanding the ruins of the temple where they stand, are not a whit disfigured or defaced. Of late daies, *Pontius* lieutenant vnder *C. Caligula* the Emperor, did what he could to haue remoued them out of the place, and carried them a-
E way whole and entire, vpon a wanton affection and lustfull fancy that he cast vnto them: but the plastre or porget of the wall whereupon they were painted, was of that temper that would not abide to be stirred. At Cære there continue certaine pictures of greater antiquity than those which I haue named. And verily, whosoeuer shall well view and peruse the rare workemanship therein, will confesse, that no art in the world grew sooner to the height of absolute perfection than it, considering that during the state of Troy no man knew what painting was.

* *i.* Atalanta.

Chap. IIII.

Of Romanes that were excellent Painters. When the art of painting came first into credit and estimation at Rome. What Romans they were that exhibited the pourtraits of their owne victories in pictures. And about what time painted tables made by strangers in forreine parts, were accepted and in great request at Rome.

AMongst the Romanes also this Art grew betimes into reputation; as may appeare by the *Fabij*, a most noble and honourable house in Rome, who of this science were surnamed

Pictores,

Pictores,i. Painters: & the firſt who was intituled with that addition, painted with his own hand G
the temple of *Salus*; and this was in the 450 yeare after the foundation of our city: which painting continued in our age, euen vnto the time of *Claudius Cæſar* the Emperor, in whoſe daies the temple it ſelfe with the painting, was conſumed with fire. Next after this, the workmanſhip of *Pacuvius* the Poet (who likewiſe painted the chappell of *Hercules* in the beaſt-market at Rome) was highly eſteemed and gaue much credit to the art. This *Pacuvius* was *Ennius* the Poets ſiſters ſonne: and being as he was a famous Tragædian beſides, and of great name vpon the ſtage, the excellency of his ſpirit that way, much commended at Rome his handy-work and painting aforeſaid. After him, I doe not finde that any perſon of worth and quality tooke penſill in hand and practiſed painting, vnleſſe haply a man would nominat *Turpilius* a gentleman of Rome in our time, and a Venetian born, of whoſe workemanſhip there be many faire parcels of paynting H
extant at this day in Verona: and yet this *Turpilius* was altogether left-handed, and painted therewith; a thing that I doe not heare any man did before him. As for *Aterius Labeo*, a noble man of Rome, late Lord Pretour, and who otherwiſe had been vice-conſull in Gallia, Narbonenſis or Languedoc, who liued to a very great age and died not long ſince, he practiſed painting; and all his delight and glory that he tooke, was in fine and ſmal works of a little compaſſe: howbeit he was but laughed at, and ſcorned for that quality, and in his time the handicraft grew to be baſe and contemptible. Yet I thinke it not amiſſe to put downe for the better credit of painters, a notable conſultation held by certaine right honourable perſonages as touching the Art, and their reſolution in the end. And this was the caſe: *Q. Pedius*, the little nephew of *Q. Pedius* who had bin Conſull in his time and entred Rome in triumph, him I mean whom *C. Cæſar* Di- I
ctator, made co-heire with *Auguſtus*, hapned to be born dumb: and *Meſſala* the great Oratour, out of whoſe houſe the grandmother of this child was deſcended, being carefull how the boy ſhould be brought vp; after mature aduiſe and deliberation, thought good that hee ſhould by ſignes and imitation be trained vp in the art of painting, which counſell of his was approoued alſo by *Auguſtus Cæſar*. And in truth, this yong gentleman being apt therto, profited maruellous much therein, and died in his youth. But the principall credit that painters attained vnto at Rome, was, as I take it, by the means of *M. Valerius Maximus*, firſt ſyrnamed *Meſſala*, who beeing one of the grand-ſeignieurs of Rome, was the firſt that propoſed to the view of all the world, and ſet vp at a ſide of the ſtately hall or court Hoſtilia, one picture in a table, wherein hee cauſed to be painted that battel in Sicily wherein himſelfe had defeated the Carthaginians and K. *Hiero*, K
which happened in the yeare from the foundation of Rome 490. The like alſo, I muſt needs ſay, did *L. Scipio*, and hung vp a painted table in the Capitol temple, containing his victory and conqueſt of Aſia, whereupon he was ſyrnamed *Aſiaticus*. But (as it is ſaid) *Africanus* although hee were his owne brother, was highly diſpleaſed therewith: and good cauſe he had to be angry and offended, becauſe in that battell his own ſon was taken priſoner by the enemy. The like offence was taken alſo by *Scipio Æmilianus*, againſt *Lucius Hoſtilius Mancinus*, who was the firſt that entred perforce the city of Carthage; for that hee had cauſed to bee ſet vp in the market place of Rome a faire painted table, wherein was liuely drawne the ſtrong ſcituation of Carthage; and the warlike means vſed in the aſſaulting and winning of it, together with all the particulars and circumſtances thereof: which *Mancinus* himſelfe in perſon ſitting by the ſaid picture, deſciphe- L
red from point to point vnto the people that came to behold it; by which courteſie of his hee woon the hearts of the people, inſomuch, as at the next election of Magiſtrates, his popularitie gained him a Conſulſhip. In the publicke plaies which *Claudius Pulcher* exhibited at Rome, the painted clothes about the ſtage and Theatre (which repreſented building) brought this art into great admiration: for the workmanſhip was ſo artificiall and liuely, that the very rauens in the aire, deceiued with the likeneſſe of houſes, flew thither apace for to ſettle thereupon, ſuppoſing verily there had been tiles and creſts indeed. And thus much concerning Painters craft, exerciſed in Rome.

To come now to forrain pictures, *Lu. Mummius*, ſyrnamed *Achaicus* (for his conqueſt of Aſia) was the firſt man at Rome, who made open ſhew of painted tables wrought by ſtrangers, and M
cauſed them to be of price and eſtimation: for when as in the port-ſale of all the bootie and pillage gotten in that victorie, king *Attalus* had brought one of them, wrought by the hand of
* VI.M. Seſterſium. *Ariſtides*, containing the picture only of god *Bacchus*, which was to coſt him * ſix thouſand Seſterces, *Mummius* wondering at the price, & ſuppoſing that this table had ſome ſpeciall and ſe-

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A cret propertie in it more than himſelfe knew of, brake the bargain, called for the picture again, & would not ſuffer it to be caried away, notwithſtanding *Attalus* complained much at the hard meaſure offered vnto him; and ſo he brought it with him to Rome, and dedicated it in the chappel of *Ceres*. And verily this I take to be the firſt painted table of a forreiners making, that euer was ſet vp in publick place at Rome. But after he had once begun, I ſee it was an ordinary thing to adorn and beautifie euen the common place alſo with ſuch like: for vpon this occaſion aroſe that prety ſcoffe which was giuen by *Craſſus* the Oratour, as hee pleaded vpon a time vnder the * old Roſtra: for when there was a Witneſſe produced to depoſe againſt him, whom hee would ſeeme to challenge and reproued, whereupon the party replied again and vrged him inſtantly in theſe termes, Speake out *Craſſus*, and in the face of all this Court ſay, what kinde of perſon you B would make me to be? Mary (quoth he again) I take thee to be ſuch an one (pointing directly to a table hanging there by, wherin was painted a certain Frenchman yawning and lelling out his tongue ful ilfauoredly.) In the ſame Forum or Grand place at Rome there ſtood ſometime the picture of an old ſheepheard leaning vpon his crooke, as touching which (for that as it ſhould ſeem it was very workmanlike made) when a certain Dutch Embaſſador who beheld it, was demanded, at what price he eſteemed it; anſwered ſhort & quick, What a queſtion is that? I would not haue ſuch an one (were he aliue, as I ſee he is but painted) though he were giuen me for nothing. But if I ſhould ſpeake at once, who it was that gaue the greateſt countenance vnto ſuch tables in open view, I muſt needs ſay it was *Cæſar* dictator, who ſhrined the pictures of *Ajax* and *Medea* in no meaner place than before the temple of *Venus Genetrix*. Next after him came *M.* C *Agrippa*, a man by nature inclined rather to ruſticitie than to delights, and more like a rude peaſant than a ciuill gentleman. But ſurely there is extant a worthy Oration of his, and beſeeming the principal perſon of a whole city, as touching the open ſale of all painted tables, ſtatues, and images, that were in the hands of priuat men, and the ſetting of them vp in publicke places for to adorn the city: which no doubt had bin far better than to haue them baniſhed (as it were) and ſent as they be into the country, to beautifie manors and retyring houſes of pleaſure: howbeit as ſterne and grim a ſir as he was, he could find in his heart to beſtow vpon two tables with the pictures of *Venus* and *Ajax*, 12000 ſeſterces, which he paid vnto the Cyzicenes for them. Alſo hee had cauſed to be ſet in marble ſtone inchaſed, within the hoteſt part of his baths, many rich pictures of a ſmall making, and couched in ſmall tables, the which were taken away but a D little before the ſaid baths were repaired. But aboue all that euer were, *Cæſar Auguſtus* the Emperor of famous memory, did ſet vp in the moſt frequented or perſpicuous place of his Forum or ſtately hal, two excellent painted tables, one containing the liuely portrait of War, the other of Triumph. He alſo dedicated the pictures of *Caſtor* and *Pollux*, beſides others, whereof I will write in my catalogue of Painters: which he hung vp all within the temple of *Iulius Cæſar* his father. The ſame *Auguſtus Cæſar* incloſed within the wall of that Curia, which hee erected and conſecrated in the common place called Comitium, two Tables painted; the one reſembling the Forreſt Nemea, in habit of a woman ſitting vpon a lion, ſhe carrieth in her hand a date tree; and there ſtandeth by her an old man reſting vpon his ſtaffe, ouer whoſe head there was a pretty tablet hanging down as a label, from a chariot drawn by two horſes, with this inſcription, *Nicias me inuſsit*; *i. Nicias* inamelled or wrought me with fire: for that verb [*inuſsit*] it pleaſed him to E vſe. As for the other table, the admirable workmanſhip therein was this, An old grey-beard accompanied with his ſon, a youth exceeding like his father, ſaue onely for the difference in age, which appeared in the yong down that ſprung vpon his cheeks and chin. A deuiſe there was beſides of an Ægle flying ouer their heads, claſping a dragon within her talons: and as it appeared by the ſuperſcription, *Philochares* was the workman. By which one table (if there were no more but it in the whole world) a man may make an eſtimate of the infinite power that is in this art, which could cauſe the Senat & people of Rome to take ſuch pleaſure ſo many yeares together to look vpon *Glaucion* and his ſon *Ariſtippus*, perſons otherwiſe moſt baſe and contemptible, only in reſpect of *Philochares* who painted them. As for *Tiberius Cæſar* the Emperor, albeit hee was F a prince of all other leaſt curteous and affable, yet he delighted to hang vp thoſe painted tables within the temple of *Auguſtus Cæſar*, whereof I mean to write hereafter.

* *Sub veteribus*, which ſome interpret *Tabernis*.

Quintilianus reporteth this otherwiſe.

CHAP.

Chap: V.

¶ *The art and manner of Painting: the Colours that Painters vſe.*

THus far forth may ſuffice to be ſpoken of the antient dignitie of that art, which begins already to decay and die. What were the colors alſo that the firſt painters vſed in old time, when they drew their portracts with one ſimple colour, I haue written already in my treatiſe of Mines & Minerals, where I diſcourſed likewiſe of painters colours. Touching thoſe that named certain kind of pictures Monochromatea, as alſo who inriched them with more colours, who inuented this or that for the bettering and perfecting of them, and at what time each of theſe additions accrued thereto, I mean to reſerue vnto my catalogue of painters: for the order and conſequence of my work requireth, that I ſhould firſt ſet down the nature of euery colour.

First and formoſt therefore this is to be noted, That in proceſſe of time the artificer who began with one bare colour, found out the difference himſelfe between * light and ſhadow, & deuiſed by this diſtinction to ſet vp and debaſe the one and the other alternatiuely, and the ſame more or leſſe according to his ſeueral intentions. After theſe lights and ſhadowes there was inuented a kind of luſtre or gloſſe, different from the light aforeſaid; which becauſe it is of a mean nature between the ſhade and the light, and participates of both, they called by a Greeke word Tonos. As for the apt coherence of one colour with another, the ioint as it were between, and the paſſage from one to another, they named it Harmoge.

* i. White and blacke.

Chap. VI.

¶ *Of Painters colours, naturall and artificiall.*

ALl colors be either ſad or liuely; and thoſe be ſo either naturally, or by artificiall mixture. Liuely or gay colors be ſuch as the [1] maſter deliuers to the painter by weight & meaſure: as namely, [2] Vermilion, [3] Verd d' Azur, [4] Sang-dragon, [5] Verd de terre, or Borras, [6] Indico, and [7] Roſet. The reſt be ſad or duskiſh, and as wel the one as the other be all either naturall or artificiall. Among the naturall of this ſort (to wit the ſad colours) I reckon the [8] common bole Armin, [9] Ruddel or red ſtone, [10] Paretonium, [11] Melinum, [12] Eretria, and [13] Orpin. The reſt of theſe kinds be artificial, & principally thoſe which I haue already ſpoken of in the treatiſe of mines. Moreouer, of the baſer ſort are Ocre and Ruddel, burnt Ceruſſe or Spaniſh white, Sandix mineral, and Scyricum, Sandaracha, Vitriol, or Black. As for Sinopis or common bole Armin, found out firſt it was at Sinope, a maritime town in the kingdom of Pontus, wherof it took that name; it groweth alſo in Egypt, the Baleare Iſlands, and Africk; but the beſt is found in the Iſle Lemnos, and in Cappadocia, digged out of certain caues and holes. That which ſtucke faſt vnto the rocks excelleth all the reſt. The pieces of this earth if a man do breake, ſhew the owne natural colour which is not mixed, without-forth they be ſpotted. And this earth in old time was vſed for to giue a luſtre vnto other colours. Of this Sinopis or Bole Armin common there be three kindes, the deepe red, the pale or weake red, and the meane between both. The beſt Sinopis is eſteemed worth * thirteene denarij Roman by the pound: this may ſerue the painters penſill, yea or in groſſer work, if a man liſt to colour poſts, beams, or wood: as for that which commeth out of Africk, it is worth eight aſſes euery pound; and this they call Cicirculum: that which is redder than the reſt ſerueth better for painting of tablements: as for that which is moſt brown and duskiſh, called in Latine Preſſior, it is of the ſame price that the other, and employed in the baſes and feet of ſuch tablements. And thus much for the vſe in painting. Touching Phyſicke and the medicinable properties thereof, milde it is of nature, and in that regard of gentle operation, whether it enter into hard emplaiſtres of a dry compoſition, or into immolitiue plaiſters that are more liquid, and principally ſuch as are deuiſed for vlcers in any moiſt part, as the mouth or fundament. This earth, if it be injected by a cliſtre, ſtoppeth a laske: and being giuen to women in drinke to the weight of one denarius, *i.* a dram, it ſtayeth their immoderate fluxes of the matrice. The ſame burnt or calcined drieth vp the fretting roughneſſe of the eies, principally if it be applied with vineger. This kinde of red earth ſome would haue to be counted in a ſecond degree of Rubrica for goodneſſe, for they alwaies reckoned that of Lemnos to be the chiefe

1 Becauſe they be rich and coſtly.
2 *Minium.*
3 *Armenium.*
4 *Cinnabaris.*
5 *Chryſocolla.*
6 *Indicum.*
Lasca mixta cum cæruleo.
7 *Purpuriſſum.*
8 *Sinopis.*
9 *Rubrica.*
10 A white kind of fattie earth like plaſtre.
11 A white earth like chalke.
12 A whitiſh earth or aſh-colour white.
13 *Auripigmentum.*
* Or rather three denarij, for otherwiſe there were no proportion betweene it and the othet of that kind.

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A chiefe & ſimply beſt, as comming next in price to Minium, *i.* Vermilion. And in truth, this Terra Sigillata or Lemnia, was highly accounted of in old time, like as the Iſland Lemnos from whence it comes: neither was it lawfull to ſel any of it before it was * marked or ſealed, & thereupon they vſed to cal it Sphragis. The painters ordinarily lay a ground of this vnder their vermillion, and ſophiſticate it many waies. In phyſick it is holden to be a ſoueraigne thing: for if the eies be annointed round about therewith in manner of a liniment, it repreſſeth the flux of rheumatick humors and doth mitigat the pains incident to them: the fiſtulous ſores likewiſe about the angles or corners of the eies, it drieth vp that they ſhall not run as they vſe to doe. Inwardly alſo it is commonly giuen in vineger, to ſuch as caſt vp bloud at the mouth. It is taken alſo in drink, for the opilations and other accidents as wel of the ſpleen as kidnies: and beſides,

B to ſtop the exceſſiue fluxes that be incident to women. Singular it is againſt any poiſon or venomous ſting of ſerpents, either vpon land or ſea; and therefore is a familiar ingredient into all antidots or counterpoiſons. Of all other ſorts of red earth, the ruddle of Egypt and Africke is fitteſt for Carpenters; for if they ſtrike their line vpon timber with it, they ſhall be ſure that it wil take colour and be marked very well. Moreouer, another ſort there is of this red earth minerall, found with yron ore, and the ſame is good alſo for painters. There is a kind of ruddle alſo made of ochre burnt and calcined in new earthen pots well luted all ouer: and the greater fire that it meeteth withall in the furnace, the better it is. In generall, any ruddle whatſoeuer is exiccatiue, in which regard it agreeth wel with ſalues and healing plaſters, and is very proper for to repreſſe ſhingles & ſuch cutanean wild-fires that wil ſtand in drops. Take of Sinopis or Bolearmin com-

C mon that commeth out of Pontus *halfe a pound, of bright Sil or ochre 10 pound, of the Greek white earth Melinum 2 pound; pun them al together, and mix them wel, ſo as they may ferment 12 daies together: and hereof is made Leucophorum, *i.* a kind of gum or ſize to lay vnder goldfoile for to guild timber.

* With the image of a goat, as *Dioſc.* ſaith: or of *Diana*, according to *Galen.*

Thus *Dalechamp* readeth this place according to *Philander*, out of *Dioſcor.* and *Theophraſt.* * *Setibr.*: others read *Sex libr.*

Touching the white earth Parætonium, it carieth the name of a place in Egypt from whence it commeth: and many ſay, that it is nothing but the ſome of the ſea, incorporat and hardened together with the ſlime & mud of the ſhore: and therfore there be winkles and ſuch ſhell-fiſhes found therwith. It is ingendred alſo in the Iſle Candy, and the country of Cyrenæ. At Rome they haue a deuiſe to ſophiſticat it, namely by boiling fullers earth vntil it be of a faſt & maſſie conſiſtence: the price of the beſt is after 6 deniers the pound. Of al white colors it is the fatteſt,

D and for that it runs out ſmooth in the working, it is the faſteſt parget to ouercaſt walls withall.

As for the earth Melinum, white it is likewiſe; but the beſt is that which the Iſle Melos doth yeeld, whereupon it took that name. In Samos alſo it is to be found, but painters vſe it not, becauſe it is ouer clammy and vnctuous. The Iſlanders are wont to creep on all foure and to lie along at their work when they dig it forth of the rocks, for ſearch it they muſt among the veines that run therein. The ſame * operation it hath in phyſicke that the earth Eretria: alſo, if a man touch it with the tongue, he ſhal find it aſtringent and drying: howbeit, a depilatory it is in ſome ſort, and fetcheth away haire, or els cauſeth it to grow thin. A pound of it is worth a Seſterce.

* *i.* To ſtaunch bloud.

There is of white colors a third kind, and that is Ceruſſa or white lead, the reaſon & making whereof, I haue ſhewed in my diſcourſe of minerals: and yet there was found of it in the nature

E of a very earth by it ſelfe at Smyrna, within the land belonging to one *Theodotus*, wherewith in old time they vſed to color and paint ſhips. But in theſe daies we haue no other ceruſſe or Spaniſh white but that which is artificial, made of lead & vineger, in manner aforeſaid. As touching ceruſſe burnt, the inuention thereof came by meere chance, vpon occaſion of a skare-fire happening in the harbor of Piræum, which caught the pots and boxes wherein the Athenian dames that dwelt by the ſaid harbor kept their blanch of ceruſſe for complexion: and this ceruſſe thus calcined, the firſt that vſed in picture was *Nicias*, of whom I haue already ſpoken. The beſt that we haue in theſe daies comes out of Aſia, and for that it inclineth to a purple colour, they cal it Purpurea: a pound of it is ſold for 16 deniers Roman. This alſo is made in Rome, namely by cal

I cining Sil or ochre minerall, which ſtandeth much vpon marble, and then quenching it with vineger. Such vſe the painters make thereof thus burnt, that no ſhadowes will do well without it.

Concerning Eretria, another kind of white earth, it takes the name of the place from whence it commeth. *Nicomachus* & *Paraſius* vſed this colour much. In Phyſick, it is found to be cooling and emolitiue. Being burnt or calcined, it is an excellent incarnatiue: ſingular good for to drie any ſore; proper alſo to be applied to the forhead for the headach; like as, to diſcouer any feſtring

or rankling matter that lieth ſecret within: for if a place be anointed therwith, when it is reduced G
into a liniment with water, in caſe it wax not dry, be ſure there is ſome ſuppuration vnderneath

As touching Sandaracha and Ochra, K. *Iuba* writeth, that they are to be found in Tapazus, an Iſland within the red ſea; but that which we haue, was neuer brought from thence. How Sandaracha is ingendred, I haue ſaid already in the diſcourſe of mines. There is an artificiall and ſophiſticat Sandaracha, made of ceruſſe burnt in a furnace, The colour of Sandaracha ought to be fiery like a flame: a pound thereof is bought for 5 Aſſes, *i.* halfe a denier. Calcine this and Ruddle together, and of both, being concorporat in equall quantity, you ſhall haue the color called Sandyx. Howbeit, I do obſerue in *Virgil*, that he took Sandyx for an herb, as may appear by this verſe:

Sponte ſua Sandyx paſcentes veſtiet agnos. H
A ruddie fleece ſhall Sandyx yeeld,
To lambs, as they do graze in field.

This Sandyx to be bought and ſold, carrieth but halfe the price of Sandaracha: neither bee there any colours more weighty than theſe in the ballance.

Among the artificiall and made colors, I reckon Scyricum, which as I haue already ſaid, ſerueth for a good ground to take vermillon. The maner of making it, is to mix the beſt ruddle Sinopis and this Sandyx together.

Painters black [called in Latine Atramentum] I count an artificiall colour, although I know there is a vitrioll or coperoſe going vnder that name, which is minerall, and is ingendred two manner of waies: for either it iſſueth and ooſeth out of the mine in maner of a ſalt humor or li- I
quor; or els there groweth an earth it ſelf of a brimſtone colour, which ſerueth for it, that it may be drawn out thereof. Some painters haue bin knowne, who for to get black, haue ſearched into ſepulchres for the coles there, among the reliques and aſhes of the dead. But in mine opinion, all theſe be but new deuiſes, and fooliſh irregular toies without any reaſon; for a man need ſeek no farther but to ſoot, and that made many waies, by burning either of roſin or pitch: in which regard, many haue built places and forges of purpoſe to burn them in, without any emiſſaries, tunnels, or holes, that the ſaid ſoot or ſmoke may not get forth: but the beſt black in that maner made, comes of the ſmoke of torchwood. This fine ſoot is ſophiſticat with groſſe ſoot that doth gather and ingender in forges, furnaces, & ſtouphs: and this is that inke wherewith wee vſe to write our books. Some there be who take the lees or dregs of wine, and when it is dried, boile it K
throughly; and they affirme, that if the wine were good whereof thoſe lees came, the ſaid inke or black will make a colour like Indico. And in truth, *Polygnotus* and *Mycon* (two as renowned painters as euer were) vſed no other black at all, but that which they made of the mare or refuſe of grapes after they be preſſed, & this they cal Tryginon. *Apelles* deuiſed a way by himſelf, to make it of yuorie or the elephants tooth burnt, and this they named therupon Elephantinum: as touching the black called Indicum, it is brought from India: but as yet I know not the maner either of the making or the ingendring of it. A kind thereof I ſee the diers do make, of that black florie which ſticketh to their coppers. Alſo, there is a black made of torchwood burnt, & the coles that come of it punned to powder in a mortar. And here commeth to my mind the wonderfull nature of Cuttle fiſhes, which do yeeld a black humor from them like to ink: howbeit, I do not L
find that painters or writers make any vſe thereof. But all blacks whatſoeuer take their perfection by ſunning: if it be writing inke, with gum (Arabick;) if to colour pargetting or walls, with glew among: and looke what blacke is diſſolued and liquified in vineger, the ſame will hold well and hardly be waſhed off. And thus much of the ordinary colours low prized.

Of all the colours beſides, which (as I ſaid once before) for their high price the poore painters be ſerued with from their maſters hands who ſet them on worke, the rich roſet or purple red that is made of Tripolie or goldſmiths earth, is ſimply the beſt: for this Tripolie is commonly died together with purples; and no ſilk, wooll, or cloth, wil ſo ſoon take that tincture as it. The principal is that, which hauing had the floure of a fatt, hath drunk the fil as it were, whiles the liquor is yet boiling, and the drugs within the caudron be in their verdure and haue not loſt the M
heart. When this firſt Tripoly thus deepely died, is caſt vp and taken forth, that which is put in next into the ſaid liquor, is counted the ſecond in goodnes; & ſo conſequently by degrees; for the former euer taketh the higher die, & the oftner you dip therein, the weaker will the tincture be: which is the reaſon that the roſet or purple red of Puteoli, is more commended, than either

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A the Tyrian, Getulian, or Lacedemonian, notwithstanding from thence come the most rich and pretious pearls. The reason is, because the Tripoli in Puteoli is died most with the juice of the Magaleb berries among, which yeelds the gallant red; & besides, is forced to drink the tincture of Mader. That roset which is made at Canusium is the worst of all other, and carieth the lowest price: a pound of roset costeth vsually * 30 deniers Roman. Painters or complexioners, when they would counterfeit a lustre or glosse of vermilion, lay a ground first with Sandyx, and then charge roset vpon it with the white of an egg: but if they be desirous to make a purple colour, the first course or ground is azur, and straitwaies they come vpon it with * roset and the white of an egg abouesaid. After this rich and liuely rosat or purple red, Indico is a colour most esteemed: out of India it comes, wherupon it took the name; and it is nothing els * but a slimy mud B cleauing to the fome that gathereth about canes and reeds: while it is punned or ground it looketh black, but being dissolued, it yeelds a wonderfull louely mixture of purple and azur. There is a second sort of it found swimming vpon the coppers or vats in purple Diers worke-houses: and in truth, nothing els but the very fome or scum that the purple casts vp as it boileth, in maner of a florey. Some there be that do counterfeit and sophisticat Indico, selling in stead therof pigeons dung, Selinusian earth, and Tripoli, died and deeply coloured with the true Indico: but the proofe thereof is by fire; for cast the right Indico vpon liue coles, it yeeldeth a flame of most excellent purple, and while it smoketh, the fume senteth of the sea; which is the reason that some do imagine it is gathered out of the rockes standing in the sea. Indico is valued at 20 denarij the pound. In physicke there is vse of this Indico, for it doth asswage swellings that doe C stretch the skin: it represseth violent rheums and inflammations, and drieth vlcers.

The land of Armenia doth furnish vs with the colour verd d' azur, and of that country it is named Armenicus: a stone it is that is likewise died before it can die, in manner of Borras or verd d' terre: the best is the greenest, & yet withall it doth participat the colour of azur; in which regard it may properly be called Verd d' azur. In times past a pound of it was held at 300 Sesterces: but since there was found in Spain a kind of sand that would take the like tincture and do as well, the price hath bin well abated, and is come downe to six deniers. All the difference between this colour and azur is this, for that it stands more vpon the white, which causeth this colour to be lighter and weaker. The only vse that it hath in physick, is to nourish hairs, & especially those of the eie lids. Ouer and besides all these colours aboue named, there be two more D newly come vp, and those beare but a very low price; to wit, the green called Appianum, & oft times it is taken for Borras or Verd d' terre, as if there were not other things enough that did counterfeit and resemble it. Made it is of a certain greene chalky earth, & is worth but one Sesterce a pound. The second new colour is a white, called Anulare, being that which in womens pictures giues a lightsom carnation white: this also is made of a kind of chalk, & certain glassy gems or bugles, which the common sort vse to weare in rings, & thereupon is called Anulare.

* *In singulas libras ad denarios triginta.*

* our painters in stead therof vse *Lac.*

* They say it is made of Oad: and in those countries from whence it commeth, Gali or Nil.

Chap. VII.

¶ *What Colours refuse to be layd vpon some grounds: with what colours they painted in old time: and when the fight of Sword-fencers was first proposed to be seen at Rome.*

E

OF all colours, Roset, Indico, Azur, Tripoli or Melinum, Orpiment, white lead or Ceruse, loue not to be laid vpon plaister-work or any ground, while it is moist; & yet wax wil take any of these colours abouesaid, to be imploied in those kind of works which are wrought by fire (so it be not vpon plastre, parget, & wals, for that is impossible) whether they be inameld or damaskd; yea and in their painting of ships at sea, as well hulks & hoies of burden, as gallies and ships of war: for now wee are come (forsooth) to inamel and paint those things that are in danger to perish & be cast away euery houre: so as we need not maruel any longer, that the coffin going with a dead corps to a funerall fire, is richly painted: and we take a delight when wee mind to fight at sea, to sail with our fleet gallantly dight & inriched with colours, which must F cary vs into dangers, either to our own death, or to the carnage of others. And when I consider so many colours, & those so variable, as be now adaies in vse, I must needs admire those artificers of old time; and namely of *Apelles*, *Echion*, *Melanthius*, and *Nicomachus*, most excellent painters, and whose tables were sold for as much apiece, as a good town was worth; and yet none of these vsed aboue foure colours in all those rich and durable workes. And what might those be?

Of all whites they had the white Tripoli of Melos; for yellow ochres they took that of Athens: G
for reds, they ſought no farther than to the red ochre or Sinopie ruddle in Pontus: & their black was no other than ordinarie vitriol or ſhoomakers black. And now adaies, when we haue ſuch plenty of purple, that the very walls of our houſes be painted all ouer therwith, when there commeth from India ſtore enough not only of Indico, which the mud of their riuers do yeeld, but alſo of Cinnambre, which is the mixed bloud of their fel dragons and mighty elephants, yet among all our modern pictures we cannot ſhew one faire piece of worke: inſomuch as wee may conclude, All things were done better then, notwithſtanding the ſcarſitie that was of ſtuffe and matter. But to ſay a truth, the reaſon is, Giuen wee are now (as I haue oftentimes ſaid) to eſteem of things that be rich and coſtly, neuer regarding the art that is imployed about them. And here I thinke it not amiſſe to ſet down the outragious exceſſe of this age, as touching pi- H
ctures. *Nero* the emperor commanded, that the portraict of himſelfe ſhould be painted in linnen cloth, after the maner of a gyant-like coloſſe 120 foot high; a thing that neuer had been heard or ſeen before. But ſee what became of it! when this monſtrous picture (which was drawne and made in the garden of *Marius*) was don and finiſhed, the lightning and fire from heauen caught it, and not only conſumed it, but alſo burnt withall the beſt part of the building about the garden. A ſlaue of his infranchiſing (as it is wel known) when he was to exhibit at Antium certain ſolemnities, and namely a ſpectacle of ſword-fencers fighting at ſharp, cauſed all the ſcaffolds, publique galleries, and walking places of that city to be hung & tapiſſed with painted cloths, wherein were repreſented the liuely pictures of the ſword-players themſelues, with all the wiffiers and ſeruitors to them belonging. But to conclude, the beſt and moſt magnanimous men, I
that for many a hundred yeares our country hath bred, haue taken delight (I muſt needs ſay) in this art, and ſet their minds vpon good pictures. But to portray in imagery tables and painted cloth the publick ſhews of fencers & ſword-plaiers, and to ſet them vp to be ſeen in open place to the view of the world, began by *C. Terentius* a Lucan: for this man to honour his grandfather, who had made him his own ſon by adoption, exhibited a ſhew for three days together of thirty paire of ſuch fencers fighting with vnrebated ſwords; and a faire painted table which carried the liuely reſemblance of this ſpectacle, hee ſet vp and dedicated within the ſacred groue of *Diana*.

Chap. VIII. K

This argumẽt or title reacheth to many chapters following.

¶ *The antiquitie of Painting, and the ſeuerall ages wherein the famous Painters liued. A ſuruey of excellent Pictures, and the Artificers that made them, together with the prices that their workmanſhip was valued at: and notable pictures to the number of* 305.

NOw will I after a curſorie ſort run through all the famous profeſſors and Artizans in this kind, and that with as great breuity as poſſibly I can; for the ſcope I haue propoſed to my ſelfe tends another way: and therefore let not the Reader think much if I do but touch the names of ſome, as it were paſſing by, and by occaſion of others whoſe catalogue I meane to L
deliuer. Howbeit, in making this haſt, my purpoſe is not to omit any excellent piece of worke which is worth the remembrance and relation, whether the ſame be extant at this day, or loſt and periſhed. Where I muſt aduertiſe the readers, that in this argument my meaning is not to ſtand much vpon the authoritie of Greeke writers, who indeed deliuer no certitude, nor agree in their records as touching this point (notwithſtanding that they would ſeeme diligent in that behalfe) and namely, in that they haue written, That the excellent painters flouriſhed ſo many Olympiads after the famous Imageurs; and haue nominated for the firſt and chiefe to haue liued in name, about the time of the 90 Olympiad: whereas this is for certain reported, that *Phidias* himſelf was a painter in the beginning, and that the noble ſhield of *Minerva* in Athens was by him painted: beſides, this is confeſſed and reſolued vpon for a truth, that *Panæus* his brother M
liued in the 83 Olympias, and painted the inſide of the ſaid ſhield; who alſo in another ſcutchion of *Minerva*, which *Colores* the apprentice of *Phidias* had made; as alſo in making the ſtatue of *Iupiter Olympius*, wrought with the ſaid *Colores* and helped him. But what ſhould I dwel long in this matter? Is there any doubt made, that *Candaules* King of Lydia, the laſt of the race and family

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A family of the *Heraclidæ*, who alſo was commonly caled *Myrſilus*, bought the painted table which contained the battell of the Magnetes, and paid for it to *Bularchus* (the painter or workman ther-of) as much gold as it came to in weight. See of what price and eſtimation pictures were euen in thoſe daies! And needs it muſt be that this hapned about that age wherein K. *Romulus* liued: for the ſaid K. *Candaules* died in the 18 Olympias; or as ſome write, in that very yeare that *Romulus* departed this life: at what time this skill of painting (if I be not much deceiued) was in great requeſt euery where, and growne already to an abſolute perfection. Which being granted, as of neceſſitie it cannot be denied, euident and apparent it is, that the originall and beginning of this art, was much more antient: and that thoſe painters who vſed one colour and no more in their plain draughts called Monocromata (to wit, *Hygiænon*, *Dinias*, and *Charmas*) liued
B a good while before, although it be not recorded in any writer in what age preciſely they flouriſhed: as alſo that *Eumarus* the Athenian painter, who deuiſed firſt to diſtinguiſh male and female in painting; and beſides, vndertook to draw with his penſill the proportion & ſhape of any thing that he ſaw; together with *Cimon* the Cleonæan, who followed his ſteps, and practiſed his inuentions, could not chuſe but by al congruity & conſequence be of more antiquity than *Bularchus* aforeſaid, or the reign of *Romulus* & *Candaules*: this *Cimon* deuiſed the works called Catagrapha, *i.* pourtraits and images ſtanding byas and ſide-long: the ſundry habits alſo of the viſage and caſt of the eie, making them to look, ſome backward ouer their ſhoulders, others aloft, and ſome againe downward: his cunning it was to ſhew in a picture, the knitting of the members in euery ioint: to make the veins appeare how they branched and ſpread: and beſides, the firſt hee
C was that counterfeited in flat pictures, the plaits, folds, wrinckles, and hollow lappets of a garment. As touching *Phanæus* the brother of *Phidias*, hee painted alſo the battell betweene the Athenians and the Perſians, vpon the plains of Marathon; for now by this time were painters furniſhed in ſome ſort with colours to their purpoſe; and the art was growne to ſuch perfection, that in the picture reſembling the ſaid battell, the full perſonages were pourtraied moſt liuely, of the captains on both ſides, to wit, *Milciades*, *Callimachus*, and *Cynegyrus*, for the Athenians; *Datis* alſo and *Artaphanes*, for the Barbarians or Perſians.

Chap. IX.

D ¶ *The Painters that firſt entred into contention for to win the prize by their Art: and who deuiſed to paint with the penſill.*

MOreouer, during the time that the aboue-named *Panæus* flouriſhed, there were priſes propoſed at Corinth and Delphos, for thoſe painters that could win them: and the firſt that ſtriued for the beſt game, was the ſaid *Panæus*, who challenged *Timagoras* the Chalcidian vpon this occaſion, That the ſame *Timagoras* had giuen him the foile before at the Pythian games; which alſo doth appeare by certain verſes compoſed by *Timagoras* himſelfe as touching that argument, which ſauor of great antiquity. Whereby the error of Chronicles beforeſaid is manifeſtly conuinced, who haue failed much in the calculation of the times. Furthermore, be-
E ſides theſe painters aboue rehearſed, others there were of great name, and yet all of them before that 90 Olympiad whereof they write; as namely, *Polygnotus* the Thaſian, who was the firſt that painted women in gay and light apparell, with their hoods and other head attire of ſundry colours; and in one word, paſſed all others before him in deuiſes, for the bettering of this art. His inuention it was to paint images with their mouths open, to make them ſhew their teeth; and in one word, repreſented much variety of countenance, far different from the rigorous and heauy looke of the viſage beforetime. Of this *Polygnotus* workemanſhip, is that picture in a table which now ſtandeth in the ſtately gallerie of *Pompeius*, and hung ſometime before the Curia or Hall that beareth his name, in which table he painted one vpon a ſcaling ladder, with a targuet in his hand; but ſo artificially it is done, and with ſuch dexterity, that whoſoeuer looketh vpon him, cannot tell whether he is climbing vp or comming downe. All the painting of *Apollo* his
F temple at Delphos, was of this mans doing; who alſo beautified with pictures, the great gallery or walking place at Athens, which thereupon was called Pœcile; and this he did *gratis*, and would not take one penny for it; whereas *Mycon* afore him, painted one part thereof, & was well paid for his workmanſhip; which liberall mind of his, wan him the greater credit and honor beſides: for by a decree from the Amphyctions (who are the lords of the publick counſel of ſtate

in Greece) it was granted, that in all cities and towns of Greece whereſoeuer he came, he ſhould G
be lodged and entertained of free coſt. Beſides that *Mycon* before mentioned, there was another
of the name, diſtinguiſhed only by this, that the former was called *Mycon* the elder, and this *My-*
con the yonger, who had a daughter named *Timarate*, & ſhe could paint likewiſe excellently. But
to come now to that ninetieth Olympia, there flouriſhed in that time *Aglaophon*, *Cephiſſodorus*,
Phrylus, and *Euenor*, who was both father and maſter to *Paraſius* that moſt renowned painter, of
whom I purpoſe to ſpeak in his rank when the time comes; all theſe were reputed very good ar-
tizans in their time, howbeit not ſo excellent that I ſhould need ſtand long vpon them or their
workmanſhip, making haſte as I do vnto thoſe glorious and glittering painters indeed, who
ſhine as bright ſtars aboue all their fellowes; among whom, *Apollodotus* the Athenian was the
firſt that gaue light, and he liued in the 93 Olympias: this man led the way to others, & taught H
them to expreſſe the fauor and beauty of any thing, which he obſerued eſpecially; of whome I
may well and truly ſay, that he and none before him brought the penſill into a glorious name &
eſpeciall credit. Of his making there is one picture, of a prieſt at his deuotions, praying & wor-
ſhipping; as alſo another repreſenting *Ajax*, all on a flaming fire with a flaſh of lightning, which
at this day is to be ſeen at Pergamus, as an excellent piece of worke. And verily before his daies
there cannot be ſhewed a table of any ones painting worth the ſight, and which a man would
take pleaſure to behold and looke vpon any long time.

When this man had opened the dore once, and ſhewed the way to this art, *Zeuxis* of Heraclea
entred in, and that was in the fourth yere of the 95 * Olympias: and now that the penſill was ta- I
ken in hand (for now I ſpeak thereof) he ſeeing that it made good worke, followed on therewith,
and by continuall practiſe brought the ſame to great perfection, whereby he wan much credit
to the art, and reputation to himſelfe. Some writers there bee, who range him wrong in the 89
Olympias; at which time it muſt needs be, that *Demophilus* the Himeræan and *Neſeas* the Thra-
cian liued; for to one of them apprentice he was: but whether of the two was his maſter, there is
ſome doubt made; and verily ſo excellent he proued in his art, that the abouenamed *Appollodorus*
made verſes of him; in which he ſignifieth, that *Zeuxes* had ſtollen the cunning from them al, and
he alone went away with the art. He grew in proceſſe of time to ſuch wealth by the means only
of his excellent hand, that for to make ſhew how rich he was, when he went to the ſolemnity of
the games at Olympia, he cauſed his owne name to be imbrodered in golden letters, within the
lozenge worke of his clokes, whereof he had change, and which he brought thither to be ſeen. In K
the end, he reſolued with himſelfe to work no longer for mony, but to giue away al his pictures,
ſaying, That he valued them aboue any price. Thus he beſtowed vpon the Agrigentines, one pi-
cture of queen *Alcmena*; and to king *Archelaus* he gaue another of the ruſtical god *Pan*: there
was alſo the pourtraict of lady *Penelope*, which he drew in colours; wherein he ſeemeth not only
to haue depainted the outward perſonage and feature of the body, but alſo to haue expreſſed
moſt liuely the inward affections and qualities of her mind: and much ſpeech there is of a wre-
ſtler or champion of his painting; in which picture he pleaſed himſelfe ſo well, that hee ſubſcri-
bed this verſe vnder it, * *Inviſurus aliquis facilius quam imitaturus, i.* Sooner will a man enuy me,
than ſet ſuch another by me. Which thereupon grew to be a by-word in euery mans mouth. One
ſtately picture there is of his workmanſhip, *Iupiter* ſitting vpon a throne in his Majeſtie, with all L
the other gods ſtanding by and making court vnto him. Hee pourtraied *Hercules* alſo as a babe
lying in a cradle, and ſtrangling two fell ſerpents with his hand, together with his mother *Alc-*
mena, and her husband K. *Amphytrion* in place, affrighted both at the ſight thereof. Howbeit,
this *Zeuxis* as excellent a painter as he was, is noted for one fault and imperfection; name-
ly, that the head and joints of his pourtraicts, were in ſome proportion to the reſt ſom-
what with the biggeſt; for otherwiſe ſo curious and exquiſite hee was, that when he ſhould
make a table with a picture for the Agrigentines, to be ſet vp in the temple of *Iuno Lacinia*, at
the charges of the city, according to a vow that they had made, he would needs ſee all the may-
dens of the city naked; and from all that company he choſe 5 of the faireſt to take out as from
ſeuerall patterns, whatſoeuer he liked beſt in any of them; and of all the louely parts of thoſe M
fiue, to make one body of incomparable beaury. Many draughts he made of one color, in white.
There liued in his time *Timanthes*, *Androcydes*, *Eupompus*, and *Paraſius*, who were his concurrents,
and thought as well of themſelues as he did. *

CHAP.

* For *Olympias* was counted the ſpace of fiue yeares.

* *Græce melius* μιμησοιτο τις μᾶλλον, ἢ μιμήσεται: which Iambick verſe ſome attribute to *Apollodorus*.

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Chap. X.

¶ *Of birds deceiued by pictures. What is the hardeſt point in the art of painting?*

OF thoſe foure before named, *Paraſius* by report was ſo bold as to challenge *Zeuxis* openly and to enter the liſts with him for the victory; in which contention and triall, *Zeuxis* for proofe of his cunning, brought vpon the ſcaffold a table, wherein were cluſters of grapes ſo liuely painted, that the very birds of the aire flew flocking thither for to bee pecking at the grapes. *Paraſius* againe for his part to ſhew his workmanſhip, came with another picture, wherin he had painted a linnen ſheet, ſo like to a ſheet indeed, that *Zeuxis* in a glorious brauery and pride of his heart, becauſe the birds had approoued of his handy-worke, came to *Paraſius* with theſe words by way of a ſcorn and frumpe, Come on ſir, away with your ſheet once, that we may ſee your goodly picture. But taking himſelfe with the manner, and perceiuing his own error, he was mightily abaſhed, & like an honeſt minded man yeelded the victory to his aduerſary, ſaying withall, *Zeuxis* hath beguiled poore birds, but *Parrhaſius* hath deceiued *Zeuxis*, a profeſſed artiſane. This *Zeuxis*, as it is reported, painted afterwards another table, wherein he had made a boy carrying certaine bunches of grapes in a flasket, and ſeeing again that the birds flew to the grapes, he ſhook the head, and comming to his picture, with the like ingenious mind as before, brake out into theſe words, and ſaid, Ah, I ſee well enough where I haue failed, I haue painted the grapes better than the boy, for if I had don him as naturally, the birds would haue bin afraid and neuer approched the grapes. He pourtraied alſo diuers pieces of earthen veſſels in potterie, which onely were left behind in Ambracia, at what time as *Fulvius* ſyrnamed *Nobilior*, remooued the Muſes from thence of his pourtraying, and brought them to Rome. Moreouer, there remaineth yet at Rome within the galleries of *Philippus*, the picture of *Helena*, wrought by the hand of *Zeuxis*: and in the temple of *Concord* another, reſembling *Marſias* the Muſitian bound to a tree.

As for *Paraſius* before named, borne hee was at Epheſus, and inuented alſo diuers things of himſelf to the aduencement of this art: for the firſt he was that gaue the true ſymmetrie to a portraiture, and obſerued the juſt proportions: he firſt exactly kept the ſundry habits and geſtures of the countenance: he it was, that firſt ſtood vpon the curious workemanſhip of couching and laying the haires of the head in order: the louely grace and beauty about the mouth and lips, he firſt exactly expreſſed: and by the confeſſion of all painters that ſaw his worke, he woon the priſe and praiſe from them all in making vp the pourfils and extenuities of his liniaments, which is the principall point and hardeſt matter belonging to the whole art: for to draw forth the bodily proportion of things, to hach alſo, yea, and to fill within, requireth (I confeſſe) much labour and good workmanſhip; but many haue bin excellent in that behalfe; mary to pourfil wel, *i.* to make the extremities of any part, to mark duly the diuiſions of parcels, & to giue enery one their juſt compaſſe and meaſure is exceeding difficult; and few when they come to the doing of it, haue been found to attaine vnto that felicity. For the vtmoſt edge of a worke muſt fall round vpon it ſelfe, and ſo knit vp in the end, as if it ſhadowed ſomwhat behind, and yet ſhewed that which it ſeemeth to hide. In this ſo curious and inexplicable a point, *Antigonus* and *Xenocrates* both, who wrote as touching this art, haue giuen him the honour of the beſt; not onely confeſſing his ſingular gift herein, but alſo commending him for it. Many other plots and projects there doe remaine of his drawing, pourtraied as well in tables as vpon parchment, which ſerue as patterns (they ſay) for painters to learn much cunning by. And yet for inward works, and to expreſſe the middle parts of a portraiture, he ſeemeth not ſo perfect, nor anſwerable to himſelfe otherwiſe. There is a notable picture of his making, which he called * *Demon Athenienſium*, that is to ſay, the common people of the Athenians; the deuiſe whereof was paſſing full of wit, and verie inuentiue: for his intention was in one and the ſame pourtrait, and vnder one obiect of the eye to expreſſe the nature of the people, variable, wrathfull, vnjuſt, and vnconſtant; the ſame alſo he would haue to appeare exorable, milde, and pittifull; haughtie, glorious and proud, and humble, lowly, and ſubmiſſe; fierce and furious, and the ſame coward-like, and ready to run away: all theſe properties, I ſay, he repreſented vnder one caſt of the eie. This workeman painted alſo *Theſeus*, which ſtood ſometimes in the capitoll of Rome; a certaine Admirall likewiſe of a nauie,

* Δῆμον.

nauie armed with a corſelet. In one table alſo which is at Rhodes, he depainted *Meleager*, *Hercules*, and *Perſeus*. This table was thrice blaſted with lightening; howbeit, the pictures were not defaced, but remained whole and entire as at the firſt: a miraculous thing, and that which maketh much for the credit of the picture. *Archigallus* was of his painting; a picture that *Tiberius* the Emperor tooke great pleaſure in; and as *Eculeo* mine author doth teſtifie, he eſteemeed it worth 60000 ſeſterces, and incloſed it within his bed-chamber. Moreouer, he counterfeited one *Greßa* a nource, with her infant in her arms: he pourtraied *Philiſcus*, and god *Bacchus* with the goddeſſe *Vertue* ſtanding by him: alſo two boies; on whom a man might ſee moſt liuely reſembled, the careleſneſſe and ſimplicity of that age: likewiſe a prieſt, attended vpon with a pretty boy, holding a cenſar in his hand, and a coronet. Ouer and beſides, two pictures there be of his handie-work, going vnder the name of *Hoplitides*, *i.* armed: the one running in his armour in battel-wiſe, ſo as he ſeemeth all in a ſweat: the other diſarming himſelf, all wearied, ſo as a man would think his wind were gone, or that he drew it very ſhort. Great praiſe there is of one table of his, wherin are depainted, *Æneas*, *Caſtor*, and *Pollux*; alſo of another, which contained *Telephus*, *Achilles*, *Agamemnon* & *Vlyſſes*. An artiſan ful of work, & who would euer be doing one thing or other; but ſo arrogant withall, as no man euer ſhewed more inſolency than he, in regard that hee was cunning and well thought of: which he knew well enough, and no man needed to tell him. In this proud ſpirit of his, he would take vpon him diuers titles and additions to his name: among others, he would call himſelfe * *Abrodiatus*: and other words he vſed, whereby hee would make himſelfe known that he was prince of painters, and the art by him made perfect and accompliſhed. But it exceedeth how vaine-glorious he ſhewed himſelfe, in that hee gaue out, hee was in right line deſcended from *Apollo*: alſo that the pourtrait of *Hercules*, which is in a table at Lindos, he drew from the very perſon of *Hercules* himſelfe, anſwerable in all points to the proportion and lineaments of his body; who (by his ſaying) had appeared to him oftentimes in his ſleep of purpoſe, that he might paint him liuely as he was. In this veine of vanity, being vpon a time put down by *Timanthes* the Painter at Samos, where, by the judgement of all that were preſent, his picture repreſenting *Ajax*, and the awarding of the armor of *Achilles* from him to *Vlyxes*, was not thought comparable to another of *Timanthes* his making: I am ill apaied (quoth he) and ſory at the heart, for this noble knight and braue warrior *Ajax*, whoſe euill hap it is thus to be foiled once againe by ſo vnworthy a weight, and a far meaner perſon than himſelfe. He delighted alſo to paint ſmall pictures in prety tables, and thoſe repreſenting wantonneſſe and lecherie: and this he did (as he was wont to ſay) for his recreation, and as it were to breath himſelfe when he had laboured hard at greater workes.

* *i.* fine, delicat and ſumptuos: for he would be in his purple, or his golden chaplets, his ſtaffe tipt with gold, and his ſhooebuckles of the ſame.

As for *Timanthes*, an excellent fine wit he had of his owne, & ful he was of rare inuentions: he it was that made the famous picture of *Iphigenia*, ſo highly commended by eloquent orators: and to ſay a truth, his conceit therin was admirable: for when he had deuiſed that the poor innocent lady ſhould ſtand hard at the altar, ready to be ſlain for ſacrfice, and had painted thoſe that were preſent about her, with heauy and ſad countenance, weeping & wailing all for the inſtant death of this young princeſſe, and her vnckle *Menelaus* aboue the reſt, full of ſorrow and lamentation, and ſhewing the ſame as much as poſſibly might be: hauing by this time ſpent in them all the ſignes that might teſtifie the hearts griefe, and that he was come to pourtray her own father *Agamemnon*, he repreſented his viſage couered with a vail, for that he was not able to expreſſe ſufficiently the extraordinary ſorrow aboue the reſt which he had to ſee his own daughter ſacrificed, and her guiltleſſe bloud ſpilt. Other pieces of worke there be, patternes all of ſingular wit: among the reſt, he deuiſed within a very ſmall table, a Cyclops lying a ſleep: and yet becauſe he would ſeem euen in that little compaſſe to ſhew his giant-like bigneſſe, hee deuiſed withall to paint little eluiſh Satyres hard by, and thoſe taking meaſure of one of his thumbes with long perches. In ſum, ſo inuentiue he was, that in the works which paſſed through his hand, a man ſhal euer conceiue & vnderſtand ſome hidden thing within more than is painted without: for albeit a man ſhall ſee in his pictures as much art as may bee, yet his wit went alwaies beyond his art. Moreouer, his picture of a prince was thought to be moſt abſolute; the majeſty whereof is ſuch, that all the art of painting a man, ſeemeth to be compriſed in that one pourtrait. This piece of worke remaineth at this day within the temple of *Peace*, in Rome.

In this age flouriſhed *Euxenidas*, and taught *Ariſtides* his cunning, who prooued afterwards a ſingular workeman. *Eupompus* alſo trained vp *Pamphilus* the painter vnder him, whoſe apprentiſe

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A was *Apelles*. There is a fine picture of *Enpompus* his making, to wit, one who had obtained the victorie at the publique Gymnick exercises of actiuitie, painted naked as hee performed his deuoir, holding in his hand the branch of a date tree. This *Enpompus* was of such authoritie, that wheras before his time there were but two kinds of pictures, to wit, Helladicum, *i.* the Greekish; and Asiaticum, *i.* Asiatick; he brought in a new diuision, and made 3 distinct members thereof: for in loue of him, because he was a Sicyonian born, the foresaid Helladicum beeing parted in twain, there arose three seuerall sorts, the Ionnian, Sicyonian, and Attick.

As for *Pamphilius*, renowned he was for painting a confraternity or kindred; the battel fought before Phlius, and the victorie of the Athenians: semblably, of his making is the picture of *Vlysses* in a punt or small bottom. Himselfe was a Macedonian borne, but of all painters, the first
B that gaue his mind to other good literature, and especially to Arithmetick & Geometry; without the insight of which two sciences, hee was of opinion, that vnpossible it was to be a perfect painter. He taught none his cunning vnder * a talent of siluer for 10 yeares together: and thus much paid *Apelles* and *Melanthus* vnto him for to learn his art. His authoritie brought to passe, that ordained it was at Sicyone, and so consequently throughout all Greece, that gentlemens sons or free-born should go to painting schoole, and there be taught first aboue all other things the art Diagraphice, that is to say, the skil to draw and paint in box tables: and for the credit of Painters he brought to passe, that the art should be ranged in the first degree of liberall Sciences. And verily this craft of painting hath bin alwaies of that good respect and so honored, that none but gentlemen and free-born at the first beginning medled therewith, yea, and afterwards
C honorable personages gaue themselues to the practise thereof, with this charge from time to time, to teach no slaue the mysterie of painting, who by a strict and perpetuall edict were excluded from the benefit thereof. Neither shall you euer heare of any piece either of picture or grauerie and embossing, that came out of a seruile hand.

* *Minoris talento annis decem*: yet *Budæus* readeth *annuis talentis decem*, *i.* ten talents by the yeare.

Furthermore, about the 170 Olympias there flourished *Echion* and *Therimachus*, two renowned painters: as for *Echion*, ennobled he is for these pictures, god *Bacchus*, a Tragedie and a Comedie, represented by painting: also *Semiramis*, who of a bond-maiden came to be a queen; an antient woman carrying a torch or lamp, going before a yong wife newly wedded, and leading her to the bride-bed, who followeth with a modest, shamefast, and bashfull countenance most apparant to the eie.

D But what should I speake of these painters, when as *Apelles* surmounted all that either were before, or came after. This *Apelles* flourished about the 112 Olympias, by which time hee became so consummate and accomplished in the art, that hee alone did illustrate and inrich it as much, if not more, than all his predecessors besides: who compiled also diuers bookes, wherein the rules and principles, yea and the very secrets of the art are comprised. The speciall gift that he had was this, that he was able to giue his pictures a certain louely grace inimitable: and yet there were in his time most famous and worthy painters, whom he admired, whose works when hee beheld hee would praise them all, howbeit not without a but: for his ordinarie phrase was this, Here is an excellent picture, but that it wants one thing, & that is the *Venus* it should haue; which *Venus* the Greeks call *Charis*, as one would say, the grace: and in truth he would confesse,
E that other mens pictures had all things els that they should haue, this onely excepted; wherein hee was perswaded that he had not his peere or second. Moreouer, he attributed vnto himselfe another propertie, wherein hee gloried not a little, and that was that hee could see to make an end when a thing was well done. For beholding wistly vpon a time a piece of worke of *Protogenes* his doing, wherein he saw there was infinite pains taken, admiring also the exceeding curiositie of the man in each point beyond all measure, he confessed & said, That *Protogenes* in euerie thing else had done as well as himselfe could haue done, yea and better too. But in one thing he surpassed *Protogenes*, for that he could not skill of laying worke out of his hand when it was finished well enough. A memorable admonition, teaching vs all, That double diligence and ouermuch curiositie doth hurt otherwhiles. This painter was not more renowned for his skill
F and excellencie in art, than he was commended for his simplicitie and singlenesse of heart: for as he gaue place to *Amphion* in disposition, so hee yeelded to *Asclepiodorus* in measures and proportion, that is to say, in the iust knowledge how far distant one thing ought to be from another. And to this purpose impertinent it is not, to report a pretty occurrent that fell between *Protogenes* and him: for being very desirous to be acquainted with *Protogenes*, a man whom hee had

had neuer ſeen,and of his works,whereof there went ſo great a name,he imbarqued and ſailed to G
Rhodes,where *Protogenes* dwelt: and no ſooner was hee landed,but he enquired where his ſhop
was,and forthwith went directly thither. *Protogenes* himſelfe was not at home,only there was an
old woman in the houſe who had the keeping of a mighty large table ſet in a frame,and fitted
ready for a picture:and when he enquired for *Protogenes*,ſhe made anſwer, that he was not with-
in; and ſeeing him thereupon ready to depart,demanded what his name was,& who ſhe ſhould
tell her maſter asked for him. *Apelles* then,ſeeing the foreſaid table ſtanding before him, tooke
a penſil in hand and drew in colour a paſſing fine and ſmal line through the ſaid table, ſaying to
the woman, Tell thy maſter, that he who made this line enquired for him; and ſo he went his
wayes. Now when *Protogenes* was returned home,the old woman made relation vnto him of this
that hapned in his abſence; and as it is reported, the artificer had no ſooner ſeene and beheld H
the draught of this ſmall line,but he knew who had been there, and ſaid withall, Surely *Apelles*
is come to town; for vnpoſſible it is,that any but hee ſhould make in colour ſo fine workeman-
ſhip. With that hee takes me the penſill,and with another colour drew within the ſame line a
ſmaller than it: willing the woman when hee went forth of dores,that if the party came againe,
ſhe ſhould ſhew him what he had done,and ſay withall,that there was the man whom he inqui-
red after. And ſo it fell out indeed,for *Apelles* made an errand againe to the ſhop,and ſeeing the
ſecond line,was diſmaied at firſt and bluſhed withal to ſee himſelfe thus ouercome; but taking
his penſil,cut the foreſaid colours throughout the length,with a third colour diſtinct from the
reſt,and left no room at all for a fourth to be drawn within it. Which when *Protogenes* ſaw, hee
confeſſed that he had met with his match and his maſter both; and made all the haſt he could I
to the hauen to ſeek for *Apelles* to bid him welcome & giue him friendly entertainment. In me-
morial whereof it was thought good both by the one and the other,to leaue vnto poſterity this
table thus naked without any more work in it,to the wonder of all men that euer ſaw it, but of
cunning artiſans and painters eſpecially: for this table was kept a long time, and as it is well
known,conſumed to aſhes in that firſt fire that caught *Cæſars* houſe within the Palatine hil:and
verily we took great pleaſure before that,to ſee it many times,containing in that large & extra-
ordinarie capacitie that it had, nothing els but certaine lines,which were ſo fine and ſmall, that
vnneth or hardly they could be diſcerned by the eie. And in truth,when it ſtood among the ex-
cellent painted tables of many other workemen, it ſeemed a very blanke hauing nothing in it:
howbeit as void and naked as it was,it drew many to it euen in that reſpect,being more looked K
vpon and eſteemed better than any other rich and curious work whatſoeuer. But to come again
vnto *Apelles*,this was his manner and cuſtom beſides,which he perpetually obſerued,that no day
went ouer his head,but what buſineſſe ſoeuer he had otherwiſe to call him away,he would make
one draught or other (and neuer miſſe) for to exerciſe his hand and keepe it in vre,inſomuch as
from him grew the prouerbe, *Nulla dies ſine Linea, i.* Be alwaies doing ſomewhat, though you
doe but draw a line. His order was when he had finiſhed a piece of work or painted table, and
layd it out of his hand, to ſet it forth in ſome open gallerie or thorow-fare, to be ſeen of folke
that paſſed by,and himſelfe would lie cloſe behind it to hearken what faults were found there-
with; preferring the iudgement of the common people before his owne, and imagining they
would ſpy more narrowly, and cenſure his doings ſooner than himſelfe: and as the tale is told, L
it fell out vpon a time, that a ſhoomaker as he went by ſeemed to controlle his workemanſhip
about the ſhoo or pantofle that he had made to a picture, & namely,that there was one latchet
fewer than there ſhould be: *Apelles* acknowledging that the man ſaid true indeed, mended that
fault by the next morning,and ſet forth his table as his manner was. The ſame ſhoomaker com-
ming again the morrow after,and finding the want ſupplied which he noted the day before,took
ſome pride vnto himſelfe, that his former admonition had ſped ſo well, and was ſo bold as to
cauil at ſomewhat about the leg. *Apelles* could not endure that,but putting forth his head from
behind the painted table,and ſcorning thus to be checked and reproued, Sirrha (quoth hee) re-
member you are but a ſhoomaker,& therefore meddle no higher I aduiſe you,than with ſhoos.
Which words alſo of his came afterwards to be a common prouerbe, *Ne ſutor vltra crepidam.* M
Ouer and beſides,very courteous he was and faire ſpoken, in which regard King *Alexander* the
Great accepted the better of him,and much frequented his ſhop in his owne perſon: for, as I
haue ſaid before, he gaue ſtreight commandement, That no painter ſhould bee ſo hardie as to
make his picture but only *Apelles*. Now when the King being in his ſhop,would ſeeme to talke
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A much and reaſon about his art,and many times let fal ſome words to little purpoſe, bewraying his ignorance; *Apelles* after his mild manner,would deſire his grace to hold his peace,& ſaid, ſir, no more words,for feare the prentiſe boies there that are grinding of colours, do laugh you to ſcorn: So reuerently thought the king of him,that being otherwiſe a cholericke prince, yet hee would take any word at his hands in that familiar ſort ſpoken in the beſt part, and be neuer offended. And verily, what good reckoning *Alexander* made of him,he ſhewed by one notable argument; for hauing among his courteſans one named *Campaſpe*, whom he fancied eſpecially aboue the reſt,in regard as wel of that affection of his as her incomparable beauty,he gaue commandement to *Apelles* for to draw her picture all naked: but perceiuing *Apelles* at the ſame time to be wounded with the like dart of loue as wel as himſelf, he beſtowed her on him moſt frankly. By which example, hee ſhewed moreouer,that how great a Commander,and high minded a
B prince he was otherwiſe,yet in this maſtering and commanding of his affections,his magnanimity was more ſeen: and in this act of his he wan as much honor and glory,as by any victory ouer his enemies; for now he had conquered himſelfe, and not onely made *Apelles* partner with him of his loue,but alſo gaue his affection clean away from her vnto him,nothing mooued with the reſpect of her whom before he ſo dearly loued,that being the concubin of a king,ſhe ſhould now become the bedfellow of a painter. Some are of opinion, That by the patterne of this *Campaſpe*, *Apelles* made the picture of *Venus* * *Anadyomene*. Moreouer, *Apelles* was of a kind bountiful * *i.Ortam mari* *i.*riſing out of the ſea.
diſpoſition euen to other painters of his time,who commonly as concurrents,do enuie one another. And the firſt he was that brought *Protogenes* into credit and eſtimation at Rhodes; for at
C the firſt,his owne countrymen made no account at all of him (a thing ordinarily ſeen,that in our own country we are leaſt regarded) but *Apelles*, for to countenance and credit the man,demanded of him what price he would ſet of al the pictures that he had ready made; *Protogenes* asked ſome ſmall matter and trifle to ſpeake of: howbeit, *Apelles* eſteemed them at fifty talents,and promiſed to giue ſo much for them: raiſing a bruit by this means abroad in the world,that he bought them for to ſel againe as his owne. The Rhodians hereat were moued and ſtirred vp to take better knowledge of *Protogenes*,what an excellent workeman they had of him: neither would *Protogenes* part with any of his pictures vnto them,vnleſſe they would come off roundly and riſe to a better price than before time. As for *Apelles*, he had ſuch a dexterity in drawing pourtraits ſo liuely,and ſo neer reſembling thoſe for whom they were made,that hardly one could be known
D from the other; inſomuch,as *Appion* the Grammarian hath left in writing (a thing incredible to be ſpoken) that a certain Phyſiognomiſt or teller of Fortune,by looking onely vpon the face of men and women,ſuch as the Greekes call Metopoſcopos,judged truly by the portraits that *Apelles* had drawne,how many yeres they either had liued or were to liue,for whom thoſe pictures were made. But as gracious as he was otherwiſe with *Alexander* and his train, yet he could neuer win the loue and fauor of prince *Ptolomæus*,who at that time followed the court of K. *Alexander*, and was afterwards king of Egypt. It fortuned,that after the deceaſe of *Alexander*,and during the reigne of K. *Ptolomæ* aforeſaid, this *Apelles* was by a tempeſt at ſea caſt vpon the coaſt of Ægypt,and forced to land at Alexandria; where, other painters that were no well willers of his,
E practiſed with a jugler or jeaſter of the kings,and ſuborned him in the kings name to train *Apelles* to take his ſupper with the king. To the court came *Apelles* accordingly, and ſhewed himſelf in the preſence. *Ptolomæ* hauing eſpied him,with a ſtern and angry countenance demanded of him what he made there,and who had ſent for him? and with that ſhewed vnto him all his ſeruitors who ordinarily had the inuiting of gheſts to the kings table,commanding him to ſay which of all them had bidden him: whereat *Apelles*, not knowing the name of the party who had brought him thither, and beeing thus put to his ſhifts, caught vp a dead cole of fire from the hearth thereby,and began therewith to delineat and draw vpon the wall the proportion of that couſiner beforeſaid. He had no ſooner pourfiled a little about the viſage,but the king preſently tooke knowledge thereby of the party that had played this pranke by him and wrought him
F this diſpleaſure. This *Apelles* drew the face of K. *Antiochus* alſo, who had but one eie to ſee withall: for to hide which deformity and imperfection,he deuiſed to paint him, turning his viſage a little away,and ſo he ſhewed but the one ſide of his face,to the end, that whatſoeuer was wanting in the picture,might be imputed rather to the painter,than to the perſon whom he portraied. And in truth,from him came this inuention firſt to conceale the defects & blemiſhes of the viſage,and to make one halfe face onely, when it might be repreſented full and whole, if it

pleaſed

pleaſed the painter. Among other principall pieces of worke, ſome pictures there be of his ma- G
king, reſembling men and women lying at the point of death, and euen ready to gaſp and yeeld vp the ghoſt. But of all the pictures & portraitures that he made, to ſay preciſely which be the moſt excellent, it were a very hard matter: as for the painted table of *Venus*, ariſing out of the ſea (which is commonly knowne by the name of *Anadyomene*) *Auguſtus Cæſar*, late Emperour of famous memory, dedicated it in the temple of *Iulius Cæſar*, his father; which hee inriched with an Epigram of certaine Greeke verſes, in commendation as well of the picture, as the painter. And albeit the artificiall contriuing of the ſaid verſes went beyond the worke, which they ſeemed to praiſe, yet they beautified and ſet out the table not a little. The nether part of this picture had caught ſome hurt by a miſchance: but there neuer could be found that painter yet, who would take in hand to repaire the ſame and make it vp again as it was at firſt: ſo as, this wrong & harm H
done vnto the work, and continuing ſtill vpon the ſame, turned to the glory of the workeman. This table remained a long time to be ſeen, vntill in the end for age it was worm-eaten and rotten: in ſuch ſort, as *Nero* being Emperor was fain to ſet another in the place, wrought by the hand of *Doratheus*. But to come againe vnto *Apelles*; he had begun another picture of *Venus Anadyomene*, for the inhabitants of the Iſland Coſor Lango, which hee minded ſhould haue ſurpaſſed the former: howbeit, before he could finiſh it, ſurpriſed he was with death, which ſeemed to enuie ſo perfect workmanſhip: and neuer was that painter knowne to this day, who would turne his hand to that piece of worke, and ſeeme to go forward where *Apelles* left, or to follow on in
*Of this picture *Apelles* was wont to ſay, That there were two *Alexanders*: the one begotten by *Philip*, who was ἀμίμητος: & the other painted by *Apelles*, and he was ἀμίμητος, inimitable.
thoſe traicts and liniments, which he had pourfiled and begun. One picture he drew of *K. *Alexander* the Great, holding a * thunderbolt and lightening in his hand, which coſt twentie ta- I
lents of gold, and was hung in the temple of *Diana* at Epheſus. And verily, this deuiſe was ſo finely contriued, that as *Alexanders* fingers ſeemed to bear out higher than the reſt of the work, ſo the lightening appeared to be clean without the ground of the table, and not once to touch it. [But before I proceed any farther, let the readers take this with them, and alwaies remember, that theſe rich and coſtly pictures were wrought with foure colours and no more.] And for the workmanſhip of this picture, the price thereof was paid him in good gold coine by weight and meaſure, and neuer told and counted by tale. Of his handy worke was the picture of a Megabyzus or guelded prieſt of *Diana* in Epheſus, ſacrificing in his pontificall habits & veſtiments accordingly. Alſo the counterfeit of prince *Clytus*, armed at all pieces ſaue his head, mounted on
* The manner was to expreſſe lightening, by three ſhafts bound together in the middeſt.
horſe-back and haſting to a battell, calling vnto his ſquire or henxman for his helmet, who was K
portraied alſo reaching it vnto him. To reckon how many pictures *Apelles* made of K. *Alexander* and his father *Philip*, were but loſſe of time, and a needleſſe diſcourſe. But I cannot omit the painted table, containing the pourtrait of *Abron* that wanton and effeminat perſon; which piece of work the Samians ſo highly extoll and magnifie: ne yet another picture of *Menander* the K. of Caria, that he made for the Rhodians, and which they ſo much admire. Neither muſt I forget the counterfeit of *Ancæus*: of *Gorgoſthenes* the Tragædian, which he made at Alexandria: or while he was at Rome, one table containing *Caſtor* and *Pollux*, with the image of *Victorie*, and *Alexander* the Great: Likewiſe another repreſenting the counterfeit of Warre in perſon, bound with his hands behind at the backe, and *Alexander* the king mounted in a charriot triumphant: both which tables *Auguſtus* late Emperor of immortall memory, had dedicated modeſtly, and in L
ſimplicity of heart cauſed them to be hung vp in the moſt conſpicuous places of his Forum or hall that he built: but when *Claudius Cæſar* came to weare the diademe, he thought it more for the honour of *Auguſtus*, to ſcrape out the face of *Alexander*, as well in the one as in the other, and to ſet in the place the liuely image of the ſaid *Auguſtus* to be ſeen. It is thought likewiſe, that the full pourtrait of *Hercules*, painted in a table, ſtanding now in the temple of *Antonia*, was of his doing: an exquiſite piece of worke no doubt, for notwithſtanding that the backe part ſtand toward them that looke vpon it, yet it ſheweth the entire viſage, which is an exceeding hard matter: a man that beholdeth this *Hercules*, would think that the picture it ſelfe turned the face
*Some thinke he meaneth *Hero* & *Leandere*: and they read, *Hero Leandrũ pinxit*, he painted *Hero* and *Leander*.
to be ſeen, which the painter ſeemed by the reſt of the work to hide from the eie. Of his painting there is a * prince or worthy knight all naked, in which picture he ſeemed to challenge Nature: M
and to haue pourtraied euery part ſo well, as ſhee her ſelfe could not haue framed the ſame better. There is or was at leaſtwiſe, a horſe of his painting: which he pourtraied, to ſet againſt other horſes painted by diuerſe workemen, with whom he was entred into contention for the victory: in which triall, he appealed from the ſentence of men to the judgement of foure-footed beaſts,

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A euen liuing horſes indeed: for perceiuing that his concurrents were in fauor too mighty for him and that they were like to carry away the prize by corrupting the iudges and vmpires, he cauſed liuing horſes to be brought vp into the place; and hauing preſented before them the pictures of his concurrents horſes one by one, they ſeemed not to ioy nor make toward them: but no ſooner had he ſhewed * that of his owne pourtraying, but they fell all to neigh, as taking it for one of their fellows; which experiment ſerued euer after for a rule, to know indeed a good piece of workmanſhip in that kind. Moreouer, he made a picture repreſenting *Neoptolemus* the ſonne of *Achilles*, in habit of a man of armes, ſitting on horſebacke and riding againſt the Perſians: likewiſe another, reſembling *Archelaus* with his wife and little daughter: alſo K. *Antigonus* armed before with a cuirace, & marching on foot with his horſe of ſeruice led by him. Howbeit thoſe

B Painters that are counted more skilfull and cunning than others, preferre before all other pieces of his work manſhip, one picture of the ſame king ſitting vpon his horſe; and another which doth repreſent the goddeſſe *Diana*, among a conſort or company of other virgins at ſacrifice; whom he depainted ſo artificially in this table, that he ſeemeth to haue ſurmounted *Homer* the Poet, who eftſoons in his poems deſcribeth the ſame maiden *Diana* with her traine of yong damoſels. What would you haue more? he would ſeeme to pourtray thoſe things which indeed cannot be pourtraied, crackes of thunder, leames or flaſhes of lightening, and thunderbolts; all which pictures go vnder the name of *Brontes*, *Aſtrape*, and *Ceraunobolos*; his inuentions ſerued as precedents and patterns for others in that art to follow. One ſecret he had himſelfe, which no man was euer able to attaine and reach vnto, and that was a certain blacke verniſh which hee v-

C ſed to lay vpon his painted tables when he had finiſhed them; which was ſo finely tempered, and withall driuen vpon the worke ſo thin, that by the repercuſſion thereof it gaue an excellent gloſſe and pleaſant luſtre to the colors; the ſame alſo preſerued the picture from duſt and filthineſſe: and yet a man could not perceiue any ſuch thing at all, vnleſſe he held the table cloſe at hand, and looked very neere. And great reaſon hee had beſides to vſe this verniſh, namely, leſt the brightneſſe of the colours without it, might offend and dazzle the eyes, which now beheld them as it were afarre off through a glaſſe ſtone; and withall, the ſame gaue a ſecret deeping and ſadneſſe to thoſe colours which were too gay and gallant. And thus much may ſuffice for *Apelles*.

D In his time liued *Ariſtides* the Thebane, a famous painter. This *Ariſtides* was the firſt that would ſeeme to paint the conceptions of the mind, and to expreſſe all the inward diſpoſitions and actions thereof, which the Greeks cal Ethe: yea, the very perturbations and paſſions of the ſoule he repreſented in picture: howbeit, his colours were vnpleaſant and ſomwhat too harſh: He repreſented in a table the winning of a towne by force, wherein was pourtraied moſt liuely a little infant winding it ſelfe and making pretty means to creep vnto the mothers pap, who lay a dying vpon a mortall wound receiued in her breſt; but it paſſed, how naturally the poor womans affection was expreſſed in this picture; for a man might perceiue in her, very ſenſibly, a certaine ſympathie and tender affection yet, vnto her babe, albeit ſhe were now in her deadly pangs and going out of the world, fearing euen then, leaſt the childe ſhould meet with no milke when ſhe

E was dead, but in ſtead of ſucking it, fall to licke her bloud, and doe it ſelfe hurt and injurie: this painted table K. *Alexander* the Great tranſlated from Thebes to Pella, the city where himſelfe was borne. The ſame *Ariſtides* painted the counterfeit of a battell betweene the Greeks and the Perſians: in which table, he compriſed an hundred fighting men: his bargaine was to haue of *Mnaſon* the tyrant or K. of Elate, for euery perſonage that hee made * ten pounds of ſiluer. Hee * *M.m.*
pourtraied the running in a race of charriots drawn with four ſteeds, ſo liuely, that a man would haue thought he ſaw the wheels running about. And as for an humble ſuter or ſuppliant, he depainted him ſo naturally, making his petition and following it with ſuch earneſtneſſe, that hee ſeemed in maner to cry with an audible voice from the very picture. He counterfeited in a painted table, hunters with their veniſon that they had taken. *Leontion* alſo the painter, and a woman

F vnder the name of *Anapauomene*, dying for kind heart and the loue of her brother: likewiſe prince *Bacchus*, and lady *Ariadne* his wife, which be pictures much looked vpon at Rome in theſe dayes within the temple of *Ceres*; a plaier beſides in a tragœdy, accompanied with a boy (& theſe are to be ſeen in the chappell of *Apollo*) howbeit, this table hath loſt the beauty which it firſt had, through the folly of an vnskilfull painter, vnto whom it was put forth to be ſcoured and refreſhed, by *M. Iunius* the Pretor, againſt the ſolemnitie of the Apollinar games. Moreouer, there was

Vitr. Mar. reporteth, that he painted a mare.

to be ſeen in the chappell of *Faith* within the Capitoll, the picture of an old man with an harp, G
teaching a boy to play; which was of *Ariſtides* his making; but there is a man lying ſicke in his
bed, of his painting, that cannot be praiſed ſufficiently. And verily to conclude with his owne
word, ſo accompliſhed he was in this art, that K. *Attalus* (by report) gaue vnto him for one table
with the picture, one hundred talents of ſiluer.

About the ſame time, there flouriſhed (as I haue ſaid before) *Protogenes*; born he was at Cau-
nos a city in Cilicia, and ſubiect to the Rhodians: he was ſo exceeding poore at the beginning,
and withall, ſo ſtudious, intentiue, and curious in his worke without all end, that fawer pictures
by that means came out of his hands, and himſelfe neuer riſe to any great wealth. Who it was
that taught him his art, it is not knowne for certaine: but ſome ſay that he painted ſhips vntill
he was 50 yeres of age: which they collect by this argument, That when at Athens in the moſt H
conſpicuous and frequented place of the city, he was to adorne with pictures the porch before
* Names of gallies. the temple of *Minerua*; wherein he depainted that famous * Paralus and * Hemionis, which
ſome call Nauſicaa, he deuiſed certaine borders without: wherein he painted among thoſe by-
works (which painters call Parerga) certaine ſmall gallies and little long barks, to ſhew therby
the ſmall beginnings of his art, and to what height of perfection hee was come to in the end,
when his workmanſhip was thought worthy to be ſeen in the moſt eminent place of that citie.
* A worthy knight, ſonne of *Ochimus*. But of all the painted tables that euer he wrought, that of * *Ialyſus* is accounted the principall,
which is now dedicated at Rome within the temple of *Peace:* whiles he was in painting this *Ialy-*
ſus, it is ſaid, that he liued only vpon ſteeped Lupines, which might ſerue him in ſtead of meat
and drinke both, to ſatisfie his hunger and quench his thirſt: and this hee did, for feare leaſt too I
much ſweetneſſe of other viands ſhould cauſe him to feed ouer liberally, and ſo dul his ſpirit and
ſenſes. And to the end that this picture ſhould be leſſe ſubiect to other injuries, and laſt the lon-
ger, he charged it with foure grounds of colours, which he laid one vpon another: that euer as
the vpper coat went, that vnderneath might ſucceed in the place and ſhew freſh againe. In this
table, the pourtraiture of a dog is admirable and miraculous; for not only art, but fortune alſo
met together in the painting thereof; for when he had done the dog in all parts to the content-
ment of his owne minde (and that ywis was a very hard and rare matter with him) & could not
ſatisfie and pleaſe himſelfe in expreſſing the froth which fell from his mouth as he panted and
blowed almoſt windleſſe with running; diſpleaſed he was with the very art it ſelfe: and albeit he
thought that he had bin long enough already about the ſaid froth, and ſpent therein but too K
much art and curioſitie, yet ſomewhat (he wiſt not what) was to be diminiſhed or altered there-
in: the more workmanſhip and skill that went thereto, the farther off it was from the truth in-
deed and the nature of froth (the onely marke that he ſhot at:) for when he had done all that he
could, it ſeemed ſtill but painted froth, and not that which came out of the dogs mouth; where-
as it ſhould haue been the very ſame and no other, which had been there before. Hereat he was
troubled and vexed in his mind, as one who would not haue any thing ſeene in a picture of his,
that might be ſaid like, but the very ſame indeed. Many a time he had changed his penſill and
colours; as often, he had wiped out that which was done, and al to ſee if he could hit vpon it; but
it would not be, for yet it was not to his fanſie. At the laſt, falling clean out with his own work-
manſhip, becauſe the art might be perceiued in it, in a pelting chafe he flings me the ſpunge-ful L
of colors that he had wiped out, full againſt that vnhappy place of the table which had put him
to all this trouble: but ſee what came of it! the ſpunge left the colours behind, in better order
than hee could haue laied them, and in truth, as well as his heart could wiſh. Thus was the froth
made to his full mind, and naturally indeed by meere chance, which all the wit and cunning in
his head could not reach vnto. [After whoſe example, *Nealces* another painter did the like, and
ſped as wel, in making the froth falling naturally from a horſes mouth; namely, by throwing his
ſpunge againſt the table before him, at what time as he painted a horſe-rider cheering and cher-
king vp his horſe, yet reining him hard as he champed vpon his bit.] Thus (I ſay) Fortune taught
Protogenes to finiſh his dog. This picture of *Ialyſus* and his dog, was of ſuch name and ſo highly
eſteemed, that K. *Demetrius* when hee might haue forced the city of Rhodes, on that ſide onely M
where *Protogenes* dwelt, forbare to ſet it on fire, becauſe he would not burne it among other pain-
ted tables: and thus for to ſpare a picture, he loſt the opportunitie of winning a towne. During
this ſtrait ſiege and hot aſſault of Rhodes, it chanced that *Protogenes* himſelfe was at worke in a
little garden that he had by the townes ſide, euen as a man would ſay within the compaſſe of

Demetrius

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A *Demetrius* his camp. And for all the fury of warre and the daily skirmiſhes within his ſight and hearing, yet he went on ſtill with his workes that he had in hand, and neuer diſcontinued one hour. But being ſent for by the king, and demanded, How he durſt ſo confidently abide without the walls of the city in that dangerous time? he anſwered, That he knew full well that *Demetrius* warred againſt the Rhodians, and had no quarrell to good Arts and Sciences. The king then (glad in his heart that it lay now in his hand to ſaue thoſe things, which he had ſpared before, and whereof he had ſo good reſpect) beſtowed a very ſtrong guard about *Protogenes* for his better ſafety & ſecurity: and as great an enemy as he was to the Rhodians, yet he vſed otherwhiles to viſit *Protogenes* of his owne accord in proper perſon, becauſe he would not eftſoones call him out of his ſhop from worke: and ſetting aſide the maine point and occaſion of lying before
B Rhodes, which was the winning thereof, the thing that hee ſo much deſired; euen amid the aſſaults, skirmiſhes, and battels, hee would finde time to come to *Protogenes*, and took great pleaſure to ſee his worke. By occaſion of this ſiege and hoſtilitie, aroſe this tale moreouer of one table of his making, That all the whiles he painted it, the dagger (forſooth) was ſet to his heart, and a ſword ready to cut his throat: and it was the picture of a Satyre playing vpon a paire of bag-pipes, which he called * *Anapauomenos*: by which name, as well as by the thing it ſelfe, hee would ſeem to ſignifie, that he tooke but little thought and care during thoſe dangerous troubles. Moreouer, he made the picture of lady *Cydippe*, and of * *Tlepolemus*: he painted alſo *Philiſcus* a writer of Tragœdies, ſitting cloſe at his ſtudy meditating and muſing. Alſo, there be of his making, a wreſtler or champion, *Antigonus* the king, and the * mother of *Ariſtotle* the Philoſo-
C pher, who alſo was in hand with *Protogenes*, perſuading him to buſie himſelfe in painting all the noble acts, victories, and whole life of king *Alexander* the Great, for euerlaſting memoriall and perpetuitie: but the vehement affection and inclination of his minde ſtood another way, and a certaine itching deſire to ſearch into the ſecrets of the art, tickled him, and rather drew him to theſe kinds of curious workes whereof I haue already ſpoken. Yet in the later end of his daies, he painted K. *Alexander* himſelfe, and god *Pan*. Ouer and beſides this flat painting, he gaue himſelfe greatly to the practiſe of founderie, and to caſt certaine images of braſſe, according as I haue already ſaid.

* One at reſt, or repoſing himſelfe. Some reade, *Triptolemus*.

* *Phaſtias*.

At the very ſame time liued *Aſclepiodorus*, whom for his ſingular skill in obſeruing ſymetries and juſt proportions, *Apelles* himſelfe was wont to admire. This Painter pourtraied for *Mnaſon*
D the foreſaid king of the Elateans, the 12 principall gods, and receiued for euery one of them 300 pound of ſiluer. The ſaid *Mnaſon* gaue vnto *Theomnaſtus* for painting certaine Princes or Worthies, one hundred pounds apiece.

In this rank is to be ranged *Nicomachus*, ſon and apprentice both to *Ariſtodemus*. This *Nicho-machus* pourtraied the rauiſhing of *Proſerpine* by *Dis* or *Pluto*: which picture ſtandeth in a table within the Chappell of *Minerua* in the Capitoll, aboue the little cell or ſhrine of *Iuventus*. In the ſame Capitoll, another table there is likewiſe of his making, which *Plancus* (Lord Generall of an army for the time being) had there dedicated and ſet vp: the ſame doth repreſent *Victorie* catching vp a triumphant chariot drawn with four horſes aloft into heauen. He was the firſt that pourtraied prince *Vlixes* in a picture, with a * cap vpon his head. He painted alſo *Apollo* and *Di-*
E *ana*: *Cybele* likewiſe the mother of the gods, ſitting vpon a Lyon: of his workmanſhip is the table, repreſenting the religious prieſtreſſes of *Bacchus* in their habite, together with the wanton Satyres creeping and making toward them. Semblably, the monſtrous meermaid *Scylla*, which at this day is to be ſeen at Rome within the temple of *Peace*. A ready workeman he was, & you ſhall not heare of a painter that had a quicker hand than he, at his worke: for proofe wherof, this voice goeth of him, That hauing vndertaken for a certain ſum of money to *Ariſtratus* the tyrant of Sicyone, to paint a monument or tombe which he cauſed to bee made for *Teleſtes* the Poet, and to finiſh it by ſuch a day appointed and ſet downe in the couenants of the bargain, he made no great haſt to go about it, but came ſome few daies before the expiation of the preſcript term for to begin the ſame worke: whereat the tyrant was wroth, and menaced to puniſh him for ex-
F ample: howbeit, he quit himſelfe ſo well, and followed his worke with ſuch wonderfull celeritie, that in few daies ſpace he brought it to an end: and yet the art and workmanſhip therof was admirable. Vnder him were brought vp as apprentices, his brother *Ariſtides*, his owne ſon *Ariſtocles*, and *Philoxenus* the Eretrian.

* In token of nobility, as *Pierius* noteth in his Hieroglyphicks, Lib.

This *Philoxenus* made one painted table for *Caſſander* the king, containing the battel between

Alexander the Great and K. *Darius*, which for exquisit art commeth not behind any other whatsoeuer. One picture there is of his doing, wherein he would seeme to depaint lascious wantonnesse, which he pourtraied by 3 drunken Sylenes making merry and banquetting together. He gaue himselfe also to the speedy workemanship of his master before him, and for that purpose inuented other compendious meanes of greater breuitie to make riddance and quicke dispatch with his pencill. G

With these may be sorted *Nicophanes* also, a proper, feat, and fine workman, whose manner was to take out all pictures and paint them new againe, thereby as it were to immortalize the memory of things: a running hand hee had of his owne, and besides, was by nature hasty and furious: howbeit, for skill and cunning there were but few comparable vnto him. In all his workes hee aimed at loftinesse and grauity: so that a man may attribute the stately port that is in this Art, vnto him and no other. H

As touching *Perseus* apprentice to *Apelles*, & who wrote a book to him of the very art) he came far short both of his master & also of *Zeuxis*. As for *Aristides* the Theban, who also liued in this age, he brought vp vnder him his two sons, *Niceros* and *Aristippus*. This *Aristippus* pourtraied a Satyre crowned with a chaplet, and carrying a goblet or drinking cup: he taught *Antonides* and *Euphranor* his cunning; of whom I will write anon: for meet it is to annex vnto the rest, such as haue bin famous with the pencill in smaller works and lesse pictures; among whom I may reckon *Pyreicus*, who for art and skill had not many that went before him; and verily of this man, I wot not well, whether he debased himselfe and bare a low sale, of purpose, or no? for surely his mind was wholly set vpon painting of simple and base things: howbeit, in that humble & lowly carriage of himselfe, hee attained to a name of glory in the highest degree; his delight was to paint shops, of barbers, shoomakers, coblers, taylers; and semsters: hee had a good hand in pourtraying of poore asses, with the victuals that they bring to market, & such homely stuffe: whereby he got himselfe a by-name, and was called *Rhyparographus*. Howbeit, such rude and simple toies as these were so artificially wrought, that they pleased & contented the beholders, no thing so much. Many chapmen he had for these trifling pieces, and a greater price they yeelded vnto him, than the faireſt and largest tables of many others. Whereas contrariwise, *Serapion* vsed to make such great and goodly pictures, that (as *M. Varro* writeth) they were able to take vp & fill all the stals, bulks, and shops, jutting forth into the street vnder the old market place Rostra; this *Serapion* had an excellent grace in pourtraying tents, booths, stages, and theaters; but to paint a man or woman, he knew not which way to begin. On the other side, *Dionysius* was good at nothing els, and therefore he was commonly called *Anthropographus*. Moreouer, *Callicles* also occupied himselfe in smal works; and *Calaces* set his mind especially vpon little tables and pictures which were to set out comœdies and interludes; but *Antiphilus* practised both the one and the other; for he pictured the noble ladie *Hesione*, K. *Alexander* the Great, and *Philip* the king his father, with the goddesse *Minerva*: which tables hang in the Philosophers schoole or walking-place within the stately galleries of *Octauia*, where the learned clerks and gentlemen fauorers of learning, were wont to meet and conuerse. Within the galleries also of *Philippus*, there are to be seen, the picture of prince *Bacchus*, the pourtrait of *Alexander* in his childhood, and of *Hyppolitus* the yong gentleman, affrighted and astonied at the sight of a monstrous bull let loose and ready to incounter him. Likewise in the gallerie of *Pompey*, the counterfeits of *Cadmus* and *Europa*; all pictures of *Antiphilus* his making. Of his handy-worke, there is a fool with his bel, cockscomb, bable, and in other ridiculous habit, going vnder the name of *Gryllus*, deuised for the nones to make sport and pastime; wherupon all such fooliſh pictures be called Grylly. Himself was born in Ægypt, howbeit he learned all his cunning of *Cteſidemus*. In this bed-roll of painters, I should not do well to passe ouer in silence, the workeman that painted the temple of *Iuno*, at Ardea, especially seeing that he was infranchised free burgeois of that city, and honored besides with an Epigram or Tetrastichon, remaining yet to be read in the mids of his pictures in these foure Hexameter verses following; I K L M

Dignis digna loca picturis condecorauit,
Regina Iunonis supremi conjugis templum
Marcus Ludius Elotas Ætolia oriundus;
Quem nunc, & post semper ob artem hanc Ardea laudat.

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A This ſtately Church of *Iuno* Queen, with pictures richly dight,
Whom wife to mighty *Iupiter*, and ſiſter, men do call;
Commends the hand of *Myrke Ludie*, *Elotas* alſo hight,
Ætolian born: whom Ardea doth praiſe, and euer ſhall.

Theſe verſes are written in antique Latine letters. By occaſion of whoſe name, I muſt not defraud another *Ludius* of his due praiſe and commendation, who liued in the time of *Auguſtus Cæſar* Emperor of happy memory: for this *Ludius* was he who firſt deuiſed to beautifie the wals of an houſe with the pleaſanteſt painting that is in all varietie, to wit, with the reſemblance of manors, farms, & houſes of pleaſure in the country, hauens, vinets, floure-work in knots, groues, woods, forreſts, hils, fiſh-pooles, conduits, and drains, riuers, riuerets, with their banks, and what-
B ſoeuer a man would wiſh for to ſee: wherin alſo he would repreſent ſundry other ſhews of people, ſome walking and going to and fro on foot; others ſailing & rowing vp and down the ſtream vpon the riuer, or els riding by land to their farms, either mounted vpon their mules and aſſes, or els in wagons and coaches: there a man ſhould ſee folk in this place fiſhing and angling, in that place hauking and fouling: ſome hunting here, the hare, the fox, or deere both red and fallow; others buſie there in harueſt or vintage. In this maner of painting a man ſhould behold of his workmanſhip faire houſes ſtanding vpon mariſhes, vnto which all the ways that lead be tickliſh and full of bogs; where you ſhould ſee the paths ſo ſlipperie, that women as they goe are afraid to ſet one foot afore another; ſome at euery ſtep ready to ſlide, others bending forwards with their heads as though they caried ſome burdens vpon their neck and ſhoulders, and all for
C feare leſt, their feet failing vnder them, they ſhould catch a fal: and a thouſand more deuiſes and pretty conceits as theſe full of pleaſure and delight. The ſame *Ludius* deuiſed walls without dores, and abroad in the open aire to paint Cities ſtanding by the ſea ſide. All which kinde of painting pleaſeth the eie very well, and is beſides of little or no coſt. Howbeit, neither hee nor any other in this kinde (howſoeuer otherwiſe reſpected) grew euer to be famous and of great name, that felicitie they only attained vnto, who vſed to paint in tables: and therefore in this regard, venerable antiquitie we haue in greater admiration; for painters in old time loued not to garniſh wals for to pleaſure the maſter only of the houſe, ne yet to bedeck houſes in that maner which canot ſtir out of the place, nor ſhift and ſaue themſelues when fire commeth, as painted
D tables may, that are to be remoued with eaſe. *Protogenes*, as excellent a painter as he was, contented himſelfe to liue within a little garden in a ſmall cottage, and I warrant you no part thereof was painted. *Apelles* himſelfe might well haue the walls of his houſe rough caſt or finely plaiſtered, but neuer a patch thereof had any painting: they took no pleaſure, nay they had no luſt at all to paint vpon the whole wals, and to work vpon them from one end to another; al their skil and cunning attended vpon the publique ſeruice of ſtates and cities: and a painter was not for this or that place only, but imploied for the benefit indifferently of all countries and nations.

But to return again to our particular painters: there flouriſhed at Rome a little before *Auguſtus Cæſars* days, one *Arellius* a renowned painter, but that he had one notable foul fault that marred all and diſcredited his art; giuen he was exceedingly to wenching, and ſure hee would be to
E haue one woman or other all times in chaſe: which was the reaſon hee loued alife to be painting of goddeſſes, which were euer drawn by the pattern of his ſweet-hearts whom hee courted. A man might know by his pictures, how many queans he kept, and which were the miſtreſſes or rather goddeſſes whom he ſerued. Of late daies wee had among vs here at Rome one *Amulius* a Painter; he caried with him in his countenance and habit grauitie and ſeuerity; howbeit he loued to make gay and gallant pictures, neither ſcorned he to paint the moſt trifling toies & meaneſt things that were. The picture of *Minerua* was of his making, which ſeemes to haue her eie ful directly vpon you, looke which way ſoeuer you will vpon her. Hee wrought but ſome few houres of the day, and then would he ſeem very graue and antient, for you ſhould neuer find him out of his gown and long robe, but very formall, though he were cloſe ſet at work & euen lockt as it were to his frame. The golden houſe or palace of *Nero* caught vp all the workes hee made,
F where they remained as it were in priſon, and neuer came abroad; which is the reaſon that none of his pictures els be extant. After him ſucceeded *Cornelius Pinus*, and *Actius Priſcus*, two Painters of good reputation, who painted the temples of *Honour* and *Vertue* for *Veſpaſianus Auguſtus* the Emperor, when he cauſed them to be re-edified: but of the twaine, *Priſcus* in his workemanſhip came neerer to the painters of antient time.

Chap. XI.

¶ *The manner how to make Birds ſilent, and to leaue their chattering and ſinging. Who firſt deuiſed with fire and pencill to enamel and paint the arched roufes and embowed ſeelings of houſes. The admirable price of pictures inſerted here and there among other matters.*

SInce I haue proceeded ſo far in the diſcourſe of Painters and their art, I muſt not forget to ſet down a pretty jeſt, which hath bin reported by many as touching *Lepidus*: It hapned during the time of his Triumvirat, that in a certain place where he was, the magiſtrates attended him to his lodging enuironed as it were with woods on euerie ſide: the next morrow *Lepidus* took them vp for it, and in bitter tearmes and minatorie words chid them, for that they had laid him where he could not ſleep a wink all night long, for the noiſe and ſinging that the birds made about him. They being thus checked and rebuked, deuiſed againſt the next night to paint in a piece of parchment of great length a long Dragon or ſerpent, wherewith they compaſſed the place where *Lepidus* ſhould take his repoſe; the ſight of which ſerpent thus painted ſo terrified the birds, that they had no mind to ſing, but were altogether ſilent. By which experiment at that time, it was known afterwards, that birds by this means might be ſtilled.

*Encauſtice.

As touching the feat of ſetting colours with wax, and * enamelling with fire, who firſt began & deuiſed the ſame, it is not known. Some are of opinion, that the inuention therof came from *Ariſtides*; and that *Praxiteles* practiſed the ſame, & brought to an abſolute perfection. But ſurely there were pictures wrought by fire a good while before *Ariſtides* daies; and namely by *Polygnotus*, *Nicanor*, and *Arceſilaus* of Paros. *Lyſippus* alſo in his painted tables that he made at Ægina vſed to entitle them with this inſcription, Λύσιππος ἐποίησεν, *i.* *Lyſippus* painted this with fire: which verily he would neuer haue done, if the art of painting with fire (called Encauſtice) had not bin before deuiſed. Moreouer, *Pamphilus*, maſter to *Apelles*, is reported not onely to haue himſelfe practiſed this painting with verniſh, and to inamel by the means of fire, but alſo to haue taught it vnto *Pauſias* the Sicyonian, who was the firſt that excelled in this kinde, and caried away the name from all others in his time. This *Pauſias* was the ſon of *Brietes*, and apprentice alſo to his father in the beginning: he vſed alſo the plaine penſil, wherewith he wrought vpon the walls at Theſpiæ; which hauing been in times paſt painted by *Polygnotus*, were now to be refreſhed and painted new again by his hand: howbeit in compariſon of the former worke he was thought to come a great way ſhort of *Polygnotus*; and the reaſon was, becauſe he dealt in that kind of work which was not indeed his proper profeſſion. He it was that brought vp firſt the deuice of painting vaulted roufes; for neuer was it the manner to adorne and garniſh embowed ſeeling ouer head with colours, before his time. His delight naturally was to be painting little tables, and therein he loued to portray little boies. Other painters his concurrents, and no well-willers of his, gaue it out, that he made choice of this kind of work, becauſe ſuch painting went but ſlowly away, and required no quicke and nimble hand. Whereupon *Pauſias*, to diſproue his aduerſaries, and withall to get himſelfe a name, as well for celeritie and expedition, as for his art and skill otherwiſe in theſe ſmall pieces, began and finiſhed in a table the picture of a boy, within one day, and thereupon it was called *Hemereſios*. In his youthfull daies he fell in fancie with a woman in the ſame towne where he dwelt, named *Glycera*: a fine wit ſhe had of her owne, and eſpecially in making chaplets and guirlands of floures, ſhe was full of inuention. *Pauſias* by his acquaintance with her, and ſtriuing to imitate with his penſill her handiworke, and to expreſſe that varietie of floures which ſhe gathered and couched together full artificially in her Coronets, enriched his owne pictures alſo with a number of colours, and brought the art to wonderfull perfection in that point. In the end he painted *Glycera* alſo his loue, ſitting, with a Chaplet of floures her hand: and certes this is the moſt excellent peece of worke that euer went out of his ſhop: this table with the picture was thereupon called by ſome, Stephanoplocos, *i.* [A woman] plaiting and twiſting a guarland: by others, Stephanopolis, *i.* Selling guirlands: for that this *Glycera* got a poor liuing by making chaplets, and had no other good means to maintain her ſelfe. The counterfeit taken from this table and made by it (which kind of pattern the Greekes call Apographon) *L. Lucullus* bought of *Dionyſius* a painter of Athens, and it coſt him

*781 *lib.* 5 *ſo.* * two talents of ſiluer. Furthermore, this *Pauſias* made faire and great pictures alſo; and namely,

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A namely, one of his making which doth repreſent a ſolemne ſacrifice of oxen, is to be ſeen at this day within the ſtately galleries of *Pompeius*: and verily, this maner of painting the ſolemnity of a ſacrifice he firſt inuented: but no man euer after could attaine to his dexteritie in that kinde: and notwithſtanding many gaue the attempt, and ſeemed to imitate him, yet they came al ſhort of him: aboue al, he had a ſingular gift to work by perſpectiue; for when he was minded to paint a bœuf or oxe, to ſhew the full length, he would not portray him ſidelong or aſlank, but afront; by which means the beaſt is beſt repreſented, not only how long, but alſo how large and big he is euery way. Again, whereas all other painters, whenſoeuer they would raiſe their work, & make any thing ſeeme eminent and high, vſe to colour the ſame white and bright, and the better to make their perſpectiue, do ſhadow or deep the ſame with black: this man in lieu thereof, would
B paint the oxe all of a black colour, and cauſe the body as it were of the ſhadow to ariſe out of it ſelfe. And verily ſo excellent he was in this perſpectiue, that a man would ſay, his euen, plaine, and flat picture were emboſſed and raiſed work, yea and imagin where fractures were, that al was ſound and entire. This man liued alſo at Sicyone, and verily for a long time this city was reputed the natiue countrey that bred painters, and the onely place ſtored with excellent pictures. But during that time wherein *Scaurus* was Ædile at Rome, all the rich tables which were in the publick places of that city, whether in the market ſteads, temples, or common halls, were ſeiſed vpon and brought to Rome, for to ſatisfie great ſums of money wherein the Sicyonians ſtood indebted.

After *Pauſias*, there aroſe one *Euphranor* the Iſthmian, whom flouriſhed about the 104 Oiym-
C pias, far ſurpaſſing all other painters of his time. This *Euphranor* is hee whom I haue named among the famous imageurs and founders. Of his workmanſhip there be Coloſſes of braſſe, ſtatues of marble ſtone, yea and faire drinking cups chaſed and engrauen. Of an excellent capacity he was, and apt to learn any thing, ſtudious withall, and painfull aboue all others, and whatſoeuer he gaue his mind vnto, therein he excelled: and in one word, a general man he was like himſelfe ſtill, that is to ſay, his craftsmaſter in all, and as good in one thing as another. This is hee who ſeems to haue expreſſed firſt the port and maieſtie that is in princes and great ſtates, and to haue obſerued ſymmetry and proportion: & yet he was not without his imperfection, for commonly as he made the bulk of the body too ſlender, ſo the joints and heads were ſomewhat with the biggeſt; howbeit he wrot books touching ſymmetrie and proportion, as alſo of colours. A-
D mong other works of his, there are reckoned theſe, to wit, the portraiture of a battel or skirmiſh of horſemen, the twelue chiefe gods and goddeſſes, alſo the liuely picture of *Theſeus*, of whom he was wont to ſay, That the *Theſeus* of *Paraſius* painting was fed with roſes, but this *Theſeus* of his with good fleſh. There be excellent tables of his making at Epheſus, to wit, *Vlyxes* feigning himſelfe mad, and in that fit coupling an oxe and a horſe in one and the ſame yoke: alſo diuers perſonages in their clokes and mantles after the Greekiſh faſhion, muſing and in a deep ſtudy; likewiſe a captain putting vp his ſword into his ſcabberd.

At the ſame time liued *Cydias*, he who in a table repreſented the * Argonauts, for which *Hor-
tenſius* the Orator was content to pay 144000 Seſterces. This picture he ſhrined in an Oratorie
E or chappell built of purpoſe for it, in a houſe of pleaſure that he had at Thuſculum.

As for *Antidotus*, apprentiſe he was to *Euphranor*: of his handiwork there is a picture at Athens reſembling one with a ſhield ready to enter into combat or fight; alſo a wreſtler and a plaier vpon the fife or hautbois, which is a piece of work highly commended, and few comparable vnto it: more curious and preciſe he was in the ſecrets of the art, than obſeruant of ſymmetry & proportion; being otherwiſe giuen to vſe ſad and duskiſh colours. The greateſt name that he had, was for bringing vp *Nicias* the Athenian, who of all others painted women moſt excellently. For lights and ſhadowes in perſpectiue he was excellent: alſo a paſſing great care and regard he had ſo to raiſe his worke, as that it ſeemed to be emboſſed and higher than the boord of his table: the pictures of *Nemea*, which out of Aſia were tranſported to Rome by *Syllanus*, and hung vp in the Senat houſe, as I haue ſhewed heretofore; of prince *Bacchus*, within the temple of *Concord*;
F of *Hyacinthus*, which *Auguſtus Cæſar* vpon a ſpeciall liking to it brought with him to Rome, after hee had forced and ſacked Alexandria; (in which regard *Tiberius Cæſar* his ſucceſſour, ſeeing what affection *Auguſtus Cæſar* had vnto it in his life time, dedicated it in the Temple of the ſaid *Auguſtus*) and laſtly of the goddeſſe *Diana*, were all proofes of his skill and workmanſhip. Moreouer, at Epheſus the Sepulchre of *Megabyzus* one of the Prieſts of the Or-

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* *i.* Diuers valiant knights, who accompanied prince *Iaſon* in his voiage to Colchos for the golden fleece.

der of *Diana* of Epheſus was of his painting: like as at Athens, the necromancie of the Poet *Homer*. This picture *Nicias* held at ſo high a price, that he would not let it go vnto K. *Attalus* for 60 talents, but choſe rather to beſtow it freely vpon his own natiue country, being otherwiſe a man for his own priuat ſtate very wealthy. Beſides theſe before rehearſed, he made others of a larger ſize, among which are reckoned *Calypſo*, *Io*, and the lady *Andromeda*. The excellent picture alſo of K. *Alexander*, which is in the gallery of *Pompeius*, together with *Calypſo* painted ſitting, came out of his ſhop. The perfect pourtraying of fourfooted beaſts is aſcribed vnto him; and in truth, a ſingular grace he had and felicitie in painting dogs. This is that *Nicias* of whom *Praxiteles* gaue ſo good teſtimonie: for being asked vpon a time, what pieces he eſteemed beſt of all thoſe that himſelfe had cut in marble? he anſwered, Euen thoſe wherein *Nicias* hath had a hand: ſo much did he attribute vnto his * verniſh and poliſhing. Another *Nicias* there was, who liued in the 112 Olympias; but whether this man were he or no, it is not certainly knowne; howbeit ſome there be that would haue him to be the ſame. Certes, *Atheman* of Marona was taken for as good a workman euery way as *Nicias*, and in ſome reſpects better: he learned the art of *Glaucion* the Corinthian. In choice of his colours he ſtood not ſo much vpon gallantneſſe, but vſed thoſe that were with the ſaddeſt; howbeit thoſe dark and ſhadowed works of his ſhewed more pleaſant and delectable than his maſters: wherby appeared his profound knowledge and deep skil, in the very laying and couching of his colours. The picture of *Philarchus* he drew, which is in the Temple of *Ceres Eleuſine*. The frequent aſſembly alſo of the dames of Athens, which they call Polygynæcon, was of his pourtraying: likewiſe he repreſented *Achilles* in his youth, hidden vnder the habit of a yong damoſell, and how the crafty foxe *Vlyſſes* diſcouered and found him out, notwithſtanding he was ſo diſguiſed. But one table aboue the reſt woon him the greateſt credit, and that was, wherein he painted an horſekeeper training and nurturing his palfrey. Certes, but that he died in his youth, there had not been a painter in all the world comparable vnto him.

*Circumlitioni: others read *circumductioni*, i. the the firſt draught or pourfiling.

As touching *Heraclides* the Macedonian, he alſo may run in the range of famous Painters: at the beginning he employed himſelfe in painting ſhips: after that King *Perſeus* was taken priſoner, he left his natiue countrey and went to Athens, where liued at that time *Metrodorus*, a Painter and Philoſopher both, a man of great name and authoritie as well in the one profeſſion as the other: and therefore when *L. Paulus* after the defeature of the ſaid *Perſeus* ſent vnto the Athenians, and requeſted them to ſend vnto him an excellent Philoſopher to teach and inſtruct his children, together with a ſingular painter to ſet out his triumph with curious pictures, the Athenians made choice of *Metrodorus* onely, and commended him alone vnto *Lucius Paulus*, for the beſt approoued and moſt conſummate to ſerue his turne and ſatisfie both his deſires: which by good proofe and experience *Paulus* found true, and gaue iudgement of him accordingly.

Timomachus the Byzantine flouriſhed in the dayes of *Cæſar* Dictatour, for whom hee painted *Ajax* and *Medea*: which pictures when he bought of him for 80 talents, hee cauſed to be hung vp in the temple of *Venus* * *Genetrix*. Now when I ſpeake of a talent, you muſt vnderſtand the Attick talent, which *M. Varro* doth value at 6000 deniers Roman. There goeth as great praiſe likewiſe and commendation of other pieces that paſſed from vnder the hands of *Timomachus*, to wit, the pictures of *Oreſtes*, of *Iphigenia* in Tauris, and of *Lecythion*, who taught youths dancing, vaulting, and other feats of actiuitie: he pourtraied alſo in a table, a goodly race, deſcent, and kindred of gentlemen; two perſons beſides in their clokes or mantles, after the Greekiſh faſhion, ready to make a ſpeech vnto the people, the one ſet, the other ſtanding vpon his feet: but it ſeemed that art fauored and graced him moſt in painting *Minerva's* ſhield, where he portraied *Gorgon* or *Meduſa's* head moſt liuely.

* This Saint *Iulius Cæſar* honored moſt: for that hee would ſeem to bee deſcended from *Iulus* or *Aſcanius*, ſon of *Æneas*, and nephew to *Venus* by *Anchiſes*.

Ariſtelaus was the ſon of *Pauſias*, and vnder his father he learned the myſterie of painting, who is counted one of the greateſt painters that euer was. Of his workmanſhip are the tables containing the pictures of *Epaminondas*, *Pericles*, *Medea*, *Vertue*, and *Theſeus*. Hee alſo drew with his penſil in colours, the common people of Athens, and a ſolemne ſacrifice of Oxen.

There was alſo one *Mechopanes*, apprentiſe likewiſe vnto the ſame *Pauſias*, who is highly commended by ſome for his curious and exquiſit workmanſhip: but ſuch it is, as none but cunning artiſts can conceiue, for otherwiſe I aſſure you his colours are vnpleaſant, and hee loued to lay on too much of one thing, and that was Sil.

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A As for *Socrates* the painter, his pictures were liked very well of all that saw them, and in truth, they deserued no lesse: for of his doing are these and such like, to wit, *Æsculapius*, with his daughters, *Hygia*, *Ægle*, *Panacea*, and (1) *Laso*: and an idle lazy lubber, knowne by a deuised name *Ocnos*, whom he pourtraied twisting a cord of Spart, and euer as he did it, an asse behind him gnawed it asunder. Thus much may serue concerning the principall painters that haue been knowne to excell in both kinds, to wit, with the pensill, and with fire: it remaineth now that I should discourse of those who were next vnto the principall, and so reputed.

In this second course of painters I must range *Aristoclides*, who beautified with his pictures the temple of *Apollo* in Delphos: as for *Antiphilus*, he is as much praised for painting a boy blowing hard at the coles; in which table, it is a prety sight to see how all the house (which was faire
B enough besides) shineth by the fire that he makes, as also what a mouth the boy makes: likewise for the picture of a company of Spinsters, so liuely, that one would imagin he saw euery woman making hast to spin off her distaffe, striuing avie who shal haue don her task first. He deuised also to portray *Ptolomæ* hunting, & this they call (2) *Aposcopon*, for which he is much commended: but principally for a braue Satyr of his workmanship, clad in a Panthers skin. *Aristophon* woone much credit by painting *Ancæus* wounded to death by a wild bore, & his wife *Astypale* standing hard by, who seemeth to lament for his sake, and (as it were) to feele part of his paine: he made also one faire table, inriched with a number of personages, to wit, K. *Priamus*, faire *Helena*, dame *Credulitie*, *Vlixes*, *Deiphobus*, and *Dolori*. *Androbius* got himself a great name by a picture, representing one (3) *Scyllus* [a cunning diver] cutting in two the anker cables of the Persian fleet, riding
C at sea. *Artemon* likewise was renowned for the counterfeit of lady *Danae*, found floting in the sea by (4) rouers or men of war, who seemed to wonder at her beauty, and to behold her with much contentment: also for picturing queene *Stratonice*: *Hercules* and *Deianira* his wife: but the most excellent pieces of his workmanship, be those which are to be seene in the galleries of *Octauia*, among other of her stately buildings; to wit, *Hercules* ascending vp into heauen from the mountaine Oeta within the region of Doris, where he changed this mortall life, and by the generall consent of all the gods, was receiued into their society: the whole history also of *Laomedon*, as touching his falshood to *Hercules* and *Neptune*. *Alcimachus* the painter was renowned for the
D picture of hardy *Dioxippus*, who (5) carried away the prize in all feats of actiuity, at the solemn games of Olympia, and neuer sweat nor touched (6) dust for it; which easie victory the Greekes call Aconiti. As for *Cænus*, he was excellent at painting Coronets & Garlands: also at drawing coats of arms in scutchions, of gentlemen and noble persons, with the stile of their titles & dignities. *Cteſilochus*, an apprentice to *Apelles*, became very famous for one picture aboue the rest, although it were but a wanton one and offensiue to chast eies; wherein forsooth hee depainted *Iupiter*, attired in a caule or coife about his head like a woman, groning and crying out also (as women do in trauell of childe birth) among the goddesses for their helping hand, who plaied the midwiues about him, vntil he was deliuered of god *Bacchus*, and brought to bed. *Cleon* was much spoken of, for the picture which hee made of K. *Admetus*: *Cteſidamus* for pourtraying the winning of Oechalia by *Hercules*. And for drawing the picture of lady *Laodamia*, the wife of *Protesilaus*. *Cleſides* was notorious for one picture which he made in despight of queene *Stratonice*, wife
E to K. *Antiochus*, and to be reuenged of her for a disgrace that he had receiued at her hands: for being in the court, and perceiuing that the queen did him no honour at all, nor gaue him any countenance, he made no more ado, but painted her in her colours, tumbling and wallowing along full vnseemly with an odde base fisherman, whom as the voice went, she was inamored vpon; and when he had done, set it vp in the very hauen of Ephesus, recouered a barke presently, and away he went vnder sale as fast as wind and tide would carry him. When the queene heard of it, she made but a jeast and mocke of it; neither would shee suffer the picture to be taken away, in regard of the wonderfull workmanship, which expressed her and him so like and liuely. *Craterus*
F was a Comœdian and plaier in Enterludes, howbeit, a fine Painter, as may appeare by his handy worke at Athens, within the publicke place Pompeium. *Eutychides* pourtraied a charriot drawne with two horses, and *Victorie* to guid and driue the same. *Eudoxus* had the name for his pictures which are seen at stage-plaies, to beautifie the place: who also was a good imageur and cast many faire pieces in brasse. *Iphis* was well thought of for *Neptune* and *Victorie* of his painting: and *Abron* was no lesse esteemed for the pictures resembling *Amity* and *Concord*, as also for the pourtraitures of the gods. *Leontiscus* pictured *Aratus* the Generall of the Achæans, returning

(1) I am not of *Dalechampius* his opinio, who takes *Laso* here for the valiant knight *Iason*, For the termination of the word is meere feminine as *Io*, *Ino*, *Sappho*, & such like: besides, who sees not, that *Laso* is respectiue to Physick, for that *Iasis* in Greek signifieth curing or healing, and it sorteth well with the names of her other sisters, which are likewise significant.

(2) *i.* (leuelling his shot at the Deere or wild beast) as *Dalechampius* doth interpret it: or els according to *Scaliger* (holding his hand ouer his ies to spie his game, & take his mark the better.

(3) or *Scyllias*, according to *Herod.*

(4) *rædonibus* otherwise *piscatoribus*, *i.* fishermen

(5) for he was the challenger & none would come forth against him.

(6) for at wrestling especially, they caught vp dust in their hands, to take hold the better of one anothers bodies, which were glib with oile.

turning with victory, and triumphing with his trophy. He painted also a minstrel wench playing vpon a Psaltry, and seeming to sing to it; which was thought to be a daintie piece of worke. As for *Leon*, he painted *Sappho* the Poetresse. And *Nicearchus* was much bruited abroad, for a picture, shewing *Venus* accompanied with the Graces and the pretty *Cupids*. And of his workemanship is *Hercules*, sad and pensiue: penitent also and repentant, for that which he had done in his furious madnesse. *Nealces* made one picture of *Venus* most curiously: for passing witty hee was, full of inuention, and exquisit in his art. When he painted the nauall battell betweene the Ægyptians and the Persians, which was fought vpon the riuer Nilus, the water whereof is rough and like the sea; because he would haue it knowne, that the fight was vpon the said riuer, he deuised another by-worke to expresse the same, which all the Art of painting otherwise could not performe: for he painted an Asse vpon the banke, drinking at the riuer, and a Crocodile lying in wait to catch him: whereby any man might soone know it was the riuer Nilus, and no other water. *Oenias* the painter made one pictiure aboue the rest, which he called *Syngenicus*. *Philiscus* became renowned by a painters shop of his painting, where he deuised a prentice boy blowing the coles to kindle a fire. *Phalerion* pourtraied *Scylla*, transformed into a monstrous Meeremaid. *Simonides* got credit by the picture of *Agatharrhus*, who woon the best game at running: and of the goddesse of Memory, named *Mnemosyne*. *Simus* took pleasure in painting a yong boy lying asleep in a waulke-mill or Fullers worke-house: another sacrificing vnto *Minerua* at the feast *Quinquatrus*: and of the same mans doing, there is an excellent picture of *Nemesis*, representing Iustice and Reuenge. *Theodorus* drew one snetting his nose: and the same painter represented in a table, how *Orestes* murdered his owne mother *Clytemnestra*, and *Ægysthus* the Adulterer that kept her. The warre of Troy hee depainted in many seuerall tables: and these hang in the galleries of *Philip* at Rome. Of his handy-worke is lady *Cassandra* the Propheteresse, which is to bee seen in the Chappell of *Concord*. Also, *Leontium* the courtisane belonging to *Epicurus* and his followers, was of his painting; like as king *Demetrius* musing and standing in a deepe studie. As for *Theon* the painter, hee described with his pensill the madnesse of *Orestes*, and pourtrayed *Tamyras* the Harper or Musitian. *Tauriscus* made one table, representing a man flinging a coit: and another resembling queene *Clytemnestra*. He pictured also a little *Pan*, whom he called *Panniscus*, in manner of an Anticke: *Polynices* also making claime to his kingdome, and marching in warlike manner to recouer the possession thereof againe: and last of all, signieur *Capaneus*, who lost his life in skaling the walls of Thebes. And here commeth to my minde one notable example as touching *Erigonus*, which I cannot passe with silence: This *Erigonus*, seruant somtime to *Nealces* the Painter, and employed onely in grinding colours, profited so much by seeing his master worke, that he became a Painter himselfe, and left behinde him an excellent workeman of his owne teaching, *Pausias* brother to *Ægineta* the Imageur. But one thing more there is, of rare admiration and worthie to be remembred, That the last peeces of excellent Painters, and namely such tables as bee left vnperfect, are commonly better esteemed than those that bee fully finished: as wee may see by the Raine-bow or Iris which *Aristides* was entered into, the two brethren *Castor* and *Pollux*, begunne by *Nicomachus*; the Picture of *Medea*, killing the children that shee had by *Iason*, which *Timomachus* was in hand with; and the *Venus*, that as I sayd before, *Apelles* liued not to make an end of: for in these and such like imperfect tables, a man may (as it were) see what traicts and lineaments remayne to bee done, as also the very desseignes and cogitations of the Artificers: and as these beginnings are attractiue allurements to mooue vs for to commend those hands that began such Draughts: so the conceit that they be now dead and missing, is no small griefe vnto vs, when wee behold them so raw and fore-let. But to come againe vnto our Painters: there be more yet behinde, and those of verie good regard in their time, howbeit, I will runne them ouer sleightly, and as it were passing and glauncing by them, namely, *Aristonides*, *Anaxander*, *Aristobulus* the Syrian, *Arcesilas* the sonne of *Tisicrates*, *Corybas* Apprentice to *Nicomachus*, *Carmanides* to *Euphranor*, *Dionysodorus* the Colophonian, *Diogenes* who followed the Court of King *Demetrius*, *Euthymedes*, *Heraclides* the Macedonian, *Mydon* of Solæ brought vp vnder *Pyromachus* the Imageur, *Mnasitheus* of Sicyone, *Mnasithemus* the sonne of *Aristonides*, who was Apprentice likewise vnto him, and *Nessus* the sonne of *Abron*, *Polemon* of Alexandria, *Theodorus* of Samos, and *Stodius*, (all three trayned vp vnder *Nicosthenes*) and *Xenon* of Sicyone, who learned his Craft of *Neocles*.

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A Moreouer,women there were alſo,excellent * Paintreſſes, to wit, *Timarete*, the daughter of *Nicon*,who made that excellent pourtraiture of *Diana* at Epheſus,a moſt antique picture: *Irene* the daughter of *Cratinus* the painter,who learned vnder her father,& drew the picture of a yong damoſell,which is at Eleuſine: *Calypſo*, of whoſe workemanſhip there is the picture of an old man,and of *Theodorus* the juglar: *Alciſthene* painted a dauncer: and *Ariſtarete*, both daughter and apprentiſe to *Nearchus*,made prooſe how well ſhe had profited,by the picture of *Æſculapius*. And *M. Varro* ſaith, That when he was a yong man, there was at Rome one *Lala*,a Cyzecene borne,who paſſed her whole life in virginity;and ſhe was skilful both in painting with the penſill,and alſo in enamelling with hot ſteele in yuorie: her delight was principally in drawing women;and yet there is a Neapolitane of her pourtraying in a faire long table: laſt of all, ſhee B took out her owne counterfeit at a mirroir or looking glaſſe. This one thing is reported of her, that no painter had a quicker hand or went faſter away with his worke than ſhe: and look what pictures ſoeuer came out of her hands, they were ſo artificially done, that they did out-ſell a great deal the works of *Sopylos* and *Dionyſius* (the moſt famous painters in that age) notwithſtanding their pictures and tables were ſo faire,as that they take vp whole cabinets;and wel was he (before that her pictures came abroad) who could be furniſhed out of their two ſhops. There was yet one paintreſſe more,to wit, *Olympias*: howbeit I heare no great matter of her, but this onely,that ſhe taught *Autobulus* the art of painting.

* i. that knew how to handle the penſill.

To come now to painting by the means of fire: I find this agreed vpon by all, that practiſed it was in old time but two waies only,that is to ſay,with wax, and in yuorie with a little ſteele C or punching yron;vntill ſuch time as they fell to painting ſhips alſo with wax and fire: and in this third ſort the manner is to vſe great penſils or bruſhes dipt in wax molten ouer the fire: and this kind of painting ſhips is ſo faſt and ſure,that neither ſun will reſolue,nor ſalt water eat and fret,ne yet wind and weather pierce and chinke it.

Moreouer,in Ægypt they haue a deuiſe to ſtaine cloths after a ſtrange and wonderful maner: They take white clothes,as ſailes or curtaines when they haue bin worne,which they beſmeare not with colours but with drugs that are apt to drinke and take colour: when they haue ſo don, there is no apparence in them at all of any dye or tincture. Theſe clothes they caſt into a lead or cauldron of ſome colour that is ſeething and ſcalding hot: where, after they haue remained a pretty while,they take them forth againe,all ſtained and painted in ſundry colours. An ad- D rable thing,that there being in the ſaid cauldron but only one kind of tincture,yet out of it the cloth ſhould be ſtained with this and that colour,and the foreſaid boiling liquor change ſo as it doth,according to the quality & nature of the drugs which were laied vpon the white at firſt. And verily,theſe ſtains or colours are ſet ſo ſure,as they can neuer be waſhed off afterwards: thus the ſcalding liquor,which no doubt if it had diuers tinctures and colours in it,would haue confounded them all into one; now out of one doth diſpenſe and digeſt them accordingly, and in boiling the drugs of the clothes, ſetteth the colour and ſtaineth ſurely. And verily,this good moreouer haue the clothes by this ſcalding,that they be alwaies more firme and durable, than if they had not come into the boiling cauldron.

Chap. XII.

¶ *The firſt deuiſers of the art of Potterie, and in working in cley. Of Images made of earth. Of earthen veſſels, and their value in old time.*

NOw that I haue diſcourſed of painting enough, if not too much, it were good to annexe and joyne thereto the craft of Potterie,and working out of cley. And to begin with the original and inuention of making the image or likeneſſe of any thing in cley,it is ſaid,that *Dibutades*,a Sicyonian born,and a Potter,was the firſt that deuiſed at Corinth to form an image in the ſame clay whereof he made his pots,by the occaſion and means of a daughter which hee had: who being in loue with a certain yong man,whenſoeuer he was to take a long iourney far from home,vſed ordinarily to mark vpon the wal the ſhadow of her louers face by candle light and to pourfill the ſame afterwards deeper,that ſo ſhe might inioy his viſage yet in his abſence. This her father perceiuing,followed thoſe tracts,and by clapping cley therupon,perceiued that it took a print,and made a ſenſible forme of a face: which when hee ſaw, hee put it into the furnace to bake among other veſſels,& when it was hardned,ſhewed it abroad. And it is ſaid, that this

this very piece remained in the bains of Corinth safe, vntill *Mummius* destroied the city. How- G
beit, writers there be who affirme, That *Rhœcus* and *Theodorus*, both of the Isle Samos, were the
* i. The race of Bacchis, who for a time reigned at Corinth
first inuentors of this feat of forming shapes in cley, long before the expulsion of the * *Bacchiadæ* out of Corinth. And by their saying, when *Demaratus* was faine to flie out of that city, and to retire himselfe into Tuscan (where he begat *Tarquinius*, afterwards syrnamed *Priscus*, & king of Rome) there accompanied him from Corinth *Eucheir* and *Eugrammus*, two Imageurs in cley, and they taught in Italy the art of Potterie and Imagerie in that kind. As for *Dibutades* before-said, the inuentor he was not of his craft, but indeed he deuised to vse with other cley and earth, a ruddle, or els to colour the white cley with madder. His inuention it was to set vp Gargils or Antiques at the top of a Gauill end, as a finiall to the crest tiles, which in the beginning he cal-
* i. Moulds or patterns.
led * *Protypa*. The same man afterwards deuised other counterfeits, and those be termed *Ectypa*: H
and hence come the louvers and lanterns reared ouer the roofs of temples, which are so curiously wrought in earth. In sum, this man gaue the originall name *Plastica* to the craft, and *Plastæ*, to to the craftsmen in this kind. But *Lysistratus* of Sicyone, and brother to *Lysippus*, of whom I haue written before, was the first that in plaster or Alabaster represented the shape of a mans visage in a mould from the liuely face indeed; and when hee had taken the image in waxe, which the foresaid mould of plastre had giuen, vsed to form and fashion the same more exactly. This man staied not there, but began to make images to the likenesse and resemblance of the person: for before him euery man studied only to make the fairest faces, and neuer regarded whether they were like or no. *Lysistratus* also inuented to make counterfeits in cley, according to the images and statues in brasse, already made. And in the end, this feat of working in cley grew to such I
height, that no images or statues were made without moulds of cley: wherby it may appear, that the skill and knowledge of Potterie is more antient than founderie or casting brasse. To come now to Imageurs in cley, *Damophilus* & *Gorgasus* were counted most excellent & principal of all others, and they were good painters besides; as may appear by the temple of *Ceres* in Rome, that standeth at the greatest shew-place, called Circus Maximus, which these two workmen enriched both with pictures, and also with earthen images: for in the said temple there be certaine Greek verses set vp, which testifie, That all the work on the right hand was wrought by *Damophilus* & on the left hand by *Gorgasus*. Before this temple was built, *M. Varro* saith, that all Rome was furnished with images, of Tuscan work, and no other: but of this church, when it was re-edified, the pictures vpon the wals were esteemed so rich, that people thought them worthy to bee K
cut out in great crusts and flakes out of the said wals; and for to saue them, they bestowed cost to set them in frames fair crested about the edges: also (by his report) the images wherwith the festeries & louers of the said church stood adorned, were dispersed into diuers parts of the city, as singular pieces of work, and well was he that could haue one of them. Moreouer, I reade, that *Chalcosthenes* made diuers pieces of work in raw cley at Athens, and the place called Ceramicos tooke the name of his work-house. And *M. Varro* writeth, that himselfe knew at Rome a certaine man named *Posis*, who was wont to make of cley, clusters of grapes, and fishes, so liuely, that whosoeuer looked vpon them, could hardly haue discerned them by the eie from grapes and fishes indeed. The same author doth highly extoll and magnifie one *Arcesilaus*, a very familiar friend
* Hee meaneth those whereby images of brasse were cast.
of *Lu. Lucullus*, and whom he loued very well, whose * moulds were commonly sold dearer euen L
to workemen themselues, than the workes of others after they were finished. And hee sayth, That the image of *Venus Genetrix*, which standeth in the Forum of *Cæsar*, was of his making: but before hee had fully finished the same, for haste of dedication, it was set vp vnperfect. After which time (as he affirmeth) *Lu. Lucullus* bargained with him to make the image of *Felicitie*, for which he was to haue threescore thousand Sesterces, howbeit, the death both of the one and the other, was the cause that the worke was neuer finished. As for *Octauius*, a knight of Rome, being minded to make a fair standing cup, hee paied to him for the mould in plastre one whole talent. The same *Varro* praiseth also *Praxiteles*, who was wont to say, that the craft of Potterie and working in cley, was the mother of Founderie, and of all workes that are cut, engrauen, chased and embossed: who, albeit hee were an excellent founder and imageur in brasse, and knew how to M
carue, graue, and chase passing well, yet would he neuer goe in hand to make any piece of worke, but he would forme it first in cley, in a mould of his own making. Moreouer, this art (by his saying) was much practised in times past, in Italy and Tuscan especially: from whence, and namely out of the city Fregellæ, king *Tarquinius Priscus* sent for one *Turianus*, to no other purpose in

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A the world, but to agree with him for to make the image of *Iupiter* in earth to set it vp in the capitoll: for surely, no better he was than made of clay, and that by the hand of a porter; which was the reason, that they vsed to colour him ouer with vermillon: yea and the charriots with foure horses which stood vpon the lanterne of the said temple, were of no other stuffe; concerning which, I haue spoken in many places. The same *Turianus* also made the image of *Hercules*, which at this day retaineth still in the city that name, which testifieth what matter he is made of. Lo, what kind of images there were in those daies made in the honour of the gods by our ancestors, for the most excellent! neither haue we cause to be ashamed of those our noble progenitors, who worshipped such and no other. As for siluer and gold, they made no reckoning thereof, either about themselues or the very gods whom they worshipped: and verily, euen at this day
B there continue still in most places, such images of earth. As for the festiers and lanterns of temples, there be many of them both within the city of Rome, and also in diuers burrough townes vnder the Empire, which for curious workmanship (as it were chased and ingrauen) are admirable; and for continuance of time more lasting and durable, than our louvers of gold; and for any harme they do, lesse subject I am sure to injurie. Certes in these daies, notwithstanding the infinit wealth and riches that we are growne vnto, yet in all our diuine seruice and solemne sacrifices, there is no assay giuen or tast made to the gods out of Cassidoine or cristall bols, but only in earthen cups. If a man consider those things aright, & weigh them duly in particular, he shall find the bounty and goodnesse of the earth to be inenarrable, though he should not reckon her benefits that she hath bestowed vpon mankind, in yeelding vs so many sorts of corne, wine, ap-
C ples, and such like fruits, herbs, shrubs, bushes, trees, medicinable drugs, mettals, and mineralls, which I haue already treated of: for euen in these works of earth and pottery, which we are glutted with (they be so vsuall and ordinary) how beneficiall is the earth vnto vs, in yeelding vs conduit pipes for to conuey water into our bains, tyles flat yet hooked and made with crochets at one end to hang vpon the sides of the roofe, chamfered for to lie in gutters to shoot off water, curbed for crests to clasp the ridge on both sides; brickes to lie in wals afront for building, and those otherwhiles to serue as binders in parpine-worke with a face on both sides; to say nothing of the vessels that be turned with the wheele and wrought round; yea and great tuns and pipes of earth deuised to contain wine and water also? In regard of which stone and earthen vessels, K.
D *Numa* ordained at Rome a seuenth confraternitie of potters. Ouer and besides, many men there haue bin of good worth and reputation, who would not be burnt to ashes in a funerall fire after they were dead, but chose rather to haue their bodies bestowed entire within coffins of earth, lying among leaues of myrtle, oliue, and blacke poplar, after the Pythagorean fashion: in which manner, *M. Varro* tooke order for to be interred. And if we looke abroad into the world, most Nations vnder heauen do vse these earthen vessels: and euen still, those that be made of Samian earth and come from that Isle, are much commended for to eat our meats out of, and to be serued to the bourd: and Eretum here in Italy, retaineth yet the name for such vessell: but for drinking-cups, onely Surrentum, Asia, and Pollentia, within Italy; Saguntum in Spaine, and Pergamus in Asia, be in credit: at Tralleis also a city in Sclauonia, and Modenna (to goe no farther
E than Lombardie in Italy) there is made much faire vessell of earth, appropriat vnto those places: for euen in this respect, some nations are innobled and growne into name. This earthen ware is of that price besides, that it is thought a commodity worth the transporting too and fro ouer land & sea, by way of merchandise. But if we speak of that kind that is wrought by turners craft with the wheele, the daintiest vessels come from Erythræ. And in very truth, such may the earth be, that much art and fine workmanship is shewed therein: in testimony whereof, there be two stone vessels or earthen (call them whether you wil) within the principal temple of that city to be seen at this day, thought worthy to be consecrated there, in regard of their cleane worke and their thinnesse besides, which a master and his prentise wrought in a strife and contention, whether of them could driue his earth thinnest: howeuer it be, they of the Island Cos are most commended for the faireſt vessels of earth; and yet those of Hadria beare the name to be more
F durable, and of a more fast and firme constitution. And since I am entred thus far, I will obserue vnto you some examples of seueritie not impertinent to this discourse: I find vpon record, That *Q. Ceponius* was condemned and fined for an ambitious man, onely for this, because hee had sent an earth- * amphor [of wine] as a present vnto one who was to giue him his voice when he stood for an office. And that you may certainly know that vessels of earth haue in some sort been

* *Vini amphoram*: I suppose that he means the vessell in it selfe for wine, and not full of wine.

been in request among riotous gluttons and wastfull spendthrifts, listen what *Feneſtella* saith as touching this point, the greatest exceeding (quoth he) and gaudiest fare at a feast, was serued vp in three platters, and was called Tripatinum: the one was of Lampreys, the second of Pikes, the third of the fish Myxon: whereby it may appeare, that euen in those daies men began at Rome to grow out of order, and to giue themselues to riot and superfluity: yet were not they so bad, but we may prefer them euen before the Philosophers of Greece: for it is written, that in the sale of *Aristotles* goods, which his heirs made after his decease, there were sold 60 platters, which were wont ordinarily to go about the house. As for that one platter of *Æsop* the plaier in tragœdies, which cost fix hundred thousand sesterces, I doubt not but their stomackes rise thereat when they reade thereof in my treatise as touching birds. But this is nothing (I assure you) to that charger of *Vitellius*, who whiles he was Emperor caused one to be made and finished that cost a * million of sesterces, for the * making wherof there was a furnace built of purpose in the field; the which I rather note, because they should see the monstrous excesse in these daies, that vessels of earth should be more costly than of Cassidonie. Alluding to this monstrous platter, *Mutianus* in his second Consulship (when he ripped vp in a publicke speech, the whole life of *Vitellius*, now dead) vpbraided the very memoriall of him in these very terms, calling his excesse that way, Patinarum paludes, *i.* platters as broad as pools. And verily (saith he) that platter of *Vitellius*, came nothing behind another, which *Cassius Seuerus* reproched *Asprenas* withall, whom he accused bitterly, and said, that the poison of that one platter had killed an 130 persons who had tasted thereof.

* *Decies sestertiũm*, according to *Budæus*; but if you read according to *Hotomanus*, *ducenties*, it is twenty times as much more

Furthermore, there are certaine townes that are in good account by reason onely of this vessell made therein, and namely Rhegium and Cumæ.

The priests of *Cybele* the mother of the gods, who are called Galli, vse to gueld themselues with a sheard of Samian earth; and they be of opinion, that if it be done with any thing els, they shall die thereof, if we may beleeue *M. Cælius*, who whetted that tongue of his (which shortly after was in that sort to be cut out) against *Vitellius*; which turned to his great reproch and infamie, for that himselfe euen then railed vpon *Vitellius* in so bad termes, and lost his tongue for his labour.

* This platter he called, the targuet of *Minerua*, and hee got himselfe thereby a name to be called *Patinarius*. See *Sueton.*

But to conclude, what is it, that Art and the wit of man hath not deuised? for there is a means found to make a strong kind of mortar or cement by the broken sheards of potters vessell, if the same be ground into powder and tempered with lime; and the ordering of it in this manner, causeth it to be more firme and last the longer; and such they call Signina. And hereby also men haue found out certain durable pauements of that kind.

Chap. XIII.

¶ *The varietie of sundry kinds of earth: of the dust or sand of Puteoli: and of other sorts of earth which will harden as a stone.*

OVer & besides the cement aboue named, there be other percels that the earth it self doth affoord, fit to be laid in pauing worke: for who can sufficiently wonder at this, namely, That the worst part of it (which thereupon is callled dust and sand, as it were the very excrement thereof) should be of that nature vpon the side of the hills of Puteoli, as being opposed against the waues of the sea, and continually drenched & drowned therwith, should become a stone so compact and vnited together as it were into a rock, that it scorneth all the violence of the surging billows; which are not able to vndermine and pierce the same, but hardeneth euery day more than other; euen as if it were tempered with the strong cement of Cumes. Of the same property is the earth within the country about Cyzicum: onely this is the difference, that not the dust or sand there, but the earth it selfe cut out into what parcels you will, in case it be drenched in the sea water a certaine time, is taken forth againe a very hard stone. The same (by report) happeneth about the citie Cassandria: as also about Gnidos in a fountaine of fresh water, wherein if earth do lye, within the space of eight moneths it will turne to be a stone. Certes, all the way as a man goeth from Oropus as farre as to Aulis, what ground soeuer is beaten vpon by the water, changeth into rockes and stones. There is found also in Nilus a certaine sand, whereof the finest part differeth not much from that of Puteoli before said: not in regard that

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A that it is ſo ſtrong as to breake the force of the ſea-water & to beat back the waues, but to ſubdue and cruſh the bodies of our yong gentlemen, and therefore ſerueth well in the publicke place of wreſtling for thoſe that be giuen to ſuch exerciſes: and for this purpoſe verily was it brought from thence by ſea to *Patrobius*, a ſlaue lately infranchiſed by *Nero* the Emperor. I reade alſo, that *Leonatus*, *Cratus*, and *Meleager*, who were great captains vnder *Alexander* the Great, and followed his court, were wont to haue this ſand carried with them, with other baggage belonging to the camp. But I mean not to write any more of this argument, no more verily than of the vſe of earth in thoſe places where our youth annoint their bodies againſt they ſhould wreſtle; wherein our youths addict themſelues ſo much to the exerciſe of the body, that they haue ſpoiled themſelues otherwiſe, and loſt the vigor of the mind.

B

CHAP. XIIII.

¶ *Of mud walls: of Bricke walls, and the order and manner of making them.*

WHat ſhall we ſay? See we not in Africke and Spaine both, certain walls of earth, which they cal * Formacei, of the forme and frame that is made of planks and boords of each ſide, between which a man may ſay they are rather infarced & ſtuffed vp, than otherwiſe laid and reared orderly; but I aſſure you, the earth thus infarced, continueth a world of yeres and periſheth not, checking the violence of raine, winde and fire, no mortar and cement ſo ſtiffe and C ſtrong. There are yet to be ſeene in diuers parts of Spaine, the watch-towers of *Anniball*, the high turrets and ſconces alſo reared vpon the tops of hils, made all of earth: and hereof we haue our turfes, which naturally are ſo proper not only for the rampiers and fortifications of a camp, but alſo for wharfs, banks, and buttreſſes, to breake the violence and inundation of riuers. As for the manner of making walls, by dawbing windings and hurdles with mud and clay, alſo of rearing them otherwhiles with vnbaked bricke; who is ſo ignorant that he knoweth it not? howbeit, for to make good brickes, they ought not to be made of any ſoile that is full of ſand and grauell, much leſſe then of that which ſtandeth much vpon grit & ſtones, but of a greyiſh marle or whitiſh chalkie clay, or at leaſtwiſe a reddiſh earth: but in caſe wee bee forced to vſe that which is giuen to be ſandy, yet we muſt chuſe that kind of ſand which is tough and ſtrong. The D beſt ſeaſon to make theſe bricks or tyles, is in the ſpring time; for in the mids of Summer they will cleaue and be full of chinkes; but if you would haue good brickes for building, they ought to be two yeares old at the leaſt. Now the batter or lome that goeth to the making of them, ought to be well ſteeped and ſoked in water, before it be faſhioned into bricke or tyle. Brickes are made of three ſizes: the ordinarie bricke that we vſe, is called Didoron, which carrieth in length one foot and a halfe, and in breadth a foot: a ſecond ſort is named Tetradoron, *i.* three foot long: and the third, Pentadoron, of three foot and nine inches in length: for the Greeks in old time, called the ſpan or ſpace of the hand from the thumbe to the little fingers end ſtretched out, Doron; which is the reaſon that gifts and rewards be called in their language, Dora, for that they were preſented by the hand. You ſee therefore, how according to the length that they E carrie, either of foure or fiue ſpans, they haue their denomination of Tetradora, or Pentadora; for the breadth is one and the ſame in them all, to wit, one foot ouer. Now there beeing this difference in the ſize, in Greece the manner is to imploy the ſmaller ſort in their priuat buildings, but the bigger ſerueth for greater publicke workes. At Pitana in Aſia, and in Maſſia and Calentum, cities of low Spaine, the bricks that be made, after they are once dried, will not ſinke in the water, but flote aloft; for of a ſpungeous and hollow earth they be made, reſembling the nature of the pumiſh ſtone, which is very good for this purpoſe, when it may be wrought. The Greeks haue alwaies preferred the walls of bricke, before any others, vnleſſe it be in thoſe places where they had flint at hand to build withall: for ſurely ſuch brick wals, if they be made plump vpright & wrought by line and leuell, ſo as they neither hang nor batter, be euerlaſting: & ther- F fore ſuch bricks ſerue for wals of cities and publick works; their roial pallaces likewiſe be built therewith. After this ſort was that part of the wall at Athens laid and reared, which regards the mount Hymettus: ſo they built alſo at Patræ, the temples of *Iupiter* & *Hercules*, although all the columns, pillars, and architraues round about them, were of aſhler ſtone: thus was the pallace of K. *Attalus* built at Tralleis; likwiſe that of K. *Cræſus* at Sardis, which afterward was conuerted

* Some reade *fornacti*, i. arched walls.

to their Senat-houſe, named Geruſia: likewiſe the ſumptuous and ſtately houſe of king *Mauſolus* at Halicarnaſſus: which goodly ædifices continue at this day. Wee read in the Chronicles, that *Muræna* and *Varro* when they were the high Ædiles at Rome, cauſed the outmoſt coat which was ouercaſt of the brick-wals of Lacedæmon, to be cut out whole and entire, and to bee ſet and encloſed within certaine frames or caſes of wood, and ſo to be tranſlated from thence to Rome, for to adorne and beautifie the publicke hall for elections of Magiſtrates, called Comitium; and all for the excellent painting vpon that parget. The workmanſhip therein although it were excellent and wonderfull in it ſelfe, yet being thus remoued and brought ſo far ſafe, it was eſteemed more admirable. Moreouer, here within Italy the walls of Aretine and Meuania be made all of bricke: mary at Rome they dare not build their houſes with this kind of bricke, becauſe a wall bearing in thickneſſe but one foot and an halfe, wil not ſuſtain aboue one* ſingle ſtory; for the order of the city permitted not the common wals and thoſe which were outmoſt, to be thicker than a foot and an halfe: neither wil the partition wals within abide that thicknes, but are made after another ſort.

*For by reaſon that Rome was ſo populous, they made many lofts ouer head, ſo that the building was raiſed to 60 and 70 foot in vpright wals: & theſe ſerued as tenements, & were called *Cœnacula*, and one paire of ſtaires leading into the ſtreet, ſerued them all: wheras the lord and maſter of the houſe kept beneath with his houſhold, and was not troubled with theſe tenants or in-mates.

Chap. XV.

¶ *Of Brimſtone and Alume, with their ſeuerall kinds: alſo their medicinable properties.*

HAuing ſpoken ſufficiently of Bricks, it remaineth that I ſhould proceed to other kinds of earth: wherein the nature of ſulphur or brimſtone is moſt wonderfull, being able as it is to tame and conſume the moſt things that be in the world: it is ingendred within the Iſlands Æoliæ, which lie between Italy and Sicily; thoſe I meane which (as I haue ſaid before) doe alwaies burne by reaſon thereof. Howbeit, the beſt ſulphur is that which commeth from the Iſle Melos. There is found thereof likewiſe in Italy, within the territory about Naples and Capua, and namely in the hills called Leucogæi: that which is digged out of the mines, is fined and brought to perfection by fire. Of brimſtone there be foure kinds; to wit, Sulphur vif or Quicke-brimſtone, which the Greeks call Apyron, becauſe it neuer came into the fire: the ſame is found ſolid of it ſelfe, *i.* by whole pieces and in maſſe, which their Phyſitians doe vſe, and none but it; for all the other kindes conſiſt of a certaine liquid ſubſtance, and being boiled in oile are made vp and confected to their conſiſtence: whereas the ſulphur vif is digged out of the mine ſuch as we ſee, that is to ſay, tranſparent, cleere, and greeniſh. The ſecond kind is named Gleba, good onely for Tuckers and Fullers. The third ſort alſo yeeldeth but one vſe and no more, and that is, for tincture of wooll, by reaſon that the ſmoke and perfume thereof wil bring it to be white and ſoft; and this brimſtone they call Egula. As for the fourth kinde, it ſerueth moſt of all for matches and wieks.

As touching the nature of Brimſtone, ſo forcible it is, that if it be caſt into the fire, the verie ſmell and ſteeme thereof will driue thoſe in the place into a fit of the falling ſickneſſe, if they be ſubject thereunto. As for *Anaxilaus*, he would commonly make ſport withall at a feaſt, and ſet all the gueſts into a merriment: for his manner was to ſet it a burning within a cup of new earth ouer a chafing diſh of coales, and to carry it about the table where they were at ſupper: and in very truth the reuerberation of the flame would make all that were neere it to looke pale and wan after a moſt fearefull manner, like as if there were as many griſly ghoſts or dead mens faces. And to come more neere to the properties that it hath reſpectiue vnto Phyſicke, it healeth mightily, and is a maturatiue: it doth reſolue withall and diſcuſſe any gathering of impoſtumes; in which regard it entereth ordinarily into ſuch plaſters that bee diſcuſſiue and emollitiue. A cataplaſme made with it, incorporate with greaſe or ſewet, and ſo applyed vnto the loynes and regions of the Kidnies, doth wonderfully aſſuage the paine and griefe in thoſe places: being tempered with turpentine, it riddeth away the foule tetters called Lichenes that ariſe in the face, yea and cleanſeth the leproſie. The Greekes haue a pretty name for it and call it Harpacticon, for the ſpeedy remouing and ſnatching it from the place where it is applied; for eftſoones it ought to be taken away. The ſame reduced into a lohoch or liquid Electuarie, is good to be licked and let downe ſoftly towards the lungs, in caſe of ſhortneſſe and difficultie of winde: in which ſort it ſerueth for them that ſpit and reach out of the breaſt by coughing, filthie matter: and ſoueraigne it is for thoſe that be ſtung with ſcorpions. Take ſulphur-vif,

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A mix it with ſal-nitre, grind the ſame together with vinegre, it maketh a ſingular good liniment for to ſcoure the foule morphew: let the ſame be tempered and prepared with vineger of Sandaracha, it killeth the nits that breed in the eie-lids. Moreouer, brimſtone is imployed ceremoniouſly in hallowing of houſes; for many are of opinion, that the perfume and burning thereof, will keep out all inchantments, yea, and driue away foule fiends and euill ſpirits that doe haunt a place. The ſtrength of Sulphur is euidently perceiued & felt in the ſprings of hot waters, that boile from a vain of it: neither is there in all the world, a thing that ſooner catcheth fire; wherby it is apparant, that it doth participat much of that element. Thunderbolts & lightnings in like manner do ſent ſtrongly of brimſtone: the very flaſhes and leames thereof ſtand much vpon the nature of ſulphur, and yeeld the like light. Thus much ſhall ſuffice as touching the nature of
B ſulphur.

The nature of Bitumen approcheth neere vnto brimſtone: where it is to be noted in the firſt place, that the Bitumen whereof I ſpeake, is in ſome places in manner of a muddy ſlime; in others, very earth or minerall. The ſlimy bitumen ariſeth (as I haue ſaid before) out of a lake in Iurie; as for the minerall bitumen, it is found in Syria, about a maritime town vpon the ſeacoaſt called Sidon: but both the one and the other are of a compact and maſſie ſubſtance, growing together faſt and vnite. And yet there is a kind of Bitumen liquid, and namely that of Zacynthus, and the Bitumen which is brought from Babylon, where verily it is white naturally as it groweth. The Bitumen alſo which commeth from Apollonia is liquid: and all theſe the Greeks doe comprehend vnder one name Piſſaſphalton, a word deriued of Pitch and Bitumen. There is a
C fatty kind of Bitumen likewiſe reſembling an vncteous or oleous liquor, within the territorie of Agragentum in Sicilie, ariſing out of a fountaine, and it floteth aloft: The inhabitants of the countrey vſe to ſcum and fleet it off by the meanes of certaine chats or catkins which grow vpon many reeds and canes, for quickly will it hang and cleaue to the downe of ſuch. Great vſe they haue of this Bitumen, for it ſerueth their turnes to maintain lamp-light, in ſteed of oile: & therewith alſo they kill the farcins, ſcabs, and mange in their jades and laboring garrons. Some writers there be who reckon Naphtha (whereof I haue written in my ſecond book) to be a kinde of Bitumen; but ſo ardent it is, and holdeth ſo much of the fire, that wee know not which way to make any vſe thereof. Concerning the marks of good Bitumen, the beſt is knowne by the gloſſe that it carrieth, if it ſhine exceeding much: the ſame alſo is ponderous and weighty: whereas the
D lighter ſort is but indifferent heauy, and argueth ſome ſophiſtication with pitch. In operation it hath the qualities of brimſtone; aſtringent it is, and yet reſolutiue: it draweth together, and ſoldereth withall. A perfume thereof while it burneth, chaſeth away ſerpents. The Babylonian Bitumen is thought to be very effectuall for the cataracts, pearles, and filmes that ouerſpred the eies: ſoueraigne likewiſe for the leprie, and filthy tettars of the face called Lichenes, and the itch in any part of the body: it ſerueth in a liniment for the gout: and there is no kind thereof, but it cauſeth the haires of the eie-lids, which grow vntowardly and fal into the eies, for to turn vp againe. If the teeth be well rubbed with bitumen and ſal-nitre together, it doth eaſe and aſſuage their paine: and being giuen in wine, it helpeth an old cough, and the ſhortneſſe of wind.
In caſe alſo of the diſſenterie, it is taken in that manner, for it ſtaieth a bloudy flix: but if it
E bee drunke with vineger, it doth diſcuſſe and diſſolue * cluttered bloud which is within the body, and expelleth the ſame downeward by ſeege: it doth likewiſe aſſuage the paine of the loynes or ſmall of the backe, and generally mitigateth any griefe of the joints, if it bee layed too in manner of a cataplaſme with Barley meale. There is a ſpeciall plaſtre or cataplaſme made of Bitumen, which carrieth the name thereof; it ſtancheth bloud, it bindeth and draweth together the edges of a wound, alſo it knitteth and vniteth again ſinews which be cut in twain. There is an ordinary medicine alſo for the quartane ague, made in this wiſe: Take of Bitumen one dramme, of Mints the like weight, of Myrrhe the quantitie of one Obolus, mix and incorporat all theſe together: a perfume or ſmoke thereof will bewray the falling ſickneſſe. The very ſmell of Bitumen alſo diſcuſſeth the fits of the mother when it riſeth and ſtoppeth the wo-
F mans breath: A ſuffumigation thereof, doth likewiſe reduce the matrice and tiwill into the right place, if they bee ſlipped and fallen downe too low, and ready to hang forth of the bodie: beeing drunke with Wine and Caſtoreum, it bringeth the ordinary courſe of the monethly termes in women. It ſerueth alſo for diuerſe and ſundrie other vſes than in Phyſicke: For if any braſen Pots, Chaufers, pannes or kettles, or ſuch like veſſels, bee enhuiled there-

* Hereupon it is an ordinary medicine, to giue *Mumia* (which is *Piſſaſphaltō*) vnto thoſe that are falne from on high and bee inwardly bruiſed.

therwith,it hardeneth them againſt the violence of fire. I haue ſaid already,that they were wont G
in old time to verniſh their images with bitumen: it hath beene vſed in mortar alſo in ſtead of lime,and with that kind of cement were the walls of Babylon laid, and the ſtones ſodered together. Iron-ſmiths alſo haue much vſe of bitumen, and namely,in ſanguining or colouring their ironworke;and nailers eſpecially about their naile heads;many other waies likewiſe it ſerueth their turne.

As touching Alume,which we take to be a certain ſalt ſubſtance or liquor iſſuing out of the earth, there is no leſſe vſe therof than of bitumen, and the emploiment is not much vnlike. Of alume there be many kinds: in the Iſland Cypreſſe there is found alume which they call White, and another named Blacke: and albeit the diſtinction in the colour be but ſmall,yet it is occupied to farre different vſes; for the cleare alume which they name the white,is proper for to co- H
lour wooll with any bright tincture;contrariwiſe,the blacke ſerueth for ſad, darke, and browne colours. The foreſaid black alume is occupied much by goldſmiths,to purge and purifie their gold: and yet all theſe alumes the one as well as the other,be engendred of water & ſlimie mud, that is to ſay,of a certaine ſweat that the earth naturally doth yeeld: it is ſuffered to run and gather togither into a place,during winter; and in the heat of ſummer,it fermenteth and taketh the perfection: that which commeth ſooneſt to concoction and ripeneſſe, the ſame is alwaies the whiteſt and pureſt. As touching the mines of alume,they grow naturally in Spaine, Ægipt, Armenia, Macedonia, Pontus and Affricke, which be all countries of the continent: in the Iſlands likewiſe it is found,namely in Sardinia, Melos, Lipara, and Strongyle. The beſt ſimply is that which commeth out of Ægypt,and in the next place is that accounted of Melos. In ſum, I
alume may be reduced into two principal kinds;for either it is pure aud cleare,or els thick and groſſe: as for the former kind, it may be knowne whether it be good and naturall,if it be bright like water,& white as milk,not offenſiue to their hands that rub it,& yet participating in ſome ſort of a fiery heat;this they cal Phormion: but in caſe it is ſophiſticat,you may ſoon find it by the juice of a pomegranat, for that which is true and the right kind, is no ſooner mixed therewith,but it waxeth black. The ſecond ſort is of a pale color,and beſides naturally rugged in the hand,and lightly it will ſtain like gall nuts;which is the reaſon that the Greeks cal it Paraphoron. The vertues of the cleare alume,be aſtringent,hardning,and fretting: if it be tempered with hony,it healeth the cankers or ſores in the mouth: wheals and itch it likewiſe cures in any part of the body: but this inunction muſt be vſed in a baine;and regard ought to be had of it in the K
proportion,namely,that there be two third parts of hony to one of alume. The ranke ſmell of the arme-holes it doth allay, and repreſſeth ſweat and the ſtinke therof: it is taken in pills, for the obſtructions and ſchirroſities of the ſpleene: and in that ſort, it driueth away an itch & ſendeth forth corrupt bloud by vrine: made into an vnguent with Sal-nitre and Nigella Romana, it healeth the bleach or ſcabs. Of alume that is thick,hard,and maſſiue,there is one kind which the Greeks call * Schiſtos, and the nature thereof is to cleaue along into certaine filiments or threads like haires, of a greeniſh colour;which is the reaſon that ſome haue giuen it rather the name of Trichitis: howſoeuer it be named, it commeth of a certaine marqueſit ſtone,wherupon alſo they call it Chalcitis;ſo as it may be counted a very ſweat of the ſaid ſtone,gathered together or congealed into a ſome. This kind of alume is exiccatiue; howbeit,not ſo good as the o- L
ther to repreſſe any offenſiue humors in the body: but ſurely it is ſingular for the ears,either infuſed,or applied as a liniment: it helps alſo the ſores of the mouth,if a man let it melt together with the ſpittle or moiſture of the mouth: for eyeſalues likewiſe it ſerues fitly among other ingredients;and is very appropriat for the accidents befalling to the ſecret parts of either ſex, as well men as women: but before it be vſed,it would be boiled vpon a pan ouer the fire,till it giue ouer to melt. There is another ſort of alume,that is weaker in operation, which the Greeks call Strongyle: and this likewiſe is found of two ſorts; the one is hollow and light in manner of muſhroms,eaſie to be melted in any kind of liquor; and this is altogether reiected as good for nothing: the other is hollow alſo and light in manner of a pumiſh ſtone,full of holes too,but reſembling the pipes rather of ſpunges; the ſame is round in forme, and enclining to a white co- M
lour;a certaine vnctuoſitie or fattineſſe it carrieth with it, apt to breake and crumble, and yet without ſand, neither will it colour and ſtaine the fingers blacke in the handling: this muſt be calcined by it ſelfe vpon cleare burning coales, vntill ſuch time as it be reduced into aſhes. But would you know the beſt and principall alume of all the ſorts that are? it is that (no doubt)

which

* Some take this for Alume de plume: others,for the ſtone *Amiantus*.

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A which (as I haue ſaid before) is brought out of the Iſland Melos, and therefore called Melinum. Certes, there is not an Alume more aſtringent, nor more proper to harden: none more firm and thicke than it. It doth ſubtiliat the roughnes of the eies: and being calcined, it is the better for to repreſſe the fluxion of humors into the eies: and in the ſame ſort prepared, it killeth the itch in any part of the body: generally, wherſoeuer it is applied outwardly, it ſtaunceth bloud: being vſed in a liniment with vinegre vnto any place where the haire hath been plucked vp, it cauſeth that which commeth again to be but ſoft and in maner of a downe. There is no kind of it, but the ſame is exceeding aſtringent, wherupon it took the name in *Greek. In regard of which * συστηϛικὸν.
ſtypticitie, they are all very good for the accidents of the eies. Alume incorporat with ſome greaſe or fat, is ſingular to repreſſe the flux of bloud: very proper alſo for the red gum incident
B to children: and in ſome ſort ſtaieth ſuch vlcers as tend to putrifaction, yea, it drieth vp the breaking forth of *wheales and puſhes. With the juice of the Pomgranat, it is good for the in- * Papularum.
firmities of the eares; in which ſort it doth amend the ruggedneſſe of the nailes, the hardneſſe and nodocitie of cicatrices or skars, the excreſſence and turning vp of the fleſh about the naile roots, and the kibes of the heeles. With vinegre, or calcined with the like weight of gall nuts, it is excellent for cankers and inflammation of ſuch vlcers as be corroſiue. Tempered with the iuice of Beets or Coleworts, it cleanſeth the leproſie. Incorporat with two parts of ſalt, it healeth thoſe ſores which are giuen to eat and ſpread farther: and mingled with water it riddeth away nits, lice, and ſuch vermine breeding in the head; in which manner it healeth burnes and ſcalds. But with pitch and the floure of Eruiles, it ſcoures away dandruffe and ſcurfe in any part
C of the body. In a clyſtre, Alume is ſoueraigne for the bloudie flix. It ſerueth likewiſe for the uvula in the mouth, and the inflammation of the Amygdales. In one word, for all thoſe purpoſes which I haue ſaid, other ſorts of Allume are good for, we muſt alwaies thinke, that the Alume brought from Melos, is the beſt and moſt effectuall. As touching other vſes beſides Phyſicke, wherein it is emploied neceſſarily, and namely in dreſſing of skins and colouring wooll, of what reckoning it is, I haue ſhewed already. It remaineth now to treat of all other kinds of earth reſpectiuely, as they ſerue in the vſe of Phyſicke.

Chap. XVI.

D ¶ *Of the diuerſe ſorts of earth, to wit, of Samia, Eretria, Chia, Selinuſia, Pnigitis, and Ampelitis, together with their medicinable properties.*

FRom the Iſle Samos there be brought two kinds of earth: whereof the one is called by the Greekes Syropicon, the other Aſter. As for the former, the commendation of it, is to be freſh, light, and cleauing to the tongue: The other, is white and of a more compact conſtitution: but both the one and the other, before they be vſed, ought to be calcined and waſhed. Some there be who preferre the former: but both be very good for thoſe that ſpit bloud. They enter into emplaiſtres, which are deuiſed and made for to exiccat; and they are mingled alſo with eie-ſalues.

Touching the earth Eretria, diſtinguiſhed it is likewiſe by two kindes, for ſome there is of it
E white, other of aſh colour: and this for Phyſick is held to be the better. It is known to be good, if it be ſoft in hand; and, if vpon a piece of braſſe it draw a line of purple colour. What power it hath, and how it is to be vſed in Phyſicke, I haue ſhewed already in my diſcourſe of painters colours. But this is a general rule in all kinds of earth (for I will put it off no longer) that are to be waſhed, Firſt to let them lie well ſteeped in water, then ought the ſame to be dried in the Sun; which done, it ought once againe to be braied in water, and let to reſt vntil they be ſettled, that they may be digeſted and reduced into trochiskes. But for the burning and calcining of theſe earths, it ought to be done in certaine pots, and eftſoones followed and plied with ſhaking and ſtirring.

Among the ſorts of earth that be medicinable, there is reckoned that which commeth from
F Chios, & the ſame is white, hauing the ſame effects that the earth of Samos: but our dames vſe it moſt for to embelliſh & beautifie the skin. To which purpoſe, the earth of Selenus likewiſe is emploied: White this earth is as milke, and of all others, will ſooneſt reſolue in water; which if it be tempered with milke, ſerues to whiten and refreſh the pargetting and painting of wals.

The earth called *Pignitis, is very like vnto Eretria beforenamed, only it is found in greater * Some read Pnigitis.
clots

clots or pieces,& otherwiſe is glutinous. The ſame effects it hath that Cimolia, howbeit, ſomewhat weaker in operation. G

There is an earth called Ampelitis, which reſembleth Bitumen as neer as may be. The triall of that which is good indeed, is, if in oile it be gentle to be wrought as wax; and if when it is torrified, it continue ſtill of a blacke colour. It entreth into medicines and compoſitions, which are made to mollifie and diſcuſſe: but principally it ſerueth to beautifie the eie-browes, and to colour the haire of the head blacke.

Chap. XVII.

¶ *Sundry ſorts of chaulkes for to ſcoure clothes, and namely the Tuckers earth Cimolia, Sarda, and Vmbrica. Of the common chaulke: and of Tripolium.* H

OF Chaulks there be many kinds: of which, Cimolia doth affoord two ſorts, and both pertinent to Phyſick; the one is white, the other inclineth to the colour of Roſet. Both the one and the other is of power to diſcuſſe tumors, and to ſtay diſtillations, if they be vſed with vineger. They do keep downe biles and emunctories and ſwellings behind the eares: the foule tettars alſo, and other offenſiue pimples and puſhes they repreſſe, applied in the forme of a liniment: incorporat therewith ſalt-petre, ſalnitre, and put vineger thereto, it is an excellent medicine to allay the ſwellings of the feet; with this charge, that this cure be done in the Sun, and that after ſix houres, the medicine be waſhed off with ſalt water. Put thereto the cerot Cyprinum, it is ſingular good for the ſwelling of the genetoirs. This Fullers earth Cimolia is of a cooling nature, and being vſed in the forme of a liniment, it ſtaieth immoderat ſweats: the ſame taken inwardly with wine in the baine or hot-houſe, reſtraineth the breaking forth of pimples. The beſt of this kind, is that which commeth out of Theſſalie. It is to be found alſo in Lycia about Bubon. There is ouer and beſides, another vſe of this Cimolia or Tuckers cley, to wit, in ſcouring clothes. As for the chaulke Sarda, ſo called becauſe it is brought out of Sardinia, it is employed only about white clothes, for if they be moteley or pied coloured, it is of no vſe. Of al kinds of Cimolia it is the cheapeſt, and of baſeſt account: yet that of Vmbria is of more price, and that which they call Saxum in Latine, and is our ordinary white chaulke: this property it hath, that with lying in water it groweth; this is commonly bought therefore by weight, whereas the other is ſold by meaſure. As for the foreſaid earth of Vmbria, it ſerueth only for to poliſh and giue a gloſſe to clothes: for why ſhould I ſcorne or thinke much to handle this matter alſo? ſeeing there is the expreſſe law or act Metella, prouided for Fullers, the which *C. Flaminius* and *Lu. Æmylius*, when they were Cenſors, propoſed vnto the people for to be enacted; ſo carefull were our predeceſſors, to take order for all things. To come then to the myſterie of Fullers craft: Firſt they waſh and ſcour a piece of cloth with the earth of Sardinia, then they perfume it with the ſmoke of brimſtone, which done, they fall anone to burling of it with Cimolia; prouided alwaies that it be the right and haue the natiue colour, for if it be ſophiſticat, it is ſoone knowne by this, that it waxeth blacke, and wil chaune and cleaue, if it come after ſulphur: and if it be the true Cimolia, it doth refreſh and giue a cheerefull hew to precious and rich colors, yea it ſetteth a certain gloſſe and luſtre vpon them, if they were made duskiſh & ſad by the ſmoake of ſulphur. But in caſe the clothes be white, then the common chaulke is better to be vſed preſently after the brimſtone: for hurtfull it is to other colors. In Greece, they vſe in ſtead of Cimolia, a certaine plaſtre which they haue from Tymphe. Yet is there another kind of chalke or white cley, named* Argentaria, for that it giueth a gliſtering ſiluer color to clothes. Howbeit, one ſort more there is of chalk, which of all others is moſt baſe and leaſt eſteemed; this is that chalke, wherwith our aunceſtours in old time ordained to whiten the cirque, in token of victory: wherewith alſo they vſe to marke the feet of thoſe ſlaues which were brought ouer from beyond ſea, to be bought and ſold in the markets: ſuch an one ſomtime was that *Publius*, the deuiſer of riming and wanton jeſtures vpon a ſtage: ſuch another was his couſin germaine, *Manilius Antiochus*, the Aſtrologer; yea, and *Taberius Erotes* the excellent Grammarian: whom all three, our great grandfathers ſaw in that manner brought ouer in one and the ſame ſhip. I K L M

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Chap. XVIII.

¶ *Who they were in Rome, and of whom enfranchiſed, that of ſlaues riſe to be mightie, and of exceeding wealth.*

BVt what meane I to ſtand vpon thoſe who had learning to commend and bring them into ſome ſtate of credit and honour? Haue not the ſame forefathers of ours ſeene in the like plight ſtanding within a cage, with a marke of chaulke vpon their feet, and a locke about their heeles, *Chryſogonus* the ſlaue to *Sylla*, *Amphion* to *Qu. Catulus*, *Hero* to *Lu. Lucullus*, *Demetrius* to *Pompey*, *Auge* the bondmaid to *Demetrius* (though ſhe was thought to be the baſe daughter of *Pompey*,) *Hipparchus* the ſlaue of *Antonius*, *Menas* and *Menecrates* of *Sex. Pompeius*, and an infinite ſort of others, whom I cannot reckon vp? and yet they all being by their maſters enfranchiſed, became wonderfull rich by the bloudſhed and goods of Romane citizens, in that licentious time of proſcriptions. Well, this was the marke of ſlaues ſet out by companies in the market to be ſold: and this is the opprobrious and reprochful note, to twit thoſe by, that in their fortunes are growne inſolent. And yet we in our daies haue knowne the ſame perſons to climbe vnto the place of higheſt honour and authority, inſomuch, as we haue ſeene with our owne eies the Senat (by commandement from *Agrippina* the Empreſſe, wife to *Claudius Cæſar*) to decree vnto enfranchiſed ſlaues, the robes of Pretours, with the badges and ornaments to that dignity belonging; yea, and ſuch to bee ſent againe as it were with the axes and knitches of rods decked with Lawrell, into thoſe countries to gouerne, from whence they came at firſt poore ſlaues with their feet chalked and marked for the market.

Chap. XIX.

¶ *Of the earth of Galata, and Clupea: of the Baleare earth, and Ebuſitana.*

OVer and aboue thoſe before rehearſed, there be other ſorts of earth, hauing a property by themſelues, which I haue named heretofore, but in this place I am to ſet downe their nature and vertues alſo. There is a kind of earth comming out of the Iſle Galata, and about Clupea in Affricke, which killeth ſcorpions: like as the Balearike and Ebuſitane earth, is the death of other ſerpents.

THE

THE XXXVI. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proem.

CHAP. I.

¶ *The natures and properties of Stones: The exceſſiue expence in columnes and buildings of Marble.* I

IT remaines now to write of the nature of ſtones, that is to ſay, the principal point of all enormious abuſes, and the very height of waſtful ſuperfluities, yea though we ſhould keep ſilence, and ſay nothing either of precious ſtones and Amber, or of Chryſtall and Caſſidonie. For all things els which we haue handled heretofore euen to this Booke, may ſeem in ſome ſort to haue been made for man; but as for mountaines, Nature had framed them for her owne ſelfe; partly to ſtrengthen (as it were) certaine ioints within the veines and bowels of the earth; partly to tame the violence of great riuers, & to break the force of ſurging waues and inundations of the ſea; and in one word, by that ſubſtance and matter whereof they ſtand, which of all others is moſt hard, to reſtraine and keep K within bounds that vnruly element of the water. And yet notwithſtanding, for our wanton pleaſures and nothing els, we cut and hew, we load and carry away thoſe huge hils and inacceſſible rockes, which otherwiſe to paſſe only ouer, was thought a wonder. Our Anceſtors in times paſt reputed it a miracle, and in manner prodigious, that firſt *Annibal*, and afterwards the Cimbrians, ſurmounted the Alps: but now, euen the ſame mountains wee pierce through with picke-axe and mattocke, for to get out thereof a thouſand ſorts of marble; wee cleaue the capes and promontories: we lay them open for the ſea, to let it in; downe we goe with their heads, as if wee would lay the whole world euen, and make all leuell. The mightie mountains ſet as limits to bound the frontiers of diuers countries, and to ſeparate one Nation from another, thoſe wee tranſport and carrie from their natiue ſeat: ſhips wee build of purpoſe for to fraught with mar- L ble: the cliffes and tops of high hills they carrie too and fro, amid the waues and billowes of the ſea, and neuer feare the danger of that moſt fell and cruell element: wherein verily wee ſurpaſſe the madneſſe and vanitie of thoſe, who ſearch as high as the clouds for a cup to drink our water cold; and hollow the rocks that in manner touch the heauen, and all to drink out of * yce. Now let euery man thinke with himſelfe what exceſſiue prices of theſe ſtones hee ſhall heare anone, and what monſtrous pieces and maſſes he ſeeth drawne and carried both by land and ſea; let him conſider withall, how much more faire and happy a life many a man ſhould haue without all this, and how many cannot chuſe but die for it, whenſoeuer they go about to doe, or if I ſhould ſpeake more truely, to ſuffer this enterpriſe: alſo, for what vſe elſe, or pleaſure rather, but onely that they might lie in beds and chambers of ſtones that forſooth are ſpotted, as if they neM uer regarded how the darkneſſe of the night bereaueth the one halfe of each mans life of theſe delights and ioies. When I ponder and weigh theſe things in my mind, I muſt needs think great ſhame, & impute a great fault to our forefathers that liued long ſince, & bluſh in their behalfe. Lawes were enacted, and prohibitions publiſhed by the Cenſors, and thoſe remaining vpon record,

* *Vt bibatur glacie*, for hey held Cryſtall to be a kinde of yce.

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A cord, forbidding expreſſely, That neither the kernelly part of a Bores neck, nor dormice, & other ſmaller matters than theſe to be ſpoken of, ſhould be ſerued vp to the boord at great feaſts: but as touching the reſtraint of bringing in marble, or of ſailing into forraine parts for the ſame, there was no act or ſtatute ordained.

Chap. II.

¶ *Who was the firſt that ſhewed Marble ſtones in Columnes, or any publicke workes at Rome.*

B BVt ſome man haply might reply againe vpon me, and ſay: what need was there of any ſuch ordinance, conſidering there was no marble in thoſe daies brought in from ſtrange countries? Vnto whom I anſwer, That it is a meere vntruth, for euen our progenitors, of whom I ſpeak, ſaw well enough how in that yere when *M. Scaurus* was Ædile, there were not fewer than 360 pillars of marble tranſported to Rome, for the front and ſtage of a Theater, which was to continue a ſmall while, and ſcarcely to be vſed one moneth to an end: and yet no law there was to checke and controule him for it. But it may be inferred againe, the Magiſtrats winked hereat, becauſe he did all this for a publicke pleaſure to the whole citie, during the plaies exhibited by him in his Ædileſhip: marrie that is it that I would haue, What reaſon I pray you had they ſo to doe? By what means more doe abuſes and inormities creepe into a citie or ſtate, than by a publicke preſident giuen? for I aſſure you it was nothing elſe but ſuch examples at the firſt C that brought thoſe other things, I meane, yvorie, gold, jewels, and precious ſtones, to be vſed by priuat perſons, ſo commonly as they be, in their houſes, plate, and ornaments. And what haue we left and reſerued at all for the very gods to haue, ſince that we lay ſo much vpon our ſelues? but ſay that in thoſe daies they did tolerat this exceſſe in *Scaurus*, becauſe of the paſtimes he did exhibite to the whole city; What, were they ſilent alſo and made no words, when the ſaid *Scaurus* cauſed the biggeſt of all theſe columnes (yea thoſe that were fortie foot high within twain, and the ſame of Lucullean black marble) to be erected and placed in the court before his owne houſe in mount Palatine? And leaſt any man ſhould ſay, that this is done in ſecret and hucker mucker, know he, That when theſe pillars were to be carried vp into the mount Palatine where D his houſe ſtood, the Bailife that had the charge of the publick ſinkes vaulted vnder the ground, dealt with *Scaurus* for good ſecuritie, yea, and demanded cautions and ſureties for ſatisfying of all harmes and dammages that might be occaſioned by their carriage, ſo huge and heauie they were. Conſidering then this bad example, ſo prejudiciall to all good manners, and ſo hurtful to poſterity, had it not bin better for the city to haue cut off theſe ſuperfluities by wholſome laws and edicts, than thus to permit ſuch huge and proud pillars to be carried vnto a priuat houſe vp into the Palatine mount, euen vnder the noſe of the gods, whoſe images were but of earth, and hard by their temples that had for their couers and louvers no better than ſuch as were made of potters cley?

Chap. III.

E ¶ *The firſt man who had at Rome for his owne vſe, pillars of Marble brought from forraine Lands.*

NEither can it be alledged for excuſe of this tolleration in *Scaurus*, that hee tooke the vantage and ſpied his time when the city of Rome was not ware of any ſuch matter toward, as hauing not been acquainted beforetime with the like, and therefore he ſtale vpon them with theſe ſuperfluous pompes, as doubting nothing leſſe than ſuch new deuiſes, and therefore hauing no time to preuent and ſtay them: for long before this, *L. Craſſus* that great Orator, who was the firſt that inriched his houſe (within the ſame Palatium) with pillars of outlandiſh marble, although they were but of the Quarry in Hymettus hill, and neither more in number than F ſix, nor carying in length aboue 12 foot apiece, was reproued and reproched for this pride and vanity by *M. Brutus*, who among other hot words and biting terms that paſſed interchangeably between them, taunted him by the name of *Venus Palatina*. Certes, conſidering how all good orders and cuſtoms otherwiſe were trodden vnder foot, we are to preſume thus of our predeceſſors, That when they ſaw other injunctions and prohibitions as touching diuers abuſes crept in, take

no effect, but daily broken, they thought it better policy to make no lawes at all for restraint of G
such columns, than to haue them infringed, or at leastwise, not obserued when they were made: yet are we in these daies in better order than so, and I doubt not but the age and generation following will justifie and approue of vs in comparison of them: for where is there one in Rome at this day, who hath in the portaile or entrie of his house any columns, that for bignesse and pride come near to those of *Scaurus*? But before that I enter farther into this discourse of marbles and other rich stones, it shal be good to speak somwhat of the men that haue excelled in the cutting thereof, and whose workmanship hath carried the greatest price. First therfore I wil go through with the artificers themselues.

Chap. IIII. H

¶ *The first Imageurs that were in name for cutting in Marble, and in what ages they flourished.*

THe first that we reade renowned for grauing and caruing in marble, were *Dipœnus* and *Scyllis*, both Candiots borne: who during the Empire and Monarchie of the Medes, and before that *Cyrus* began his reigne in Persia, liued in great fame; and that was in the fiftieth Olympias or thereabout. These men went together vnto Sicyone (a city, which I may truly say was for a long time the very natiue country that brought forth the excellent workemen in all kinds of mettals and minerals.) It fortuned at the same time, that the magistrates of Sicyone, had bargained with them for certaine images of the gods to be made at the publicke charges I
of the city; but these artificers, who had vndertaken the thing, agrieued at some wrongs offered to them, departed in Ætolia before they had finished the said images, and so left them vnperfect. Presently vpon this, there insued a great famine amongst the Sicyonians, by occasion that the earth failed to yeeld increase: the citizens therefore full of sorrow and heauinesse, fearing vtter desolation, had recourse to the Oracle of *Apollo Pythius*, to know what remedy for this calamity; and this answer was deliuered vnto them from the said god, That according to their petition, they should finde meanes for to be eased of this plague, in case *Dipœnus* and *Scyllis* had once finished the images of the gods, which they begun: and this was performed accordingly, but with much difficulty, for they were faine to pay whatsoeuer they would demand: they were glad also to pray vnto them with cap in hand. And what images mought these be? Euen *Apollo*, *Diana*, *Hercules*, and *Minerua*: and this last named, was afterwards smitten and blasted with fire from heauen. K

Chap. V.

¶ *Of singular pieces of worke, and excellent artificers in cutting and grauing Marble, to the number of 126. Of the white Marble of Paros, and of the stately sepulchre called Mausoleum.*

LOng time before *Dipœnus* and *Scyllis*, there had been in the Island Chios one *Melas*, a cutter and grauer in marble: after whom, his son *Micciades* succeeded, and he likewise left a sonne L
behind him, named *Anthermus*, of the said Isle, a cunning workman: whose two sons *Bupalus* and *Anthermus*, proued also most skilfull Imageurs. These flourished in the daies of *Hipponax* the Poet, who (as it is well knowne) liued in the 60 Olympias. Now, if a man will calculate the times, according to the genealogie of these two last named, and count backeward in ascent no higher than to their great grandsire, he shall find by the ordinary course of Nature, that the art of cutting and grauing in stone, is equall in antiquity to the originall and beginning of the Olympiades. But to proue that these two, *Bupalus* and *Anthermus*, liued in the daies of *Hipponax* aboue named, recorded it is, That the said Poet had a passing foule & ill-fauored face of his own: and these Imageurs could find no better sport, than to counterfeit both him and his visage, as liuely as possibly might be in stone; and in a knauery to set the same vp in open place where me- M
ry youths met in knots together, and so to propose him as a laughing stock to the whole world. *Hipponax* could not indure this indignitie, but for to be reuenged vpon these companions, sharpened his style or pen against them, and so coursed them with bitter rimes & biting libels, that as some do thinke and verily beleeue, being weary of their liues, they knit their necks in halters,

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A and so hanged themselues. But sure this canot be true, for they liued many a faire day after, yea and wrought a number of Images in the Islands adiacent to Chios, and namely in Delos; vnder which pieces of their worke they subscribed certain arrogant verses to this effect, That the Island of Chios was not only enobled for the vines there growing which yeelded so good wine, but renowned as well for *Anthermus* his two sons, who made so many fine and curious images. The Islanders also of Iasus haue to shew the image of *Diana*, their handiworke: within the Isle of Chios their natiue country, there was likewise another *Diana* of their making, whereof there goeth much talke, and which standeth aloft in a temple there; the visage of which *Diana* is so disposed, that to as many as enter into the place it seemes sad and heauy; but to them that goe forth it appeareth pleasant and merry. And in very truth there be certaine statues at Rome of
B these mens doing, to wit, those which stand vpon the lanterne of *Apollo's* Temple in the mount Palatine, and almost generally in all those chappels which *Augustus Cæsar* Emperor of glorious memory erected. Moreouer, their father *Anthermus* left behind him certain images both in Delos, and also in the Island Lesbos. As for *Dipænus*, his workes were rife in Ambracia, Argos, and Cleone, in which cities a man should not see a corner without them. But all the race of these, both father, grandsire, sons, & nephewes, wrought only in white marble digged out of the Iland
Paros; and this stone men began to call Lychnites, that is to say, the candle marble, not for the
light some white colour which it caried (for many quarries were found afterwards of whiter and brighter marble, and namely of late daies in those about Luna in Tuscane) but as *Varro* mine Author saith, for that the pioners vndermined the ground for that stone, and laboured in hew-
C ing it continually by candle light. But here commeth to my remembrance a strange thing that is recorded of the quarries in the Island Paros; namely, That in one quarter thereof there was a vein of marble found, which when it was clouen in twain with wedges, shewed naturally within, the true image and perfect portraiture of a Silenus imprinted in it. Neither must I forget to note, That this art of grauing images in stone is of greater antiquitie by farre, than either painters craft, or founderie and casting statues; for both painters and also images in mettal began with *Phidias*, about the 83 Olympias, which falleth out to be* 332 yeers after *Malas* the first grauer in stone of name. This *Phidias* [though otherwise a painter at the beginning, and a caruer in Ivorie] was himselfe also a grauer in marble, and the image of *Venus*, which now stands
D among the stately buildings of *Octauia*, was (as they say) of his cutting, a braue piece of worke, and in beauty surpassing. This is knowne for certaine, That *Alcamenes* the Athenian, a most excellent grauer in stone, learned his skill vnder him, of whose workmanship there be a number of statues to be seene at Athens, within the sacred temples. Besides, one image there is of *Venus* most exquisitly wrought, standing without the wall of the city, and is knowne by the name of *Aphrodite* * ἐν κήποις, [*i.* *Venus* in the gardens;] and as it is said, *Phidias* with his own hands finished this *Venus*: who also had another prentise vnder him, named *Agoracritus* of Paros, whom he loued also for his sweetly youth; in regard of which affection it is said, that many braue pieces of his own handiwork he was content should passe vnder his name, which hee dedicated to the immortal memorie of *Agoracritus*. Now these two apprentises of his stroue a-vie, whether
E of them could make the statue of *Venus* better? and so it fell out, that *Alcamenes* won the victorie, not in regard of finer and more cunning workmanship, but for that the city of Athens in fauor of their own countryman, gaue sentence on his side against *Agoracritus*, a stranger and Parian borne: who tooke this repulse and disgrace in such displeasure and indignation, that (by report) when he sold the said *Venus* of his owne making, he would by no meanes passe it away, but with this condition, That it should neuer stand in the city of Athens; and withall he named it *Nemesis* [*i.* Vengeance:] and therefore set vp it was at Rhamnus, a village so called within the
F territorie of Attica. Which image of *Venus*, *M. Varro* preferred before all other statues whatsoeuer. Within the foresaid city of Athens, and in the chappell dedicated to the honor of *Cybele* the great mother of the gods, there was another most excellent statue or image wrought by the
I hands of *Agoracritus*.

As touching *Phidias*, no man doubteth but he was the most excellent grauer that euer was, as all nations will confesse who euer haue heard of that statue of *Iupiter* * *Olympius*, which his own hands wrought: but that all others also may know (who neuer saw his work nor the statues that

* By this it is euident, *Olympias* was but the space of foure yeares compleat, although it be taken for fiue yeare.

* Some read ἐξωπύλιος, *id est*, without the citie.

* Out of yvorie: which when he had finished, being demanded after what pattern he had made the said image, and how he went vp into heauē for to take it forth? answered out of *Homer*, ἢ, ἐμὸν νοήσαντα ἐπορούσαι πρὸς Κρονίδην· ἀλλὰ σύγε δ' ἄρα χείρας, &c. *Iliad. a.* whereby hee signified that he had made him according as *Homer* the poet pourtrained and described him in his verses.

he made, that he wel deserued the name which went of him. I wil lay abroad some smal pieces G
as arguments of his handiwork, and those only that may testifie his fine head & rare inuention:
neither wil I alledge for proofe hereof, either the beautifull image of *Iupiter Olympius*, which hee
made at Olympia; nor the stately statue of * *Minerva* that he wrought at Athens, which carried
in height 26 cubits and was all made of Iuory and gold: but I will take the shield or targuet
that the said goddesse is portraied with; in the embossed and swelling compasse whereof he in-
graued the battel wherin the Amasons were defeated by [*Theseus*;] within the hollow part and
concauitie he inchased the conflict between the gods and the gyants: vpon the shoos or panto-
fles that she weareth, he portraied the fight betwixt the Lapithæ and the Centaurs; so ful com-
pact of art was euery thing about her, and so curiously and artificially contriued. Now in the
base or pied stall vnder the statue, the work that was cut he called the Genealogie of *Pandora*: A H
man might there see the natiuity of the gods, to the number of 30; among them the goddesse
Victory, of admirable workmanship. Moreouer, artificers that are seen & skilful in these matters
do greatly admire the fel serpent, as also the monster *Sphinx* made in brasse, vnder the very spear
that *Minerua* holdeth in her hand. This may serue by the way in a word or two, touching that
famous & most renowned Artist *Phidias*, whom no man is able to commend sufficiently, that it
may be known likewise that the sufficiencie of his workmanship was the same stil, euen in small
matters as well as great.

To come now to *Praxiteles*: what time hee liued I haue declared already in my catalogue of
Founders and Imageurs in brasse: who albeit he was singular in that kind, yet in marble he went
beyond himselfe: his workes are to be seen at Athens, in that conspicuous street called Ceram- I
nicum: but of all the images that euer were made (I say not by *Praxiteles* onely, but by all the
workmen that were in the world) his *Venus* passeth that hee made for them of Gnidos: and in
deed so exquisit and singular it was, that many a man hath embarked, taken sea, and sailed to
Gnidos for no other busines, but onely to see and behold it. Hee made two of them, and sould
them both togethe[r], the one with a vaile and arraied decently in apparell, which in that regard
the men of Cos bought for being put to their choice, they like honest men preferred it before
the other which was naked (notwithstanding *Praxiteles* tendred them both at one and the same
price) in the good mind that they carried, and hauing respect and regard vnto their grauity and
modest carriage of themselues: that which they refused and reiected, the Gnidians bargained
for: and indeed, to speak of workmanship, it was infinitely better, and there was no comparison K
betweene them, by the generall fame and opinion of all men: and verily King *Nicomedes* would
afterwards gladly haue bought it againe of the Gnidians, and offered them enough; for he pro-
mised in consideration thereof to discharge al debts that their city was ingaged in, which were
very great summes; but they would not giue eare or hearken vnto him: content they were ra-
ther to liue in debt and danger still, yea and to abide and endure any forfeitures, exigents, exe-
cutions, and extents whatsoeuer, than to part with their *Venus*. And to say a truth, good reason
they had so to do, for, that one image of *Praxiteles* his making was their chiefe credit, innobled
their city, and drew resort from all parts thither. This *Venus* was shrined in a little chappell by
her selfe within a tabernacle; but of purpose so deuised, that it might be set open on all sides,
for to be seen and viewed all and whole on euery part: wherewith the goddesse her selfe (as men L
were verily persuaded) was well enough pleased, and shewed her contentment therein to al com-
mers; for looke vpon her as one would, amiable shee was, and admirable euery way. It is repor-
ted, that a wretched fellow was inamoured of this *Venus*, and hauing lurked one night secretly
within the chappell, behaued himselfe so and came so neere vnto the image, that he left behind
him a marke of his leaud loue and beastly lust; the spot of which pollution appeared afterward
vpon the body. In the same Gnidos there be diuers other pieces more of Marble, wrought by
excellent workmen; to wit, one god *Bacchus* made by *Brixiades*, and another by *Scopas*, of whose
handiworke there is *Minerua* also: yet there goeth no speech nor voice of any but onely of *Ve-*
nus aboue said; than which, there cannot be a greater argument to proue the excellencie of M
Praxiteles his work; they all seem but foils, to giue a lustre to his *Venus*. Of his making there
is the picture of *Cupid* also, that *Cicero* reproched *Verres* with; the same for whose sake there is
such resort and pilgrimage to Thespiæ, & which standeth now shrined within the * Schooles
of

* Surnamed *Lemnia*, because the Lemnians dedicated it.

* *Scholæ*: certain galleries where learned mē were wont to meet, & (either walking or sitting) to discourse of learning, and to dispute. And yet there were other *Scholæ*: withdrawing places in baines, where those that came gaue attendance vntill there were roume void by others going forth,

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A of *Octauia*. He made alſo another *Cupid* all naked, for them of Parium, a city within Propontis, howbeit in the nature of a colony gouerned by the Roman lawes, and owing ſeruice to their high court: comparable it was vnto *Venus* at Tenedos, as wel for beauty and excellency of workmanſhip, as for the like abuſe and villanie done vnto it; for one *Alchidas* a Rhodian loued this *Cupid*, and (a ſhamefull thing to ſpeake) defiled both himſelfe and it, like a moſt filthy and profaine villaine. Moreouer, at Rome there be diuers pieces of *Praxiteles* his making, to wit, *Flora*, *Triptolemus*, and *Ceres*, within the gardens of *Seruilius*; the images of *Good-aduenture*, and *Good-fortune* both, which are in the Capitoll; alſo the religious women of the order of *Bacchus*, to wit, the furious *Mænades* which alſo they name *Thyades*: alſo the holy nuns or votaries called *Caryatides*; and *Silenus*, ſtanding amongſt the Monuments and Bookes within the Librarie of *A-*
B *ſinius Pollio*, together with *Apollo* and *Neptune*. Thus much may ſuffice to haue beene ſpoken of *Praxiteles*.

Praxiteles left behind him a ſon named *Cephiſſodorus*, who was his fathers heire euery way, as well of his excellent and ſingular cunning as his worldly goods: of his handy worke there is to be ſeene at Pergamus, a * couple of little boies clipping, embracing, and kiſſing one another: a moſt dainty and exquiſit piece of worke, and much ſpoken of and highly praiſed: a man that ſaw them would verily beleeue and ſay, they dented with their fingers into a bodie of fleſh, rather than a ſtatue of marble. At Rome there be images that came out of his hand, to wit, *Latona* within the temple vpon mount Palatine, *Venus* within the librarie or monuments of *Aſinius Pollio*, *Æſculapius* and *Diana* in the temple of *Iuno*, ſtanding within the pourpris or quadrant of *Octa-*
C *uias* galleries.

* *Symplegma*: this may be meant of two wreſtlers beeing at handy-gripes.

Scopas followeth theſe in order of narration, but ſtriueth to match them in praiſe of worthy workemanſhip: hee engraued and wrought the images of *Venus*, *Pothos*, and *Phaëton*, which three be honored among the Samothracians in all ceremonious deuotion, as right holy ſaints: likewiſe of *Apollo*, which ſtandeth within mount Palatine: of the fierie goddeſſe *Veſta*, ſitting in a chaire, accompanied with two * hand-maidens ſet vpon the ground of each hand of her, which are to be ſeene within the gardens of *Seruilius*: like vnto which, there be other ſuch Damoſels, and Lady *Veſta*, remaining within the monuments or Librarie of *Aſinius* before ſaid: where alſo there is one *Canephoros*, to wit, a virgine bearing vpon her head a flasket of holy reliques: all of *Scopas* his making. But of all that euer he wrought, there is moſt account made of thoſe images
D which are in the chappell of *Cneus Domitius*, within the cirque of *Flaminius*, to wit, *Neptune* himſelfe, and dame *Thetis*, and her ſonne *Achilles*; the Sea-nymphs or Meere-maides alſo called *Nereides*, mounted vpon Dolphins, Whales, and mightie Sea-horſes called Hippocampi, and ſitting vpon them: moreouer, the ſea trumpeters *Tritones*, with all the quire and traine attending vpon ſir *Phorcus* a Sea-god, and the mighty fiſhes called Priſtes, beſides many other monſters of the ſea: all wrought by one & the ſame hand ſo curiouſly, that if he had ſitten about the making of them al his life time and done nothing at all els, a man would haue thought it worke enough, and a great deed. But moreouer and beſides theſe aboue rehearſed, and many more which wee are not come to the knowledge of, we haue here with vs at Rome the image of *Mars* made gyant like after the manner of a coloſſe, yet ſitting within the temple of *Brutus Callaicus*, which ſtands
E cloſe vnto the ſaid cirque, in the way as men goe from thence to the gate Labicana. In the ſame place there is moreouer another *Venus* naked, and wrought by the hands of *Scopas*, which ſeemeth to goe beyond that other *Venus* of Gnidos that *Praxiteles* made; which image alone were able (no doubt) to giue name to any other citie where it ſhould ſtand, and to innoble the place: But at Rome verily there bee ſo many pieces beſides, and thoſe ſo ſtately and ſumptuous withall, that they obſcure and darken it (as it were) in ſome ſort. Moreouer, the exceeding great affaires and the buſie negotiations (whereof there is ſuch a multitude and a world as it were in that Citie) withdraw all men from the contemplation and beholding of ſuch things, bee they neuer ſo ſingular: for to ſay a truth, it belongeth rather to idle perſons to look and gaze vpon theſe matters, and fitter for a place where there is little or no ſtirring, but all
F quiet and ſilent: which was the cauſe that no man knoweth who was the workeman that made the images of *Venus*, which *Veſpaſian* the Emperour dedicated in the rampars and building of his temple of *Peace*: and yet if it ſtood any where elſe than at Rome, it might ſeeme nothing inferiour in name to the antient workes of old time. As little certaintie there is likewiſe of that image wrought in marble, which repreſents dame *Niobe* ready to die, together

* *Chamaetergæ*.

with all her sweet children, and standeth in the temple of *Apollo* syrnamed *Sosianus*, whether G
Scopas or *Praxiteles* made it: no more than father *Ianus*, which *Augustus Cæsar* brought out of E-
gypt and dedicated in his owne temple, is known ont of whose shop it came; notwithstanding
now it be guilded all ouer: semblably, there standeth in the courtly pallace of *Octauia*, the image
of *Cupid* holding a thunderbolt or lightning in his hand, ready to shoot; but it is a question who
was the maker of him? And yet this is affirmed, That the same *Cupid* was made by the liuely pat-
terne of *Alcibiades*, who at that age was held to be the faireſt youth that the earth did beare. In
the same place, and namely in the schoole or gallerie of learned men, there be many more ima-
ges highly commended, and yet no man knoweth who wrought them: As for example, four that
resemble Satyres; of which, one seemeth to carry on his shoulders prince *Bacchus* arraied like a
girle in a side coat or gown; another likewise beareth yong *Bacchus* in the same order, clad in the H
robe of his mother *Semelle*; the third maketh as though he would stil the one *Bacchus* crying like
a childe: the fourth offereth the other a cup of drink to allay his thirst: furthermore, there be two
images in habit and form fœminine, representing gales of wind, & these seem to make sail with
their owne clothes. As doubtfull also it is, who made the images within the railed inclosure in
Mars field named Septa, which do represent *Olympus*, *Pan*, *Chiron*, and *Achilles*; and yet so excel-
lent pieces they be, that men esteeme them worthy to be kept safe, & satisfaction to be made
with no lesse than their death, vnder whose hands and custody they should miscarrie. But to re-
turne againe vnto *Scopas*; he had concurrents in his time, and those that thought themselues as
good workmen as himselfe, to wit, *Bryaxis*, *Timotheus*, and *Leochares*, of whom I must write joint-
ly together, becaus they joined all foure in the graving and cutting of the stately monument I
Mausoleum.

This Mausoleum was the renowned tombe or sepulchre of *Mausolus*, a petty king of Caria,
which the worthy lady *Artemisia* (somtime his queene, and now his widow) caused to be erected
for the said prince her husband, who died in the second yeare of the hundredth Olympias: and
verily so sumptuous a thing it was & so curiously wrought, by these artificers especially, that it
is reckoned one of those matchlesse monuments which are called the * seuen Wonders of the
world: from North to South it carrieth in length, 63 foot; the two fronts East and West, make
the bredth, which is not all out so large; so as the whole circuit about, may containe foure hun-
dred and eleuen foot: it is raised in heigth fiue and twenty cubits, and inuironed with sixe and
thirty columnes: on the East side, *Scopas* did cut; *Bryaxes* chose the North end; that front which K
regardeth the South, fell to *Timotheus*; and *Leochares* engraued at the west side: but Queene *Ar-*
temisia (who caused this rich sepulchre to be made for the honour and in the memoriall of her
husband late deceased) hapned her selfe to depart this life before it was fully finished: howbe-
it these noble artificers whom she had set aworke, would not giue ouer when she was dead and
gone, but followed on still and brought it to a finall end, as making this account, that it would
be a glorious monument to all posterity, both of themselues and also of their cunning: and in
truth at this day, it is hard to judge by their handyworke, who did best. There was a fifth work-
man also came in to them; for aboue the side wall or wing of the tombe, there was a Pyramis
founded, which from the very battlements of the said wal was carried to the heigth of the buil-
ding vnderneath it: the same grew smaller still as the worke arose higher, and from that heigth L
at euery degree (which in the whole were 24) was narrowed and taken in, vntill at last it ended in
a pointed broch: in the top whereof, there is pitched a coach with foure horses wrought curiou-
sly in marble; and this was the worke of *Pythis* for his part. * So that reckoning this charriot
with the sharp spire, the Pyramis vnder it vnto the battlements, and the body of the sepulchre
founded vpon the bare ground, the whole worke arose to an 140 foot in heigth. But to come to
some particular works of *Timotheus* beforesaid: his hand wrought that statue of *Diana* in mar-
ble which standeth at Rome in the chappell of *Apollo*, scituate in mount Palatine: and yet the
head belonging thereto, which now this image carrieth, *Aulanius Evander* set vnto it in place
of the former.

As touching *Menestratus*, men haue in high admiration *Hercules* of his making; as also *Heca-* M
te, which standeth in a chappell at Ephesus behinde the great temple of *Diana*: the sextons or
wardens of which chappell, giue warning vnto those that come to see it, that they looke not too
long vpon it for dazling and hurting their eyes, the lustre of the Marble is so radiant and re-
splendent.

I can-

* 1. The temple of *Diana* in Ephesus.
2. The sepulchre of *Mausolus*.
3. The coloſſe of the Sun at Rhodes.
4. The statue of *Iupiter Olympias*.
5. The wals of Babylon.
6. The Ægyptian Pyramides.
7. The obeliske of *Semiramis*. See *Cæl. Rhod. antiquar. lect. l.* 23. *c.* 6.

* *Dalechampius* suspecteth this place: but me thinkes a man may conceiue, euen by the very words of *Pliny*, that vpō the first *pyramis* of 2 cubits ther was raised another spire which lessened by 24 degrees, (like as wee may see in many steeples with vs) and that might cary so many foot, as being added to the rest, will make vp the whole 140 from the ground.

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A I cannot range in a lower degree vnto theſe, the three Charites or Graces, which are to bee ſeen in the Baſſe court before the Citadell of Athens, the which * *Socrates* made; I meane not that *Socrates* whom I reckoned among painters, although ſome thinke he was the ſame man. As for *Myro* (whom I commended for a ſingular imageur in braſſe) there is in marble of his portraying and ingrauing, an old woman drunken, which he made for them of Smyrna; a piece of worke as much eſteemed and ſpoken of, as any other. And here I cannot but thinke of *Pollio Aſinius*, who (as he was a man of a ſtirring ſpirit and quick conceit) delighted to haue his librarie and monuments to be inriched with ſuch antiquities as theſe: for among them, a man ſhall ſee the Centaurs carry behind them vpon their croup, the Nymphs, which *Archeſitas* wrought; the Muſes named Theſpiades, of *Cleomenes* his cutting; *Oceanus* and *Iupiter*, done by the hand of *Eutochus*; the ſtatues on horſe back reſembling women called Hippiades, which *Stephanus* wrought; joint Images of *Mercurie* and *Cupid*, called Hermerotes, the workmanſhip of *Tauriſcus* (I meane not the grauer, of whom I ſpake before, but another *Tauriſcus* of Tralleis;) *Iupiter* ſyrnamed *Xenius* or *Hoſpitalis*, which came out of the hands of *Pamphilus* an apprentice to *Praxiteles*: as for the braue piece of worke, to wit, *Zetus*, *Amphion*, *Dirce*, the Bull, and the bond wherewith *Dirce* was tied, all in one entier ſtone, which was brought from Rhodes to Rome; it was done by *Apollonius* and *Tauriſcus*; theſe men made queſtion of themſelues, who ſhould be their fathers? profeſſing in plaine termes, that *Menocrates* was taken and ſuppoſed their father, but indeed *Artemidorus* begat them, and was their father by nature; & in the ſame place among other monuments, the ſtatue of father *Bacchus* made by *Eutychides*, is much commended. Moreouer, neare vnto the
B C gallerie of *Octauia*, there is the Image of *Apollo*, wrought by *Phyliſcus* the Rhodian; and hee ſtandeth in a chappell of his owne. *Item*, *Latona*, *Diana*, the nine Muſes, and another *Apollo* naked. As for that *Apollo*, who in the ſame temple holdeth in his hand a harp, *Timarchides* was the workman of it; but in the precinct or cloiſter of the ſaid galleries, and in the chappell of *Iuno*, there is the goddeſſe her ſelfe curiouſly made in marble, the handy worke of *Dionyſius* and *Polycles*; but the image of *Venus* in the ſame place, *Philiſcus* wrought: al other ſtatues there, came out of *Praxiteles* his hands. Moreouer, *Polycles* and *Dionyſius*, the ſons of *Timarchides*, made that *Iupiter* which is in the next chappell; the images of *Pan* and *Olympus*, wreſtling together in the ſame place, were the workmanſhip of *Heliodorus*; and this is one of the faireſt images coupled together as wreſtlers, that are knowne in the world; as for *Venus*, bathing her ſelfe, he alſo made her; but *Dædalus* ſtanding by, *Polycharmus*. As touching one piece of worke that *Lyſias* made, it may appear
D how highly it was eſteemed, by the honourable place wherein it ſtood: for *Auguſtus Cæſar* late Emperor of happy memorie, to the honour of *Octauius* his father, dedicated it in mount Palatin ouer the triumphant arch there, and placed it within a ſhrine or tabernacle adorned with columnes: but what might this worke be? ſurely nothing elſe but a charriot with foure horſes ſet vnto it, *Apollo* and *Diana*, all of one entire piece. Within the gardens of *Servilius*, I finde there is great praiſe of *Apollo* made by *Calamis*, that ſingular grauer in mettall: the religious prieſts and propheteſſes alſo of *Phœbus*, called Pytheæ, done by *Dactylis*: and *Calliſthenes* the Hiſtoriographers ſtatue, wrought by *Amphiſtratus*.

E Moreouer, many cunning workmen there were, whoſe fame notwithſtanding is obſcured, by reaſon that albeit many ſingular pieces & thoſe vnmatchable, haue paſſed through their hands, yet for that many haue ioined in the workmanſhip together, the number hath bin a checke and barre to the excellency of ſome that went beyond their fellowes, for neither is there one among them that goeth away cleare with the honor from the reſt, nor many together can well bee named for one thing: and this may be ſeene in the image of *Laocoon*, which remaineth within the pallace of Emperor *Titus*, a piece of worke to be preferred (no doubt) before all pictures or caſt images whatſoeuer; and yet we know not what one artificer to praiſe for it. *Ageſander*, *Polydorus*, and *Athenodorus*, Rhodians, moſt excellent workmen all, agreed by one generall conſent to expreſſe liuely in one entire ſtone, *Laocoon* himſelfe, his children, and the wonderful intricat winding of the ſerpents, claſping and knitting them about: ſemblably, the houſes Palatine of the
F *Cæſars*, a man ſhall ſee fully furniſhed with right excellent ſtatues, which *Craterus* and *Pythidorus*, *Polydectes* and *Hermolaus*, another *Pythodorus* alſo joyned with his fellow *Arthemon*, wrought together; as alſo thoſe that *Aphrodiſius Trallianus* alone himſelfe, did cut. As for the temple called Pantheon, which *Agrippa* built, *Diogenes* of Athens inriched it with marble images. The Virgins alſo going vnder the name of *Caryatides*, erected vpon the chapters of the columnes in that

• Some take this for the wiſe Philoſopher ſo famous.

temple are commended, as few like vnto them for workmanship: like as the other images which be aduanced vp to the very top of the lantern of the foresaid temple, are thought to be excellent pieces; howbeit, for that they stand so high and cannot well be discerned, lesse speech there is of them. As touching that *Hercules*, in the honour of whom the Carthaginians were won euery yere to sacrifice the flesh of mankind, it is an image not regarded; for he hath no place in any temple or chappell, neither is he erected vpon pillar, no nor so much as vpon a base, but standeth vpon the bare ground, iust ouer-against the entrie to those galleries in Rome, called * Ad Nationes: howbeit, the workmanship of this *Hercules* is not to be despised. There stood also beneath, the nine Muses called *Thespiades* vnder the temple of *Felicity*, and as *Varro* saith, one *Iunius Piſciculus* (by place a gentleman of Rome) was enamored vpon one of them, so beautifull they were made: and yet to this day, *Pasiteles* cannot look enough thereupon, but hath the same in great admiration: who also wrote fiue books, comprising all the famous and principall pieces of worke that are to be found in the world. This *Pasiteles* was borne in the marches and coasts of Italy called Græcia, and together with the townes of that tract, was made a Romane free denizen; being himselfe also a good cutter in stone, hee made that image of *Iupiter* in Yvory which standeth in the chappell of *Metellus*, in the way which leadeth into [*Mars*] field. It happened vpon a time, that being about the Arsenall, where certaine wild beasts were, newly brought out of Affricke, hee looked in at a grate to behold a lyon and to take out the counterfeit of him; but as hee was ingrauing in stone according to the patterne, behold, out of another cage a panther brake loose, to no small danger of that most curious and painfull workeman: it is said, that hee made many works; but in particular which were of his doing, it is not precisely set down. Moreouer, *M. Varro* doth highly magnifie *Arcesilaus*, of whose handy-worke hee saith that hee had a lioness in marble, and certaine winged *Cupids* playing with her: of which, some seemed to hold her fast bound, others forced her to drinke out of a horne others againe would seeme to shooe her with their sockes; and all this prettie anticke worke was of one entire stone. The same *Varro* writeth, that *Coponius* made the images of the foureteene Nations, which are about the galleries or theatre of *Pompeius*. I finde also by my reading, that *Canachus* (whom I commended for a good founder or imageur in brasse, in my catalogue of such artisans) wrought in marble likewise and cut many faire statues: neither is it meet, that *Sauros* and *Batrachus* should be forgotten, who wrought the chappels that are within the close or cloister belonging to the galleries of *Octauia*, notwithstanding they were themselues Lacedæmonians borne. Some also are of opinion, that they were exceeding rich men, and that of their owne purses they defraied the charges of building those chappels, hoping to haue had the honour to be immortalized with the inscriptions in the forefront thereof: which being denied them, yet in another place and after another sort, they made meanes to eternize their name; for they deuised in the foot or base of euery pillar (as it appeareth yet at this day) to cut the forme of a * frog and a lizard, to represent thereby their owne names. Moreouer, I cannot conceale from you one pretty thing to be obserued, and which we all know to be true, That in one chappell of *Iupiter*, all the pictures therein, as also all the ceremoniall seruice, thereto belonging, are respectiue altogether to the fœminine sex: the which happening at first by meere chance, continued afterwards: for when the temple of *Iuno* was finished, the porters who had the carriage of the images ordained there to stand, mistooke their markes and carried thither those which were appointed for the chappell of *Iupiter*; and contrariwise those for *Iuno*, into the chappell of *Iupiter*; which beeing once done, was not altered againe, but taken for a presage, and religiously euer after kept, as if the very gods themselues had so ordered and appointed it, and made a counterchange: which is the reason also, that in the foresaid chappell of *Iuno*, there is that kinde of seruice which was meant for *Iupiter*.

To conclude, there haue been certaine workemen that haue growne to great name, by cutting and grauing in small pieces of marble; and namely, *Myrmecides* deuised to inchase in marble, a charriot and foure horses, and a man to driue the same, in so smal a roome, that a poor flie might couer all with her little wings. As for *Callicrates*, he cut in stone the similitude and proportion of pismires in so narrow a compasse, that a man cannot easily discerne the feet and other parts of the body.

*So named, by occasion of the statues of 14 nations there erected, as appeareth a little after.

*For in Greek *Batrachos* is a frog, and *Sauros* a lizard.

CHAP.

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Chap. VI.

¶ When firſt began Marble ſtones to be vſed in building of priuat houſes. Who began at Rome to parget and couer walls with thin leaues of Marble. In what ages each kinde of Marble came into vſe and requeſt. Who inuented cutting of Marble into thin plates: the deuiſe and manner thereof. Of ſand proper for building.

THus far forth haue I diſcourſed of the cutters and ingrauers of marble, and of thoſe excellent artificers, who haue bin moſt renowned. In which treatiſe I remember wel, that the diapred and ſpotted marble all this while was of no regard: for all the antique pieces which I haue rehearſed, were made of the marble of Thaſos, of the Iſlands Cyclades, as alſo of Lesbos; and yet this inclineth to a blackiſh or blewiſh colour ſomwhat more than the reſt. As for marble ſpotted in ſundry colours, as alſo of the ordering, workmanſhip and vſe of any kinds of marble in building, *Menander*, who in his time was moſt curious of all others in diſcuſſing all ſuch ſuperfluitie, dealt firſt therein, but ſeldome medled he withall. Howbeit, true it is, that at length pillars of marble were taken vp to be vſed in temples, not vpon any pride, brauerie, or magnificence (for as yet they knew not what ſuch things meant) but for that it was thought, that they could not be erected nor beare vpon any thing ſtronger: and in that manner was begun the temple at Athens of *Iupiter Olympias*, out of which, *Sylla* brought thoſe columnes which ſerued for his houſe and pallace in the Capitoll. Howbeit, euen in *Homers* time a difference there was made betweene ordinary ſtone and marble: for this Poet ſaith plainely, that *Paris* caught a rap vpon the mouth with a marble ſtone: and yet whenſoeuer he extolleth and ſetteth out in the higheſt degree the moſt ſtately pallaces of kings and princes, he neuer makes mention of any other matter to adorne them withall, but of Braſſe, Gold, Electrum, Siluer, and Yvory, and not one word of Marble. But, as I take it, the firſt time that theſe marbles of ſundry ſpots and colors were diſcouered, was in the quaries of the Iſlanders of Chios, by occaſion that they digged for ſtone to fortifie their city with walls; whereupon *M. Cicero* plaies merily vpon them with a pleaſant conceit, for when they made ſhew to all that came, and among the reſt to him, what walls they had built of marble, and ſeemed to take great pride in their ſumptuous and magnificent building; What ado is here (quoth *Cicero*) I would haue maruelled much more at your wall, and thought you had done a greater deed, if you had built it out of the quary of Tyburtum. Certes, if marble had bin of any name and credit in old time, painters had not bin ſo highly honored as they were, nay, had there bin (thinke ye) any reckoning made of them at all?

As touching the manner of ſlitting marble into thin plates, therewith to couer and ſeel as it were the outſides of walls, I wot not well whether the inuention came from Caria, or no. The palace of *Mauſolus* K. of Caria, built at Halicarnaſſus, is the antienteſt building that I can find in any record, garniſhed, ſet out and inriched with marble of Proconneſus, notwithſtanding all the wals were reared of brick. This prince changed his life in the ſecond yere of the 100 Olympias which fel out to be the 302 yeare after the foundation of the city of Rome. As for our Romans, *Cornelius Nepos* writeth, That *Mamurra*, borne at Formiæ, a gentleman of Rome, and ſometime a Prouoſt ouer the Pioners, Maſons, Smiths, and Carpenters vnder *Cæſar* in France, was the firſt who couered all the walls throughout his houſe which he had vpon mount Cœlius, with leaues of marble. Now when I ſpeak of *Mamurra*, you muſt not be offended, and think that I aſcribe the inuention hereof to a mean perſon; for I tell you, this is that *Mamurra*, whom the Poet *Catullus* my countryman of Verona, ſo tanted and reuiled in his verſes; this is the man, whoſe houſe beforeſaid, teſtifieth better by proofe and effect, than *Catullus* could by his Poeſie expreſſe, That he had laid vpon it and gathered into it all the riches of Gallia Comata: which was as much to ſay as all France, ſaue only Prouance, Languedoc, Sauoy, and Dauphine. And well it might be ſo, for *Cornelius Nepos* before named addeth moreouer and ſaith, that he was the firſt man, who cauſed the pillars of his houſe to be of marble, & had not one of other matter, neither were thoſe ſleight and ſlender, but ſolid & maſſie, euen hewn out of the quaries either of Caryſtus or Luna. But after him, in proceſſe of time, *M. Lepidus* who was ioined companion in the Conſulſhip to *Catulus*, was the firſt man known to lay the ſils, lintels, & cheeks of his dores thorowout his houſe with Numidian marble; being Conſul in the 666 yere, reckoning from the foundation of Rome:

but

but well ſhent and rebuked he was for his labor. And verily, this was the firſt Numidian marble G
as far as I can find by any mention or token at all, brought ouer to Rome; not to ſerue in pillars
only and pannels in the ſeeling of walls, as *Mamurra* imploied his Caryſtian marble, but in
* *Miſai* * middle workes, and in the baſeſt of all, namely, in dore ſils, lentils, and jambes. After this, *Lepidus* ſome foure yeares, ſucceeded Conſull *L. Lucullus*, who, as it ſhould ſeeme by that which fell
out, gaue the name to Lucullean marble, for that he was ſo much delighted therein: he brought
it firſt to Rome, and had a ſpeciall fancy thereto, notwithſtanding it were black otherwiſe: whereas all other men eſteemed better of other coloured marble, or els ſpotted. This marble growes
in an Iſland lying within the riuer Nilus, and no marbles (as many kinds as there be) took name
of him that loued them, but it alone. But among theſe men that were giuen to build with marble, *M. Scaurus* was the firſt man, as I take it, that for the ſtage and forefront of his Theatre, made H
the wals of marble: but whether the ſame were of ſlit and ſawne marble, or laid with good ſound
ſquare aſhler or no (as the temple of *Iupiter Tonans* in the Capitoll hil, is at this day built) I am
not able to ſay for certaine: for as yet I do not reade or find by any ſign, that Italy knew how to
ſlit marble into leaues. But ſurely, whoſoeuer deuiſed that inuention, to ſaw marble ſtone, and
to ſlit it into leaues for to ſerue the turne of riotous and wailful perſons, had a perillous head of
his own, and a ſhrewd. But would you know the caſt of ſlitting marble? It is done with a kind of
ſand, and yet a man would think that it were the ſaw alone that doth the deed; for when there is
an entry once made by a very ſmal line or trace, they ſtrew the ſaid ſand aloft al the length ther
of: then they ſet the ſaw to it, and by drawing it to and fro, the ſand vnder the teeth thereof, ma-
keth way downwards ſtill, & ſo the ſtone, as hard as it is, they cut through in a trice: now for this I
purpoſe the Æthyopian ſand hath no fellow: and to this paſſe forſooth we are come, that we can-
not haue marble to ſerue our turns, vnleſſe we ſend as far as into Ethyopia: nay, we muſt bee pro-
uided of ſand to ſlit our marble with, out of India; from whence in times paſt, during the antient
diſcipline of Rome, it was thought too much and a ſhamefull thing, to fetch rich pearles. And
yet this Indian ſand is commended in a ſecond degree; but the Æthyopian is the ſofter and bet-
ter ſimply; for that ſand cutteth ſmooth and cleane as it goeth, and leaues no race at all in the
work; the Indian maketh not ſo euen and neat plates, howbeit, they that poliſh marble, fit them-
ſelues with this ſand when it is burnt and calcined; for if they rub their leaues and plates there-
with, it wil make them ſlick & fair; for otherwiſe, if it be not calcined to a fine pouder, of it ſelf
it is churliſh and rugged; which is the fault likewiſe of the ſand that commeth from Naxos and K
Coptis, which commonly is called the Ægyptian ſand; for theſe ſands verily were vſed in old
time to the cutting of marbles. Afterwards they met with a ſand as good as the beſt, and went no
farther than to a certain bay or creek in the Adriatick ſea or Venice gulfe, which being left bare
when the tide is gone, they may at a low water eaſily diſcerne to haue bin caſt vp by the floud.
And now adaies our ſawyers of marble, make no more ado, but take the firſt ſand they come by,
(it makes no matter out of what riuer it be) this ſerues their turne well enough, and thus they a-
buſe and deceiue the world, although few chapmen there bee that know what loſſe there is by
their marble leaues ſawne in that ſort: howbeit, ſuch groſſe ſand as that, firſt makes a wider ſlit
in the main ſtone, and by conſequence ſpendeth and conſumeth more of the marble; again, there
is more work and labour about the poliſhing thereof, the ſaw and ſand beforeſaid leaueth the L
faces of the ſtone ſo rugged and vneuen: and by this meanes the plates become ſleight and thin
before they can be imploied. To conclude, the ſand from Thebais in high Egypt, is very good
to poliſh withall: like as the grit that commeth of grauelly ſtones or pumiſh ground, ſerueth ve-
ry well for the ſaid purpoſe.

Chap. VII.

¶ *Of Whetſtones and Grindſtones, comming out of Naxos and Armenia. Of diuers kindes of Marble.*

For poliſhing of ſtatues and images made of Marble; for cutting, filing, and trimming of pre- M
cious ſtones, Naxium ſerued a long time, and was commended before any other ſtone: for
by this word Naxium I vnderſtand the whet-ſtones and grinde-ſtones that come out of the
Iſland Cyprus: but afterwards, thoſe which were brought from Armenia, woon the name from
them, and were eſteemed better.

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A As for the ſundry ſorts of Marble and their colours, to diſcourſe of them in generall, were needleſſe, they are ſo well and eaſily knowne: and to reckon them all in particular, were endleſſe, they be in number ſo many and infinit: for what corner of the world is there, where you ſhal not find one marble or other different from the reſt? And yet in my Coſmography, I haue already written of the beſt and moſt excellent kinds of marble, as I had occaſion to ſpeak of the nations and countries where they be found. Howbeit, this would be noted, that all ſorts of marble bee not found in quarries and rocks, that ſtand vpon veines thereof: for much you ſhall meet with, lying ebbe in the ground, and the ſame ſcattering by pieces here and there. But the green marble that commeth from Lacedæmon, is eſteemed moſt precious, and to be more gay and pleaſant than all other. As touching the marbles called Auguſtum and Tiberium, they were found in
B Ægypt firſt after that ſort lying looſe and ſcattered, during the time that *Auguſtus* and *Tiberius* were Emperors of Rome, of whom they took their name. And albeit theſe marbles bee flecked and ſpotted, yet they differ from the Serpentine marble called Ophites; for that the ſpeckles in Ophites, do reſemble thoſe in a ſerpents skin, whereupon it took that name: whereas the other two be diſtinguiſhed with ſpots after a diuers ſort: for Auguſtum hath veines curled, after the manner of waues, running round as it were like whirle pooles; and Tiberium ſpreadeth rather abroad in ſtrakes, winding yet and turning after the order of whitiſh haire. Neither be there any pillars found of the foreſaid Serpentine marble, vnleſſe they be very ſmall. And of this marble there be two kinds: the white, which is gentle and ſoft: the blacke, which is churliſh and hard. Both of them are ſaid to eaſe the head-ache, and to cure the ſting of ſerpents, if they be but car-
C ried about one in pieces, either hanging at the neck, or otherwiſe tied to any part. Some there be who preſcribe the whiter kind to be applied accordingly for the phrenſie and lethargy: howbeit againſt ſerpents, there be who commend eſpecially aboue the reſt, that which of the colour of aſhes they commonly cal * Tephria. As touching the marble of Memphis or great Caire in Ægypt, named thereupon Memphites, it is of the nature of theſe * precious ſtones, rather than of quarries. The vſe herof is to be ground into pouder, & with vineger to be reduced into a liniment, for to be applied to thoſe parts that are to be cauterized or cut: for it ſo aſtonieth and benummeth the member, that it feeleth no pain, either by the ſearing iron or the Chyrurgians lancet. The Porphyrite marble, which alſo comes out of Ægypt, is of a red colour: of which kinde, look which hath white ſpots or ſtreaks running among, is called thereupon Leucoſticos: And
D quarries there be in Egypt, ſtanding wholly vpon this marble, which yeeld ſo ſufficient, cut and hew therout as big and as huge pieces as you will. *Triarius Pollio*, Procurator generall vnder *Claudius Cæſar*, in the prouince of Egypt, brought for the Emperor certain ſtatues of this Porphyry, out of Ægypt: which new deuiſe of his was not very well liked and accepted, for no man tooke example by him afterwards to do the ſemblable. The Ægyptians alſo found in Æthyopia another kind of Marble, which they call Baſaltes, reſembling yron as well in colour as hardnes: and thereupon it took the name. The greateſt piece of this marble that euer was found, *Veſpaſian Auguſtus* the Emperor dedicated in his temple of *Peace*, and it was a ſtatue reſembling the riuer Nilus, with 16 little children playing about it, whereby is ſignified the number of cubits, to which height the ſaid riuer riſeth when it is at the higheſt. It is ſaid alſo, that within the temple of *Se-*
E *rapis* in Thebes, a city of high Egypt, there is another ſtatue not vnlike to this marble Bazaltes, and many think it was made for *Memnon*; & by report, euery day at the Sun-riſing, ſo ſoon as the raies or beames do beat thereupon, it ſeemeth to cracke or cleaue. As for * Onyx, our antient writers were of opinion, That it was found in thoſe daies vpon the mountains of Arabia, and no where els: yet *Sudines* ſaith, that it is gotten in Germany. *Cornelius Nepos* affirmeth, That there was at firſt great wonder made at the drinking cups of this ſtone: and afterwards, at the feet of tables and beds, of chaires and ſtooles likewiſe thereof: howbeit, afterwards (quoth he) *L. Lentulus Spinter* ſhewed at Rome wine veſſells, as big as good barrels, ſuch as came out of the Iſle Chios with wine: but within fiue yere after by his ſaying, hee ſaw pillars alſo, and thoſe 32 foot long, all of Onyx or Chalcedonie. But in proceſſe of time this ſtone altered and varied much:
F for *Cornelius Balbus* brought foure ſmall pillars thereof, and ſhewed them in his Theatre for a ſtrange and miraculous ſight. And in my time I haue ſeen of them aboue thirty, much fairer and bigger, which went to the making of a Summer parlour for pleaſure, that *Calliſtus*, one of the infranchiſed ſlaues of *Claudius Cæſar* (a man wel known for his exceeding riches and power) built for his owne ſelfe.

* Here *Pliny* remembreth himſelfe, and makes a third kind of *Ophites* as *Dioſcor.* did before him. *Dioſ.* ſaith it is no bigger thã a little pebble or grauel ſtone

* or rather *Onychites Caſſidonie*

CHAP

Chap. VIII.

¶ *Of the stone called Alabastrites: likewise, of Lygdinus and Alabandicus.*

THis Onyx stone, or Onychitis aforesaid, some name Alabastrites; whereof they vse for to make hollow boxes & pots to receiue sweet perfumes and ointments, because it is thought that they will keepe and preserue them excellently well, without corruption. The same being burnt and calcined, is very good for diuers plasters. This Cassidony or Alabaster is found about Thebes in Ægypt, and Damascus in Syria: and this Alabaster is whiter than the rest: Howbeit, the best and principall simply is that which commeth out of Carmania: next to it in goodnesse is that of India: and then the Alabaster of Syria and Asia. The least esteemed of all other, is brought out of Cappadocia, and no beauty or lustre it hath at all. In sum, come it from what country it will, those pieces which stand most of a yellowish colour, like hony, spotted also in the head and nothing transparent, goe for the best. And generally throughout, look where you meet with any in colour white, or resembling horne, is rejected for naught, like as whatsoeuer of it is like glasse.

As touching the stones Lygdinus, found in the mountaine Taurus, many are of opinion, that they be well neare as good as the former, for to keep odoriferous ointments: and those for bignesse and capacity, exceed not bowls and good broad platters: passing faire and white they be: and in times past were wont to be brought only out of Arabia. Moreouer, there be two kindes besides of Marble, well esteemed both, and in great price, notwithstanding in nature they be very contrary: the one is called Coraliticus, found in Asia; you shal not light vpon any aboue two cubites long: in whitenesse they come passing neare vnto yvorie, and otherwise also they haue a certaine resemblance vnto it. The other called Alabandicus, after the name of the countrey that yeeldeth it, is contrariwise blacke: howbeit, there is of it to be found growing in Miletus, but not altogether so blacke, for it inclineth or declineth rather to a purple colour. This stone of Miletus will resolue in the fire, and commonly they vse to melt it for drinking cups, in manner of glasses. To come now to the Thebaicke marble, marked it is with certain drops here and there of a golden colour: and naturally it is found growing in that part of Africke, which confineth vpon the Ægyptians, and lyeth vnder their iurisdiction. A peculiar propertie it hath by a secret in Nature, respectiue vnto the eies, to serue for to grinde collyries with, that is to say, those pouders which are appropriat to the diseases of that part. But about Syene, in the prouince of Thebaies, there is a marble (thereupon called Syenites) which sometime they named Pyrrhopœcilos: the kings of Ægypt in times past (as it were vpon a strife and contention, one to exceed another) made of this stone certaine long beames, which they called Obeliskes, and consecrated them vnto the Sun, whom they honoured as a god: And indeed, some resemblance they carry of Sun-beames, when they are made to the forme of Obeliskes, and the very Egyptian name implieth so much. The first that euer began to erect these Obeliskes, was *Mitres*, king of Ægypt, who held his royall seat and court in Heliopolis, the citie of the Sunne; where hee was admonished in a dreame by a vision, so to doe: and thus much may appeare by the inscription of certaine letters engrauen vpon the said Obeliske: for those Characters, figures, and formes that wee doe see inchased in them, be the verie * letters that the Ægyptians vse themselues. After him, other princes also set vp more of these Obeliskes in the aboue named citie: and namely king *Sochis* for his part, foure in number, those carrying in length eight and fortie cubits apiece. And *Ramises* (in whose reigne Troy was woon by the Greekes) erected an Obeliske fortie cubits long, in the said city: but being departed from thence (for that he took pleasure in another city, where sometimes stood the royal pallace of king *Mnevis*) he pitched on end another Obeliske, which carried in length * a hundred foot wanting one, and on euery side foure cubits square.

* Hieroglyphice

* *Vndecenti*, by the Grammaticall Analogie should signifie nine or eleuen: but I take it, that here it is put for *vndecentesis*: other wise there was no proportion betweene the height & the bredth. Neither is it like that this proud prince, being remoued from his former seat (where he had erected Obeliske threescore and twelue foot high) vnto another citie which he loued better, would set vp a monument of nine or eleuen foot, for his memoriall, as may appeare more in the next chapter.

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Chap. IX.

¶ *Of three Obelisks. The firſt of Thebes in high Egypt: the ſecond of great Alexandria in Egypt: and the third which ſtandeth at Rome in the large Cirque or Shew-place.*

IT is ſaid, that *Ramiſes* abouenamed kept 20000 men at work about this Obeliske. The King himſelfe in perſon, when it ſhould be reared on end, fearing leſt the engins deuiſed to raiſe it, and hold the head thereof betwixt heauen and earth, in the rearing ſhould faile and not be a-
B ble to beare that monſtrous weight; becauſe hee would lay the heauier charge vpon the artificers that were about this enterpriſe, vpon their vtmoſt perill, cauſed his own ſon to be bound to the top thereof; imagining withall, that the care of the engineers who vndertooke the weighing vp this Obeliske, ouer the young prince, for feare of hurting him, would induce them alſo to be the more heedfull to preſerue the ſtone. Certes, this Obelisk was a piece of work ſo admirable, that when *Cambyſes* had woon the city where it ſtood, by aſſault, and put all within to fire and ſword, and burnt all before him, as far as to the very foundation & vnderpinning of the obelisk, commanded expreſly to quench the fire: and ſo in a kind of reuerence yet vnto a maſſe and pile of ſtone, ſpared it, who had no regard at all of the city beſides. Other Obeliskes there be twaine,
C the one erected by K. *Smarres*, the other by *Exaphius*, both without characters, and the ſame are 48 cubits in height apiece. At Alexandria, K. *Ptolomæus* ſyrnamed *Philadelphus*, ſet vp another obelisk 80 cubits high, the which king *Nectabis* had cauſed to be hewed out of the quarry, plaine without any work: but much more difficultie there was in carying it from the quarry, & ſetting it vpright, than there had bin labor in the hewing: ſome write, that *Satyrus* a great architect & enginer, conueied it to Alexandria by means of flat bottoms or ſleds. But *Calixenus* ſaith, that one *Phœnix* did the deed, who cauſed a trench to be cut from the riuer Nilus, and to be carried with water as far as to the place where the obelisk lay along: then he deuiſed two broad barges, prepared & well fraught with ſmal ſquares of the ſame ſtone, a foot euery way, to the double poiſe or weight of the Obelisk it ſelfe in proportion, by reaſon whereof the veſſels hauing their full
D load, might come vnder the Obelisk iuſt, as it lay hollow ouerthwart the head of the foſſe, with either end reſting vpon the banks: which done, he began to diſcharge the veſſels vnderneath, & to throw out the ſtones werewith they were laden, by meanes whereof, as they were lightened, they roſe vp higher and higher to the very Obelisk, and receiued the charge ordained for them. He writes moreouer, that there were ſix other like to it hewed out of the ſame mountain, & the workmen who cut and ſquared them had fifty talents for a reward. But the foreſaid Obelisk was afterwards by the abouenamed king erected in the hauen of Arſinoë, in teſtimonie of loue to *Arſinoë* his wife and ſiſter both. But for that it did hurt to the ſhip-docke there, one *Maximus* a gouernor of Egypt vnder the Romans, remoued it from thence into the market place of the ſaid city, cutting off the top of it, intending to put a filiall thereupon gilded, which afterwards was
E forelet and forgotten. Two Obelisks more there were in the hauen of Alexandria neere to the temple of *Cæſar*, which were hewed out of the rocke by *Meſphees* king of Egypt, being 42 cubits high. But aboue all other difficulties, it paſſeth, what a do there was to tranſport them by ſea to Rome: and verily, the ſhips prepared of purpoſe therefore were paſſing faire and wonderfull to ſee to. As for one of the ſaid ſhips which brought the former Obelisk, *Auguſtus Cæſar* the Emperor of famous memorie, had dedicated it vnto the harbor or hauen of Puteoli, there to remain for euer as a miracle to behold, but it fortuned to be conſumed with fire: the other, wherein *C. Cæſar* had tranſported the ſecond Obeliske into the riuer, after it had bin kept ſafe for certaine yeares together, to be ſeen (for that it was the moſt admirable Carrick that euer had bin known to flote vpon the ſea) *Claudius Cæſar* late Emperour of Rome cauſed it to be brought to Oſtia,
F where for the ſafetie and ſecuritie of the hauen he ſunk it, and thereupon, as a ſure foundation, he raiſed certaine piles or baſtions like turrets or ſconces, with the ſand of Puteoli: which being done, a new care and trouble there was to bring the Obeliske vp the riuer Tiberis to Rome. Which being effected, it appeared well by that experiment, that vpon the riuer Tiberis a veſſel draweth as much water full as Nilus. As touching the ſaid Obelisk which *Auguſtus Cæſar* late Emperor erected in the great ſhew-place or cirque at Rome, it was firſt cut out of the rock by

* Semni-

* Whom some take to be *Amasis*.

* *Semneserteus* King of Egypt, in the time of whose reign *Pythagoras* soiourned in Egypt; & the same contains 125 foot nine inches, besides the foot or base of the said stone. As for the other, standing in *Mars* field, being 9 foot lower than it, hewed and squared it was by commandement from *Sesostris* K. of Egypt. In the characters ingrauen in both of them a man may see all the philosophie and religion of the Egyptians, for they contain the interpretation of nature. G

Chap. X.

¶ *Of that Obelisk at Rome which standeth in Mars field, and serueth for a Gnomon.*

And as for that Obelisk which standeth in Mars field, *Augustus Cæsar* deuised a wondefull means that it should serue to mark out the noontide, with the length of day and night, according to the shadowes that the Sun doth yeeld by it: for hee placed vnderneath at the foot of the said Obelisk, according to the bignes and length therof, a pauement of broad stone, wherein a man might know the sixt houre or mid-day at Rome, when the shadow was equall to the Obelisk; and how by little and little, according to certain rules (which are lines of brasse inlaid within the said stone) the daies do increase or decrease. A thing no doubt worth the knowledge, and an inuention proceeding from a pregnant wit. *Manlius* a renowned Mathematician & Astronomer, put vnto the top of the said Obelisk a gilded ball, in such sort, that all the shadow which it gaue fell vpon the Obeliske, and this cast other shadowes more or lesse, different from the head or top of the Obeliske aforesaid. The reason whereof (they say) was vnderstood from the sundry shadowes that a mans head yeelds. But surely for these thirty yeares past, or thereabout, the vse of this quadrant aforesaid hath not been found true: and what the reason of it should be I know not; whether the course of the Sun in it self be not the same that hertofore, or be altered by some disposition of the heauens; or whether the whole earth be somwhat remoued from the true centre in the midst of the world (which I heare say is found to be so in other places) or that it proceed by occasion of the earthquakes which haue shaken the city of Rome, and so haply wrested the Gnomon from the old place: or lastly, whether by reason of many inundations of Tyber, this huge and weighty Obelisk hath setled and sunk down lower (and yet it is said, the foundation was laid as deep vnder ground as the obelisk it selfe is aboue ground.) H I K

Chap. XI.

¶ *Of the third Obelisk in the Vaticane.*

There is a third Obelisk at Rome, standing within the cirque or shew-place of the two Emperors *C. Caligula* and *Nero*: and this is the only Obeliske known to haue bin broken in the rearing. This was hewn and erected in Egypt by *Nuncoreus* the son of *Sesostris*: which *Nuncoreus* caused another to be set vp of 100 cubits high, and consecrated it vnto the Sun, after hee had recouered his sight vpon blindnesse, being so aduertised by the Oracle, which remaines at this day. L

Chap. XII.

¶ *Of the Egyptian Pyramides, and of Sphinx.*

Hauing thus discoursed of the Obelisks, it were good to say somwhat of the Pyramids also in Egypt; a thing I assure you that bewraieth the fooliish vain-glory of the Kings in that countrey, who abounding with wealth, knew not what to doe with their money, but spent it in such idle and needlesse vanities. And verily most writers doe report, That the principall motiues which induced them to build these Pyramides, was partly to keepe the Common people from idlenes, partly also becausse they would not haue much treasure lying by them, lest either their heirs apparant, or other ambitious persons who aspired to be highest, should take occasion thereby to play false and practise treasons. Certes a man may obserue the great follies of those princes herein, That they began many of these Pyramides, and left them vnfinished; as M

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A may appeare by the tokens remaining thereof. One of them there is within the territory vnder the jurisdiction of *Arsinoë*; two within the prouince that lieth to the gouernment of Memphis, not far from the Labyrinth, whereof also I purpose to speake: there are other twaine likewise in the place where sometimes was the lake Mœris, which was nothing else but a mighty huge fort intrenched by mans hand in manner of a mote or poole: but the Ægyptians (among many other memorable and wonderfull works wrought by their princes) speake much of these two * Pyramides, the mighty spires and steeples whereof (by their saying) do arise out of the very water. As for the other three which are so famous throughout the world (as indeed they are notable marks to be kenned a far off by sailers, and directions for their course) these are scituat in the marches of Affrick vpon a craggy and barren mountaine, betweene the city Memphis and a cer-
B taine Iland or diuision of Nilus (which as I haue said before) was called Delta, within foure miles of Nilus and six from Memphis, where there standeth a village hard vnto it named Busiris, wherein there be certaine fellows that ordinarily vse to clime vp to the top of them. Ouer against the sayd Pyramides there is a monstrous rocke called Sphinx, much more admirable than the Pyramides, and forsooth the peisants that inhabit the countrey esteemed it no lesse than some diuine power and god of the fields and forrests: within it, the opinion goeth, that the body of K. *Amasis* was intombed; & they would bear vs in hand, that the rock was brought thither, all and whole as it is: but surely it is a meere crag growing naturally out of the ground; howbeit wrought also with mans hand, polished and very smooth and slippery. The compasse of this rocks head (resembling thus a monster) taken about the front, or as it were the forehead,
C containeth one hundred and two foot, the length or heigth 143 foot, the heigth from the belly to the top of the crowne in the head, ariseth to 62 foot. But of all these Pyramides, the biggest doth consist of the stone hewed out of the Arabicke quarries: it is said, that in the building of it there were 366000 men kept at worke twentie yeares together: and all three were in making threescore and eightene yeares and foure moneths. The writers who haue made mention of these Pyramides, were *Herodotus*, *Euhemerus*, *Duris* the Samian, *Aristagoras*, *Dionysius*, *Artemidorus*, *Alexander Polyhistor*, *Butorides*, *Antisthenes*, *Demetrius*, *Demoteles*, and *Apion*: but (as many as haue written hereof) yet a man cannot know certainly and say, This Pyramis was built by this king: a most just punishment, that the name and authors of so monstrous vanity, should be buried in perpetuall obliuion: but some of these Historiographers haue reported, that there were
D a thousand and eight hundred talents laid out only for raddish, garlicke, and onions, during the building of these Pyramides. The largest of them taketh vp eight acres of ground at the foot, foure square it is made, and euery face or side thereof equall, containing from angle to angle eight hundred fourescore and three foot, and at the top fiue and twenty: the second made likewise foure cornered, is on euery side euen, and comprehendeth from corner to corner seuen hundred thirty and seuen foot: the third is lesse than the former two, but far more beautifull to behold, built of Æthiopian stones; it carrieth at the foot in each face betweene foure angles, three hundred threescore and three foot. And yet of all these huge monuments, there remaine no tokens of any houses built, no apparence of frames and engins requisit for such monstrous buildings; a man shall find all about them far and neare, faire sand and small red grauell, much like
E vnto Lentill seed, such as is to be found in the most part of Affricke. A man seeing all so cleane and euen, would wonder at them how they came thither; but the greatest difficultie mouing question and maruell, is this, What meanes were vsed to carry so high as well such mightie masses of hewen squared stone, as the filling, rubbish, and mortar that went thereto? for some are of opinion, that there were deuised mounts of salt and nitre heaped vp together higher and higher as the worke arose and was brought vp; which being finished, were demolished, and so washed away by the inundation of the riuer Nilus: others thinke, that there were bridges reared with bricks made of clay, which after the worke was brought to an end, were distributed abroad and imploied in building of priuat houses; for they hold, that Nilus could neuer reach thither, lying as it doth so low vnder them when it is at the highest, for to wash away the heaps
F and mounts aboue-said. Within the greatest Pyramis there is a pit 86 cubits deep, and thither (some thinke) the riuer was let in. As touching the heigth of these Pyramides & such like, how the measure should be taken, *Thales Milesius* deuised the meanes; namely, by taking just length of a shadow when it is meet and euen with the bodie that casteth it. These were the wonderfull Pyramides of Egypt, whereof the world speaketh so much. But to conclude this argument,

* *Herodotus* saith, they were 250 foot high aboue the water, and as many deepe vnder.

That no man should need to maruell any more of these huge workes that kings haue built, let him know thus much, that one of them, the least (I must needs say) but the faireſt and most commended for workmanship, was built at the cost and charges of one *Rhodope*, a very strumpet: this *Rhodope* was a bondslaue together with *Æsope* a Philosopher in his kind, and writer of morall fables, with whom she serued vnder one master in the same house: the greater wonder it is therefore and more miraculous than all I haue said before, that euer she should bee able to get such wealth by playing the harlot. Ouer and aboue the Pyramides abouesaid, a great name there is of a tower built by one of the kings of Egypt within the Island Pharos, and it keepeth & commands the hauen of Alexandria, which tower (they say) cost 800 talents the building. And here because I would omit nothing worth the writing, I cannot but note the singular magnanimity of K. *Ptolome*, who permitted *Sostratus* of Gnidos (the master workeman and architect) to graue his owne name in this building. The vse of this watch-tower, is to shew light as a lanthorne, and giue direction in the night season to ships, for to enter the hauen, & where they shall auoid bars and shelues; like to which there be many beacons burning to the same purpose, and namely, at Puteoli and Rauenna. This is the danger onely, lest when many lights in this lanterne meet together, they should be taken for a star in the skie; for that a far off such lights appeare to sailers in manner of a star. This enginer or master workman beforesaid, was the first man that is reported to haue made the pendant gallery and walking place at Gnidos. G H

Chap. XIII.

¶ *Of the Labyrinths in Ægypt, Lemnos, and Italy.* I

Since wee haue finished our Obelisks and Pyramides, let vs enter also into the Labyrinths; which we may truly say, are the most monstrous workes that euer were deuised by the head of man: neither are they incredible & fabulous, as peraduenture it may be supposed; for one of them remaineth to be seen at this day within the jurisdiction of Heracleopolis, the first that euer was made, to wit, three thousand and six hundred yeares ago, by a king named *Petesuccas*, or as some thinke *Tithoes*: and yet *Herodotus* saith, it was the whole worke of many KK. one after another, and that *Psammerichus* was the last that put his hand to it and made an end thereof: the reason that moued these princes to make this Labyrinth, is not resolued by writers, but diuerse causes are by them alledged: *Demoteles* saith, that this Labyrinth was the roiall pallace and seat of king *Motherudes*: *Lycias* affirmeth it to be the sepulchre of K. *Maris*: the greater part are of opinion, that it was an ædifice dedicated expressely and consecrated vnto the Sun, which in my conceit commeth neareſt to the truth. Certes, there is no doubt made that *Dædalus* tooke from hence the pattern and platforme of his Labyrinth which he made in Crete; but surely he expressed not aboue the hundreth part thereof, chusing onely that corner of the Labyrinth which containeth a number of waies and passages, meeting and incountring one another, winding and turning in and out euery way, after so intricat manner and so inexplicable, that when a man is once in, he cannot possibly get out againe: neither must wee thinke that these turnings and returnings were after the manner of mazes which are drawne vpon the pauement and plain floore of a field, such as we commonly see serue to make sport and pastime among boies, that is to say, which within a little compasse and round border comprehend many miles; but here were many dores contriued, which might trouble and confound the memorie, for seeing such variety of entries, allies, and waies, some crossed & encountred, others flanked on either hand, a man wandred still and knew not whether he went forward or backward, nor in truth where he was. And this Labyrinth in Crete is counted the second to that of Ægypt: the third is in the Isle Lemnos: the fourth in Italy: made they were all of polished stone, and besides vaulted ouer head with arches. As for the Labyrinth in Ægypt, the entrie thereof (whereat I much maruell) was made with columns of stone, and all the rest stuffed so substantially and after such a wonderfull maner couched and laid by art of Masonrie, that impossible it was they should in many hundred yeres be disjointed and dissolued, notwithstanding that the inhabitants of Heracleopolis did what they could to the contrary; who for a spight that they bare vnto the whole worke, annoied and impeached it wonderfully. To describe the site and plot therof, to vnfold the architecture of the whole, and to rehearse euery particular therof, it is not possible; for diuided the building is into sixteene regions or quarters, according to the sixteene seuerall gouernments in Ægypt (which they K L M

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A they call Nomos) and within the same are contained certain vast & stately pallaces which bear the names of the said jurisdictions, and be answerable to them: besides, within the same precinct are the temples of all the Ægiptian gods: ouer and aboue, fifteen little chappels or shrines, euerie one enclosing a *Nemesis*, to which goddesse they be all dedicated: to say nothing of many Pyramides forty ells in height apiece, and euery of them hauing six walls at the foot, in such sort, that before a man can come to the Labyrinth indeed which is so intricat & inexplicable, & wherein (as I said before) he shall be sure to lose himselfe, he may make account to be weary & tyred out: for yet he is to passe ouer certain lofts, galleries, & garrets, all of them so high that he must clime staires of ninety steps apiece ere he can land at them; within the which, a number of columns and statues there be, all of porphyrit or red marble, a world of images and statues
B representing as well gods as men, besides an infinit sort of other pieces pourtraied in monstrous and ougly shapes, and there erected. What should I speake of other roums and lodgings which are framed and situat in such manner, that no sooner are the dores and gates opened which lead vnto them, but a man shall heare fearfull cracks of terrible thunder: furthermore, the passages from place to place are for the most part so conueighed, that they be as dark as pitch, so as there is no going through them without fire light: and still be we short of the Labyrinth, for without the main wall therof, there be two other mighty vpright wals or wings, such as in building they call Ptera; & when you are passed them, you meet with more shrouds vnder the ground, in manner of caues and countermines vaulted ouer head, and as dark as dungeons. Moreouer, it is said, that about 600 yeares before the time of K. *Alexander* the Gteat, one *Circamnos* (an eunuch or
C groome of K. *Nectabis* chamber) made some small reparations here about this Labyrinth, & neuer any but hee would go about such a piece of work. It is reported also, that while the main arches and vaults were in rearing (and those were made all of foure square ashler stone) the place shone all about and gaue light with the beams and plancher made of the Ægyptian Acacia sodden in oile. And thus much may serue sufficiently for the Labyrinths of Ægipt and Candy.

The Labyrinth in Lemnos was much like to them, only in this respect more admirable, for that it had a hundred and forty columns of marble more than the other, all wrought round by turners craft, but with such dexterity, that a very child was able to weld the wheele that turned them, the pins and poles wherby they hung were so artificially poysed. The master deuisers and architects of this Labyrinth, were *Zmilus*, *Rholus*, and a third vnto them, one *Theodorus* who was
D borne in the same Island. Of this, there remaine some reliques to be seene at this day; wheras a man shall not find one smal remnant either of the Italian or Candian Labyrinths: for meet it is that I should write somewhat also of our Labyrinth here in Italy, which *Porsena* K. of Tuscane caused to be made for his own sepulchre; and the rather, because you may know that forein KK. were not so vain in expences, but our princes in Italy surpassed them in vanity: but for that there go so many tales and fables of it which are incredible, I think it good in the description therof to vse the very words of my author *M. Varro*: King *Porsena* (quoth he) was interred vnder the citie Clusinum in Tuscane, in which very place he left a sumptuous monument or tombe built all of square stone; thirty foot it carried in bredth on euery side, and fifty in height; within the base or foot whereof (which likewise was foure square) he made a Labyrinth, so intricat, that if a
E man were entred into it without a bottom or clue of thread in his hand, and leauing the one end therof fastned to the entry or dore, it was impossible that euer he should find the way out again. Vpon this quadrant there stood fiue Pyramides or steeples, foure at the foure corners, and one in the mids, which at the foot or foundation caried 75 foot euery way in bredth, & were brought vp to the height of 150: these grew sharpe spired toward the top, but in the very head so contriued, that they met all in one great roundle of brasse which wrought from one to the other, & couered them all in manner of a cap, and the same rising vp in the mids with a crest most stately; from this couer there hung round about at little chains, a number of bels or cimbals, which being shaken with the wind, made a jangling noise that mought be heard a great way off, much like to that ring of bels which was deuised in times past ouer the temple of *Iupiter* at Dodona:
F & yet are we not come to an end of this building mounted aloft in the aire, for this couer ouer head serued but for a foundation of 4 other Pyramides, and euery one of them arose a hundred foot high aboue the other worke, vpon the tops whereof there was yet one terrace more to sustaine fiue Pyramides, and those shot vp to such a monstrous height, that *Varro* was ashamed to report it: but if we may giue credit to the tales that go currant in Tuscane, it was equall to the

* Which was 250 foot: ſo that the whole was 500 foot.

whole * building vnderneath. O the outragious madneſſe of a fooliſh prince, ſeeking thus in a vaineglorious mind to be immortalized by a ſuperfluous expence which could bring no good at all to any creature, but contrariwiſe weakened the ſtate of the kingdome! And when all was done, the artificer that enterpriſed and finiſhed the worke, went away with the greater part of the praiſe and glory. G

CHAP. XIIII.

¶ *Of a garden made vpon Terraces. Of a citie ſtanding all vpon vaults and arches from the ground. And of the temple of Diana in Epheſus.*

H

WE reade moreouer of gardens made in the aire; nay it is recorded, that a whole city (and namely Thebes in Ægypt) was built ſo hollow, that the Ægyptian KK. were wont to lead whole armies of men vnder the houſes of the ſaid city, and in ſuch ſort as none of the inhabitants could beware thereof, yea and ſodainly appeare from vnder the ground: a maruellous matter I aſſure you, but much more wonderfull in caſe the riuer Nilus alſo ran thorow the mids of the ſaid towne. But ſurely of this opinion I am, that if this be true, *Homer* no doubt would haue written of it, conſidering he hath ſpoken ſo much in the praiſe and commendation of this city, and eſpecially of the * hundred gates that it had. But to ſpeake of a ſtately and magnificent work indeed, the temple of *Diana* in Epheſus is admirable, which at the common charges of all the princes in Aſia was * two hundred and twenty yeres a building. Firſt and foremoſt, they choſe a mariſh ground to ſet it vpon, becauſe it might not be ſubiect to the danger of earthquakes, or feare the chinkes and opening of the ground: againe, to the end that ſo mighty and huge building of ſtone-worke ſhould ſtand vpon a ſure and firme foundation (notwithſtanding the nature of the ſoile giuen to be ſlipperie and vnſtedfaſt) they laid the firſt couch and courſe of the ground-worke with charcole well rammed in manner of a pauement, & vpon it a bed of wool-packs: this temple carried in length throughout, four hundred twenty and fiue foot, in breadth two hundred and twenty: in it were a hundred and ſeuen and twenty pillars, made by ſo many KK. and euery one of them threeſcore foot high; of which, ſix and thirtie were curiouſly wrought and engrauen, whereof one was the handiworke of *Scopas*: *Cherſiphron* the famous architect was the chiefe deuiſer or maſter of the workes, and who vndertooke the *rearing thereof: the greateſt wonder belonging thereto was this, How thoſe huge chapters of pillars, together with their frizes and architraues, being brought vp and raiſed ſo high, ſhould be fitted to the ſockets of their ſhafts: but as it is ſaid, he compaſſed this enterpriſe and brought it to effect, by the meanes of certaine bags or ſacks filled with ſand; for of theſe he made a ſoft bed as it were raiſed aboue the heads of the pillers, vpon which bed reſted the chapters, and euer as he emptied the nethermoſt, the foreſaid chapters ſettled downeward by little and little, and ſo at his pleaſure he might place them where they ſhould ſtand: but the greateſt difficultie in this kind of worke, was about the very frontiſpiece and maine lintle-tree which lay ouer the jambes or cheekes of the great dore of the ſaid temple; for ſo huge and mighty it was, that hee could not weld it to lay & beſtow the ſame as it ought, for when he had done what he could, it was not to his mind, nor couched and ſettled in the right place: whereupon the workman *Cherſiphron* was much perplexed in his mind, and ſo wearie of his life, that he purpoſed to make himſelf away: but as he lay in bed in the night ſeaſon, and fell aſleep all wearie vpon theſe dumpiſh and deſperat cogitations, the goddeſſe *Diana* (in whoſe honor this temple was framed, and now at the point to be reared) appeared ſenſibly vnto him in perſon, willing him to be of good cheare and reſolue to liue ſtill, aſſuring him that ſhe her ſelf had laid the ſaid ſtone of the frontiſpice, and couched it accordingly: which appeared true indeed the morrow morning, for it ſeemed that the very weight thereof had cauſed it to ſettle iuſt into the place, and made a joint as *Cherſiphron* would haue wiſhed it. As touching all the other ſingularities belonging to this temple, and namely the gorgeous ornament that ſet it out, they would require many volumes to diſcipher and particularize vpon them; and when all is done, little or nothing pertinent they are to the illuſtration of Natures worke, which is the principall marke I aime at.

* Θηβαι ἑκατόμπυλαι.

* In the fortith chap. of the 16 booke, he ſaith 400.

* After the frame was made.

I K L M

CHAP.

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Chap. XV.

¶ *Of the proud temple in Cyzicum. The fugitiue ſtone. The eccho which reſoundeth ſeuen times to one cry. Of a great building without pin or naile of yron. The ſumptuous and admirable ædifices in Rome.*

THere is at this day a temple ſtanding at Cyzicum, wherin the maſon had beſtowed threds of gold in all the joints vnder euery ſtone throughout, and thoſe were all faire poliſhed: within this temple, prince *Cyzicus* (who cauſed it to be built) minded to dedicat the image of *Iupiter* in yvorie, and of *Apollo* in marble, ſetting a crowne vpon his head. Certes, theſe joints thus enterlaced with moſt fine and dainty threads, gaue a wonderfull grace and beautie to the whole Church, by ſending and breathing (as it were) from them certaine raies, which by reuerberation cauſe all the images therin to haue a glittering luſtre: in ſuch ſort, that ouer and aboue the deuiſe and wittie inuention of the workeman, the very matter alſo (although it be cloſe couched and hidden betweene each ſtone) commendeth the price and riches of the worke.

Within the ſaid town there is a ſtone called the Fugitiue and Runnaway: The braue knights of Greece called Argonauts, who accompanied prince *Iaſon* in his voyage for the golden fleece, after they had vſed it for an anchor, left it there: but for that this ſtone was ready many times to run away and be gone out of their Prytaneum (for ſo they call their publick hall) they ſoudred it faſt with lead. In the ſame city neer vnto that gate which is called Thracia, there ſtand ſeuen turrets, which doe multiply a voice, and ſend backe many againe for one: this miraculous rebounding of the voice, the Greekes haue a pretty name for, and call it Echo. True it is, that this repercuſſion and redoubling of the voice, proceedeth otherwhiles from the nature of the place, and moſt of all in vallies lying betweene hils; but at Cyzicum it commeth by fortune, and no ſuch reaſon can be giuen thereof. At Olympia the like is wrought by art, for there is a gallerie there made of purpoſe, which after a wonderfull manner deliuereth the ſame voice which it receiueth, ſeuen times backe, whereupon they call it Heptaphonon. Moreouer, in Cyzicum there is a faire and large building, which (becauſe they keep courts and ſit in counſell there) is named Buleuterion: the ſame is built in ſuch ſort, as there goeth not one pin or naile to all the carpentrie thereof: and the ſtories are ſo laid, that a man may take away the beams and rifters without any prop or ſhoare to ſupport them, yea and beſtow them againe faſt enough without laces to bind them. After which manner, the wooden bridge at Rome was ſo framed ouer the riuer Tyberis; and a matter of religion and conſcience was made thereof, to maintaine it ſo, in remembrance of the difficultie in taking it apieces and breaking it downe, at what time as *Horatius Cocles* made the place good againſt the power of K. *Porſena*.

And now ſince the coherence of matters hath brought me to Rome, me thinks I ſhould not doe amiſſe to proceed vnto the miraculous buildings of this our city, to ſhew the docilitie of our people, and what proofe there is of their progreſſe in all things, during the ſpace of nine hundred yeres; that it may appeare how not only in magnanimitie and proweſſe they haue conquered the world, but in magnificence alſo of ſtately and ſumptuous buildings ſurmounted all nations of the earth: and as a man ſhall find this ſingularity and excellencie of theirs in the particular ſuruey of euery one of their ſtately and wonderfull ædifices as they haue bin reared from time to time, ſo if he put them all together and take a generall view of them at once, he ſhall conceiue no otherwiſe of their greatneſſe, than of another world aſſembled (as it were) to make ſhew in one place: for if I ſhould reckon among great workes (as needs I muſt) the grand cirque or ſhew-place built by *Cæſar* Dictator, which took vp of ground three ſtadia or furlongs in length, and one in breadth, containing alſo in ædifices and roums foure acres of jugera, wherin were beſtowed to ſit at eaſe and behold the ſight with pleaſure, two hundred and threeſcore thouſand perſons: what tearme ſhall I giue, but of Stately and magnificent buildings, either vnto the royall pallace of *Paulus Æmilius*, enriched with goodly pillars of Sinadian marble out of Phrygia, moſt admirable to behold; or to the ſumptuous Forum of *Auguſtus Cæſar* late Emperour, or yet the temple of *Peace* built by the Emperour *Veſpaſianus Auguſtus*, now liuing, the goodlieſt and faireſt buildings that euer were? what ſhould I ſpeake of the temple * *Pantheon*, made by *Agrippa* to the honor of *Iupiter Reuenger*? as alſo how before this time, *Valerius* of Oſtia the architector enginer, made a rouſe ouer the great Theatre at Rome againſt the time that

* The round church of Noſter dame, now at Rome.

Libo exhibited his ſolemnitie of games and plaies to the people? Wonder we at the diſpences G
that KK. were at about their Pyramides: and wonder we not rather that *Iulius Cæſar* Dictatour
diſburſed for the purchaſe of that plot of ground only and no more wherin he built his Forum,
* HS. *millies.* a*hundred millions of ſeſterces? And if there be any here that take pleaſure to hoord vp mo-
ny, and be loth to part with a penny, and loue not to be at charges and lay forth ought, wil they
not make a wonder when they heare that *P. Clodius* (whom *Milo* ſlew) paid for the houſe wherein
he dwelt, fourteene millions and eight hundred thouſand ſeſterces? ſurely if they do not, I do;
and take it to be as fooliſh an expence and as wonderfull, as that of the KK. in Ægypt aboue na-
med: likewiſe when I conſider the debts that *Milo* himſelfe ought, and which amounted to
ſeuenty millions of ſeſterces, I count it one of the moſt prodigious enormities that a mans cor-
rupt mind can bring forth. But old men maruelled euen in thoſe daies at the mighty thick ram- H
piers that K. *Tarquinius Priſcus* cauſed to be made, the huge foundations alſo of the Capitoll
that he laid, the vaulted ſinks alſo and draughts (to ſpeake of a piece of worke the greateſt of all
others) which he deuiſed, by vndermining and cutting through the ſeuen hils whereupon Rome
is ſeated, and making the city hanging as it were in the aire between heauen and earth, like vnto
Thebes in Ægypt, whereof erewhile I made mention; ſo as a man might paſſe ouer the ſtreets
& houſes with botes. But how would they be aſtonied now, to ſee how *M. Agrippa* in his Ædile-
ſhip, after he had been Conſull, cauſed ſeuen riuers to meet together vnder the city in one main
channell, and to run with ſuch a ſwift ſtreame and current, that they take all afore them whatſo-
euer is in the way, and carry it downe into Tyber: and being otherwhiles encreaſed with ſodaine
ſhoures & land-flouds, they ſhake the pauing vnder them, they flank the ſides of the wals about I
them: ſometimes alſo they receiue the Tyber water into them when he riſeth extraordinarily,
ſo as a man ſhall perceiue the ſtreame of two contrary waters affront and charge one another
with great force and violence within vnder the ground: And yet for all this, theſe water-workes
aforeſaid yeeld not a jot, but abide firme & faſt, without any ſenſible decay occaſioned therby,
Moreouer, theſe ſtreames carrie downe eftſoons huge and heauie pieces of ſtones within them,
mighty loads are drawne ouer them continually, yet theſe arched conduits neither ſettle and
ſtoup vnder the one, nor be once ſhaken with the other; down many an houſe falls of it ſelfe, and
the ruins beat againſt theſe vaults: to ſay nothing of thoſe that tumble vpon them with the vio-
lent force of skarefires, ne yet of the terrible earthquakes which ſhake the whole earth about
them: yet for all theſe injuries, they haue continued ſince *Tarquinius Priſcus*, almoſt eight hun- K
dred yeres inexpugnable. And here by the way I will not conceale from you a memorable ex-
ample which is come into my mind by occaſion of this diſcourſe, and the rather, for that euen
the beſt & moſt renowned Chroniclers who haue taken vpon them to pen our Romane hiſtory,
haue paſſed it ouer in ſilence: When this K. *Tarquinius* ſurnamed *Priſcus*, cauſed their vaults vn-
der the ground to be made, and forced the common people to labour hard therat with their own
hands, it happened that many a good Roman citizen being now ouer-toiled in this kind of work
(which whether it were more dangerous or tedious, was hard to ſay) choſe rather to kill them-
ſelues for to be rid of their irkeſome and painfull life; in ſuch ſort, that daily there were people
miſſing, and their bodies found after they were periſhed. This king therefore, to preuent farther
miſchiefe, and to prouide that his works begun might be brought to an end, deuiſed a remedy L
* At Rome. which neuer was inuented before, nor practiſed * afterwards, and that was this, That the bodies
of as many as were thus found dead, ſhould be hung vpon jebbets, expoſed not onely to the view
of all their fellow citizens to be deſpiſed as curſed creatures, but alſo to the wild and rauenous
foules of the aire to be torne and deuoured. The Romans (as they are the only nation vnder hea-
uen impatient of any diſhonor) ſeeing this obiect preſented before their eies, were mightily a-
baſhed; and as this mind of theirs had gained them victory many a time in deſperat battels, ſo at
this preſent alſo it guided & directed them: and being (as they were) diſmaied at this diſgrace,
they made account no leſſe to be aſhamed of ſuch an ignominie after death, than they now blu-
ſhed thereat in their life. But to return again vnto theſe ſinks and water-works of ours vnder the
ground: K. *Tarquine* aboue-named, cauſed them to be made ſo large and of ſuch capacitie, that M
a good wain load of hay might paſſe within them. But al that euer I haue ſaid already is nothing
or at leaſtwiſe very little, in compariſon of one wonderful thing which I am content to ſet down
before I come to our new and moderne buildings: In that yeare when *M. Lepidus* and *Q. Catulus*
were Conſuls at Rome (according as I find all the beſt writers to agree) there was not a fairer

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A and more ſumptuous houſe in all Rome, than that wherein *Lepidus* himſelfe dwelt: but verily before fiue and thirty yeres were come and gone, there were a hundred houſes and more brauer than it by many degrees. Now, if a man liſt by this reckoning to make an eſtimat of the infinite maſſe of marble, as well in pillars as ſquare Aſhler, the rich and curious pictures, beſides other ſumptuous furniture, meet indeed for a king, which muſt of neceſſitie be emploied in a hundred ſuch houſes, as might not onely compare with that moſt beautifull and gorgeous houſe of *Lepidus*, but alſo exceed the ſame; as alſo the infinit number of other houſes afterwards euen vntil this day, which haue gone beyond thoſe hundred in ſumptuoſities: What would he ſay, and to what an vnmeaſurable proportion will all this ariſe? Certes, it cannot be denied, but fire (which burneth many a ſtately pallace) doth ſay well to the plucking down of mans pride, & puniſhing
B ſuch waſtfull ſuperfluities; and yet theſe & ſuch like examples, will not reforme the abuſes that reign in the world: neither wil this leſſon enter into our heads, That there is ought vnder heauen more fraile, mortall, and tranſitory, than man himſelfe. But what do I ſtand vpon thoſe glorious edifices, when two pallaces only haue ſurpaſſed them all in coſtlines and magnificence. Twice in our time we haue ſeen the whole pourpriſe of Rome to be taken vp, for to make the pallaces of two Emperours, *C. Caligula*, and *Nero*: and as for that of *Nero* (becauſe there might bee nothing wanting of ſuperfluitie in the higheſt degree) he cauſed it to be all guilded, and called it was, The golden pallace. For why? thoſe noble Romans who were the founders of this our Empire, dwelt (no doubt) in ſuch glorious and ſtately houſes; thoſe I mean who went from the very plough taile, or els out of their country cabines (where they were found at repaſt by the fire ſide)
C to manage the wars, to atcheeue braue feats of armes, to conquer mighty nations, and to return with victory rriumphant into the citie; ſuch, I ſay, as had not ſo much free land in the whole world as would ſerue for one of the cellars of theſe prodigals. And here I cannot but think with my ſelfe, how little in proportion to the magnificent buildings of theſe daies were thoſe plots of grounds which in old time the whole ſtate gaue vnto thoſe inuincible captaines by publick degree for to build them houſes vpon, and how many of ſuch places would go to one of theſe in out time, and yet this was the greateſt honour that they could deuiſe to beſtow vpon thoſe valiant and hardy knights, as it may appeare by **L. Valerius Publicola*, the firſt conſull that euer was at Rome, and had companion with him in that gouernment *L. Brutus*, who had no other reward in recompence of his good ſeruice to the Commonweale, and ſo many demerits; as alſo by his
D brother who in the ſame Conſulſhip defeated the Samnites twice: where it is worth the noting that in the patent this branch went withall, *That they were allowed to open the gates of their houſes outward, ſo as the doores might be caſt to the ſtreet ſide:* this was in thoſe daies the moſt glorious and honourable ſhew that ſuch mens houſes made, euen thoſe who had triumphed ouer the enemy. Howbeit, as ſumptuous in this kind, as either *C. Caligula* or *Nero* was, yet ſhal they not enjoy the glory of this fame, though you put them two and two together: for I wil ſhew, that al this pride & exceſſe of theirs in building their pallaces (princes though they were & mighty monarchs) came behind the priuat works of *M. Scaurus*: Whoſe example in his Ædileſhip was of ſo ill conſequence, as I wot not whether euer there were any thing that ouerthrew ſo much all good manners and orderly ciuility: in ſuch ſort, as hard it is to ſay, whether *Sylla* did more dammage
E to the ſtate, in hauing a*ſon in law ſo rich & mighty, than by the proſcription of ſo many thouſand Romane citizens. And in truth, this *Scaurus* when he was Ædile, cauſed a wonderfull piece of worke to be made, and exceeding all that euer had been knowne wrought by mans hand, not only thoſe that haue been erected for a moneth or ſuch a thing, but euen thoſe that haue bin deſtined for perpetuitie; and a theatre it was: the ſtage had three lofts one aboue another, wherin were there hundred and threeſcore columnes of marble; (a ſtrange and admirable ſight in that citie, which in times paſt could not endure ſix ſmall pillars of marble, hewed out of the quarry in mount Hymettus, in the houſe of a*moſt honourable perſonage, without a great reproch and rebuke giuen to him for it;) the baſe or nethermoſt part of the ſtage, was all of marble; the middle of glaſſe (an exceſſiue ſuperfluitie, neuer heard of before or after;) as for the vppermoſt, the
F bourds, planks, and floores were guilded; the columnes beneath, were (as I haue ſaid before) fortie foot high, wanting twaine: and between theſe columns (as I haue ſhewed before) there ſtood of ſtatues and Images in braſſe to the number of three thouſand. The theatre it ſelfe was able to receiue foureſcore thouſand perſons to ſit well, and at eaſe. Whereas the compaſſe of *Pompeies* Amphitheatre (notwithſtanding the city of Rome ſo much enlarged, and more peopled in his time)

* *Publius*, out of *Liuie*.

* For *Sylla* married the mother of *Scaurus*

* *L. Craſſus*.

time) was deuiſed for to contain no greater number than fortie thouſand ſeats at large. As touching the other furniture of this Theatre of *Scaurus* in rich hangings, which were cloth of gold: painted tables, the moſt exquiſit that could be found: plaiers apparrell and other ſtuffe meet for to adorne the ſtage, there was ſuch abundance thereof, that there being caried back to his houſe of pleaſure at Tuſculum the ſurpluſage therof, ouer and aboue the daintieſt part, wherof he had daily vſe at Rome, his ſeruants and ſlaues there, vpon indignation for this waſt and monſtrous ſuperfluitie of their maſter, ſet the ſaid country houſe on fire, and burnt as much as came to a hundred millions of ſeſterces. Certes, when I conſider and behold the monſtrous humours of theſe prodigall ſpirits, my mind is drawn away ſtil from the progreſſe of mine intended iourny, and forced I am to digreſſe out of my way, and to annex vnto this vanity of *Scaurus* as great follie of another, not in maſonry and marble, but in carpentry and timber: and *C. Curio* it was, he who in the ciuile warres betweene *Cæſar* and *Pompey*, loſt his life in the quarrell of *Cæſar*. This gentleman, deſirous to ſhew pleaſure vnto the people of Rome at the funerall of his father deceaſed, as the manner then was, and ſeeing that he could not outgo *Scaurus* in rich and ſumptuous furniture (for where ſhould he haue had ſuch a father in law again as *Sylla*? Where could he haue found the like mother to dame *Metella*, who had her ſhare in all forfeitures and confiſcations of the goods of outlawed citizens? and where was it poſſible for him to meet with ſuch another father as *M. Scaurus*, the principall perſon of the whole city ſo long together, who parted ſtakes with *Marius* in pilling and polling of the prouinces, and was the very receptacle & gulfe which receiued and ſwallowed all their ſpoiles and pillage?) and *Scaurus* himſelfe verily, if he might haue had all the goods in the world, could not haue done as he did before, nor make the like Theatre, againe, by reaſon that his houſe at Tuſculum was burnt, where the coſtly and rich furniture, the goodlieſt rare ornaments which he had gotten together from al parts of the world were conſumed to aſhes: by which fire yet this good hee got and prerogatiue aboue all other, That no man euer after him was able to match that ſumptuoſitie of his Theatre. This gentleman (I ſay) *Curio*, al things conſidered, was put to his ſhifts, & deuiſed to ſurpaſſe *Scaurus* in wit, ſince hee could not come neere him in wealth. And what might his inuention be? Certes, it is worth the knowledge, if there were no more but this, that we may haue ioy of our own conceits and faſhions, and call our ſelues worthily, as our manner is, *Majores, that is to ſay, ſuperiour euery way to all others. To come then to *C. Curio*, & his cunning deuiſe, he cauſed two Theatres to be framed of timber, and thoſe exceeding big, howbeit ſo, as they might be turned about as a man would haue them, approch neere one to the other, or be remoued farther aſunder as one would deſire, & all by the means of one hooke apiece that they hung by, which bare the weight of the whole frame, the counterpoiſe was ſo euen, & all the whole therfore ſure and firme. Now he ordered the matter thus, that to behold the ſeuerall ſtage plaies and ſhews in the forenoone before dinner, they ſhall be ſet back to back, to the end that the ſtages ſhould not trouble one another: and when the people had taken their pleaſure that way, he turned the Theatres about in a trice againſt the afternoone, that they affronted one another: and toward the latter end of the day, and namely, when the fencers and ſword-plaiers were to come in place, he brought both the Theatres nearer together (and yet euery man ſat ſtil & kept his place, according to his rank and order) inſomuch, as by the meeting of the horns and corners of them both together in compaſſe, he made a faire round Amphitheatre of it: and there in the middeſt between, he exhibited indeed vnto them all jointly, a ſight and ſpectacle of ſword-fencers fighting at ſharpe, whom he had hired for that purpoſe: but in truth, a man may ſay more truly, that he caried the whole people of Rome round about at his pleaſure, bound ſure enough for ſtirring or remooving. Now let vs come to the point, and conſider a little better of this thing. What ſhould a man wonder at moſt therin, the deuiſer or the deuiſe it ſelfe? The workeman of this fabricke, or the maſter that ſet him on worke? Whether of the twaine is more admirable, either the venturous head of him that deuiſed it, or the bold heart of him that vndertook it? to command ſuch a thing to be don, or to obey and yeeld to goe in hand with it? But when we haue ſaid all that we can, the follie of the blind & bold people of Rome went beyond al; who truſted ſuch a tickliſh frame, & durſt ſit there, in a ſeat ſo moueable. Loe where a man might haue ſeen the body of that people, which is commander and ruler of the whole earth, the conquerour of the world, the diſpoſer of kingdomes and realmes at their pleaſure, the deuiſer of countries and nations at their wil, the giuer of lawes to forreinſtates, the vicegerent of the immortall gods vnder heauen, and repreſenting their

* The Romans delighted much in this word *Maiores*, as may appear by their *More Maiorum*, &c.

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A their image vnto all mankind: hanging in the air within a frame at the mercy of one only hook, rejoicing and ready to clap hands at their owne danger. What a cheape market of mens liues was here toward! What was the losse at Cannæ to this hazard, that they should complaine so much as they do of Cannæ? How neere vnto a mischiefe were they, which might haue happened hereby in the turning of a hand? Certes, when there is newes come of a city swallowed vp by a wide chinke and opening of the earth, all men generally in a publicke commiseration doe grieue thereat, and there is not one but his heart doth earne; and yet, behold the vniuersall state and people of Rome, as if they were put into a couple of barkes, supported between heauen and earth, and sitting at the deuotion only of two pins or hookes. And what spectacle do they behold, a number of fencers trying it out with vnrebated swords? nay ywis, but euen themselues ra-
B ther entered into a most desperat fight, and at the point to break their necks euery mothers son, if the scaffold failed neuer so little, & the frame went out of joint: Now surely by this proofe, *Curio* had gotten a good hand ouer the people of Rome, & no Tribunes of the Commons with all their Orations could do more: from that time forward he might make account to be so gracious, as to lead all the tribes after him in any suits; and haue them hanging in the air at his plea-
sure. What a mighty man with them might he be (thinke you) preaching vnto them from the Rostra? What would not he dare to propose, hauing audience in that publick place before them who could persuade them thus, as he did, to sit vpon such turning and tickliſh Theatres. And in truth, if we wil consider this pageant vpright, we must needs confesse & may be bold to say, that *Curio* had all the people of Rome to perform a braue skirmish and combat indeed to honor and
C solemnize the funerals of his father before his tombe. And yet here is not all: for he was at his change and variety of magnificent shewes: and when he perceiued once that the hookes of his frames were stretched ynough and began to be out of order, hee kept them still close together round in forme of a perfect Amphitheatre, and the very last day of his funeral solemnities, vpon two stages just in the middest, he represented wrestlers and other champions to performe their devoire, and then all on a suddaine causing the said stages to be disjointed and hailed one from another a contrary way, he brought forth the same day the fencers and sword players who had woon the prize, and with that shew made an end of all. See what *Curio* was able to do! And yet was he neither king nor Kesar: he was not so much as a generall or commander of an army; nay, he was not named for any great rich man: as whose principall state depended vpon this, That
D when the great men of the city, *Cæsar* and *Pompey*, were skuffling together by the eares, he knew well how to fish in a troubled water. But to leaue *Curio* & such as he was, with their foolish and idle expences, let vs come to the miraculous workes that *Q. Marcius Rex* performed, and that to some good purpose: which if we consider & esteeme aright, passe all the other before rehearsed. This gentleman when he was Pretor, hauing commandement & commission both from the Senat, to repaire the conduits to the waters of Appia, Anio, and Tepula, which serued Rome, did not that only, but also conueighed a new water into the city, which of his owne name he called Martia: and notwithstanding that he was to pierce certaine mountains, & make trenches quite through them vnder the ground, for to bring the water thither from the Spring, yet he perfourmed all within the time of his Pretourship. As for *Agrippa*, whiles he was Ædile, besides the
E conduits from all other fountaines which he scoured, repaired, and caused to keep their currant: he brought another of his own to the city, which is known by the name of Virgo: he made seuen hundred pooles for receit of waters: a hundred and fiue conduits, yeelding water at rockes and spoutes, besides a hundred and thirtie conduit heads in the fields, and the most of them built strongly with vaults, and adorned right stately. Moreouer, vpon these workes of his he erected statues & images, to the number of three hundred, partly of brasse and partly of marble, besides foure hundred pillars of marble, and all within the compasse of one yeare. And if wee may beleeue his owne speech, discoursing of the acts done by him during his Ædileship, hee addeth moreouer and saith, That the plaies and games which he exhibited that yeare, for to doe the people pleasure, continued threescore daies together, wanting one: that he caused a hundred
F threescore and ten baines or stouves to be made within the city, wherein people of all sorts and degrees might bathe and sweat of free cost, and not pay a denier: the which remain at this day, and haue brought with them an infinit number of others. But of all the conduits that euer were before this time, that which was last begun by *C. Caligula Cæsar*, and finished by *Claudius Cæsar* his successour, passeth for sumptuousnesse: for they commanded the waters from the two fountaines,

tains, Curtius & Cæruleus, whose heads were 40 miles off: and these they carried before them with such a force and to such an height, that they mounted vp to the top of the highest hils of Rome, and serued them that dwelt therupon. This work cost *three hundred millions of sesterces. Certes, if a man would well and truly consider the abundance of water that is brought thereby, and how many places it serues, as well publicke as priuat, in baines, stewes, and fishpooles, for kitchins and other houses of office, for pipes and little riuerets to water gardens, as well about the citie, as in manors and houses of pleasure in the fields neere the city; ouer and besides, what a mighty way these waters be brought; the number of arches that of necessitie must be built of purpose for to conueigh them; the mountaines that be pierced and mined through to giue way together; with the vallies that are raised and made euen and leuell with other ground: he will confesse, that there was neuer any desseine in the whole world enterprised and effected, more admirable than this. In the ranke of these most memorable workes of man, I may well raunge the mountaine that was digged through by the same *Claudius Cæsar*, for to void away the water out of the lough or meere Fucinus, although this work was left vnfinished for hatred of his *successour: which I assure you cost an incredible and inenarrable sum of mony, besides the infinit toil and labour of a multitude of workemen and labourers so many yeres together, as well to force the water which came vpon the pioners from vnder the ground with deuise of engines and windles vp to the top of the hill, whereas it stood vpon meere earth; as to cut and hew through hard regs and rockes of flint: and all this by candlelight within the earth, in such sort that vnlesse a man had bin there to haue seene the manner of it, vnpossible it is either to conceiue in mind or expresse with tongue the difficultie of the enterprise. As for the peere and hauen at Ostia (because I would make an end once of these matters) I will not say a word thereof, nor of the waies and passages cut through the mountaines, ne yet of the mighty piles and damns to exclude the Tuscane sea, for the Lucrine lake, with so many rampiers and bridges made of such infinit cost. Howbeit, among many other miraculous things in Ægypt, one thing more I will relate out of mine author *Papyrius Fabianus*, a great learned Naturalist, namely, That marble doth grow daily in the quarries: and in very truth, the farmers of those quarries, and such as ordinarily do labour and dig out stone, do affirme no lesse; who vpon their experience doe assure vs, that looke what holes and caues be made in those rockes and mountaines, the same will gather againe and fill vp in time: which if it be true, good hope there is, that so long as marbles do liue, excesse in building will neuer die.

* *Sestertiûm ter millies.* howbeit *Budæus* reads *quingenties, quinquagies, quinquies*, and that is not much more than the sixt part: & yet by his computation ariseth to a million three hundred eightie fiue thousand and fiue hûdred French crownes.

* *Nero.*

Chap. XVI.

¶ *The sundry kinds of the Load-stone, and the medicines thereto depending.*

NOw that I am to passe from marbles to the singular & admirable natures of other stones; who doubts but the Magnet or Loadstone will present it self in the first place? for is there any thing more wonderfull, and wherein Nature hath more trauelled to shew her power, than in it? True it is, that to rockes and stones she had giuen * voice (as I haue already shewed) whereby they are able to answer a man, nay, they are ready to gainsay and multiply words vpon him. But is that all? what is there to our seeming more dull than the stiffe and hard stone? And yet behold, Nature hath bestowed vpon it, sence, yea & hands also, with the vse thereof. What can we deuise more stubborne and rebellious in the own kind, than the hard yron, yet it yeelds, and will abide to be ordered: for loe, it is willing to be drawne by the load stone: a maruellous matter that this mettall, which tameth and conquereth all things els, should run toward I wot not what, and the nearer that it approcheth, standeth still as if it were arrested, and suffereth it selfe to be held therwith, nay, it claspeth and clungeth to it, and will not away. And hereupon it is, that some call the load-stone * Sideritis, others Heracleos. As for the name Magnes that it hath, it tooke it (as *Nicander* saith) of the first inuentor and deuiser thereof, who found it (by his saying) vpon the mountaine Ida (for now it is to be had in all other countries, like as in Spaine also;) and (by report) a neat-heard he was: who, as he kept his beasts vpon the foresaid mountaine, might perceiue as he went vp and downe, both the hob-nailes which were in his shooes, and also the yron picke or graine of his staffe, to sticke vnto the said stone. Moreouer, *Sotacus* ascribeth and setteth downe fiue sundry kinds of the load-stone: the first which commeth out of Æthyopia; the second, from that Magnesia which confineth vpon Macedonie, and namely,

* *i.* The eccho.

* σίδηρος in Greek is yron.

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A namely, on the right hand, as you go from thence toward the lake Bœbeis; the third is found in Echium, a town of Bœotia; the fourth about Alexandria, in the region of Troas; and the fift in Magneſia, a country in Aſia Minor. The principall difference obſerued in theſe ſtones, conſiſts in the ſex (for ſome be male, others female;) the next lieth in the colour. As for thoſe which are brought out of Macedonie and Magneſia, they be partly red, and partly blacke. The Bœotian loadſtone ſtandeth more vpon red than black: contrariwiſe, that of Troas is black, and of the female ſex, in which regard it is not of that vertue that others be. But the worſt of all comes from Magneſia in Natolia, and the ſame is white: neither doth it draw yron as the reſt, but reſembles the pumiſh ſtone. In ſum, this is found by experience, That the blewer any of theſe loadſtones be, the better they are and more powerful. And the Ethyopian is ſimply the beſt, inſomuch, as it
B is worth the weight in ſiluer: found it is in Zimiri, for ſo they cal the ſandy region of Ethyopia, which country yeeldeth alſo the ſanguine load-ſtone, called Hæmatites, which both in color reſembleth bloud, and alſo if it be bruiſed, yeeldeth a bloudy humour, yea and otherwhiles that which is like to ſaffron. As for the property of drawing yron, this bloud-ſtone Hæmatides is nothing like to the loadſtone indeed. But if you would know and try the true Ethyopian Magnet, it is of power to draw to it any of the other ſorts of loadſtones. This is a generall vertue in them all, more or leſſe, according to that portion of ſtrength which Nature hath indued them withal, That they are very good to put into thoſe medicines which are prepared for the eies: but principally they do repreſſe the vehement flux of humors that fall into them: beeing calcined and beaten into pouder, they do heale any burne or ſcald. To conclude, there is another mountaine
C in the ſame Ehyopia, and not far from the ſaid Zimiris, which breedeth the ſtone Theamedes that will abide no yron, but reiecteth and driueth the ſame from it. But of both theſe natures, as well the one as the other, I haue written oftentimes already.

Chap. XVII.

¶ *Of certaine ſtones which will quickly conſume the bodies that be laid therein. Of others againe that preſerue them a long time. Of the ſtone called Aſſius, and the medicinable properties thereof.*

D WIthin the Iſle Scyros there is a ſtone (by report) which ſo long as it is whole & ſound will ſwim and flote vpon the water; breake the ſame into ſmall pieces, it will ſink. Near vnto Aſſos, a city in Troas, there is found in the quarries a certaine ſtone called Sarcophagus, which runneth in a direct veine, and is apt to be clouen and ſo cut out of the rocke by flakes. The reaſon of that name is this, becauſe that within the ſpace of forty daies it is knowne for certaine to conſume the bodies of the dead which are beſtowed therein, skin, fleſh, and bone, all ſaue the teeth. And *Mutianus* mine author affirmeth, that look what mirroirs, * currycombs, cloth, or ſhoos ſoeuer be caſt into the ſaid coffins with the dead, they will turn all into ſtone. Of this nature there be ſtones in Lycia, and in the Eaſt countries, which if they be hung or applied to liuing bodies alſo, will eat and fret them away. Yet the ſtone called Chernites, reſembling
E yvorie, is more mild and gentle: for keepe it will and preſerue dead bodies without conſuming them at al, & in a ſepulchre or coffin of this ſtone, the body of K. *Darius* (they ſay) was beſtowed Touching the ſtone called Porus, like it is vnto the marble of Paros for white colour and hardneſſe, howbeit nothing ſo weighty. *Theophraſtus* writeth, That there be found in Ægypt certain cleare and tranſparent ſtones, and thoſe he ſaith bee like vnto the Serpentine marble Ophites: haply ſuch there were in his time, for now are there none of them to be found; but as they are gone, ſo there be new come in their place. As for the ſtone Aſſius, in taſt it is ſaltiſh, but ſingular good to allay the paine of the gout, if the feet onely be put into a trough or hollow veſſell made of that ſtone. Moreouer, all griefes, pains, and infirmities of the legs, will be healed in ſuch quarries: wheras in all mettall mines, the legs take harm. Furthermore, this ſtone yeeldeth in the top
F of the quarrie a certain light ſubſtance, apt to be reduced into a ſoft pouder, which they call the floure of the ſaid ſtone, and is as effectuall as the ſtone it ſelfe in ſome caſes. Like it is for al the world to a red pumiſh ſtone. If it be mixt with Cyprian braſſe or copper, it cures the accidents of womens breſts; but being incorporat with pitch or roſin, it diſcuſſeth the kings euill, and any biles or botches. The ſame reduced into a lohoch to be licked down leaſurely, ſerueth well in a phthy-

* *Strigiles.* He meaneth thoſe that be vſed in baines to fetch off the ſweat and filthineſſe of our bodies.

phthyſicke: and tempered with hony, it healeth vp old vlcers and skinneth them cleane: and yet this property it hath, to eat away any excreſcence of proud fleſh. The ſame is good for the bitings of wild and venomous beaſts. Such morimals or ſores as ſcorne ordinary cures & be full of ſuppuration, it drieth. Finally, there is an excellent cataplaſme made with it and beane floure put together, for the gout.

Chap. XVIII.

¶ Of Yvorie minerall, digged out of the ground. Of ſtones that are of a bonie nature, and ſuch, as their veines repreſent Date trees within: and of other kinds of ſtone.

Theophraſtus and *Mutianus* aboue named, are verily perſuaded, That there be ſome ſtones which ingender others. And as for *Theophraſtus*, he affirmeth, That there is a minerall Yvorie found within the ground, as well black as white: alſo, that there be bones growing within the earth, yea, and ſtones of a bony ſubſtance. About Munda, a city in Spaine, where *Cæſar* dictator defeated *Pompey*, there are found ſtones reſembling Date-trees, breake them as often as you will. There be alſo certaine black ſtones, whereof there is as great account made as of marbles: like as the ſtone alſo of the cape Tænara. And ſuch black ſtones (*Varro* ſaith) be more firm and hard which come out of Africa, than thoſe of Italy; and contrariwiſe, that there be white ſtones harder to be wrought by the Turner, than the marble of Paros: the ſaid *Varro* affirmeth, that the flint of Luna may be ſlit with the ſaw; whereas that of Tuſculum will cracke and flie in pieces in the fire; alſo, That the darke and duskiſh Sabine ſtone, if it be ſprinckled with oil, will burne of a light fire: moreouer, That about Volſinij there haue been found quernes or hand mill-ſtones framed ready for worke, yea, and ſome we haue ſeen to turne about and grind of their owne accord; but ſuch haue bin taken for prodigies. And ſince I am fallen vpon the mention of ſuch mill-ſtones, there is not a country in the world affoordeth better of that kinde than Italy doth: neither do ſuch grow in the rocke, and are hewed forth, but be entire ſtones of themſelues apart: and yet in ſome prouinces there are none of them to be had at all. And in this kind there be of a more free and ſofter grit, which being ſmoothed and poliſhed with a ſlicke ſtone, may ſeem a far off as if they were Serpentine marble; and verily, there is not a ſtone wil indure better, or lie longer in building. For thus you muſt thinke, that all ſtones bee not of one and the ſame nature to abide rain and weather; heat of Summer and cold in Winter alike; for ſome be more durable than others, like as we find in ſundry kinds of timber. Finally, there be ſtones alſo, which may not away with the raies of the Moon: which in continuance of time wil gather ruſt, yea, and with oile will change their white colour.

Chap. XIX.

¶ Of Curalium or Pyrites, i. the Marcaſin: and the medicinable vertues thereof. Of the ſtone Oſtracites, and the Amiant: together with the properties ſeruing in Phyſicke: alſo, of the ſtone Melitites, and the vertues thereof. Likewiſe of the Geat, and the effects that it worketh in Phyſick, Of Spunges. Laſtly, of the Phrygian ſtone, and the Nature of it.

THe mill-ſtone Curalium, ſome call Pyrites, becauſe it ſeemeth to haue great ſtore of fire in it: howbeit, there is another fire ſtone going vnder the name of Pyrites or Marcaſin, that reſembleth braſſe ore in the mine. And they ſay, that of it there is found great plenty in the Iſle Cypros, and in thoſe mines which are about Acarnania, where a man ſhal meet with one in colour like ſiluer, and another like gold. Theſe ſtones be calcined many & ſundry waies: ſome boile them two or three times in hony, ſo long, vntill all the liquor be conſumed: others burne them firſt in fire of coales, then they calcine them with honey, and afterwards waſh them, after the maner of braſſe. Theſe ſtones thus prepared, are good in Phyſick, namely, to heat, to dry, to diſcuſſe, to ſubtiliat groſſe humors, and to mollifie all ſchirrhoſities or hard tumors. The ſame are much vſed alſo crude and vncalcined (being reduced into pouder) for the kings euill, and fellons. Moreouer, in the rank of theſe Marcaſines, ſome range certaine ſtones, which we cal quicke fire-

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A fire-ſtones, and of all others they be moſt ponderous: theſe be moſt neceſſarie for the eſpials belonging vnto a camp, if they ſtrike them either with an iron ſpike or another ſtone, they will caſt forth ſparks of fire, which lightning vpon matches dipt in brimſtone, dry pufs or leaues, wil cauſe them to catch fire ſooner than a man can ſay the word.

As touching the ſtones Oſtracitæ, they haue a reſemblance to oiſter ſhels, wherof they took their name: vſed they are much in ſtead of a pumiſh ſtone to ſmooth and ſlick the skin: taken in drink they ſtanch any flux of bloud; and in forme of a liniment applied with hony, they heale the vlcers in womens breſts, and aſſwage their paine.

The * Amiant ſtone is like Alume, & being put into the fire, loſeth nothing of the ſubſtance: a ſingular propertie it hath to reſiſt all inchantments and ſorceries, ſuch eſpecially as Magitians do practiſe. As for Gæodes, the Greeks haue giuen it this ſignificant name, becauſe it containeth incloſed within the belly, a certaine earth, a medicine ſoueraigne for the eies, as alſo for the infirmities incident as well to womens paps, as mens genitoirs. * It is taken for Alume de plume.

The ſtone Melitites hath that name, becauſe if it be bruiſed or braied, it yeeldeth from it a certaine ſweet juice in manner of honey: the ſame being incorporat in wax, is good to cure the flegmatick wheales, and other puſhes or ſpecks of the body; it healeth likewiſe the exulceration of the throat: applied with wool, it takes away the chilblanes or angry bloudi falls called Epinyctides: alſo the griefe of the matrice it eaſeth in the ſame manner.

The Gete, which otherwiſe we call Gagates, carrieth the name of a towne and riuer both in Lycia, called Gages: it is ſaid alſo, that the ſea caſteth it vp at a full tide or high water into the C Iſland of Leucola, where it is gathered within the ſpace of twelue ſtadia, and no where els: black it is, plaine and euen, of an hollow ſubſtance in manner of a pumiſh ſtone, not much differing from the nature of wood, light, brittle, and if it be rubbed or bruiſed, of a ſtrong ſauor. Looke what letters are imprinted in it into any veſſel of earth, they will neuer be got out again: whiles it burneth it yeelds a ſmel of brimſtone: but a wonderful thing it is of this jeat ſtone, that water will ſoone make it to flame, and oile will quench it againe: in burning, the perfume thereof chaſeth away ſerpents, and recouers women lying in a trance by the ſuffocation or riſing of the mother: the ſaid ſmoke diſcouereth the falling ſickneſſe, and bewraieth whether a yong damſell be a * maid or no: being boiled in wine, it helpeth the tooth-ache; and tempered with wax it cures the ſwelling glandules called the Kings euil. They ſay that Phyſitians vſe this jet ſtone D much in their ſorceries, practiſed by the means of red hot axes, which they call Axinomantia; for they affirme, that being caſt thereupon, it will burn and conſume, if what we deſire and wiſh ſhall happen accordingly. * If ſhe drinke it faſting, preſently it prouoketh vrine, if ſhe bee a pure virgin.

As for Spunges, I mean by them in this place certain ſtones found in Spunges, and the ſame alſo do ingender naturally within them. Some there be who cal them Tecolithos, becauſe they are good for the bladder, in this reſpect, that they breake the ſtone, being drunk in wine.

As concerning the Phrygian ſtone, it beareth the name of the country where it is ordinarily found, and it groweth in hollow lumps in manner of a pumiſh ſtone: the order is to ſteep it well in wine before it be calcined, and in the burning to maintain the fire with blaſt of bellows, vntil it wax red; then to quench it again in red wine, continuing this courſe three times: & being thus E prepared, it is good only to ſcoure cloth, and make it ready for the Dier to take a colour.

Chap. XX.

¶ *Of the red Bloud-ſtone Hæmatites, and the fiue ſorts thereof: alſo of the blacke ſanguine ſtone called Schiſtos.*

THe bloud-ſtone Schiſtos and Hœmatites both haue great affinitie one with another. As for the bloud-ſtone Hœmatites, a meere mineral it is, and found in mines of mettal: being burnt it comes to the colour of Vermilion: the manner of calcining it is much after that of the Phrygian ſtone, but wine ſerueth not to quench it. Many ſophiſticate it with Schiſtos, F and obtrude the one for the other: but the difference is ſoon known, for that the right Hœmatites hath red veins in it, and beſides is by nature fraile and eaſie to crumble: of wonderful operation it is to help bloud-ſhotten eies: the ſame giuen to women to drink, ſtaieth the immoderat flux that followes them: they alſo that vſe to caſt vp bloud at the mouth, find helpe by drinking it with the juice of a pomgranat: in the diſeaſes likewiſe of the blader it is very effectual;

and being taken in wine, it is ſouerain againſt the ſting of ſerpents. In all theſe caſes the bloud- G
ſtone Schiſtos is effectual, but weaker only it is in operation: and yet among theſe ſanguine or bloud-ſtones, thoſe are taken for the beſt and moſt helpfull which in colour reſemble ſaffron; & ſuch haue a peculiar reſplendant luſtre by themſelues. This ſtone being applied to weeping and watery eies with womans milk, doth them much good, and is ſoueraign alſo to reſtrain and keep them in, if they be ready to ſtart out of the head. And this I write according to the mind and opinion of our modern writers. But *Sotacus* a very antient writer hath deliuered vnto vs fiue kinds of bloud-ſtones, beſides that Hœmatites called Magnes, or the Load-ſtone: among which he giues the chiefe prize and principall praiſe to the Æthiopian, for that it is ſo ſouerain to be put into medicines appropriat to the eies; as alſo into thoſe which for their excellent operation be called Panchreſta. A ſecond ſort he ſaith is called Androdamas, black of colour, and for H
weight and hardneſſe ſurpaſſing all the reſt, whereupon it took that name, and of this kind there are found great ſtore in Barbary. He affirmeth moreouer, That it hath a qualitie to draw vnto it ſiluer, braſſe, and iron: and for triall whether it be good or no, it ought to be ground vpon the touch called Baſanitis; for it will yeeld a bloudy juice, the which is a right ſoueraign remedie for the diſeaſes of the liuer. The third kind of bloud-ſtone he maketh Arabick, for that it is brought out of Arabia: as hard it is as the other, for hardly will there any juice come from it, though it be put to the grindſtone, and the ſame otherwhile is of a Saffron colour. The fourth ſort he ſaith is called Elatites, ſo long as it is crude; but being once calcined, it is named Miltites: a very excellent thing for burns and ſcaldings, and in all caſes much better than any ruddle whatſoeuer. In the fift place he reckons that which is called Schiſtos: this is held to be ſingu- I
lar for repreſſing the flux of bloud from the hemorrhoid veins. But generally of all theſe bloud ſtones he concludes thus, That if they be pulueriſed, and taken in oile vpon a faſting ſtomack to the weight of 3 drams, they be right ſoueraign for all fluxes of bloud. The ſame author writes of another Schiſtos which is none of theſe Hœmatites, and this they call Anthracites: and by his ſaying, found there is of it in Africk, black of colour, which if it be ground vpon a whetſtone or grindſtone with water, yeelds toward the nether end or ſide thereof that lay next the ground, a certaine blacke juice; but on the other ſide of a ſaffron colour: and he is of opinion, that the ſaid juice is ſingular for thoſe medicines appropriat to the eies.

Chap. XXI. K

¶ *Of the foure kindes of the Ægle-ſtone, Aëtius: of the ſtone Callimus: of the ſtones Samnus and Arabus: and of Pumiſh ſtones.*

THe Ægle-ſtones called Aëtites be much renowned in regard of the very name they carry: found they are in Ægles neſts, as I haue ſhewed already in my tenth book, & it is ſaid that they be two together, to wit, the male and female: alſo, that without them the Ægles cannot hatch, which is the reaſon that they neuer haue but two young Ægles at one airie. Of this Ægle-ſtone there be foure kinds; for one ſort thereof is bred in Africk, and is very ſmall & ſoft, containing within it as it were in a wombe, a certaine clay which is ſweet, pleaſant, and white; L
the ſtone it ſelfe is brittle and apt to crumble, and this is thought to be the female ſex. The ſecond, which is taken for the male, groweth in Arabia, hard this is, and reſembleth a gall-nut in faſhion, and the ſame otherwhile is of a reddiſh colour, hauing incloſed within the belly thereof another hard ſtone. The third is found in the Iſland Cypros, for colour much like to thoſe that be engendred in Africke, otherwiſe bigger, and made more flat and broad than they: The reſt be vſually round in manner of a globe. This hath alſo within the wombe a ſweet ſand and other ſmall grauelly ſtones, but it ſelfe is ſo tender that a man may crumble it betwixt his fingers. The fourth kind is named Taphiuſius, for that it is bred neere vnto the cape Leucas, in a place neere Taphiuſa, on the right hand as men ſaile from the ſaid Taphiuſa toward Leucas: there is found of it in riuers, but the ſame is white and round: within the belly of it there is a- M
nother ſtone called Callimus, and there is not a thing more tender than it. But to come to the properties of theſe Ægle-ſtones: They are commended as ſingular for women with childe, or four-footed beaſts that are with yong; for being hung about their necks, or otherwiſe tied vnto any part within the skin of a beaſt ſacrificed, they will cauſe them to go out their full time; but

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A remoued they muſt not be but at the very time of deliuerance, for otherwiſe the very wombe or matrice would ſlip out withall; and vnleſſe they be remoued then, they ſhall neuer be deliuered. Within the ſame Iſle Samos (wherin we praiſed the goldſmiths earth Tripoly) there is a ſtone likewiſe called Samius, very good to burniſh and poliſh gold: the ſame ſerueth alſo in phyſicke together with milk, for vlcers of the eies, beeing applied in manner aforeſaid; and in that ſort it cureth alſo their weeping and watring which hath continued a long time: the ſame being taken in drinke, helpeth the infirmitie and other accidents of the ſtomack; it cureth the dizzineſſe of the head, & reſtoreth thoſe to their right ſences again who be troubled in their brain. Some are of opinion, that it is wholſome to be giuen to thoſe that are ſubject to the falling ſickneſſe, or difficulty of making water: beſides, it is one of the ingredients that go to the making of thoſe
B medicines which be called Acopa: for to know whether it be good, ſee that it be paſſing white and heauy withall. It is ſaid, that if a woman weare it hanging or tied about her, it will keep her from vntimely ſlips of her abortiue fruit, and withall containe the matrice though it were giuen to fall downe too low.

Touching the ſtone Arabus, like it is to yvorie; a proper thing for dentifrices, if it be calcined and reduced to pouder: a peculiar property it hath beſides, to cure the hæmorrhoids, beeing applied thereto in lint, ſo that there be fine linnen clothes laid afterwards thereupon.

I muſt not ouerpaſſe in ſilence, the treatiſe of pumiſh ſtones and their nature: I am not ignorant that in architecture and maſonrie, they vſe to call by the name of Pumices or Pumiſhes thoſe hollowed ſtones or bricks as if they were eaten into, which hang downe from thoſe vaulted buildings which they call Muſea, to repreſent a caue or hollow vault artificially made. But
C to ſpeake more properly of thoſe Pumiſhes which are vſed by women for to ſmooth and ſlicke their skin, yea, and by your leaue by men alſo in theſe daies; alſo for to polliſh books, as *Catullus* ſaith, the beſt of them are found in Melos, Scyros, and the Iſlands of Ætolia: and thoſe ought to be very white, and according to their proportion exceeding light: the ſame ſhould bee alſo as ſpungious as is poſſible, and dry without; eaſie to be beaten to pouder, & in the rubbing between the fingers not apt to yeeld from them any ſand. As for their medicinable vertues, they do extenuat and dry, after 3 calcinings, ſo that regard be had in the torrifying, that it be done with cleane charcoles that burn cleare, and that they be euery time quenched with white wine: which done, they are to be waſhed like to Cadmia or the Calamine ſtone; and being dried again, they
D would be laied vp in ſome dry place which is in any wiſe dank or giuen to gather mouldineſſe. The pouder of this ſtone is commended principally in medicines for the eies, for a gentle mundificatiue it is, and clenſeth the vlcers and ſores incident to them: it doth incarnate hollow skars & maketh them euen with the reſt about them. Some, after the third burning, ſuffer them to coole of themſelues, and not by quenching: and chuſe rather to beat them afterwards with ſome ſprinckling of wine among: they enter likewiſe into thoſe emollitiue or lenitiue plaſtres which are deuiſed for the ſores of the head or vlcers in the priuities. The beſt dentifrices for to cleanſe or whiten the teeth, be made of the pumiſh. *Theophraſtus* writeth, that great drunkards who drink for a wager, vſe to take the pouder of the pumiſh ſtone before-hand; for then they
L may, nay they muſt quaffe luſtily indeed, for vnleſſe they be filled with drinke, they are indan-
E gered by the foreſaid pouder. To conclude, he ſaith, that ſo exceeding refrigeratiue it is, that if new wine do work or purge neuer ſo much, caſt but a little pumiſh ſtone into it, you ſhall ſee it giue ouer immediatly.

CHAP. XXII.

¶ *Of ſtones which be good for Apothecaries to make their mortars of: of ſoft ſtones: of the glaſſe-ſtone: of flints and the ſhining ſtone Phengites: of whetſtones and grindſtones: of other ſtones that ſerue in building, which reſiſt the violence of fire and tempeſts.*

F OVr antient writers in old time were carefull to finde ſtones fit for mortars, and not onely to ſerue Apothecaries for to beat and puluerize their drugs, or painters to grinde their colours, but the cooks alſo in the kitchin for to pouder their ſpices: and in very truth, they preferred the Epheſian marble before all others: and next to it, that of Thebais in high Ægypt, which I called before Pyrrhopœcilon, though ſome there be that name it Pſaronium: in a

third degree they place a kinde of Chalazius named Chryſites; but the Phyſitians make moſt G
account of that kind of whetſtone which they cal Baſanites, becauſe this ſtone ſendeth nothing
from it, for all the ſtamping and punning that is made in it. As for ſuch ſtones as yeeld a cer-
taine moiſture from them, they are ſuppoſed to be good for eie ſalues; and therefore in that re-
gard the Æthyopian marble is beſt eſteemed for that purpoſe. As for the marble of Tænara, of
Carthage called Pœnicum, and the bloud-ſtone Homatites, they are al good (they ſay) for thoſe
compoſitions which ſtand vpon ſafron: but that Tænarian marble which is blacke, as alſo the
white marble of Paros, is not ſo good for Phyſitians, who rather chuſe the Alabaſtrite of Egypt,
or the white Serpentine marble: for this kind of Ophites it is whereof they make their veſſells
and barels. In the Iſland Siphnus there groweth in the quarries, a ſtone, which they vſe to hew
hollow, and by Turners craft make veſſels for the kitchin good to boile viands in: alſo very hand- H
ſom for platters and diſhes to ſerue vp meat to the table; much like to the green ſtone that com-
meth from Comus in Italy, which wee ſee ordinarily imploied to thoſe vſes: but this propertie
hath the Siphnian ſtone by it ſelfe, that if it be once heat with oile, it beginneth to look blacke
and waxes hard withal, being otherwiſe naturally exceeding ſoft: ſuch difference there is among
ſtones. For on the further ſides of the Alps there be ſtones found exceeding ſoft: and in the pro-
uince Belgica or Picardy, they haue a certaine white ſtone, which they ſlit through with a ſaw
as they do timber, yea and with much more facility, wherewith they make plates that ſerue to
couer their houſes in manner of ſlates or tiles, both on the ſides and alſo in gutter and ridge; yea
and if they liſt, to make fine work vpon the roofs that may ſhine like to peacocks feathers, which
they call Pauonacea: and verily this kind of ſtone is apt alſo to be clouen. I

Specularis lapis As touching * Talc (which alſo goeth in the name of a ſtone) it is by nature much more ea-
ſie to be clouen into as thin flakes as a man will. This kind of glaſſe ſtone, the hither part of
Spaine only in old time did affoord vs, & the ſame not all throughout, but within the compaſſe
of a 100 miles, namely about the city Segobrica: but in theſe daies we haue it from Cypros,
Cappadocia, and Sicilie, and of late alſo it hath been found in Barbary: howbeit, the beſt glaſſe
ſtone comes from Spaine and Cappadocia, for it is the tendreſt and carrieth largeſt pannels, al-
though they be not altogether the cleareſt, but ſomwhat duskiſh. There be alſo of them in Italy
about Bononia, but the ſame be ſhort and ſmall, full of ſpots alſo and joined to pieces of flint;
and yet it ſeemeth that in nature they be much like to thoſe that in Spaine bee digged out of
pits which they ſinke to a great depth. Moreouer, there is found of this Talc betweene other K
ſtones incloſed in a rocke and lying vnder the ground, which muſt be hewed out if a man would
haue them. But for the moſt part, this Talc lieth in manner of a vein in the mine by it ſelfe, as if
it were perfectly cut already by nature; and yet was there neuer any piece knowne to be aboue
fiue foot long. Some are of opinion, that it is a liquid humour of the earth congealed to an yce
after the maner of Cryſtall. Certes, that it groweth hard into the nature of a ſtone, may appeare
euidently by this, That when any wild beaſts are chanced to fall into ſuch pits where this glaſſe
ſtone is gotten, the very marow of their bones (after one winter) wil be conuerted and turned in-
to a ſtony ſubſtance like to the Talc it ſelfe. Otherwhiles there is found of this kinde which is
blacke: but the white is of a ſtrange and wonderfull nature, for being (as it is well knowne) ten-
der and brittle, nothing more, yet it wil indure extreme heat and frozen cold, and neuer cracke; L
nay you ſhal neuer ſee it decay for age, keep it ſo long as you wil, ſo that it may eſcape outward
injuries: notwithſtanding we doe ſee many ſtones in building laied with ſtrong mortar and ce-
ment, yet ſubject to age. There hath beene deuiſed another vſe alſo of Talc in ſmaller pieces,
namely, to paue therewith the floore of the great ſhew-place or cirque in Rome, during the run-
ning of chariots and other feats of actiuitie there performed, to the end that their whiteneſſe
might giue a more louely gloſſe to commend the place. In the daies of *Nero* late Emperour,
there was found in Cappadocia a ſtone as hard as marble, white and tranſparent, and ſhining
through, yea euen on that ſide where it hath certaine reddiſh ſtreakes or ſpots: in which regard,
(for that it is ſo reſplendent) it hath found a name to be called Phengites. Of this ſtone, the ſaid
Emperor cauſed the temple of *Fortune* to be built called Seia (which king *Seruius* had firſt de- M
dicated) compriſed within the compaſſe of *Neroes* golden houſe: and therefore when the
doores ſtood open in the day time, a man might ſee within, the day light, after the manner of
glaſſe ſtones; yet ſo, as if all the light were within-forth onely, and not let in from the aire tho-
row the windowes. Moreouer, king *Iuba* writeth, that in Arabia there is a certaine ſtone found,

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A which likewise shineth as glasse, whereof the inhabitants of those parts do make their mirroirs or looking-glasses.

It remaineth now, that I should proceed to those stones which are by workmen imploied to good and necessary vses: first of all, to those which serue to whet tools and instruments of yron, of which there be many sorts: Those of Candie, for a long time were of greatest name & most in request: in a second degree were those accounted which came from the mountaine Targetus in Laconia: but both the one and the other serue for no vse, without oile. But among the grind-stones and whetstones which are occupied with water, those of Naxos were in greatest price and most commended; next to them, those of Armenia, whereof I haue already written. The stones of Cilicia wil do wel enough either with water or oile, it skills not whether: but the whetstones,
B that come from Arsinoë, are onely vsed with water. There bee found in Italie whetstones, which with water will giue a wonderfull keene edge; also beyond the Alps, and such they call Passernices. In a fourth rank are to be reckoned those stones which serue for a mans spittle, and such be the bones that Barbers occupie for to sharpen their raisors; but they are of little or no vse at all because they be so soft and brittle: and of this kind, the chiefe are sent out of the higher part of Spain from the country Flamminitana. As for other stones whereof I haue not written already, they be all naught for building, so soft they be, and by that means nothing durable: and yet in some countries they haue none other to build withall, as namely at Carthage in Affrick, notwithstanding the wals of the houses there are subject to the waters of the sea, are pinched and pierced with winds, yea and beaten with rain and weather; against which inconueni-
C ences the inhabitants are forced to keep their wals with pitching, for otherwise (the stones are so tender and soft) the ordinary parget of lime would fret and eat them: wherupon there goeth a pretty speech of the Carthaginians, that they do contrary to all others, in that they vse pitch to their houses, and lime to their wines; for in truth they tun vp their new wines with lime. There be found moreouer about Rome other soft stones, to wit, in the territories belonging to Fidena and Alba: in Liguria likewise, Vmbria, and Venice, they haue a white free stone, which may be easily cut with a toothed saw: these are very tractable and easie to be wrought, and wil last reasonable well, but within house only; for if the weather lie vpon them, if the rain beat, and the pinching frost come, they will pill and skale, yea and break into pieces; neither be they durable a-
D gainst the breath and vapor of the sea. The Tyburtine stones, they will indure all other things well enough, only they may not abide hot vapors, for if the heat of summer take them, they will gape and be ready to cleaue in sunder. As for flints, the black, and in some places the red also, are much commended: in certaine countries, the white be very good; as namely, those in the quaries about Anicia within the territory of Tarquinij about the lake neere vnto Volsinij: also along the tract of Statona, there be good building stones that wil take no harm by fire; these are commonly vsed for those monuments and memorials wherin ought is to be ingraued, for they continue a long time, and are not the worse for age: Of this kind of stone, the founders make their moulds for to melt brasse in. Moreouer, there is a kind of greene stone, which wonderfully cheeketh and scorneth all fire; but in no place is there plenty thereof to be had: and wheresoeuer it is found, it groweth not in manner of a rock or quarrie, but lieth scattered here and there. Of the
E rest that hitherto are not named, the pale stone is not good for building, and seldome will it serue to make mortar of. The round pebbles are lasting enough, and will indure any hardnesse, but surely in building nothing trusty, vnlesse they be knit and bound with strong mortar and couched well together. Those that are gathered out of riuers make no sure building, for they seeme alwaies to relent and be moist: but for such stones as these, and generally for all those that we doubt, the only remedy is to dig them out of the ground in Summer, to let them haue two yeres seasoning in lying abroad and taking all kinds of weather before they be imployed in building; and look how much thereof hath caught harme by this means, the same will serue very well in ground works and foundations: and that which continueth still sound, you may bee bold to put it in building, yea, in open workes without dore. The Greekes haue a kinde of wall
F which they make of hard pebbles or flint couched euen and laid in order by line and leuell, like as we do in bricke wals: and this kind of building they call in Masonrie Isodomon: but in case they be not euen laid nor ranged streight, but that some part of the wall is thicker than others, they terme it Pseudisodomon. A third manner they haue which they name Emplecton, namely, when the front onely of the wall is smooth and euen, for otherwise within they huddle & fill

one with another. Moreouer, to lay a wal artificially and to bind the ſtones wel, they ought in alternatiue courſe to ride and reach one ouer another halfe, ſo that the joint may fall out in the mids of a ſtone both aboue and vnder; a neceſſarie point to be conſidered in the very mids of a wal if it be poſſible: if not ſo, yet in any caſe toward the ſides & ends therof: as for the middle of the wall within, it would be well ſtuffed and filled with any rubbiſh, rammel, and broken ſtones. There is a kind of net-work building in Maſonry called Dictyotheton, ordinarily vſed in Rome, but ſubject it is to cracke and chinke. In ſum, a wall would be built by rule and ſquare, by line and leuell, and anſwerable to the plumb. G

CHAP. XXIII.

¶ *Of Ciſterns, and Lime: of ſundry ſorts of Sand: of the tempering of Sand and Lime together for mortar: of faults in Maſonrie: of Pargetting and other Rough-caſting: of the proportion of Columnes and Pillars.* H

FOr to make good ciſterns which might hold water, the mortar that goeth thereto ought to be made of fiue parts of fine pure ſand and grauelly together, to two parts of the moſt ſtrong and binding lime that may be gotten; prouided alwais that the fragments of flint which are to be imploied herein, be ſmall, and exceed not the weight of one pound a piece: this done, not only the bottome or pauing, but the ſide-walls and the ends, ought to be rammed downe hard with yron beetles: howbeit, for to keep good and cleare water, it were the better way to haue alwaies two ciſterns together, that in the former the water may ſettle and caſt down al the grounds I to the bottome, and ſo the cleare water only paſſe into the other as if it were ſtrained through a fine colonder. As touching lime, *Cato Cenſorius* diſalloweth that which is made of diuers ſtones, or of ſundry colours: and to ſpeake a truth, white ſtones are better to make lime than the hard, and ſuch is more meet to lay ſtone withall in Maſonrie; howbeit the lime which commeth of hollow and fiſtulous ſtones, is thought to ſerue better for to couer and parget walls. The lime which commeth of flint, is rejected both for the one and the other: alſo the lime made of ſtones digged out of the ground, is farre better than of pebbles gathered from riuer ſides: that which commeth of milſtones is moſt profitable, for it is more fatty and glutinous than others. A ſtrange and wonderfull matter it is, that any thing after it hath bin once burnt and calcined, ſhould be ſet on fire againe with water. And thus much of Lime. K

As touching Sand, there be three kinds thereof: the one is digged out of pits in the ground, and this requireth a fourth part of lime to be put vnto it in making mortar: a ſecond commeth out of riuer ſides or the ſea ſhore, and this would haue a third part: and if there be beſides another third part of potſherds beaten to pouder and put thereto, the ſtuffe or mortar will be the better. Between the Apennine hill and the riuer Po, there is no ſand digged out of the ground, ne yet any ſea ſand at all. And verily, the greateſt reaſon that cities fal to decay and be ſo ruinat, is this, for that the mortar being robbed of the due proportion of lime, hath not that binding as it ought, and ſo the walls built therewith are not ſodred accordingly. Alſo, this would be obſerued, that mortar the elder that it is, the better it is found for building. Moreouer, in the old laws which prouide for the perpetuitie of houſes in antient time, we find it expreſſely ſet down, that the vndertaker to build a houſe at a certain price, ſhall vſe no mortar vnder three yeres of age: and this was the reaſon that in thoſe daies a man ſhould not ſee any rough-caſt or parget to riſe or chawne illfauouredly as now they do: and in truth, vnleſſe there be laid vpon wals three coats or couches (as it were) of mortar made with ſand and lime, and two courſes ouer them of other mortar made of marble grit and lime tempered together, the wals will not be permanent nor otherwiſe faire and reſplendent as they ought to be: and look where wals be dampiſh and giuen to ſweat a certaine ſalt humor or ſal-petre, it were very well to lay a ground vnderneath of mortar made of the pouder of potſheards and lime wrought together. In Greece they haue a caſt by themſelues, to temper and beat in mortars, the mortar made of lime and ſand wherewith they meane to parget and couer their walls, with a great woodden peſtill. As for the mortar made M of marble-grit and lime together, the true marke to know whether it haue making ſufficient for building, is this, namely, if it will not ſticke to the ſhouell that worketh it, but wil come out of the heap neat and clean: but contrariwiſe, in whiting and fret work, the lime being ſoked and wet in water, ought to cleaue faſt like glew; neither ought it to be tempred with water, but in the groſſe

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A groſſe maſſe or lumpe. At Elis there ſtandeth a temple conſecrated to the honour of *Minerua*, wherein *Panneus*, the brother of *Phidias*, vſed a parget (as they ſay) which he tempered with milk and ſaffron together; and therefore at this day, if a man wet his thumb with ſpittle, and rub it againſt the wall, he ſhall perceiue both the ſmell and taſt of ſaffron to remaine ſtill.

As touching pillars in any building, the thicker they ſtand one to another, the bigger & groſſer they ſeem to be. Our architects and maſons make foure ſorts of them: for they ſay, that ſuch pillars as beare in compaſſe or thickneſſe toward the foot, as much as commeth to the ſixt part of the height, be called Dorique: thoſe that carry but a ninth part, are Ionique: ſuch as haue a ſeuenth part, be Tuſcanique. And as for the Corinthian pillars, their proportion is anſwerable to the Ionique; onely this is the difference, that the Chapters of the Corinthian pillars ariſe in
B height to as much as the compaſſe at the baſe taketh vp: in which regard they ſeem more ſlender than others. As for the height of the Ionick chapter, it is juſt the third part of the thicknes. The proportion ordinarily in old time for the height of pillars, was anſwerable to the third part of the bredth of the temple. In the temple of *Diana* at Epheſus, the inuention was firſt practiſed to pitch the footſtall of pillars vpon a quadrant or ſquare below, and to ſet chapiters vpon their heads. And as touching the proportion, it was thought ſufficient in the beginning, if a columne contained in compaſſe or thickneſſe the eight part of the height; alſo, that the ſquare of the quadrant vnder the baſe, ſhould containe halfe the thickneſſe of the pillar: finally, that the pillars ſhould be ſmaller by one ſeuenth part in the head, than at the foot. Ouer and beſides theſe pillars, there be others alſo of the Atticke faſhion, and thoſe be made with foure corners, and the
C ſides are equall.

CHAP. XXIIII.

¶ *The medicinable properties of Lime. Alſo, as touching the Maltha vſed in old time, and of Plaſtre.*

MVch vſe there is of Lime alſo euen in Phyſick: but then there muſt be choſen that which is quick and vnqueint. Such lime is cauſtick, diſcuſſiue, and extractiue: the ſame alſo is proper to repreſſe corroſiue vlcers that begin to ſpread and run far. If the ſaid lime bee tempered with vineger and oile of roſes, it maketh an excellent healing plaſtre, which will skin
D vp a ſore clean. The ſame if it be incorporat with ſwines greaſe or liquid roſin and hony together, ſerues alſo to ſet bones in ioint: & the ſame compoſition is likwiſe good for the kings euil

Concerning Maltha, it was wont to be made of quick and new lime: for they took the Lime-ſtone and quenched it in wine, which done, preſently they punned it with ſwines greaſe and figs; hereof they made ordinarily two couches: and being thus tempered and laid, it was thought to be the faſteſt whitening that could be deuiſed, and in hardneſſe to exceed a ſtone. But looke whatſoeuer is to be pargetted with this Maltha or morter thus prepared, ought firſt to be rubbed throughly with a ſize of oile.

Of neare affinity to lime is plaſtre, whereof be many kinds: for there is a kind of plaſtre artificiall, and namely in Syria and about Thurium, made of ſtone calcined in manner of lime: and
E there is of it that is digged out of the ground naturally, as namely, in the Iſle Cyprus, and about the Perrhœbians. Neare Thymphæa, a city in Ætolia, it lieth very ebbe and as it were euen with the ground: as for the ſtone that is to be burnt for it, the ſame ought to be not vnlike to the ſtone Alabaſtrites, or at leaſtwiſe to that which ſtands much vpon marble. In Syria they chuſe for this purpoſe the hardeſt, and they burne the ſame with cow dung, that it may the ſooner bee calcined. But the beſt plaſtre of all other is known (by experience) to be made of the Talc or the glaſſe ſtone aforeſaid, or at leaſtwiſe of ſuch as haue the like flakes as Talc. Plaſtre muſt be wrought and driuen preſently whiles it is wet and will run, for nothing in the world wil ſo ſoon thicken and dry: and yet when it hath bin vſed already, it may be beaten again to pouder, & ſerue the turn in new workes. Plaſter ſerueth paſſing wel to white wals or ſeeling; alſo for to make lit-
F tle images in fretwork, to ſet forth houſes; yea, and the brows of pillars and wals, to caſt off rain. To conclude, I may not forget that which befell to *C. Proculeius*, a great fauorit and follower of *Auguſtus Cæſar*, who in an extreame fit of the paine of the ſtomacke, dranke plaſtre, and ſo killed himſelfe wilfully.

CHAP.

Chap. . XXV.

¶ *Sundry kindes of paued floores: and when at firſt they began to be vſed at Rome. Of open terraces paued. Of Greekiſh pauements. And the firſt invention of arched or embowed roofes.*

THe deuiſe of paued floores aroſe firſt from the Greeks, who made them with great art, and curiouſly, in regard of the painting in ſundry colours which they beſtowed therupon: but theſe braue painted floors were put downe, when pauements made of ſtone and quarrels came in place: the moſt famous workman in this kind, was one *Soſus*, who at Pergamus wrought that rich pauement in the common hall, which they cal Aſaroton œcon, garniſhed with bricks or ſmall tiles enealed with ſundry colours: and he deuiſed, that the worke vpon this pauement ſhould reſemble the crums and ſcraps that fel from the table, and ſuch like ſtuffe as commonly is ſwept away, as if they were left ſtil by negligence vpon the pauement. Among the reſt, wonderfull was his handiworke there, in pourtraying a Doue drinking, which was ſo liuely expreſſed, as if the ſhadow of her head had dimmed the brightneſſe of the water: there ſhould a man haue ſeen other Pigeons ſitting vpon the brim of the water tankard, pruning themſelues with their bils, and diſporting in the Sunſhine. The old paued floors, which now alſo are much vſed eſpecially vnder roofe and couvert, how ſoeuer they came from barbarous countries, were in Italy firſt patted and beaten downe with heauie rammers; as we may collect by the verie name it ſelfe, Pauement, which comes of Pavire, *i.* to ram downe hard. As for the manner of pauing with ſmal tiles or quarrels ingrauen, the firſt that euer was ſeen at Rome, was made within the temple of *Iupiter Capitolinum*, and not before the third Punicke war begun. But ere the Cimbrian wars began, ſuch pauements were much taken vp in Rome, and men tooke great delight and pleaſure therein, as may appeare ſufficiently by that common verſe out of *Lucilius* the Poët.

Ante Pavimenta ætas emblemata vermiculata, &c.

Before the Pauements checker-wrought in painted Marquettry, &c.

As touching open galleries and terraces, they were deuiſed by the Greeks, who were wont to couer their houſes with ſuch. And in truth, where the country is warme, ſuch deuiſes doe well: howbeit, they are dangerous and deceitfull, where there is ſtore of rain and froſt. But for to make a terrace ſo paued, neceſſary it is firſt to lay two courſes of boords or plankes vnderneath, and thoſe croſſe and ouerthwart one the other: the ends of which planks or boords ought to be nailed, to the end they ſhould not twine or caſt atoſide; which done, take of new rubbiſh two third parts, and put thereto one third part of ſhards ſtamped to pouder, then with other old rubbiſh mix two fiue parts of lime, and herewith lay a couch of a foot thickneſſe, and be ſure to ram it hard together. Ouer which there muſt be laid a coat or courſe of mortar, ſix fingers bredth thick; and vpon this middle, couch broad ſquare pauing tiles or quarrels, and the ſame ought to enter at leaſt two fingers deep into the ſaid bed of mortar. Now for that this floore or pauement muſt riſe higher in the top, this proportion is to be obſerued, that in euery ten foot it gain an inch and a halfe. After which, the pauement thus laid is to be plained and poliſhed diligently with ſome hard ſtone: and aboue al, regard would be had, that the planks or boorded floor were made of oke. As for ſuch as do caſt or twine any way, they be thought naught. Moreouer, it were better to lay a courſe of flint or chaffe between it and the lime, to the end, that the ſaid lime might not haue ſo much force to hurt the bourd vnderneath. Requiſit alſo it were to put vnderneath round pebbles among. After the like maner be the ſpiked pauements made of flat tiles & ſhards. And here I muſt not forget one kind of pauing more, which is called Grecanicke, the manner wherof is thus. The Greeks after they haue well rammed a floore which they mean to paue, lay therupon a pauement of rubbiſh, or elſe broken tile ſhards; and then vpon it, a couch of charcoale well beaten and driuen cloſe together, with ſand, lime, and ſmall cindres well mixed together: which done, they do lay their pauing ſtuffe to the thickneſſe of halfe a foot, but ſo euen, as the rule and ſquare will giue it; and this is thought to be a true earthen paued floore of the beſt making. But if the ſame be ſmoothed alſo with a hard ſlicke ſtone, the whole pauement wil ſeem all black: as for thoſe pauements called Lithoſtrata, which be made of diuers coloured ſquares couched in workes,

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A works, the inuention began by *Syllaes* time, who vſed thereto ſmall quarrels or tiles at Preneſte within the temple of *Fortune*, which pauement remaines to be ſeen at this day. But in proceſſe of time pauements were driuen out of ground-floores, and paſſed vp into chambers, and thoſe were ſeeled ouer head with glaſſe: which alſo is but a new inuention of late deuiſed: for *Agrippa* verily in thoſe baines which he cauſed to be made at Rome, annealed all the potterie worke that there was, and enamelled the ſame with diuers colours: whereas all others be adorned only with whiting: & no doubt he would neuer haue forgotten to haue arched them ouer with glaſſe if the inuention had bin practiſed before, or if from the wals & partitions of glaſſe which *Scaurus* made vpon his ſtage, as I ſaid before, any one had proceeded alſo to roofe chambers therwith. But ſince I am fallen vpon the mention of glaſſe, it ſhall not be impertinent to diſcourſe ſome-
B what of the nature thereof.

Chap. XXVI.

¶ *The firſt inuention of glaſſe, and the manner of making it. Of a kind of Glaſſe, called Obſidianum. Alſo of ſundry kindes of Glaſſe, and thoſe of many formes.*

THere is one part of Syria called Phœnice, bordering vpon Iurie, which at the foot of the mount Carmell, hath a meere named Cendeuia; out of which the riuer Belus is thought to ſpring, and within fiue miles ſpace, falleth into the ſea, near vnto the colony Ptolemais:
C This riuer runneth but ſlowly, and ſeemeth a dead or dormant water, vnwholeſome for drinke, howbeit, vſed in many ſacred ceremonies with great deuotion; full of mud it is, and the ſame very deepe ere a man ſhall meet with the firm ground: and vnleſſe it be at ſome ſpring tide, when the ſea floweth vp high into the riuer, it neuer ſheweth ſand in the bottom; but then, by occaſion of the ſurging waues, which not only ſtir the water, but alſo caſt vp & ſcoure away the groſſe mud, the ſand is rolled too and fro, and being caſt vp, ſheweth very bright and cleare, as if it were purified by the waues of the ſea: and in truth, men hold opinion, That by the mordacity and aſtringent quality of the ſalt water, the ſands become good, which before ſerued to no purpoſe. The coaſt along this riuer which ſheweth this kind of ſand, is not aboue halfe a mile in all, and yet for many a hundred yeare it hath furniſhed all places with matter ſufficient to make glaſſe.
D As touching which deuiſe, the common voice and fame rnnneth, that there arriued ſometimes certain merchants in a ſhip laden with nitre, in the mouth of this riuer, & being landed, minded to ſeeth their victuals vpon the ſhore and the very ſands: but for that they wanted other ſtones, to ſerue as treuets to beare vp their pans and cauldrons ouer the fire they made ſhift with certaine pieces of ſal-nitre out of the ſhip, to ſupport the ſaid pans, and ſo made fire vnderneath: which being once afire among the ſand and grauell of the ſhore, they might perceiue a certaine cleare liquor run from vnder the fire in very ſtreams, and hereupon they ſay came the firſt inuention of making glaſſe. But afterwards (as mans wit is very inuentiue) men were not content to mix nitre with this ſand, but began to put the Load-ſtone among, for that it is thought naturally to draw the liquor of glaſſe vnto it, as well as yron. Then they fell to calcine and burne in many o-
E ther places ſhining grauell ſtones, ſhels of fiſhes, yea, and ſand digged out of the ground, for to make glaſſe therewith. Moreouer, diuers authors there be who affirme, That the Indians vſe to make glaſſe of the broken pieces of Cryſtall, and therefore no glaſſe comparable to that of India. Now the matter whereof glaſſe is made, muſt be boiled or burnt with a fire of dry wood, and the ſame burning light and cleare without ſmoke, and there would be put thereto braſſe of Cypros, and nitre, eſpecially that which commeth from Ophyr. The furnace muſt bee kept with fire continually, after the manner as they vſe in melting the ore of braſſe. Now the firſt burning yeeldeth certaine lumps of a fatty ſubſtance, and blackiſh of colour. This matter is ſo keen and penetrant whiles it is hot, that if it touch or breath vpon any part of the body, it will pierce and cut to the very bone ere one be aware or do feele it. Theſe maſſes or lumps be put into the fire
F againe, and melted a ſecond time in the glaſſe houſes, where the colour is giuen that they ſhall haue: and then ſome of it with blaſt of the mouth, is faſhioned to what form or ſhape the workman will: other parcells poliſhed with the Turners inſtrument, and ſome againe engrauen, chaſed, and emboſſed in manner of ſiluer plates: in all which feats, the Sidonians in times paſt were famous artificers: for at Sidon were deuiſed alſo mirroirs or looking glaſſes. Thus much as touching

ching the antique maner of making glaſſe. But now adaies there is a glaſſe made in Italy of a G
certain white ſand, found in the riuer Vulturnus for ſix miles ſpace along the ſhore townes, from
the mouth where he diſchargeth himſelfe into the ſea, and this is betweene Cumes and the lake
Lucrinus. This ſand is paſſing ſoft and tender, whereby it may be reduced very eaſily into fine
pouder, either to be beaten in morter or ground in mill: to which pouder the manner is to put
three parts of nitre, either in weight or meaſure; and after it is the firſt time melted, they vſe to
let it paſſe into other furnaces, where it is reduced into a certain maſſe, which, becauſe it is com-
pounded of ſand and nitre, they call Ammonitrum: this muſt be melted againe, and then it be-
comes pure glaſſe, and the very matter indeed of the white clear glaſſes: & in this ſort through-
out France and Spain the maner is to temper their ſand, & to prepare it for the making of glaſſe
Moreouer, it is ſaid, That during the reigne of *Tiberius* the Emperor, there was deuiſed a certain H
temper of glaſſe, which made it pliable and flexible to wind and turne without breaking: but
*It is ſaid, that whē a ſupplīt to this emperor came before him, and ſhewed to him a glaſſe whole and ſound which had bin of purpoſe broken before, hee cauſed him preſently to be put to death. *Cæl. Rhodig. l. 29. cap. 30.*
the * artificer who deuiſed this, was put downe, and his work-houſe, for feare leſt veſſels made of
ſuch glaſſe ſhould take away the credit from the rich plate of braſſe, ſiluer, and gold, and make
them of no price: and verily, this bruit hath run currant a long time (but how true, it is not ſo cer-
tain.) But what booted the aboliſhing of glaſſe-makers, ſeeing that in the daies of the Empe-
ror *Nero* the art was growne to ſuch perfection, that two drinking cups of glaſſe (and thoſe not
big, which they called Pterotos) were ſold for 6000 ſeſterces.

There may be ranged among the kinds of glaſſes, thoſe which they call Obſidiana, for that
they carry ſome reſemblance of that ſtone, which one *Obſidius* found in Æthyopia; exceeding
blacke in colour, otherwhiles alſo tranſparent: howbeit, the ſight therein is but thicke and duſ- I
kiſh. It ſerueth for a mirroir to ſtand in a wall, and inſtead of the image yeeldeth back ſhadows.
Of this kind of glaſſe many haue made jewels in maner of precious ſtones: and I my ſelfe haue
ſeene maſſiue pourtraitures made thereof, reſembling *Auguſtus* late Emperor of famous memo-
ry, who was wont to take pleaſure in the thicknes of this ſtone, inſomuch as he dedicated in the
temple of *Concord* for a ſtrange and miraculous matter, foure Elephants made of this Obſidian
ſtone. Alſo *Tiberius Cæſar* ſent back again to the citizens of Heliopolis, a certain image of prince
Menelaus, found among the moueable goods of one who had bin lord gouernor in Ægypt, which
he had taken away out of a temple, among other cerimoniall reliques: and the ſaid ſtatue was
all of the Iaiet, called Obſidianus. And by this it may appeare, That this matter began long
time before to be in vſe, which now ſeemeth to be renued again and counterfeited by glaſſe that K
reſembleth it ſo neare. As for the ſaid Obſidian ſtone, *Xenocrates* writeth, That it is found natu-
rally growing among the Indians; within Samnium alſo in Italy, and in Spaine along the coaſt
of the Ocean. Moreouer, there is a kind of Obſidian glaſſe, with a tincture artificiall, as blacke
as Iaiet, which ſerueth for diſhes and platters to hold meat: like as other glaſſe, red throughout,
and not tranſparent, called for that colour Hæmatinon. By art likewiſe there be veſſels of glaſſe
made white and of the colour of Caſſidony, reſembling alſo the Iacinct and Saphire, yea, & any
other colors whatſoeuer. In ſum, there is not any matter at this day more tractable and willing
either to receiue any forme or take a color, than glaſſe: but of all glaſſes, thoſe be moſt in requeſt
and commended aboue the reſt, which be white, tranſparent and cleare throughout, comming as
neare as it is poſſible to Cryſtall. And verily, ſuch pleaſure do men take now adaies in drinking L
out of faire glaſſes, that they haue in maner put downe our cups and boules of ſiluer or gold: but
this I muſt tell you, that this ware may not abide the heat of the fire, vnleſſe ſome cold liquor
were put therin before: and indeed, hold a round bal or hollow apple of glaſſe ful of water againſt
the Sun, it will be ſo hot, that it is ready to burne any cloth that it toucheth. As for broken glaſ-
ſes, well may they be glued and ſodered againe by a warme heat of the fire, but melted or caſt a-
gain they cannot be whole, vnleſſe a man make a new furnace of pieces broken one from ano-
ther: like as we ſee there be made counting rundles thereof, which ſome call Abaculos, whereof
ſome are of diuers and ſundry colors. Moreouer, this would be noted, That if glaſſe and ſulphur
be melted together, they will ſouder and vnite into a hard ſtone. To conclude, hauing thus diſ-
courſed of all things that are knowne to be done by wit or art, according to the direction of Na- M
ture, I cannot chuſe but maruell at fire and the operations thereof, ſeeing that nothing in a man-
ner is brought to perfection but by fire; and thereby any thing may be done.

CHAP.

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Chap. XXVII.

¶ The wonderfull operations of fire: the medicinable properties that it hath; and the prodigious ſignifications obſerued thereby.

Fire receiueth ſundry ſorts of ſand & earth, out of which it doth extract and melt one while glaſſe, another while ſiluer, in this place vermilion, in that diuers ſorts of lead and tin; ſomtime Painters colours, and another while matters medicinable. By fire, ſtones are reſolued into braſſe; by fire iron is made, and the ſame is tamed likewiſe therewith: fire burneth and calcineth ſtone, whereof is made that mortar which bindeth all worke in maſonry. As for ſome things, the more they be burnt, the better they are; and of one and the ſame matter a man ſhall ſee one ſubſtance ingendred in the firſt fire, another in the ſecond, and another alſo in the third. As for the coles that go to theſe fires, when they be quenched they begin to haue their ſtrength and after they are thought extinct and dead they are of greateſt vertue. This element of Fire is infinit, and neuer ceaſeth working, inſomuch as it is hard to ſay whether it conſume more than it ingendreth. The very fire alſo is of great effect in phyſick; for this is known for certain by experience, there is not a better thing in the world againſt the peſtilence (occaſioned by the darkneſſe of the Sun, and the want of cleare light from him) than to make fires and perfumes in diuers ſorts, either to clarifie or to correct the aire; according as *Empedocles* and *Hippocrates* haue teſtified in diuers places. *M. Varro* writeth, that fire is good for conuulſions, cramps, and contuſions of the inward parts: and for this purpoſe I will alledge the very words he vſeth: the Latine word *Lix* (quoth he) is nothing elſe but the aſhes of the hearth; and hereupon comes *Lixiuus cinis*, *i*. Lie aſhes, which being drunk is medicinable; as we may ſee by fencers and ſword-plaiers, who after they haue done their flouriſhing, and be ready to enter into fight at ſharpe, refreſh themſelues with this potion. Furthermore it is ſaid, That a cole of oke wood being reduced into aſhes and incorporat with hony, cureth the carbuncle, which is a peſtilent diſeaſe, whereof two noblemen at Rome, both Conſuls in their time, died of late, according as I haue ſhewed already. See the wonderfull power in nature, that things deſpiſed and of no account, as aſhes and coles, ſhould afford remedies for the health of man! But before I make an end of fire, and the hearth where it burneth, I will not paſſe one admirable example commended vnto vs by the Roman Chronicles: in which we reade, That during the reign of *Tarquinius Priſcus* king of Rome, there appeared all on the ſudden vpon the hearth where hee kept fire, out of the very aſhes, the genital member of a man, by vertue whereof, a wench belonging vnto *Tanaquil* the queen, as ſhe ſate before the ſaid fire, conceiued and aroſe from the fire with childe; and of this conception came *Servius Tullus* who ſucceeded *Tarquin* in the kingdome. And afterwards, while hee was a yong childe, and lay aſleep within the court, his head was ſeen on a light fire; whereupon he was taken to be the ſon of the domeſtical ſpirits of the chimney. Which was the reaſon, that when he was come to the crown, he firſt inſtituted the Compitalia, and the ſolemne games in honour of ſuch houſe-gods or familiar ſpirits.

B C D

THE

THE XXXVII. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proem.

TO the end that nothing might be wanting to this historie of mine concerning Natures works, there remaine behind nothing but pretious stones, wherein appeareth her Maiesty, brought into a narrow and streight roome: and to say a truth, in no part of the world is she more wonderfull, in many respects; whether you regard their varietie, colours, matter, or beauty, which are so rich and pretious, that many make conscience to sell with them, thinking it vnlawfull to engraue any print in them, or to diminish their honour and estimation by that means. Some of them are reckoned inestimable, or valued at all the goods of the world besides, insomuch as many men thinke some one pretious stone or gem sufficient to behold therein the very perfection of Nature, and her absolute worke. Touching the first inuention of wearing such stones in jewels, and how it tooke first root, and grew afterwards to that height as all the world is in admiration thereof, I haue alreadie shewed in some sort in my treatise of Gold and Rings. And yet I will not conceale from you that which poets do fable of this matter, who would beare vs in hand, that all began at the rocke Caucasus, whereunto Prometheus *was bound fast, who was the first that set a little fragment of this rocke within a peece of iron, which being done about his finger, was the ring, and the foresaid stone the gemme: whereof the Poets make much foolish moralization.*

Chap. I.

¶ *Of the rich precious stones of* Polycrates *the Tyrant, and King* Pyrrhus. *The first Lapidaries or Cutters in pretious stones. And who was the first that had a case of rings and gems at Rome.*

PRometheus hauing giuen this precedent, brought other stones into great price and credit, insomuch as men were mightily inamoured vpon them: and *Polycrates* of Samos, the puissant prince and mighty monarch ouer all the Islands and coasts thereabout, in the height of his felicitie and happy estate, which himselfe confessed to be excessiue, being troubled in his mind, that he had tasted of no misfortune, and willing after a sort to play at Fortunes game, one while to win, and another while to lose, and in some measure to satisfie her inconstancie, was perswaded in his minde that he should content her sufficiently in the voluntarie losse of one gem that he had, and which he set so great store by: thinking verily, that this one hearts griefe for parting from so pretious a jewell, was sufficient to excuse and redeeme him from the spightful enuy of that mutable goddesse. Seeing therefore the world to come vpon him still, and no soure sorrowes intermingled with his sweet delights, in a wearinesse of his continual blessednesse, he imbarked himselfe and sailed into the deep, where wilfully he flung into the sea a ring from his finger, together with the said stone so pretious, set therein. But see what ensued! A mighty fish euen made as a man would say for the king,

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A king,chanced to ſwallow it down as if it had bin ſome bait;which being afterwards caught by fiſhers,& thought to be of an extraordinary bignes,was brought as a preſent into the kings pallace,and ſo ſent into the kitchen;where the cook found within the belly therof the foreſaid ring of his lords & maſters. Oh the ſubtiltie of ſlie Fortune,who all this while twiſted the cord that another day ſhould hang *Polycrates!* This ſtone(as it is wel known)was a Sardonyx:&if we may beleeue it,the very ſame it is,which at Rome is ſhewed in the temple of *Concord*, where *Auguſta* the Empreſſe dedicated it as an oblation,enchaſed within a golden horne:and verily if it be the ſame,one of the leaſt Sardonyches it is among many other there which be preferred before it.

Next to this ſtone of *Polycrates*,there goeth a royall name of the gem which *Pyrrhus* K.of Albanie had;him I mean,who warred againſt the Romans:for(by report)an Agath he had,where-
B in a man might ſee the nine Muſes,and *Apollo* with his harpe, liuely repreſented, not by art and mans hand,but euen naturally imprinted:for the veins and ſtreaks of the ſtone were ſo diſpoſed, that a man might diſtinguiſh euery one of the Muſes aſunder,& ech one diſtinguiſhed by their ſeueral marks and ornaments. Setting aſide theſe two gems aboue-named,we do not read in authors of any great reckoning made of ſuch iewels; vnleſſe wee ſpeake of one *Iſmenias* a famous minſtrell, who had the name to weare many of them ordinarily about him, and thoſe very gay and glittering:and ſurely his vanity that way was ſuch, that there goeth a notable tale of him; for meeting vpon a time in a merchants hand with an Emeraud in the Iſland Cyprus,wherin ladie *Amymone* was engrauen,and wherof the price was at firſt held at ſix deniers in gold,he made no more ado but cauſed the mony to be paid preſently: but the merchant being a man of ſome
C conſcience, and thinking indeed the price to high,gaue two of them back again vnto *Iſmenias:* whereat being ill apaid,I beſhrew you, (qd.he) for this bating of the mony hath much empaired the worth of the ſtone. This *Iſmenias* (as it is thought)was the firſt who brought vp the order that all ſuch muſicians and minſtrels as himſelfe,ſhould be known by their gems,and eſteemed skilfull in that art according as they were ſet out therwith more or leſſe. And in very truth, *Dionyſodorus* a great minſtrell,who liued in thoſe daies with him, vſed likewiſe to be in his change and variety of pretious ſtones, becauſe he would not ſeeme any way to come behind *Iſmenias*. There was a third alſo as vaine as the beſt,a muſician in that age named *Nicomachus*, who loued to haue a number of gems about him, but no iudgement hee had in the world to chuſe them. Theſe examples which offer themſelues by fortune to me in the beginning of this my booke,
D may ſerue to pull downe their plumes who ſtand ſo much vpon the vaine oſtentation of theſe ſtones,when they ſhal ſee how all the pride they take herein,ſmelleth but of the vain humor of ſome odd minſtrels. But to return againe to *Polycrates* his gem,at this day it is to be ſeen within the temple of *Concord*,whole & ſound. And not only in the time of *Iſmenias*,but alſo many yeres after,it ſhould ſeem that Emerauds were wont to be cut and engrauen. This opinion alſo may be confirmed by the act & edict of K. *Alexander* the Great,which forbad expreſly, That no man ſhould be ſo hardy as to engraue his image in pretious ſtone, but *Pyrgoteles*;who(no doubt)was ſimply the beſt in that art. After him, *Apollonides* and *Cronius* were of great fame:& principally one *Dioſcorides*,who counterfeited in ſtone the liuely forme of *Auguſtus Cæſar*, the which ſerued the Emperors his ſucceſſors as a ſignet to ſeale withall. *Sylla* Dictator was wont alwais to ſigne
E with a ſeale repreſenting K. *Iugurtha*,tied & bound as he was yeelded to him. We read in Chronicles alſo,that a certaine Spaniard of Intercatia,whoſe father *Scipio Æmilianus* ſlew in ſingle fight,vſed afterwards no other ſeale but that which repreſented this combat: whereupon grew this merry conceit of *Stilo Præconinus*, who asked, What this Spaniard would haue done if his father had killed *Scipio? Auguſtus* late Emperour of worthy memory, vſed at the beginning to ſeale with the image Sphinx vpon his ſignet:and verily in the caſket of his mothers iewels,two of theſe he found ſo like one to the other,that one could not be known and diſcerned from the other:& as he was wont to weare one of them about him wherſoeuer he went,ſo in his abſence (during the ciuile wars which he leuied againſt *M. Antonius*) his friends who managed his affairs at Rome,ſigned with the other Sphinx,al thoſe letters & edicts which paſſed in his name,
F for the performance of ſome demands which tho e times did require. And from hence it came, that thoſe who receiued any ſuch letters or edicts, containing ſome matter of difficulty, were wont pleaſantly and merrily to ſay, That the ſaid Sphinx came euer with ſome hard riddle or other that could not be expounded. Moreouer,the frog, wherwith *Mæcenas* vſed to ſeale,was alwaies terrible to thoſe who receiued any letters ſigned therewith;for euermore they were ſure

vpon the receit of it to make some paiment of impost or taxes leuied vpon them. But *Augustus Cæsar*, to auoid the obloquie that arose by his Sphinx, gaue ouer sealing therewith, and signed euer after with the image of K. *Alexander* the Great. G

As touching a cabinet or case for many rings and such jewels, which they call by a forreine Greeke name Dactyliotheca, the first that euer was known to haue any such at Rome, was *Scaurus*, whose mother *Sylla* the Dictator married: and for a long time there was no other besides; vntill *Pompeius* the Great met with the jewel-casket of K. *Mithridates*, which among many other rich oblations, he presented in the Capitoll; and by the relation of *M. Varro* and other approued authors of that time, it was much preferred before that of *Scaurus*: in imitation of whose example, *Cæsar* Dictator consecrated in the temple of *Venus Genitrix*, six such like cabinets or caskets of rings and jewels: and *Marcellus* sonne to *Octauia*, dedicated one in the temple Palatine of *Apollo*. Finally, this is to be obserued, that the said victorie of *Pompeius* which he atchieued ouer K. *Mithridates*, set mens teeth at Rome a watering after pearls and precious stones; like as the conquests obtained by *L. Scipio* and *Cn. Manlius*, brought them into loue with siluer plate curiously enchased and imbossed: also with rich hangings of cloth of gold, siluer, and tissue, together with beds and tables of brasse; euen as the brasen statues and vessels of Corinthian brasse, and the curious painted tables, came in request vpon the victorie that *L. Mummius* gained ouer Achæa. H

Chap. II.

¶ *Of Iems and precious stones that* Pompeius *shewed in his triumph. The nature of Crystall, and the medicinable properties thereof: the sumptuous and superfluous expences in vessels made of it. The first inuention of Cassidoine vessels, and the excesse that way: the nature and properties of those Cassidoins. And what vntruths the writers in old time haue deliuered as touching Amber.* I

TO the end that it may appeare more euidently, what the triumph of *Pompey* wrought in this respect, I will put downe word for word what I find vpon record in the registers that beare witnesse of the acts which passed during those triumphs. In the third triumph therefore which was decreed vnto him (for that he had scoured the seas of pyrats and rouers, reduced Natolia and the kingdome of Pontus vnder the dominion of the Romans, defeated kings and nations, according as I haue declared in the seuenth booke of this my history) he entred Rome the last day of September, in the yere when *M. Piso*, and *M. Messala* were Consuls, on which day there was carried before him in shew, a chesse-boord with all the men, and the same bourd was made of two precious stones, and yet it was 2. foot broad and 4 foot long: and lest any man should doubt hereof and thinke it incredible, considering no jems at this day come neare thereto in bignesse, know he, That in this triumph hee shewed a golden Moone weighing thirtie pounds, three dining-tables also of gold, other vessell likewise of massie gold and precious stones as much as would garnish nine cup-boords; three images of beaten gold representing *Minerva*, *Mars* and *Apollo*; coronets made of stones to the number of three and thirtie; a mountaine made of gold foure square, wherein a man might see red deare, lyons, fruit-trees of all sorts, and the whole mountaine inuironed and compassed all about with a vine of gold: moreouer, an oratorie or closet consisting of pearle, in the top or louver whereof there was a clocke or horologe: Hee caused also to be borne before him in a pompous shew, his owne image made of pearles, the pourtraiture (I say) of that *Cn. Pompeius*, whom regall majestie and ornaments would haue better beseemed; and that good face and venerable visage so highly honoured among all nations was now all of pearls; as if that manly countenance and seueritie of his had beene vanquished, and riotous excesse and superfluitie had triumphed ouer him, rather than hee ouer it. O *Pompey*, ô *Magnus*, how could this title and syrname *Le-grand*, haue continued among those nations, if thou hadst in thy first victorie triumphed after this manner! What, *Magnus*, were there no means else but to seek out pearles (things so prodigal, superfluous, and deuised for women, and which it had not beseemed *Pompey* once to weare about him) and therewith to pourtray and counterfeit thy manly visage! And was this the way indeed to haue thy selfe seeme precious? doth not that pourtraiture come nearer vnto thee and resemble thy person farre liker, K L M

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A which thou didſt cauſe to be *erected vpon the top of the Pirænean hils? Certes, a foule ſhame and ignominious reproch it was to be ſhewed in this maner; nay, to ſay more truly, a wonderfull prodegie it was, preſaging the heauie ire of the gods; for ſo men were to beleeue and euidently to conceiue therby, that euen then and ſo long before, the head of *Pompey* made of orient pearle, euen the richeſt of the Leuant, ſhould be ſo preſented without a bodie. But ſetting this aſide, how manlike was all the reſt of his triumph, and how anſwerable to himſelfe? For firſt and foremoſt, giuen freely by him vnto the chamber of the citie, there were a thouſand talents, ſecondly, vpon his leutenants and treaſures of the campe, who had performed ſo good ſeruice in defending the ſea-coaſts, he beſtowed two thouſand Seſtertia apiece: thirdly to euery ſouldiour who accompanied him in that voiage, he allowed fiftie Seſtertia. Well, this ſuperfluitie yet of
B *Pompeies* triumph, ſerued in ſome ſort to excuſe *Caius Caligula* the Emperour, and to make his delicacie and exceſſe to be more tollerable; who ouer and beſides all other effeminat tricks and womanly deuiſes, wherof he was full, vſed to draw vpon his legs little buskins or ſtarlups made of pearle: *Pompeies* precedent (I ſay) in ſome meaſure juſtified *Nero* the Emperour, who made of rich and faire great pearles, the ſcepters and maces, the viſors alſo and maskes which players vſed vpon the ſtage, yea and the very bed-roumes which went with him as hee trauailed by the way: So as wee ſeeme now to haue loſt that vantage and right which we had to find fault with drinking-cups enriched with pearls, yea and much other houſhold ſtuffe and implements garniſhed therewith, ſince that whereſoeuer we go from one end of the houſe to the other, we ſeem to paſſe through rings, or ſuch jewels at leaſtwiſe which were wont to beautifie our fingers on-
C ly: for is there any ſuperfluitie els, but in regard and compariſon hereof it may ſeeme more tollerable and leſſe offenſiue? But to return vnto the triumph of *Pompey*: this victory of his, brought into Rome firſt our cups and other veſſels of Caſſidoine; and *Pompey* himſelfe was the firſt who that very day of his triumph preſented vnto *Iupiter Capitolinus*, ſix ſuch cups: and preſently from that time forward men alſo began to haue a mind vnto them, in cupbourds, counting tables, yea and in veſſell for the kitchin, and to ſerue vp meat in: and verily, from day to day the exceſſe herein hath ſo far ouergrowne, that one great Caſſidoine cup hath been ſold for * foureſcore ſeſterces, but a faire and large one it was, and would containe well three ſextars [*id eſt*, halfe a wine gallon.] There are not many yeres paſt, ſince that a noble man who had been Conſull of Rome, vſed to drinke out of this cup; and notwithſtanding that in pledging vpon a time
D a lady whom he fancied, he bit out a piece of the brim thereof (which her ſweet lips touched) yet this injurie done to it, rather made it more eſteemed and valued at a higher price, neither is there at this day a cup of Caſſidoine more pretious or dearer than the ſame. But as touching other exceſſe of this perſonage, and namely how much he conſumed and deuoured in ſuperfluities of this kind, a may may eſtimat by the multitude of ſuch Caſſidoin veſſell found in his cabinet after his death, which *Nero Domitius* tooke away perforce from his children: and in truth, ſuch a number there were of them, that being ſet out to the ſhew, they were ſufficient to furniſh and take vp a peculiar theatre, which of purpoſe he cauſed to be made beyond the Tyber in the gardens there: and enough it was for *Nero* to behold the ſaid theatre repleniſhed with people at the plaies which he exhibited there in honor of his wife the Empreſſe *Poppæa*, after one child-
E bed of hers, where among other muſicians, he ſung voluntary vpon the ſtage before the plaies began. I ſaw him there my ſelfe to make ſhew of many broken pieces of one cup which he cauſed to be gathered together full charily, as I take it, to exhibit a ſpectacle wherat the world ſhould lament and cry out in deteſtation of Fortune, no leſſe ywis, than if they had bin the bones and reliques of king *Alexander* the Great his corps to be laid ſolemnly in his ſepulchre; and herein he pleaſed himſelfe not a little. *Titus Petronius*, late Conſull of Rome, when he lay at the point of death, called for a faire broad-mouthed cup of Caſſidoine, which had coſt him before-time *three hundred thouſand ſeſterces, and preſently brake it in pieces in hatred and deſpight of *Nero*, for feare leſt the ſame prince might haue ſeazed vpon it after his diſeaſe, and therewith
F furniſhed his own bourd. But *Nero* himſelfe (as it became an Emperour indeed) went beyond all others in this kind of exceſſe, who bought one * drinking cup that ſtood him in three hundred thouſand ſeſterces; a memorable matter (no doubt) that an Emperour, a father and patron of his country, ſhould drink in a cup ſo deare. But before I proceed any farther, it is to be noted, that we haue theſe rich Caſſidoine veſſels [called in Latine Murrhina] from out of the Leuant: for found they be in many places of the Eaſt parts, and thoſe otherwiſe not greatly renowned,

* That is to ſay, columns & pillars, wherin were engrauen the names of cities and nations ſubdued by him in thoſe voyages into Spaine.

* *Octoginta ſeſtertijs*: where you muſt thinke that he vſes *ſeſtertium* in the neuter gender, which is a thouſand *ſeſterty*: for otherwiſe 80 ſeſterces come but to 20 deniers Roman, and that is about 12 *ſh* 6 *d.* ſterling: too much vnder the price of ſuch a jewell: and yet ſome read for *ſeſtertiis*, [*talentis*] and that is as much aboue the proportiõ, for one talent was eſteemed at 5000 ſeſterces.

* 1. The value of 6 talents.

* *Trecentis ſeſtertijs capidẽ*: I ſuſpect this place; for hee ſhould haue inferred a greater ſum than that before of *T. Petronius*: or elſe *capis* is a ſmaller piece than *Trulla*: & that ſhould not ſeeme, if it be deriued à *capiendo*, & ſo called for the capacitie, but rather of the ears, whereby a man may take hold thereof.

but most within the kingdom of Parthia: howbeit, the principall come from out of Carmania. G
The stone whereof these vessels be made, is thought to be a certaine humour thickened and baked as it were within the ground by the naturall heat thereof. In no place shall a man meet with any of these stones larger than small tablements of pillars or counting-bourds; and seldome are they so thicke as to serue for such a drinking cup as I haue spoken of already: resplendant they are in some sort, but that brightnesse is not pearcing, and to say a truth, it may be called rather a polishing glosse or lustre, than a radiant and transparent cleareneſſe: but that which maketh them so much esteemed, is the variety of colours; for in these stones a man shall perceiue certaine vains or spots, which as they be turned about resemble diuers colours enclining partly to purple and partly to white: he shall see them also of a third colour composed of them both, resembling the flame of fire: Thus they passe from one to another as a man holdeth them; in so H
much as their * purple seemeth to stand much vpon white, and * their milkie white to beare as much vpon the purple. Some esteemed those Cassidoine or Murrhene stones richest, which represent as it were certain reuerberations of sundry colours meeting all together about their edges and extremities, such as we obserue in rainbowes: others are delighted with cerataine fattie spots appearing in them; and no account is made of them which shew either pale or transparent in any part of them, for these be reckoned great faults and blemishes. In like maner if there be seene in the Cassidoine any spots like corns or graines of salt: if it containe resemblances of werts, although they beare not vp but lie flat as they doe many times in our bodies: finally, the Cassidoine stones are commended in some sort also for the smell that they do yeeld.

* *Purpura candescente.*
* *Aut lacte rubescente.*

As touching Crystall, it proceedeth of a contrary cause, namely of cold; for a liquor it is I
congealed by extream frost in maner of yce; and for the proofe hereof, you shal find crystal in no place els but where the winter snow is frozen hard: so as we may boldly say, it is very yce and nothing els, whereupon the Greeks haue giuen it the right name Crystallos, *i.* Yce. We haue this crystall likewise out of the East-parts, but there is none better than that which India sends to vs. Ingendred it is also in Asia, and namely about Alabanda, Ortosia, and the mountains adioyning, but in request it is not no more than that which is found in Cyprus: howbeit, there is excellent crystall within Europe, and namely vpon the crests of the Alps. King *Iuba* writeth, that in a certaine Island lying beyond the red sea ouer-against Arabia, named *Neron, there growes crystall: as also in another thereby, which yeeldeth the * Topase pretious stone; where, *Pythagoras* (lieutenant or gouernour vnder king *Ptolome*) digged forth a piece which carried a cubit K
in length. *Cornelius* * *Bocchus* affirmeth, that in Portugall vpon certaine exceeding high mountaines, where they sinke pits for the leuell of the water, there be found great crystal quarters or masses of a wonderfull weight. But maruellous is that which *Xenocrates* the Ephesian reporteth, namely, that in Asia and Cyprus there be pieces of crystall turned vp with the very plough, so ebb it lieth within the ground; an incredible thing, considering that before-time no man beleeued that euer it could be found in any place standing vpon an earthly substance, but onely among cliffes and craggs. It foundeth yet more like a truth, which the same *Xenocrates* writeth, namely, that oftentimes it is carried down the streame running from the mountains. As for *Sudines*, hee saith confidently, that crystall is not engendred but in places exposed onely to the L
South: and verily this is most true, for you shall neuer meet with it in wateriſh countries lying Northerly, be the climat neuer so cold, no though the riuers be frozen to an yce euen to the very bottome. Wee must conclude therefore of necessitie, that certaine cœlestiall humours, to wit, of raine and some small snow together, do concurre to the making of crystall: and hereupon it comes, that impatient it is of heat, and vnlesse it be for to drinke water or other liquor actually cold, it is altogether reiected: but strange it is, that it should grow as it doth, six angled: neither is it an easie matter to assigne a sound reason thereof, the rather for that the points be not all of one fashion; and the sides betweene each corner are so absolute euen and smooth, as no lapidarie in the world with all his skil can polish any stone so plain. The greatest & most weightie piece of crystal that euer I could see, was that which *Liuia Augusta* the Empresse dedicated in the Capitoll, which weighed about fiftie pounds. *Xenocrates* mine authour aboue-named, af- M
firmeth, that there was seene a vessell of crystall as much as an Amphore: and some besides him doe say, that there haue beene brought out of India, crystall glasses containing foure sextars a piece. Thus much I dare my selfe auouch, that crystall groweth within certaine rockes vpon the Alps, and those so steep and inaccessible, that for the most part they are constrained to hang

* Some reade *Netron.*
* Which some take for Chrysolite.
* or *Nepos.*

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A by ropes that ſhall get it forth. They that be skilfull and well experienced therein, go by diuers markes and ſignes which direct them to places where there is criſtall, and where alſo they can diſcerne good from bad; for this you muſt think, there be many imperfections and faults therein; as namely, when it is rough or rugged in hand, ruſtie like yron, cloudie and full of ſpeckes; otherwhiles there is a ſecret hidden fiſtulous vlcer as it were within: there lieth alſo in it a certain hard knurre, which is brittle and apt to breake into ſmall crumbs, beſides the corn or grain therein called Sal. Some pieces of cryſtall you ſhall haue which carry a certain red ruſt: others be full of hairy ſtrakes, a man would imagin they were ſo many rifts; but cunning artificers can hide this laſt imperfection when they cut and engraue the piece that hath it: for in truth, if a cryſtall be pure and cleare of it ſelfe, much fairer it is plain, than ſo wrought and engrauen; and
B ſuch cryſtals the Greeks call Acenteta; but aboue all, when they look not like the froth of clear water: laſt of all, this is to be conſidered, that the heauier cryſtall is in proportion, the better account there is made of it. Moreouer, I read of certaine Phyſitians who are of opinion, that there is not a better and more wholeſome cautery for any part of the body that requreth cauteriſing or burning, than a ball or pomander of cryſtall held oppoſit between the member and the Sun beams. But will you heare of another notorious example of folly and madneſſe in theſe cryſtals as well as in Caſſidoins? There are not many yeres ſince a dame of Rome, and ſhee none of the richeſt, who bought one boll or drinking cup of cryſtall, and paid 150000 ſeſterces for it. As for *Nero* the Emperour (of whom I ſpake erewhile) when vnhappy news was brought vnto him of a great ouerthrow and a field loſt to the danger of his owne ſtate and the common-wealth, in
C the height of his rage and a moſt furious fit of anger, caught vp two cryſtall drinking cups and paſht them all to pieces: his ſpight was belike at all the men liuing in that age, & better means he could not deuiſe to plague and puniſh them, than to preuent that no man elſe ſhould drinke out of thoſe glaſſes: and in very truth, a cryſtall being once broken, cannot by any deuiſe whatſoeuer be reunited and made whole againe as before. We haue at this day cups and veſſels of glaſſe that come paſſing neere vnto cryſtall: but wonderfull it is, that notwithſtanding our glaſſes be ſo like, yet they haue not abated and brought downe the price of cryſtal, but rather cauſed it to be far dearer.

In the next degree to cryſtall wee are to place Amber, a thing that hitherto I heare women only ſet daintie ſtore by, and adorne themſelues withall: ſtrange it is, that l'Amber, Caſſidoine,
D and Cryſtall, ſhould thus be in equall requeſt with fine pretious ſtones; marie for Caſſidoin and Cryſtall, in ſome reſpects verily they may ſeeme to deſerue a higher roume, and namely, in regard that both of them are ſo appropriat for to drink water or cold liquor out of ſuch cups: but as for Amber, our delicates and wantons haue not yet deuiſed any probable reaſon why there ſhould be ſuch a reckoning made of it: but ſurely it is the folly and vain curioſity of the Greeks that hath giuen occaſion thereof, and brought it into ſo great a name. And here I muſt beſeech the readers to beare with me in this my diſcourſe as touching the firſt originall of Amber; for I thinke it not impertinent to deliuer what marueiles and wonders the Greeks haue broached as touching this thing, that the age and poſterity enſuing may yet be acquainted with their fabuloſities: firſt and formoſt therefore, many of their Poëts, yea, and as I ſuppoſe, the chiefe and
E principall of them, to wit, *Æſchylus*, *Philoxenus*, *Nicander*, *Euripides*, and *Satyrus*, tell vs a tale of the ſiſters of young price *Phaëton*, who weeping piteouſly for the miſerable death of their brother who was ſmitten with lightning, were turned into Poplar trees, which in ſtead of tears yeelded euery yere a certain liquor called Electrum [*id eſt*, Amber] which iſſued from them where they grew along the riuer Eridanus, which we call Padus, *id eſt*, the Po: and the reaſon why the ſame was named Electrum, is this, Becauſe the Sun in old time was vſually called * Elector in Greeke. But that this is one of their loud lies, it appeares euidently by the teſtimony of all Italie. But ſome of theſe Greek writers and ſuch as would ſeem to be more ſpeculatiue and better ſeene in the works of Nature than their fellowes, haue told vs of certain Iſlands that ſhould lie along the coaſt within the Venice gulfe, called Electrides, forſooth becauſe that amber is there
F gathered, by reaſon that the foreſaid riuer Po fals into the ſea among them: howbeit wel known it is, that there were neuer yet Iſlands ſo named within that tract; no nor any Iſlands at all neere to that place, into which the riuer Padus could poſſibly bring any thing at al down his ſtreames. As for *Æſchylus* the foreſaid Poët, who ſaith that the riuer Eridanus is in Iberia, that is to ſay, Spaine, & otherwiſe that it is called Rhodanus, as alſo for *Euripides* and *Apollonius*, who ſay that

* Ἠλέκτωρ, *quaſi* ἀλήτωρ *faciat*, Because he rouſeth and raiſeth vs in a morning out of our beds.

Rhoſne & Po both meet in one, and diſcharge themſelues together into the ſaid Venice gulfe, G they ſhew their groſſe ignorance in Coſmography, and deſcription of the world; and therfore they would be rather pardoned if they knew not what Amber was. Thoſe that write more modeſtly than the reſt (and yet can lie as well as the beſt) beare vs in hand, that about the ſides of the foreſaid Venice gulfe or Adriatick ſea, vpon rockes otherwiſe inexceſſible, there grow trees which yerely at the riſing of the Dogſtar do yeeld forth this Amber in manner of a gum. *Theophraſtus* contrariwiſe affirmes, that Amber is digged out of the ground. As for *Chares*, he ſaith, that *Phaëton* died in Æthyopia neere vnto the temple of *Iupiter Ammon*, which is the reaſon of a chappell there wherein hee is ſhrined, as alſo of an oracle much renowmed; in which quarters (quoth he) amber is engendred. *Philemon* would make vs beleeue, that Amber is minerall, and that within Scythia in two places it is gotten forth of the earth, in the one it is found white & H of the colour of wax, which they call Electrum; in the other it is reddiſh or tawny, and that is named Sualternicum. *Demoſtratus* cals Amber, Lyncurion, for that it commeth of the vrine of the wild beaſt named Onces or Lynces: the which is diſtinct in colour, for that which proceedeth from the male is reddiſh and of a fiery colour; the other which paſſeth from the female, is more weake in colour, and enclineth rather to whitiſh. Some giue it the name Langurium, and make report of certaine beaſts in Italie named Languriæ. *Zenothemus* tearmeth the ſame beaſts Langas, and by his ſaying, they liue about the Po. *Sudines* talketh of a tree in Liguria, which ſhould beare this Amber: of whoſe opinion alſo was *Metrodorus*. *Sotacus* was verily perſuaded, that it run downe from certaine trees in Brittaine, and thoſe he thereupon called Electrides. *Pytheas* affirmeth, that in Almaine there is the arme of the Ocean called Mentonomon, along I which there inhabit certaine people named Gutti, for the ſpace of ſix thouſand ſtadia; from which, within one daies ſailing, there lyeth an Iſland called Abalus, into which at euery Spring tide, there is caſt vp by the waters of the ſea at a high water, a great quantitie of Amber; and it is taken for nothing elſe but a certain excrement congealed and hardned, which the ſea in that ſeaſon purgeth and ſendeth away. The inhabitants of thoſe parts (ſaith he) vſe it for their ordinary fewell to burne, and doe ſell it to the Saxons and other Dutch, their next neighbours. *Timæus* accorded with him, ſaue only that he would haue the ſaid Iſland to be called *Baltia. *Philemon* was of this mind, that Amber would neuer flame if it were ſet on fire. *Niceas* would haue vs conceiue, that it ſhould be a certaine juice or humour proceeding (I wot not how) from the raies of the Sun, and yet he maketh a reaſon thereof, imagining that the ſaid beames ſhould be K exceeding hot toward the Sun-ſetting, which rebounding from the earth, leaue behind them a certain fatty ſweat in that part of the Ocean; and the ſame afterwards is caſt vp with *tides into the Sea-ſhore and ſands of the Germanes. He writeth alſo, that in Ægypt it is engendred after that manner, where it is called Sacal: as alſo among the Indians, who make more account of it than of frankincenſe. Semblably in Syria, the women (ſaith hee) make wherues of it for their ſpindles, where they vſe to call it Harpax, becauſe it will catch vp leaues, ſtraws, & fringes hanging to cloaths. *Theophraſtus* reporteth, that the ocean caſteth vp amber at tides, to the capes of the Pyrenæan hils: which *Xenocrates* alſo beleeued, who is the laſt that hath written of Amber, and ſuch like. There is at this day liuing, *Aſarubas*, who hath reported, that neer vnto the Atlanticke ſea there is the lake Cephiſis, which the Mores cal *Electrum, and the ſame being chafed L and heat throughly by the Sun, caſteth vp from the mud thereof, Amber, floting aloft vpon the water. *Meneſias* maketh report of a place in Affrike named Cicyone, as alſo of the riuer Crathis, which floteth out of a lough and runneth into the ſea; in which lake or lough, there liue certain kinds of foule which he names Meleagrides and Penelopes: herein amber is engendred (by his ſaying) after the ſame manner as before I ſhewed in the lake Electris. *Theomenes* ſaith, that neere vnto the great Syrtis where the hort-yard and garden of the Heſperides lieth, a man ſhall find, that amber falleth out of the ſaid garden into a lake beneath, and then the virgins attending vpon that place, come ordinarily to gather it. *Cteſias* affirmeth, that among the Indians there is a riuer called Hypobarus, (which word ſignifies as much, as bearing all good veſſels) it runneth out of the North and falleth into the Eaſt ſea, neere vnto a wild mountain, full of trees M that beare amber. He addes moreouer & ſaith, that thoſe trees are called Aphytacoræ, by which denomination is meant, moſt delightſom ſweetnes. *Mithridates* writeth, that toward the coaſt of Germany there lies an Iſland, and the ſame named Oſericta, repleniſhed with woods of Cedar trees yeelding Amber, which runs from them into rocks. *Xenocrates* is of opinion, That Amber was

* or Banomania.

*æſtibus, ſome read æſtatibus, i. in Summer.

* or rather *Electris*, as appeareth a little after.

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A was called in Italy not only Succinum, but alſo Thieum: wheras the Scythians name it Sacrium (for there alſo it is engendred:) alſo he ſaith, that others think it is engendred in Numidia. But I wonder moſt at *Sophocles* the Tragicall Poët (a man who wrote his Poëſies, with ſo graue and lofty a ſtile, and liued beſides in ſo good reputation; being otherwiſe borne at Athens, and deſcended from a noble houſe, emploied alſo in the managing of ſtate affaires, as who had the charge & conduct of an army) that he ſhould go beyond al others in fabulous reports, as touching Amber: for he ſticketh not to auouch, That beyond India it proceedeth from the tears that fall from the eies of the birds Meleagrides, wailing & weeping for the death of *Meleager*. Who would not maruell, that either himſelfe ſhould be of that beliefe, or hope to perſuade others to his opinion? For what child is there to be found ſo ſimple and ignorant, who will beleeue, that
B birds ſhould keep their times to ſhed tears euery yere ſo duly, and eſpecially ſo great drops and in ſuch quantitie, ſufficient to engender Amber in that abundance? Beſides, what congruitie is there, that birds ſhould depart as far as to the Indians and beyond, for to mourn and lament the death of *Meleager* when he died in Greece? What ſhould a man ſay to this? Are there not many more as goodly tales as theſe, which Poëts haue ſent abroad into the world? And their profeſſion of Poëtry, that is to ſay, of fayning and deuiſing fables, may in ſome ſort excuſe them. But that any man ſhould ſeriouſly and by way of hiſtory deliuer ſuch ſtuffe, as touching a thing ſo rife and common, brought in euery day in abundance by merchants which were ynough to conuince ſuch impudent lies, is a meere mockerie of the world in the higheſt degree; a contempt offered vnto all men, and argueth an habit of lying, and an impunitie of that vice intollerable.
C

Chap. III.

¶ *Of the true originall and generation of Amber. The ſundry kinds thereof. The exceſſe and ſuperfluitie of people, as touching Amber. The medicinable properties that it affourdeth. Of Lincurium, and the vertues that it hath in Phyſicke.*

D Vt to leaue Poëts with their tales, and to ſpeake reſolutely and with knowledge, of Amber, knowne it is for certain, That engendered it is in certaine Iſlands of the Ocean Septentrionall, where it beateth vpon the coaſts of Germany: and the Almanes call it *Gleſſum. And in very truth, in that voyage by ſea which *Germanicus Cæſar* made into thoſe parts, our countrymen named one of thoſe Iſlands Gleſſaria, by reaſon of the Amber there found; which Iſland the Barbarians call Auſtrauia. It is engendred then in certaine trees, reſembling Pines in ſome ſort, and iſſueth forth from the marrow of them, like as gum in Cherrie trees, and roſin in Pines. And verily, theſe trees are ſo full of this liquor, that it ſwelleth & breaketh forth in abundance: which afterwards either congealeth with the cold, or thickeneth by the heat of Autumn. Now if at any time the ſea riſe by any extraordinary tide, and catch any of it away out of the Iſlands, then verily it is caſt a ſhore vpon the coaſt of Germany, where it is ſo apt to roule, that it ſeemeth (as it were) to hang and ſettle lightly vpon the ſands, whereby it is the more eaſily gotten.
E And for that our anceſtours heretofore in old time beleeued that it was the juice of a tree, they called it therfore in Latine Succinum. That it coms from trees of a Pine kind, may appeare by this, That if a man rub it, he ſhall find the ſmel of Pine-wood: alſo, for that when it burneth, the flame, and fume (both) reſembleth that of Torch-wood. The Germanes make great traffick thereof, aud bring it into Pannonia, and ſo from thence vnto vs, through our prouinces [of Iſtria and Venice;] for from Pannonia, the Venetians firſt (who confine next vpon the marches thereof, and whom the Greekes call Heneti) receiued it by way of merchandiſe in the maritime port townes along the Adriatick ſea, and ſo by that means brought it into name and requeſt: which ordinary traffick may be the reaſon which gaue occaſion to the foreſaid tale that runes of the Po and the Poplars about it, that ſhould weep Amber. And euen at this day the country dames
F of Lumbardie, and thoſe parts beyond the Po, vſe to weare faire carkaners & collers of Amber-beads to adorne themſelues eſpecially, and in ſome ſort for the health alſo of their bodies: for perſuaded they are, that it withſtands the inflammation of the Amygdales & other accidents of the throat and chawes: for that the people of that country are ſubject to *poghes vnder their throat, about thoſe fleſhie parts neere vnto it, by reaſon of ſundry kinds of waters which breed thoſe

*For the perſpicuitie and brightnes like vnto glaſſe.

*This diſeaſe is called *Bronchocele* or *Hernia guttur.s*, ordinary in Sauoy and thoſe parts about Geneva.

thoſe infirmities. The foreſaid coaſt of Germany is almoſt ſix hundred miles from Carnuntum in Pannonia, and yet of late daies much frequented by merchants from all quarters. Certes, a Gentleman of Rome diſcouered thoſe parts, by occaſion that he was ſent thither by commiſſion from *Iulianus* (who had the charge vnder *Nero* for furniſhing of the ſolemne plaies and ſights of ſword-fencers) to buy vp good ſtore of amber. This gentleman I ſay ſurueied diligently al thoſe coaſts, & ſaw the maner of the whole traffick for that commodity, yea & brought into Rome ſuch plenty thereof, that the great nets and cordage (which for defence of the outſtanding and open gallerie within the Theatre were oppoſed againſt the wild beaſts, there to be baited and to fight) were buttoned & ſet out with Amber; the armour likewiſe, the bieres, & other furniture for burial of thoſe fencers which ſhould happen there to be killed, yea, & in one word, all the apparel and prouiſion for one day to the ſetting out of thoſe paſtimes and diſports, ſtood moſt of Amber. The greateſt piece of Amber that he brought ouer, weighed 13 pounds. Moreouer, it is held for certain, That it is to be found among the Indians. *Archelaus*, who ſometime reigned as king in Cappadocia, writeth, That from thence it is brought rude and vnclean, with pieces of bark ſticking within it: but the way to ſcoure and polliſh it, is to ſeeth it in the greaſe of a ſow that ſuckleth pigs. That it doth deſtil and drop at the firſt very clear & liquid, it is euident by this argument, for that a man may ſee diuers things within, to wit, Piſmires, Gnats, and Lizards, which no doubt were entangled and ſtuck within it when it was green and freſh, and ſo remained encloſed within as it waxed harder. Many kinds there be of amber. The white is moſt redolent and ſmels beſt: but neither that, nor yet thoſe pieces which are coloured like wax, be of any price. The high coloured Amber, namely that which is of a deepe yellow enclining to red, is much more eſteemed, and the rather if it be cleare and tranſparant, prouided alwaies that the glittering thereof be not too ardent. Commendable it is in Amber, and ſheweth it to be rich, if it repreſent fire in ſome ſort: but it muſt not be too too fiery. But the excellent Amber is that which is called Falernum, for the colour which it carrieth, reſembling the wine Falernum: and the ſame is clear and tranſparant, with a gay luſtre that pleaſeth & contenteth the eie very wel. And yet ſome there be, who delight more in that Amber which lookes with a mild yellow like to boiled and clarified hony. But this I am to giue you to vnderſtand, That there may be giuen vnto Amber what tincture or colour a man will: but commonly they vſe therto the ſuet of Kids and the root of Orchanet: and no maruaile, ſince that ſome haue deuiſed alſo to enrich it with a purple die. To come vnto the properties that Amber hath, if it be well rubbed and chafed between the fingers, the potentiall facultie that lies within, is ſet on work, and brought into actuall operation, wherby you ſhall ſee it to draw chaffe ſtrawes, dry leaues, yea, and thin rinds of the Linden or Tillet tree, after the ſame ſort as the loadſtone draweth yron. Moreouer, take the ſhauings ſcraped from Amber, and put them into lamp-oile, they will burne and maintaine light both longer and alſo more cleare than weekes or matches made of the very tire and beſt of flax. As touching the eſtimation that our delicates and wantons make thereof: Some there be, who for their pleaſure will giue more for a puppet or image made of Amber to the likenes and proportion of man or woman, be it neuer ſo little, than for the liuely and luſty body indeed of a tal man and valiant ſouldior. But what ſhould I ſay to ſuch? Certainly they deſerue to be wel chaſtiſed for their peruers iudgment, & one rebuke is not ſufficient. Yet can I hold better with them who take pleaſure in other things, & me thinks they haue ſome reaſon therof: for Corinth veſſell, there is good cauſe that a man ſhould ſet his mind therupon, in regard of the ſingular temper of the braſſe, with ſome proportion of ſiluer and gold: in pieces of mettall ingrauen, enchaſed and emboſſed, the curious art and the witty deuiſe ſeen vpon the worke may well rauiſh the ſpirit of the buyer, and draw him on to giue a round price: Touching the cups made of Caſſidonie and Cryſtal, I haue ſhewed already, wherein lies their grace, and what may enamour a chapman and cauſe him to bid well and offer frankly for them: Faire pearles and goodly vniones are commended, for that our braue dames enrich their borders therewith, and ſet out theattire of their heads: gems and pretious ſtones adorne and beautifie our fingers: in ſum, there is no ſuperfluitie that we haue, but grounded it is either vpon ſome colourable vſe that wee may pretend, or els vpon ſome gallant ſhew that it makes: As for this Amber, I ſee nothing in the world to commend it; only it is a mind that folk haue to take affection to it, they know not wherfore, euen of a delicat and fooliſh wantonneſſe. And in truth, *Nero Domitius*, among many other fooleries and gauds wherein he ſhewed what a monſter he was in his life, proceeded ſo far, that he made

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A made a ſonnet in praiſe of the hair of the Empreſſe *Poppæa* his wife,which he compared to Amber,and as I remember,in one ſtaffe of his dittie he tearmed them Succina,i. Ambre:and from that time our dainty dames and fine ladies haue begun to ſet their mind vpon this colour, and haue placed it in the third ranke of rich tincture:whereby we may ſee there is no ſuperfluity and diſorder in the world,but it hath a pretence or cloake of ſome pretious name or other. And yet I will not diſgrace Amber too much: for why?there is ſome good vſe thereof in Phyſicke.But I muſt tell you againe,our women regard not that one whit;that is not it wherfore they take ſo great a liking to Ambre. True it is that a collar of Ambre beads worne about the neck of yong infants,is a ſingular preſeruatiue to them againſt ſecret poyſon, & a countercharme for witchcraft and ſorcerie.*Calliſtratus* ſaith,That ſuch collars are very good for all ages, and namely to
B preſerue as many as weare them againſt fantaſticall illuſions and frights that driue folke out of their wits:yea and Amber,whether it be taken in drinke,or hung about one,cures the difficulty of voiding vrin. This *Calliſtratus* brought in a new name to diſtinguiſh yellow Ambre from the reſt,calling it Chryſelectrum,which is as much to ſay as gold Ambre. And in very truth, this Amber is of a moſt louely and beautifull colour in a morning. This property it hath beſides by it ſelfe,that it will catch fire exceeding quickly,for if it be neer it,you ſhal ſee it will ſoon be of a light fire. He ſaith of this yellow Amber,that if it be worn about the neck in a collar,it cures feauers,and healeth the diſeaſes of the mouth,throat,and jawes: reduced into pouder and tempered with hony and oile of roſes,it is ſoueraign for the infirmities of the ears. Stamped together with the beſt Attick hony,it makes a ſingular eie-ſalue for to help a dim ſight:pulverized,
C and the pouder thereof taken ſimply alone,or els drunk in water with maſticke,is ſoueraign for the maladies of the ſtomacke. Furthermore, Amber is very proper to falſifie many pretious ſtones which are commended for their perſpicuity and tranſparent cleareneſſe;but ſpecially to counterfeit Amethyſts, by reaſon that I haue already ſaid, it is capable of any tincture that a man would giue it. The froward peeuiſhnes of ſome Authors who haue written of Lyncurium, enforceth me to ſpeak of it immediatly after Amber:for ſay that it be not Electrum or Amber, as ſome would haue it, yet they ſtand ſtiffely in this,that it is a pretious ſtone;mary they hold, that it commeth from the vrine of an Once,by reaſon that this wild beaſt ſo ſoon as it hath piſſed,couereth it with earth,vpon a ſpight and enuie to man,that he ſhould haue no good therby. They affirme moreouer, That the Once ſtone or Lyncurium is of the ſame colour that Ambre
D ardent which reſembleth the fire,& that it ſerueth well to be engrauen:neither by their ſaying doth it catch at leaues only and ſtrawes,but thin plates alſo of braſſe and yron:and of this opinion was *Dimocles* and *Theophraſtus*. For mine own part I hold all to be mee re vntruths:neither do I think, that in our age there hath been a man who euer ſaw any pretious ſtone of that name. Whateuer alſo is written as touching the vertues medicinable of Lyncurium,I take them to be no better than fables,namely,that if it be giuen in drink,it wil ſend out the ſtone of the bladder: if it be drunk in wine,it will cure the jaundiſe preſently,or if it be but carried about one,it wil do the deed: but ynough of ſuch fantaſticall dreames and lying vanities, and time it is now to treat of thoſe precious ſtones,wherof there is no doubt made at al,and to begin with thoſe that by al mens confeſſion are moſt rich and of higheſt price. In which diſcourſe I wil not proſecute
E this theame only,but alſo(for to aduance the knowledge of poſterity in thoſe things that may profit this life) I meane eftſoones to haue a fling at Magicians for their abhominable lies and monſtrous vanities,for in nothing ſo much haue they ouerpaſſed themſelues as in the reports of gems & pretious ſtones, exceeding the tearms and limits of Phyſick,whiles vnder a color of faire and pleaſing medicines,they hold vs with a tale of their prodigious effects and incredible

Chap. IIII.

¶ *Of Diamants and their ſundry kinds. Their vertues and properties medicinable. Of Pearles.*

F THe Diamant carieth the greateſt price,not only among pretious ſtones, but alſo aboue al things els in the world:neither was it knowne for a long time what a Diamant was,vnleſſe it were by ſome kings and princes,and thoſe but very few. The only ſtone it is that we find in mines of mettal. Very ſeldome it is,and thought a miracle to meet with a diamant in a veine of gold,& yet it ſeemes as though it ſhould grow no where but in gold. The writers of antient time

time were of opinion that it was to be had in the mines only of Æthiopia,and namely between G
the temple of *Mercurie* and the Iſland Meroë,affirming moreouer,that the faireſt Diamant that
euer was found, exceeded not in bigneſſe a Cucumber ſeed, whereunto alſo it was not vnlike in
color. But in theſe daies there be known ſix ſorts of Diamants. The Indian is not engendred in
mines of gold,but hath a great affinitie with Cryſtall:and groweth much after that manner; for
in tranſparent and cleere color it differeth not at all,neither yet otherwhiles in the ſmooth ſides
and faces which it carrieth between ſix angles,pointed ſharpe at one end in manner of a top,or
els two contrary waies lozengewiſe(a wonderful thing to conſider)as if the flat ends of two tops
were ſet and joined together:and for bigneſſe it hath bin knowne of the quantity of an Hazel-
nut or Filbard kernill. The Diamants of Arabia be much like to the Indian,only they are leſſe;
they grow alſo after the ſame order:As for the reſt,they are of a more pale and yellow color,te- H
ſtifying out of what country and nation they come, for they breed not but in mines of gold,and
thoſe the moſt excellent of all others. The triall of theſe Diamants is vpon a ſmiths Anuill:
for ſtrike as hard as you will with an hammer vpon the point of a Diamant,you ſhall ſee how it
ſcorneth all blowes,and rather than it will ſeeme to relent,firſt flieth the hammer that ſmiteth,
in pieces,and the very anuill it ſelfe vnderneath cleaueth in twaine. Wonderful and inenarrable
is the hardneſſe of a Diamant:beſides it hath a nature to conquer the fury of fire, nay,you ſhall
neuer make it hot, doe what you can: for this vntameable vertue that it hath, the Greekes haue
giuen it the name Adamas. One of theſe kinds the ſaid Greekes call Cenchron, for that it is as
big ordinarily as the millet ſeed: a ſecond ſort they name Macedonicum,found in the mine of
gold neer Philippi; and this is that Diamant, which for quantity is compared to the Cucum- I
ber ſeed: After theſe,there is the Cyprian Diamant,ſo called becauſe it is found in the Iſle Cy-
prus;it enclineth much to the color of braſſe,but in caſes of Phyſick (as I will ſhew anon) moſt
effectual:Next to which I muſt raunge the Diamant Sideritis,which ſhines as bright as ſteele,
whereupon it tooke that name:in weight it paſſeth the reſt,but in natue it is farre vnlike; for it
will not abide the hammer but breake into pieces; beſides,another adamant will pierce it, and
bore a hole quite through it:which alſo may be ſaid of the Cyprian Diamant:ſo as to ſpeak in
one word,theſe two laſt rehearſed,may go only vnder the name of Diamants:for otherwiſe they
are but baſtards,and not true Diamants. Moreouer,as touching the concord and diſcord that is
between things naturall,which the Greekes call Sympathia and Antipathia(whereof I haue ſo
much written in all my bookes,and endeauoured to acquaint the readers therewith) in nothing K
throughout the world may we obſerue both the one & the other more euidently,than in the Di-
amant: For this inuincible minerall(againſt which neither fire nor ſteele,the two moſt violent
and puiſſant creatures of natures making,haue any power,but that it checketh & deſpiſeth both
the one and the other) is forced to yeeld the gantelet and giue place vnto the bloud of a Goat,
this only thing is the means to break it in ſunder,howbeit care muſt be had, that the Diamant
be ſteeped therin whiles it is freſh drawn from the beaſt before it be cold:& yet when you haue
made all the ſteeping you can, you muſt haue many a blow at the Diamant with hammer vpon
the anuill:for euen then alſo,vnleſſe they be of excellent proofe & good indeed,it wil put them
to it,and break both the one & the other:But I would gladly know whoſe inuention this might
be to ſoake the Diamant in Goats bloud, whoſe head deuiſed it firſt, or rather by what chance L
was it found out & known? What conjecture ſhould lead a man to make an experiment of ſuch
a ſingular and admirable ſecret,eſpecially in a goat,the filthieſt beaſt one of them in the whole
world? Certes I muſt aſcribe both this inuention, & all ſuch like to the might and benificence
together of the diuine powers: neither are we to argue & reaſon how and why nature hath done
this or that? ſufficient it is that her will was ſo,& thus ſhe would haue it. But to come againe to
the Diamant,when this proofe taketh effect to our mind, ſo that the Diamant once crack, you
ſhall ſee it break & crumble into ſo ſmall pieces,that hardly the eie can diſcerne the one from
the other. Wel, lapidaries are very deſirous of Diamants & ſeek much after them:they ſet them
into handles of yron,& therby they with facility cut into any thing,be it neuer ſo hard. More-
ouer,there is ſuch a naturall enmity between Diamants & Loadſtones,that if it be laid neer to M
piece of yron,it will not ſuffer it to be drawn away by the loadſtone:nay,if the ſaid loadſtone be
brought ſo neere a piece of yron, that it haue caught hold thereof, the Diamant, if it come in
place,will cauſe it to let goe the hold. The diamant hath a property to fruſtrathe malicious ef-
fects of poyſon;to driue away thoſe imaginations that ſet folke beſides themſelues;& to expell

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A vaine feares that trouble and poſſeſſe the mind: which is the reaſon that ſome haue called it Anachites. *Metrodorus Scepſius* affirmeth, That the Diamant is found in Germanie and the Iſland Baltia, wherein Amber is ingendred: but as far as euer I could reade, he is the onely man that ſaith ſo. This Diamant alſo of Almaine he preferreth before thoſe of Arabia, howbeit no man doubteth that he lieth ſtoutly. After the precious Diamants of India and Arabia, wee in theſe parts of the world eſteem moſt of pearles: but as touching them, I haue written ſufficiently in my ninth booke, where I diſcourſed of ſuch matters as the ſeas do yeeld.

CHAP. V.

B ¶ *Of the Emeraud, and the ſundry ſorts thereof. Of greene gems or precious ſtones, and ſuch as be light ſome and cleare all thorow.*

EMerauds for many cauſes deſerue the * third place: for there is not a colour more pleaſing to the eie. True it is, that we take great delight to behold greene herbes and leaues of trees, but this is nothing to the pleaſure wee haue in looking vpon the Emeraud, for compare it with other things, be they neuer ſo green, it ſurpaſſes them all in pleaſant verdure. Beſides, there is not a gem or precious ſtone that ſo fully poſſeſſeth the eie, and yet neuer contenteth it with ſacietie. Nay, if the ſight hath bin wearied and dimmed by intentiue poring vpon any thing els, the beholding of this ſtone doth refreſh and reſtore it againe, which lappidaries well know, that cut and ingraue fine ſtones; for they haue not a better means to refreſh their eies than the Emeraud, the mild green that it hath doth ſo comfort and reuiue their wearines and laſſitude. Moreouer, the longer and farther off that a man looketh vpon Emerauds, the fairer and bigger they ſeem to the eie, by reaſon that they cauſe the reuerberation of the aire about them for to ſeeme green: for neither Sun nor ſhade, ne yet the light of candle, cauſeth them to change and loſe their luſtre: but contrariwiſe, as they euer ſend out their own raies by litle & little, ſo they entertain reciprocally the viſual beams of our eies; and for all the ſpiſſitude and thickneſſe that they ſeeme to haue, they admit gently our ſight to pierce into their bottome: a thing that is not ordinary in water. The ſame are ſhaped many times hollow, thereby to gather, vnite, and fortifie the ſpirits that maintain our eie-ſight. In regard of theſe manifold pleaſures that they ſhew to our eies, by generall conſent of all men ſpared they are, and lappidaries be forbidden expreſſely to cut and ingraue them: and yet the Emerauds of Scythia and Ægypt be ſo hard, as they cannot be pierced or wounded by any inſtrument: moreouer, when you meet with a table-Emerauld hold the flat face therof againſt any thing, it will repreſent the ſaid obiect to the eie, as well as a mirroir or looking glaſſe. And verily, *Nero* the Emperor was wont to behold the combats of fencers and ſword-plaiers in a faire Emeraud. Now this firſt & formoſt is to be noted, that of Emerauds there be 12 kinds. The faireſt and richeſt of all other, be thoſe of Tartarie and called they are Scythick, of the nation Scythia from whence they came: and in truth, there be none fuller and higher in colour or haue fewer blemiſhes: and looke how far Emerauds goe beyond other precious ſtones, ſo far do the Scythian Emerauds ſurpaſſe all others. The Bactrian Emerauds, as they are the next neighbors, ſo they come neareſt in goodneſſe to the Scythicke: found theſe be in chinks and joints (as it were) of rocks in the ſea, and gathered (by report) about the dog daies, when the Northeaſt Eteſian winds do blow: for then they glitter and ſhine within the earth that is grown about them, by reaſon that the ſaid winds (which in thoſe parts are ſtrong) remoue the ſand away from them, and cauſe them to be ſeen: but theſe by report be far leſſe than thoſe of Scythia. In a third place follow the Emerauds of Ægypt, & they be gotten out of certain craggy hils and cliffes about Coptos, a towne in high Ægypt. As for all others, they be found ordinarily in braſſe mines: that is the reaſon that the Emerauds of the Iſle Cypros be held for chiefe and principall among thoſe nine: and yet their ſingular commendation lieth not in any clear or mild colour that they haue, but their onely grace conſiſteth herein, that they ſeeme moiſt with a certaine fattineſſe, and on which ſide ſoeuer a man do view them, they reſemble the liquid water of the ſea, for tranſparent they be and ſhining withall, that is to ſay, they ſend out a colour of their own, & withal, through their perſpicuity receiue the penetrant beams of our eies. It is reported, That in the ſame Iſle Cypros, about the ſepulchre of *Hermias* a pety king there, and neare vnto the ſea ſides where were pooles and ſtewes of great fiſhes kept to be ſalted, there ſtood in old time a lion of marble, in the head of which Lion were ſet certain faire Emerauds in ſtead of

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* To wit, after Diamants and Pearles.

eies,

eyes, looking oppoſit into the ſea: but they glittered and pierced ſo deep into the water, that the G
Tunies vpon that coaſt were affraid therat, & fled from the nets and other inſtruments that the
fiſhers laid to take them withall: who maruelled a long time at this ſtrange accident: but in the
end knowing what the matter was, they changed the eies of the foreſaid Lion, and remoued the
Emerauds. But requiſit it is that I ſhould ſet down the imperfections & defaults of Emerauds,
for that a may may ſo eaſily be deceiued and beguiled in the choiſe of them: Firſt therefore all
Emerauds be ſubject to ſome blemiſhes, and yet as we obſerue in men, they haue their parti-
cular defects by themſelues, according to the nation where they be found; for thoſe of Cypres
haue not an vniforme verdure, but you ſhal ſee in one and the ſame ſtone a mixture (as it were) of
diuerſe greenes, more or leſſe in ſundry parts: neither keep they euer that rich greene after one
tenour, which we ſee in the Scythian Emerauds. Ouer and beſides, in ſome you ſhall meet with H
a cloud or ſhadow running between, which doth impeach the cleare color: neither is the ſame
commendable, if it be ouer bright. Theſe faults are the cauſe that Emerauds are diſtinguiſht by
diuers names and kinds: for ſome be darke, and thoſe be called blind: others be thicke, without
any clearneſſe or perſpicuity at all. And ſome again are diſcommended and rejected for diuers
little clouds, which alſo are different for the ſhade aforeſaid: for this little cloud wherof I ſpeak,
is a fault in whiteneſſe, when as in viewing of an Emeraud it looketh not green all through, but
either the eieſight meeteth with ſome white in the way, or elſe at leaſtwiſe in the bottom. And
thus much as touching the faults in colour. But in the very body and ſubſtance of the Emeraud
there be others obſerued, to wit, when there appear either hairy ſtreaks, or congealed ſpecks re-
ſembling cornes of ſalt, or els ſpots of lead. Next to the Cyprian Emerauds, there is reckoning I
made of the Æthyopian, which as king *Iuba* mine authour doth report, are found in Æthyopia,
from Coptos in Ægypt three daies journy: Theſe be of a chearefull and liuely green, but hardly
ſhal you find any of them clear, pure, and of one colour. Among theſe, *Democritus* raungeth the
Hermionian Emerauds and the Perſian: of which, the former ſeeme to ſwell out as if they were
emboſſed and fattie withall: the Perſian are not tranſparent, & yet of a pleaſant greene and vni-
forme, contenting the eie-ſight well enough, though it cannot pierce and enter into them; and
much like they be to the glowing eies of cats & panthers, for we may perceiue them to glitter
and ſhine, and yet they be not tranſlucent. Theſe Emerauds in the Sun loſe their luſtre and be-
come dim, but in the ſhade they ſhine gallantly, yea, and caſt from them their beautifull raies
farther than any other. And yet the general fault in al theſe, is this, if they ſhew the color either K
of gall or the skie; likewiſe if in the Sun they glitter and ſhine cleare, but yet appear not green:
Theſe imperfections are perceiued ordinarily and moſt of all in the Atticke Emerauds, found
in ſiluer mines at a place called Thoricos, yet are not theſe ſo groſſe and fattie as others, and al-
waies they ſeeme more beautifull a far off than neer at hand: theſe are ſubject ordinarily to the
fault called Plumbago, that is to ſay, in the Sun they looke with a leaden hew: Moreouer, this
peculiar quality they haue by themſelues, that ſome of them wear & decay with age, inſomuch
as by little and little their liuely green decaieth; and beſides, in the Sun they loſe their luſtre.
After the Atticke Emerauds, thoſe of Media be accounted the greeneſt, and otherwhiles they
reſemble the green Saphire. Theſe ſeem to be ful of waues, and to containe within them diuers
Capillorum, not catulorum. ſhapes and figures of many things, as for example, poppie heads, birds, wings, and finnes, *locks L
of haire, and ſuch like. Such Emerauds as are not found naturally greene, may be made better
and receiue their perfection, by waſhing them in wine & oile. In one word, there is not a greater
Emeraud to be found than thoſe of Media. As touching Carchedonian Emerauds, I wot not wel
whether they be now out of al requeſt & knowledge, ſince their mines of braſſe haue failed them;
and yet were they alwaies (at their beſt) the ſmalleſt of all others, and bare the loweſt price: the
ſame were brittle & eaſie to be broken, their color alſo was not ſettled but vncertain & change-
able, reſembling for all the world the greene feathers in Peacockes tailes, or the downe of Pige-
ons neckes; as a man held and turned them one way or other they ſhined more or leſſe, being
otherwiſe of themſelues full of veines and skales. A ſpeciall fault there was, wherto theſe Eme-
rauds were ſubject, which lapidaries called Sarcicon, that is to ſay, a certain carnoſity or fleſhi- M
neſſe incident vnto gems. Gathered they were in a certaine mountaine neere vnto Carchedon,
which thereupon was named Smaragdites. K. *Iuba* hath left in writing, That the Emeraud cal-
led Cholos, ſerued the Arabians much in their buildings: for to adorn and beautifie their hou-
ſes, they were wont to encloſe & ſet the ſame in the wals like as the white marble, which the Æ-

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A gyptian name Alabastrites. He reporteth moreouer, that there be many other Emerauds neere by, taken forth of the mountain Taygetus in Laconia, and those therefore be named Laconick, and much like they are to those of Media. He speaketh likewise of others in Sicilie. Reckoned there is in the ranke of Emerauds, a certain gem brought from Persia, named Tanos; howbeit of an vnpleasant green it is, and foule within: as also the stone Chalcosmaragdos, that comes out of the Isle Cyprus, which hath in it certain veins of brasse that trouble the green colour. *Theophrastus* reporteth, that he hath read in the books and records of the Ægyptians, That a king of Babylon sent as a present to one of their kings, one entire Emeraud foure cubits long and three broad. Also, that there had bin within the temple of *Iupiter* among them, an Obeliske made of foure Emerauds, which obelisk notwithstanding was forty cubits long, & caried in bredth four
B cubits in some places, and two in others. He addeth moreouer, that while he wrot his historie, there was at Tyros within the temple of *Hercules*, a pillar standing of one Emeraud, vnlesse haply it were some bastard Emeraud; for such (quoth he) are found, and namely in Cyprus there was seen naturally growing, a stone, whereof the one halfe was a plaine Emeraud, the other a Iasper, as if the humor had not bin fully transformed and conuerted into an Emeraud. *Apion* the Grammarian, syrnamed * Plistonices, wrot not long before, who hath left recorded, That there remained still within the labyrinth of Ægypt, the gyant-like image of their god *Serapis* nine cubits tall, and of one entire Emeraud.

* Contentious, or Victorious.

Moreouer, many are of opinion, that Berils are of the same nature that the Emeraud, or at leastwise very like: from India they come as from their natiue place, for seldome are they to be
C found elsewhere: lapidaries by their art and cunning know how to cut them into six angles, and to polish them smooth; for otherwise their lustre, which is but sad, would be dull and dead indeed, vnlesse it were quickned and reuiued by the repercussion of these angles: for be they polished neuer so much any other way, yet haue they not that liuely glosse which those six faces giue them. Of these Beryls those are best esteemed which carry a sea-water greene, and resemble the greennesse of the sea when it is cleare. Next to them are those called Chrysoberylli: these be somewhat paler, and their lustre tendeth to the colour of gold. A third kind there is approching neere to this, but that it is more pale (howsoeuer some do think it is no kind of Beril, but a gem by it self) and this they call Chrysoprasos. In a fourth degree are placed the Berils named Hyacinthizontes, because they incline somwhat to the Iacinth. And in a fift such as are much of a
D sky colour, wherupon they are named Aëroides. After them be the Beryls Cerini, for that they seem like wax: then the Oleagini, that is to say, of an oile colour. And in the last place bee the Crystalline, which are white, and come very neere to crystals. All the sort of these Beryl stones haue these faults, to wit, white hairy streaks or lines in them, yea and other filthy ordure; being of themselues without these imperfections apt to shed their colour, which soon fadeth. The Indians take a wonderfull pleasure in long Beryls, and commend them for the only stones & gems in the world; as if they cared not to be set in gold, but chose rather to be worne without it: and in truth in that regard their maner is to bore holes through them, and then to file them vp into chains and collars with haires of elephants: howbeit when they meet with some excellent Beryls indeed, which are come to their absolute goodnesse and perfection, they think it not good
E to pierce such, but presently they tip them with gold, that is to say, they set vnto their heads certain knobs in maner of bosses which comprehend and inclose the same. And in very truth, they delight to cut their Berils into long rolls or pillastres in manner of cylindres, rather than after the maner of other gems, because their principal grace and commendation lies in their length. Some are of opinion, that the Beryl groweth naturally cornered and with many faces; and they hold those Beryls to be richest, which being bored through along, haue their white pith taken forth, for to giue them a better lustre of gold put vnto them; by the reuerberation wherof the ouermuch perspicuitie of the stone may seem more corpulent and in some sort corrected. Ouer and aboue the faults already noted, subiect they are also to those imperfections which be incident to the Emerauds, yea and besides to certain specks called Pterygiæ. It is thought, that Be-
F ryls be found likewise in these parts of the world, to wit, about the kingdome of Pontus. As for the Indians, after that crystall was once found out, they deuised to sophisticat and falsifie other gems therewith, but Beryls especially.

Chap. VI.

¶ Of the pretious ſtone Opalus, and all the ſundry kindes. The faults in them, and the means to try which be good. Alſo diuers ſorts of other gems and pretious ſtones.

THe ſtones called Opales differ little or nothing otherwhile from Beryls, and yet the ſame ſomtimes are nothing at all like them, neither is there a gem that they will giue place to, vnleſſe it be the Emeraud: India is the only mother of them: lapidaries therfore & thoſe who haue written books of pretious ſtones, haue giuen vnto them the name and glory of greateſt price; but eſpecially for the difficultie in finding them out and chuſing them, which is inenarrable: for in the Opal you ſhal ſee the burning fire of the Carbuncle or Ruby, the glorious purple of the Amethyſt, the greene ſea of the Emeraud, and all glittering together, mixed after an incredible manner. Some Opals cary ſuch a reſplendant luſtre with them, that they are able to match the braueſt and richeſt colours of painters; others repreſent the flaming fire of brimſtone, yea and the bright blaze of burning oile. The Opal is ordinarily as big as a filberd Nut. And here comes to my mind an hiſtorie among vs as touching the Opal, worth remembrance: for there is at this day to be ſeene one of theſe Opals, for the which gem *Marcus Antonius* proſcribed and outlawed one *Nonius* a Senator of Rome, the ſonne of that *Struma Nonius* (at whom the ſtomack of *Catullus* the Poet did riſe ſo much, ſeeing him as he did, ſit in a ſtately chaire of Ivory called Curulis) and grandfather to that *Servilius Nonianus* whom I my ſelfe haue ſeene Conſul. Now the ſaid Senator when he was driuen to fly vpon this proſcription, took no more of all the goods which he had, but onely a ring wherein this Opall was ſet, which (as it is well known) had bin valued ſomtime at 20000 Seſterces. But as the cruell and inordinate appetite of *Antony* (who for a jewell onely outlawed and baniſhed a Roman Senator) was wonderfull on the one ſide, ſo the peeuiſhneſſe and contumacie of *Nonius* was as ſtrange on the other ſide, who was ſo far in loue with that gem which coſt him his proſcription, and rather than to part with it ſuffered himſelfe to be turned out of houſe and home: and yet the very wild beaſts are better aduiſed than ſo, who are content to bite off thoſe parts of their bodies and leaue them behinde for the hunters, ſeeing themſelues in danger of death for them. In the Opall there be obſerued alſo diuers blemiſhes and imperfections, as wel as in other ſtones; namely, if the colour reſemble the floure of that herb which is called Heliotropium, *i.* Turnſole: alſo if it look like cryſtal or haile, likewiſe if there be a ſpot comming between in maner of a grain or kernel of ſalt: if it be rough in handling, or if there be certain ſmall pricks or ſpots repreſented to the eies: neither is there any pretious ſtone that the Indians can counterfeit ſo well by the meanes of glaſſe, as this; inſomuch as hardly a man ſhall diſcerne the naturall Opal from the falſe, when they haue done withall. But the only triall is by the Sun, for if a man hold an Opall betwixt his thumbe and finger, againſt the beams of the Sun, if it be a counterfeit, he ſhall find thoſe diuers colours which ſhewed therein, to run all into one and the ſame tranſparent colour, and ſo to reſt in the body of the ſtone; whereas the brightneſſe of the true Opal eſtſoons changeth, and ſends forth the luſtre to and fro more and leſſe, yea and the glittering of the light ſhineth alſo vpon the fingers. This gem, for the rare and incomparable beauty and grace that is in it, moſt Writers haue called Pæderos.

There is alſo another kind of Opalos apart by it ſelf, according to the opinion of ſome, who ſay it is called by the Indians Sangenon. It is ſaid that that there be Opals in Egypt and in Arabia, like as in the kingdom alſo of Pontus; but ſuch of all other beare the loweſt price. In Galatia likewiſe, and in the Iſles Thraſos and Cyprus: for albeit they haue the louely beautie of the Opalus, yet their luſtre is nothing ſo liuely and lightſome, and ſeldome ſhal you meet with any of them that is not rugged: their chief colours ſtand much vpon braſſe and purple; the freſh verdure of the greene Emeraud is away, which the true Opal doth participate. This is generally held, that they are more commendable which be ſhadowed as it were with the colour of wine, than delaied with the clearneſſe of water.

Thus far forth haue I written of gemmes and pretious ſtones which be eſteemed principall and moſt rich, according to the decree generally ſet downe and pronounced by our nice and

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A coſtly dames: for we may conclude vpon this point more certainely, going by their ſentence, than grounding vpon the iudgement of men: for men (kings eſpecially and great men) make the price of each gem according to their ſeuerall fancies. *Claudius Cæſar* the Emperour made no reckoning of any but the Emeraud and the Sardonyx, and theſe ordinarily he wore vpon his fingers: but *Scipio Africanus* (as ſaith *Demoſtratus*) tooke a liking to the Sardonyx before him, and was the firſt Roman that vſed it; and euer ſince, this gem hath bin in great requeſt at Rome: in regard of which credit, I will raunge it next to the Opall. In old time the Sardonyx, as may appeare by the very name, was taken for the pretious ſtone which ſeemed to be a * Cornalline vpon white, that is to ſay, as if the ground vnder a mans naile were fleſh, and both together tranſparent and cleare: and in very truth, the Sardonyx of India is ſuch, according to *Iſmenias*, *De-*
B *moſtratus*, *Zenathemis*, and *Sotacus*. As for theſe two laſt named, they verily doe name all the reſt that are not cleare and ſhew not through them, Blind Sardonyches, ſuch as the Arabian be; and theſe haue carried away the name of Onyx, without any mention or apparence at all of the Sarda or Cornalline: and theſe ſtones haue begun of late to be knowne and diſtinguiſhed by their ſundry colours; for ſome of them haue their ground blacke or much vpon azure and the naile of a mans hand: for it hath bin generally thought and beleeued, that ſuch hath a tincture of white, and yet not without a ſhew of purple, as if the ſaid white enclined to a vermillion or Amethyſt. *Zenathemis* writeth, that theſe ſtones were not ſet by among the Indians; notwithſtanding otherwiſe they were ſo large and bigg, as thereof they made ordinarily ſword handles and dagger hafts: and no maruaile, for certaine it is, that in thoſe parts land flouds comming
C downe with a ſtreame from the hils, haue diſcouered ſuch and brought them to light. He ſaith alſo, that they were at the beginning highly accepted of in thoſe parts; for that there is not in maner a ſtone engrauen, that will imprint the ſeale vpon wax cleanly without plucking the wax away, but it: and through our perſuaſions, the Indians alſo grew into a good conceit of them, and tooke pleaſure in wearing the ſame: and verily, the common people of India make holes through them, and ſo weare them enfiled as carkans and collars about their neckes only. And hereupon it commeth, that thoſe are taken to be Indian Sardonyches or Cornallines which be thus bored through. As for the Arabicke, excellent they are thought to be which are environed with a white circle, and the ſame very bright and moſt ſlender: neither doth this circle ſhine in the concauitie or in the fall of the gem, but glittereth onely in the very boſſes; and beſides,
D the very ground thereof is moſt blacke. True it is, that the ground of theſe Sardoins is found in the Indian ſtones to reſemble wax or horne, yea within the white circle, in ſo much as there is a reſemblace in ſome ſome ſort of a rainbow, by means of certain cloudie vapors ſeeming to proceed from them: and verily the ſuperficiall face of this ſtone is redder than the ſhels of Lobſters. As touching thoſe that be in colour like to hony or lees (for this is taken to be an imperfection and fault in Cornallies) they be all rejected; likewiſe if the white circle that girdeth it about ſpread and do not gather round and compact together: ſemblably, it is counted a great blemiſh in this gem, if it haue a veine of any other colour (but that which is naturall) growing out of ſquare: for the nature of this ſtone is ſuch, like as of al things els, not to abide any ſtrange thing to diſturbe the ſeat therof. There be alſo Armeniacke Cornallines, which in all reſpects
E elſe are to be liked, but for the pale circle that claſpeth them.

By occaſion of this ſtone Sardonyx, I am put in mind for the names ſake, to write of the gem Onyx alſo: for notwithſtanding there be a ſtone ſo called in Carmania (which is the Caſſidoin) yet there goeth alſo a gem vnder that name. *Sudines* ſaith, that the pretious ſtone Onyx hath a white in it reſembling the naile of a mans finger: it hath likewiſe (quoth hee) the colour of a Chryſolith, otherwiſe called a Topaſe, of a Cornalline alſo, and a Iaſper. *Zenathemis* affirmeth, that the Indian Onyx is of diuers and ſundry colours; to wit, of a fiery red, a blacke, a * horne grey; hauing alſo otherwhiles certaine white ſtrakes or veines in faſhion of eies compaſſing it about; and in ſome of them you ſhall ſee white ſtreaks or veins likewiſe to goe croſſe and by as betweene them. *Sotacus* maketh mention moreouer of an Arabian Onyx, but it differeth from
F others (ſaith hee) in this reſpect, That the Indian Onyx hath certaine ſparkes in it, and the ſame enuironed and compaſſed about with white circles either ſingle or many fold, farre otherwiſe than the Indian Sardonyx; for in the former, the white ſeemed to be pointed prickes, but in theſe they bee compleat circles. As for the Arabian Onyches, there bee found of them blacke, with white circles. *Satyrus* reporteth furthermore, that the Indian Onyx is fleſhie; that in one

* *Sarda.*

* Whereof haply they be called *Cornallines.*

part it resembleth a Rubie otherwise called a Carbuncle,in another a Chrysolith,and an Amethyst,yet he maketh no account of such:but the true Onyx indeed (quoth hee) hath very many veins,and those of sundry colors;garnished also it is with circles as white as milk:and albeit the colors of the veins be inexplicable as a man casteth his eie vpon them seuerally,yet meeting as it were all in one,they make a good consort and yeeld a lustre most pleasing to the sight. Now that I haue treated of the Onyx,I must not deferre to say somewhat also of the nature of Sarda, which maketh the other half of the stone Sardonyx,and so by that means(as it were by the way) to discourse of those gems that are of an ardent and fiery colour. G

Chap. VII.

¶ *Of Carbuncles or Rubies,and their sundry kindes: of their defaults and imperfections: of the meanes to trie them. Of other precious stones resembling the fire.* H

AMong these red gems,the Rubies otherwise called Carbuncles, challenge the principall place,and are esteemed richest:they haue their name in Greeke of the * likenesse vnto fire, and yet fire hath no power of them,which is the reason that some call them Apyroti. As touching their kinds: there be Rubies of India,and Rubies of the Garamants, which carry the name also of Carchedonij,*i.* Carthaginian,in regard of excellency, by reason of the wealth and puissance of the city Carthage the Great. In this ranke, some doe place the Ethyopian Rubies and the Alexandrian,which are found indeed among the cliffes of the hill Orthosia, but trimmed & brought to their perfection by the* Alabandians. Moreouer,in all sorts of Rubies,those are taken for the male which shew a quick red more fire-like than the rest; and contrariwise female,such as shine not so bright but after a faint manner. In the male it is obserued, that some seeme to flame more cleare and pure,others are darker and blacker: there be againe that shine brighter than the rest,yea,and in the sun giue a more ardent and burning lustre:but the best simply be those which are called Amethystizontes,that is to say,that in the end of their fire resemble the blew violet color of the Amethyst. The next in goodnesse to them,are those which they call Syrtitæ;and such do glitter and shine of their own nature:by reason whereof, they are discouered soon whersoeuer they lie, by the reuerberation of the Sun-beams. As touching the Indian Rubies,*Satyrus* saith,they are not found cleare,but for the most part foul;howbeit,after they be scoured,their brightnesse is most fiery. He affirmeth moreouer,that the Ethyopian Rubies are greasie and shine not out,but seeme to haue a fire burning within as if it were infolded in some thing about it. *Callistratus* holdeth opinion,that if a Carbuncle or Rubie be laid vpon a thing,it ought to yeeld certain white clouds,in the edges and extremities of the glittering that it makes;but if it be held vp or hung in the aire,it flameth & burneth out fire red:and hereupon it is,that most men haue called it the white Carbuncle; like as they haue named those Indian Rubies * Lithizontes,which shine more faintly & with a browniſh or duskish flame. As for the Carchedonian Rubies,*Callistratus* saith,they be far lesse than others;wheras of the Indians some are so big,that being made hollow they wil contain the measure of one sextar. *Archelaus* writes, that the Carchedonian rubies be blacker than others to see too; but if they be quickened as it were with fire or Sun,or be held bowing forward,they are more ardent and fiery than any other: the same in a shady house,seeme purple;in the open aire,flaming; against the raies of the Sun, sparkling:he auoucheth moreouer,that the fiery heat thereof is so actual,that if a man seal with them,though it be in a shadowie and coole place, they will melt the very wax that is stamped therewith. Many authors haue written,that the Indian Rubies be whiter than the Carchedonian;and contrarie to the nature of the Carchedonian, if they be bended forward, they lose much of their viuacitie,and be dimmer and more dull by that means: also, that in the Carchedonian Rubies which be male,there are seene certain raies as it were of starres twinckling within;wheras the female contrariwise,sparckle all their fire without-forth: that the Alabandines be more darke and blackish than others,and withall rough in hand. It is said moreouer,that there bee certaine stones growing in Thracia,of the same colour that Rubies, and which will not be chafed and made hot in the fire. *Theophrastus* writeth,that there bee Rubies found about Orchomenus in the country of Arcadie,as also in the Isle Chios: and as for the Orchomenian, they be of a blacker kinde,and serue to make mirroirs of. The Troezenian Rubies (by his saying) are I K L M

of

* For the Greeks call them πυρῶπτες.

* These are called yet by Lapidaries, Alabandines, or Almādines.

* As one would say, more like some ordinary stone than a precious gem,

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A of diuers colours and ſpotted with white ſpecks comming in among: and the Corinthian Rubies be more pale and whiter than the reſt. *Bocchus* writeth, that there be brought Rubies from Marſils and Lisbon in Portugall; but with much adoe and great difficultie they are found, by reaſon of the clay wherein they be inlapped, in certain deſarts and forreſts burnt with the Sun. In ſum, there is not a harder thing than to diſcern theſe ſundry kinds of Rubies one from another; they are ſo eaſie to be counterfeited and falſified by the art and skill of lapidaries & goldſmiths, who haue a caſt to lay ſome foile vnder, to make them for to ſhine and glitter like fire. Men ſay, that the Æthyopians haue a deuiſe to ſteep their duskiſh and dark Rubies in vineger; for in 14 daies they will be pure and gliſter, yea, and continue ſo 14 moneths after. There is a way to counterfeit Rubies with falſe glaſſe ſtones, which they will make ſeem Rubies as like as is poſſible; but the
B grinding vpon a mill ſoone diſcouereth the fraud, like as it doth in any other artificiall and ſophiſticat gems whatſoeuer; for their matter is more ſoft and brittle withall than the fine and pure ſtones indeed: alſo the falſe Rubies are detected by the hardneſſe of the powder that is fetched from them, & the weight; for theſe glaſſe Rubies be farre lighter: and otherwhiles a man ſhall ſee in theſe falſified Rubies certaine little riſings in manner of bliſters or bladders, which ſhine like ſiluer. Moreouer, there is found in Theſprotia a certaine minerall Rubie called Anthracitis, reſembling coles of fire: but whereas ſome authors haue written, that ſuch grow in Liguria, I take it to be a meere vntruth, vnleſſe haply in times paſt ſuch might be found there. It is ſaid alſo, that there be of theſe kind of Rubies, which are compaſſed about with a white veine, and their colour is fierie as wel as of the reſt before-named: but this peculiar property they haue
C by themſelues, That being caſt into the fire, they ſeeme dead and doe loſe their luſtre: contrariwiſe, if they be well ſprinckled and drenched with water, they ſeeme to glow, yea and to flame out againe.

There is a ſtone much like to this, called Sandaſtros, which ſome name Garamantites, growing among the Indians in a place likewiſe ſo named. It is engendred alſo in that part of Arabia which regardeth the South Sun. The chiefe grace and commendation of Sandaſtros, is to bee cleare, and to haue certaine drops as it were of gold like ſtars ſhining within, that is to ſay, alwaies in the body of the ſtone, and neuer in the coat or out ſide: in regard of which ſtarre-like ſpecks, there is attributed ſome religious matter to theſe ſtones, for that they repreſent in ſome ſort to them that behold them, the ſeuen ſtars called Hyades, both in number and alſo in order
D and maner of diſpoſition: which is the reaſon, that the wiſe men of Aſſyria named Chaldæi, doe obſerue them with much deuotion. Moreouer, theſe Sandaſtres are diſtinguiſhed by the ſex, for the male ſeeme to haue a more ſad and deep colour, and by the reuerberation of their fire within giue a tincture to thoſe things that they touch or lie neer to: and the Indian verily of this kind are ſaid to dim the eie-ſight. As for the female Sandaſtres, they carry not ſuch an ardent ſhew of fire, but are more pleaſant to the eie, as beeing attractiue rather than burning. Some writers there be, who prefer the Arabian Sandaſtres before the Indian, ſaying that the Arabian are like to the Chryſolithes that be ſomewhat ſmokie. As for *Iſmenias*, he affirmeth, that the Sandaſtres are ſo tender that they cannot bee poliſhed: in a great errour therefore bee they who call this
E ſtone Sandareſos: but all authors herein accord, That the more ſtars do make apparence in them, ſo much better is the price. Furthermore, this is to be noted, that the neareneſſe in name, otherwhiles is the cauſe of errour; as we may ſee by Sandaſer, which *Nicander* called Sandaſerion, others Sandaſeron: and in truth, this Sandaſer ſome take to bee Sandaſter; and the Sandaſter indeed, Sandareſos; which is found likewiſe amongſt the Indians, bearing the name of the place where it groweth: in colour it reſembleth an apple, or elſe greene oile: and in truth, no account is there made of it.

As touching Lychnites, ſo called for the reſemblance that it hath to the blaze of a candle lighted, which giueth a ſingular grace to it, and maketh it very rich, it may be ranged wel among theſe fierie and ardent ſtones: found this is about Orthoſia and throughout all Caria and the places adjoining; but the moſt excellent come from the Indians, which ſome haue thought and
F ſaid to be the milder kind of Carbuncle or Rubie balais. In a ſecond degree of worth and account vnto this Lychnites, is Ionis, ſo called of the March violet which in colour it doth very much reſemble.

Ouer and beſides, I find other ſorts of Rubies different from thoſe aboue named; for ſome of them hold of the freſh and glorious purple of Lac, others ſtand as much vpon the Scarlet or

Crimsen: which being chafed in the sun, or otherwise set in a heat by rubbing with the fingers, G
will draw to them chaffe, strawes, shreads, and leaues of paper. The common Grenat also of Carchedon or Carthage, is said to do as much, although it be inferior in price to the former. These Grenats are found vpon the hils amongst the Nasamons, and as the inhabitants are of opinion, are ingendred by means of a certaine diuine dew or heauenly showre: found they are twinckling against the moon-light, and especially when she is in the full. In times past, all the trafficke of the Grenats was at Carthage, whereupon they took the name of Carchedon. But *Archelaus* saith, that there be of them in Egypt also about the city Thebes; howbeit, such are brittle, full of veins, and like to a cole going out and ready to die. I find, that drinking cups haue been made of this stone, as also of the former, called Lychnites. Generally, all rubies be very hard for to be cut; and this ill quality they haue, That they neuer do seale cleane, but ordinarily plucke some H
of the wax away with the signet: contrariwise, the Cornalline or Sarda, signeth very faire without any of the wax sticking to it: this Sarda giueth part of the name to the Sardonyx: the gem
* A city, whereupon it tooke the name, and not of Sardinia the Isle, as some thinke. it selfe is very common, found first about * Sardis; but in truth, the principall is that which commeth from about Babylonia, out of certaine quarries of stone, where it was found sticking within another stone in manner of the heart. After this manner, it is said, that the Persians had sometime minerall Cornallines, but the mine now doth fade: howbeit, there be of them in many other places besides, to wit, in Paros and Assos. The Indians send vnto vs three seuerall kindes, to wit, the red, the fatty (called therupon Demium) & the third which ordinarily haue a ground of siluer-foil laid vnder them to giue a lustre. The Indian Sardes or Cornallines are transparent and carry a through light with them: the Arabian be more thicke: there be found of them also I
about Egypt, but they haue commonly a ground of gold-foile. These gems likewise are distinguished by the sex, for the male haue a more bright and orient lustre; the female are not so resplendent, but shine as it were through a grosse & fatty matter. In old time, there was not a pretious stone in greater request, than the Cornallin: & in truth, *Menander* & *Philemon* haue named
* μάσεγ δὲ τὴ παῤῥάδ᾽ ἢ σμάραγδος *Menander in Pedio*: speaking of the Emeraud and Cornaline. this stone in their * Comœdies, for a braue and proud gem: neither can we find a precious stone that maintaineth the lustre longer than it, against any humor wherin it is drenched; and yet oile is more contrary to it than any other liquor. To conclude, those that be of the colour of honey, aie reiected for nought; howbeit, if they resemble the colour of earthen pots, they be worse than those.

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Chap. VIII.

¶ *Of the * Topaze, and the sundry kinds of it. Of * Callais: and of other greene pretious stones not transparent.*

* Some take it for our Chrysolith.
* It is thought to be our Turquois,

THe Topaze or Chrysolith, hath a singular green colour by it selfe, for which it is esteemed very rich; and when it was first found, it surpassed all others in price: they were discouered first in an Isle of Arabia called Chiris, wherein certaine rouers (Troglodytes) being newly landed, after they had bin driuen thither by tempest and vrged with famine, began to feed vpon herbs and dig for roots, and by that meanes met with the Topaze stone: This is the opinion of *Archelaus*. But K. *Iuba* reporteth, that there is an Island within the red sea called Topazas, distant L
from the continent 300 stadia, the which is oftentimes so mistie, that sailers haue much ado to find it, whereupon it tooke that name: for in the Troglodytes language (saith he) Topazin is as much to say, as to search or seek for a thing. It is said, that the first that tooke a liking vnto the stone, was queene *Berenice* the mother of *Ptolome* the second, and that by the meanes of *Philemon* (lieutenant generall to her son in those countries) who presented one of them to the said queen. Of which Chrysolit, *Ptolomæus Philadelphus* K. of Egypt, caused the statue of his wife *Arsinoë* to be made, 4 cubits long; and in the honour of the said queene his wife, dedicated it in a chappell named the Golden temple. The moderne writers do report, that there be found of these Chrysolits about Alabastrum a towne in Thebais, a prouince in high Egypt; and two kinds they make thereof, to wit, Prasoides, and Chrysopteros: which later commeth neare to that golden Berill M
called Chrysoprasson, for that the colour thereof resembleth fully the juice of Porret; and of all precious stones it is the largest: this property it hath aboue all other gems, That only it comes vnder the file to be polished for noble men; wheras all other be scoured by the grindstones comming out of Naxos. This stone will weare with vsage.

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A This ſtone in regard of colour may be accompanied with the Turquois called Gallais, for a certain green it hath inclining to yellow. It is found beyond the fartheſt parts of India among the inhabitants of the mountaine Caucaſus, to wit, the Phicarians and Aſdates; they grow vnto a very great bigneſſe, but the ſame is fiſtulous and full of filth. The pureſt and richeſt of this kind be thoſe of Carmania. But in both countries they be found in ycie cliffes hardly acceſſible, where you ſhall ſee them bearing out after the manner of boſſes like vnto eies: they ſtick to thoſe crags & rocks ſo lightly, that a man would ſay that ſaw them, how they grew not naturally out of the rocke, but were onely ſet too by mans hand. And for that the place where they doe grow, is ſo ſteep that a horſeman is not able to ride vp to them, and becauſe the people of that country be loth to climb ſo high with their feet, being otherwiſe acquainted ordinarily to the
B horſeback, beſides, in regard of the danger in venturing to climb for them, therefore they reach them a far off with ſlings, and ſo driue them down, with all the hard moſſe about them: and in very deed, a commodity this is of great reuenue, & beſides, the rich men know not the like jewell to weare about their necks. By a collar or chaine of theſe Turquoiſes, men are judged wealthy more or leſſe: and this is the glory that they take from their childe hood, to be able to ſay, that thus many Turquoiſes they haue pulled and caſt downe by that manner of ſlinging. And yet in the practiſe of this feat, all ſped not alike; for ſome you ſhall haue to throw downe many faire Turquoiſes at the firſt fling; and many for it again who weary their armes and courſe after them, & yet cannot get one Turquois. This (I ſay) is the maner of chaſing or hunting Torquoiſes: and when they be gotten, they muſt come into the lapidaries hands to be cut and formed to
C what faſhion you will: and in truth they be otherwiſe brittle and eaſie to be wrought vpon. The beſt Turquois is that which approcheth neareſt to the graſſe green of an Emeraud, howbeit, all the grace that they haue, ſeems to come from outward help: being ſet in gold, they looke moſt beautifull, neither is there a precious ſtone that becommeth gold better. The fairer that a Turquoiſe is, the ſooner looſeth it the colour by oile, ointment, or wine: contrariwiſe, the baſer that they be, the better do they hold their own and maintain their luſtre. Neither ſhal you meet with any precious ſtone more eaſie to be falſified and counterfeited with glaſſe, than a Turquoiſe. Laſtly, ſome writers affirme, That they be found in Arabia, within the neſt of certain birds called Melacoryphi, which is as much to ſay as blacke-cops.

As touching green ſtones, there be many more kinds: but of the baſer ſort we reckon one of a
D Porret colour, which we cal Praſius, and the firſt kind of it is all green; whereas the ſecond hath vpon the green, certaine red ſpots like bloud, which cauſe it to ſeem vnpleaſant to the eie, and rough in hand: the third is greene, but yet parted with three white ſtrakes.

The ſtone Chryſopraſius, *i.* the ſea water or Horehound green, is preferred before the other: in ſome ſort it reſembleth the green juice of a Leek, but it declineth ſomwhat from the Topaze, as if it were between it and gold. Some of theſe are ſo great and big, that there be drinking cups made thereof, after the faſhion of boats: but pilaſtres or round ſtaues in manner of cylindres or rolls, are very quickly framed of ſuch ſtones. Theſe be found among the Indians: like as another ſtone, which is called * Nilios: A weak luſtre it hath, and will not long continue, for looke but a while wiſtly vpon it, you ſhall perceiue it ſoone to fade. *Sudines* ſaith, That there be of them
E found in Syverus, a riuer that paſſeth through the countrey of Attica: in colour it reſembleth a ſmokie Topaze, or otherwhiles that of a hony colour. K. *Iuba* reporteth, That it is bred in Æthyopia, and namely about the bankes and ſides of a riuer which we call Nilus, whereupon it commeth to be named Nilios.

* Thought to be the Almain Chryſolite.

There is a ſtone called Molochites, for that the greene colour which it hath, commeth neare vnto a Mallow, and is more dim than the reſt whereof I haue ſpoken. Commended it is highly in ſignets to ſeale faire: and beſides it is ſuppoſed to be by a naturall vertue that it hath, a countercharme to preſerue little babes and infants from all witchcrafts and ſorceries.

A kind of Iaſper likewiſe there is of a greene colour, and the ſame oftentimes is tranſparent: and although there be many other ſtones go beyond it in richeſſe, yet it retaineth ſtill the anti-
F ent glory and honor that it had. A gem it is, common to many other countries: India yeeldeth it vnto vs like to an Emeraud. That of Cyprus is very hard, and of a greyiſh fatty colour, betweene white and greene. The Perſians ſend vs a Iaſper like vnto the skie or aire, and thereupon it is called Aërizuſa: and ſuch a one is that which commeth from the Caſpian hills. The Iaſper about the riuer Thermodoon is blew as Azure. In Phrygia you ſhall haue it purple: in

Cappa-

Cappadocia partly purple and partly blew, but no kind of luſtre hath it at all. Out of Amiſes, a city in Pontus, we haue Iaſpers brought, much like to the Indian: and the Iaſper of Chalcedon is muddy and troubled. But it were better to ſet downe their degrees in goodneſſe, rather than to ſtand vpon the countries from whence they are tranſported. The beſt Iaſper then is that eſteemed which ſtandeth much vpon purple or Lac: the ſecond is incarnat, or of a roſe colour: the third reſembleth the Emeraud in greenneſſe. To euery one of theſe ſeuerall kindes, the Greekes haue impoſed ſignificant names. And in a fourth place the Greeks haue ranged another called Borea, like to the morning skie in the time of Autumne; and this may well be called Aerizuſa. There is a Iaſper in colour like to the Sarda, *i.* the Cornalline, as alſo reſembling much the violets: there be as many more ſorts behind, which I haue not touched, but ſubject they be al to blemiſhes, as namely being blew or like to Cryſtal or *waterie fleam. Laſt of all, we haue a Iaſper called Terebinthizuſa by the Greekes, but as I take it very vnproperly, as if it were compounded of many gems of one and the ſame kind; and therefore the better ſort of ſuch are incloſed within a circle of gold, yet ſo as they be open both aboue and beneath, neither is any thing but the edges only compaſſed with gold. The faults or imperfections of the Iaſper be theſe, If the luſtre indure not long, notwithſtanding it glitter a far off; alſo if it ſhew a ſpot like vnto a graine of ſalt; beſides all other which I haue already named in the reſt. Moreouer, Iaſpers may be falſified by the meanes of glaſſe: and this is ſoone detected, namely, when they caſt a reuerberation of their luſtre outwardly, and hold it not within. To conclude with the ſtones called Sphragides, they are not much vnlike to the Iaſpers. And this gift they haue aboue all the reſt, that they make the beſt ſignets, and ſeale faireſt.

πορφυριζουσα, ῥοδιζουσα. σμαραγδιζουσα.

*τῇ μίξει, which Pliny inconſiderately hath turned Myxus.

CHAP. IX.

¶ *Sundry kinds of Iaſpers.*

OF diuers ſorts of Iaſpers, al the Eaſt part (by report) are moſt affected to that which is like the Emeraud, and they carrie it ordinarily about them as a countercharme. The ſame if it be compaſſed round about with one white croſſe line in the midſt, is called Grammatias; if with many, Polygrammos. And here by the way I can hold no longer, but my mind ſerues me very well to challenge the Magitians, who haue giuen it out, That this ſtone is very good for thoſe to haue about them who are to make ſome publick ſpeech or ſolemne Oration to the people. Moreouer, we haue a Iaſper called Onycho-puncta & Iaſponyx, which ſeemeth to incloſe a cloud within it, & in ſome ſort to reſemble the ſnow. This Iaſper is faſhioned like to a Star, and beſet with diuers reddiſh points: a man that ſaw it, would ſay it were a kind of Megarian ſalt. There is beſides a Iaſper which ſeemeth as if it were infected with ſmoake, and this is called Capnias. Concerning the bigneſſe of the Iaſper, I haue ſeene one of them nine inches long, which ſerued for to repreſent the viſage of *Nero* the Emperour, ſtanding ready armed with a cuirace.

As touching the precious ſtone Cyanos, I muſt ſpeake of it apart, notwithſtanding I haue of late mentioned and applied it to one of the names of the Iaſper, to wit, that with the blew colour. The beſt Cyanos is that of Scythia; the next commeth from Cypros: and in the laſt place we are to reckon the Ægyptian. This ſtone is very apt to be counterfeited, and eſpecially by tincture: ihe inuention whereof is aſcribed to a king of Egypt, who was highly honoured for beeing the firſt that gaue a colour to it. Diſtinguiſhed theſe ſtones alſo are by the ſex, for there be of them both male and alſo female. Otherwhiles you ſhall perceiue a certaine pouder in them as it were of gold, and yet not like to that of Saphires: for the Saphire alſo glittereth with marks and pricks of gold. Saphires are likewiſe ſometime blew: mixed alſo with purple, although that be very ſeldome: the beſt are among the Medes, yet in no place be they tranſparent. Moreouer, they are vntoward for to be cut and engrauen, by reaſon that the lapidarie ſhall meet with certaine hard knots of Cryſtall comming here and there betweene. The bleweſt are thought to be the male.

Next after theſe, I am to range thoſe ſtones that bee of a purple colour, and ſuch as decline ſomewhat from them, and yet ſeem to depend of them: of which, I muſt place in the firſt ranke as principall, the Amethyſts of India: and of them there bee found in a part of Arabia, which bordereth vpon Syria, and is called Petræa: alſo in Armenia the leſſe, in Ægypt, and in France: but

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A but the fouleſt and of moſt baſe account,be thoſe of Thaſos & Cyprus. The reaſon of the name Amethyſt,is generally thought to be this,that notwithſtanding it approch very neer to the colour of wine,yet before it throughly taſt therof,it turneth into a March Violet color: and that purple luſtre which it hath,is not altogether fiery,but declineth in the end to the color of wine. There is not one of theſe Amethyſts,but it is tranſparent with a violet colour. Eaſie they are alſo to be cut and ingrauen. And as for the Indian Amethyſts,they haue the full and rich colour of the Phœnicean purple die;and in truth,the diers wiſh that they may but giue a tincture anſwerable to it. Verily this purple colour is pleaſing to the eie, neither doth it ſtrike or pierce the ſight ſo forcible as the Rubies do. In a ſecond rank are to be ranged the Amethyſts inclining to the Iacinths;the color of which ſtone the Indians call Sacon,like as the gem it ſelfe Sacodian:
B Now if the color be more weak and feeble,they call it Sapinos:and this Amethyſt in a third degree is named Paranites in the marches of Arabia, which name it taketh of the people. The fourth kind reſembleth the colour of wine. The fift declines neer to Chryſtall,ſaue only that toward the bottom thereof,it ſtandeth of a certaine whitiſh purple: but this is nothing eſteemed, for the excellent Amethyſt indeed being held vp in the aire, ought to ſhine in manner of a Ruby,and to carry a certain purple luſtre,mildly participating of the incarnat roſe color: Such Amethyſts as theſe ſome chuſe rather to call Pæderotes,like as a kind of Opale; others, Anterotes:many giue them the name of *Venus* gems,for the great grace that they haue,& decent louelineſſe which they ſeem to ſhew both in faſhion and colour,eſpecially without-forth. The Magitians,as vain herein as in all other things,ſeem to bear vs in hand that they haue a ſpecial ver-
C tue to withſtand drunkenneſſe,wherupon they ſhould be called Amethyſts:neither ſtay they ſo, but tel vs,that if the name of the Moon and the Sun be ingrauen in them and ſo worn about the neck hanging,either with the hairs of a Cynocephalus head,or els ſwallows feathers,they are a ſoueraigne remedy againſt charms and ſorceries that be practiſed, with poiſoning. Nay they would make vs beleeue that there is a way to vſe them,which wil cauſe men to be gracious with princes who haue any negotiation with them,and that by the means thereof they ſhal find eaſie acceſſe to their preſence,and fauor in their eies. Alſo,by their ſaying, they are of force to auert haile and ſuch like diſtemperature of the weather, yea, and to turn away Locuſts,ſo there bee a charm in maner of a praier ſaid withall,the form whereof they alſo do preſcribe & ſhew:and no maruell;for they haue promiſed the like of Emerauds,if there were inchaſed in them the forme
D either of Ægles,or the flies named Beetils. In ſetting down which toies and vanities, they ſhew well enough in what contempt they haue mankinde, and how they are diſpoſed to mocke the world.

It followeth now by good order to ſpeak of the Iacinths,which,albeit they differ much from Amethyſts in ſome reſpect,yet in luſtre they approch very neare:and this is only the difference between them,that the braue violet colour,which in the Amethyſt is ful and rich, in the Iacint is delaied and weaker. The Iacint alſo at the firſt ſight is pleaſant and acceptable,but the louely beauty therof vaniſheth away before it haue giuen a man enough. And ſo far is it off from contenting the eie fully and ſatisfying the pleaſure therof,that it fades ſooner than the dainty flour of that name,*i*. Hyacinthus,ſo quickely doth the luſtre paſſe away, in manner before it come to
E the eie. Æthyopia furniſheth vs with Iacinths & Chryſolithes both,which are tranſparent and carry the colour of gold:howbeit thoſe of India bee preferred before them; they of Bactriana likewiſe,if they be not ſpotted and flecked with diuers colors. The worſt of all others,be the Arabian:for they be not only skewed in colour,but alſo foule and troubled:and look what radiant luſtre they haue,interrupted it is with a cloud of ſpots:and if any chance to be clear otherwiſe, yet a man that looketh on them,would ſay they were full of their owne duſt. The beſt are thoſe, which being laid to gold,cauſe it to looke whitiſh in manner of ſiluer, in compariſon to them. Such as be cleare and tranſparent, Goldſmiths vſe to ſet within a hoope of gold, ſo as they may be ſeen both beneath and aboue. The reſt had need of a ground of Latton foile to giue them a luſtre: howbeit,now adaies thoſe that are not skilfull lapidaries haue taken vp a cuſtome to cal
F ſome Iacints Chryſelectri,which incline to the color of a baſe gold called Electrum; the which in a morning are more beautifull and glorious to the eie,than all the day after. Thoſe Iacinths that come from Pontus,are knowne by their lightneſſe:ſome of them be hard and of an Orange red;others be ſoft and foule. *Bocchus* mine author reports, That they be found in Spaine alſo, in that place where he ſaith they ſink pits for to leuel water, and out of which the peaſants doe

take

take forth cryſtal. He affirmeth alſo, That he hath ſeen a*Chryſolith of twelue pound weight. G
*or Citrine Iacinth.
Moreouer, there be certain Iacinths which haue a white veine comming between, and thoſe are called Leucochryſi. And of this kind ſome be named Capniæ, becauſe they be ſmokie. You ſhall find of them like vnto glaſſe beads, and yet of a ſhining yellow in manner of Saffron. And verily falſe Iacinths there be counterfeited by glaſſe ſo artificially, that a man ſhall hardly diſcerne them by the eie: howbeit handle and feele them, you ſhall ſoone find the deceit; for the fine Iacints indeed are colder naturally than thoſe that be counterfeit. Among theſe Iacints, I may raunge wel ynough thoſe ſtones which are called Melichryſi, which ſhew as if cleare hony ſhone through gold. Theſe we haue from India: but of all other they are moſt ſubject to iniurie and will ſooneſt breake. The ſame country yeeldeth alſo a gem called Xyſtion, whereof there is ſuch plentie, that the very common people do weare them. H

If we ſhould ſpeake of white ſtones, the principall of them all is the gem named Pæderos; And yet conſidering that vnder this name there paſſe other* fair & beautiful ſtones (ſuch a prerogatiue hath the word to ſignifie ſome excellencie of louelines) there may be queſtion made, how it can be properly vſed for one gem, or one colour; yet ſurely there is a kinde of pretious ſtone by it ſelfe called Pæderos, and the ſame worth the looking on; and there ſeem to meet together a skie color, and the ſame in his manner greeniſh vpon a cleare and tranſparent Cryſtal: accompanied theſe be with a purple and a certain yellow and bright gold colour of Muskadel, and the ſame is alwaies the laſt colour that appeareth outwardly and giueth the luſtre: and yet a man that beheld this ſtone, would ſay that the head thereof were crowned with a chaplet of purple: and as it appeareth to haue theſe colours confounded all together, ſo it ſeemeth as if I euery one had a ſeueral luſtre by it ſelfe. A more pure and clearer gem there is not againe: comfortable to the head & pleaſing to the eie. The beſt ſimply of this kind we haue from the Indians, who call it Argenon. In a ſecond degree to it is that of Ægipt, where it is called Senites. Of a third ſort there be in Arabia, but thoſe are rough. Thoſe of Natolia and the kingdome of Pontus, are not ſo radiant and quicke as the others: and yet from Galatia, Thracia, and Cyprus, we haue ſuch as be more feeble than they. If you would know what faults be incident to theſe Pæderotes particularly: they cary otherwhiles a languiſhing luſtre; troubled they be with vnnaturall colours; and generally ſubject they are to all the defects and imperfections of others.

*Of which name there is Opalus & the Amethyſt.

In the ſecond place of white gems, is * Aſteria to be counted: a wonderfull propertie it hath in Nature, for which it deſerues to be chiefe; for that it keepeth encloſed within a certain light K
*Gira ſole.
in manner of the apple in the eie: which according as a man doth hold or turne, hee ſhall ſee how it will ſend and transfuſe it from the owne place; one would thinke that it walked within and ſhifted from place to place. And the ſame, if it be oppoſed againſt the beames of the Sun, caſteth forth bright and white raies of the owne, in manner of a ſtarre, whereupon it tooke the name Aſterias: and very hard it is to be engrauen. Thoſe which come out of India be preferred before them of Carmania.

In like manner a white pretious ſtone there is called Aſtrios, approaching neer to Cryſtall: this is engendred among the Indians and along the coaſts of Pallene: From the verie centre within, there ſhineth a kind of ſtar in manner of a full Moone in the height of her brightneſſe. Some giue this reaſon of the name, that being held againſt any ſtars, it receiueth from them a L
light and ſendeth the ſame from it againe in manner of beams. And they hold that the beſt be in Carmania, and there is not another gem againe leſſe ſubject to blemiſhes and imperfections than it. As alſo that a worſe kind thereof is called Ceraunias: and the worſt of all other reſembleth the blaſe or flame of lampes and candles.

As touching Aſtroites, many make great account of it: and ſuch as haue written more diligently thereof, doe report, That *Zoroaſtres* hath highly commended it and told wonders thereof in art Magicke.

Sudines ſpeaketh of another gem called Aſtrobolos, and ſaith it is like vnto a fiſh eie, and caſteth forth white glittering raies againſt the Sunne.

Among white pretious ſtones may be reckoned that which they call Ceraunia, which is apt M
to receiue light and luſtre both from Sunne and Moone and other ſtarres. It ſelfe looketh like Cryſtall cleare, howbeit, the luſtre that commeth from it ſeemeth to be of a blue Azure color: and Carmania is the natiue place therof. *Zenathemis* confeſſeth, That it is a white gem, and hath within a ſtarre-like fire, which ſeemeth to run too and fro and change place, according as a man turneth

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A turneth it. He affirmeth alſo, that the foreſaid Ceraunię will become dul and duskiſh; which if they be ſoked for certain daies together in vineger and ſal-nitre, will recouet their light and conceiue a new fire in maner of a ſtar, which will continue for ſo many months as they lay daies infuſed, & after that loſe their luſtre again. *Sotacus* hath ſet down two kinds more of Ceraunia, to wit, the black and the red, ſaying, that they reſemble halberds or ax heads. And by his ſaying, the black, ſuch eſpecially as be round withall, are endued with this vertue, that by the means of them cities may be forced, and whole nauies at ſea diſcomfited; and theſe (forſooth) hee called Betuli, whereas the long ones be properly named Ceraunię.

It is ſaid there is one more Ceraunia yet, but very geaſon it is, and hard to be found, which the Parthian Magitions ſet much ſtore by, and they only can find it, for that it is no where to be
B had but in a place which hath bin ſhot with a thunderbolt.

Next after the Ceraunia, there is a ſtone named Iris: digged out of the ground it is in a certain Iſle of the red ſea, diſtant from the city Berenice 60 miles. For the moſt part it reſembleth Cryſtal; which is the reaſon that ſome haue termed it the root of Cryſtall. But the cauſe why they call it Iris is, That if the beams of the Sun ſtrike vpon it directly within houſe, it ſendeth from it againſt the wals that be near, the very reſemblance of a rainbow both in form and colour, and eftſoons it will change the ſame in much variety, to the great admiration of the beholders. For certain it is known, that ſix angles it hath in manner of Cryſtal; but they ſay that ſome of them haue their ſides rugged, and the ſame vnequally angled, which if they be laid abroad a-
C gainſt the Sun in the open aire, do ſcatter the beams of the Sun that light vpon them to & fro; alſo that others do yeeld a brightneſſe from themſelues, and thereby illuminat all that is about them. As for the diuers colours which they caſt forth, it neuer hapneth but in a dark or ſhadowy place: whereby a man may know, that the varietie of colours is not in the ſtone Iris, but comes by the reuerberation of the wals. The beſt Iris is that which repreſents the greateſt circles vpon the wall, and thoſe which be likeſt to rainbowes indeed. There is another gem called Iris, like to this in all reſpects, but that it is exceeding hard. *Horus* ſaith, that if it be calcined and puluerized, it is a ſingular remedie againſt the biting of Ichneumones: alſo, that naturally it is to be found in Perſis.

Much like in form and ſhape to Iris, but not of the ſame effect, is there another ſtone called Zeros: a man that ſees it would take it to be a cryſtal, with a black ſtrake parting it ouerthwart.
D Thus hauing laid abroad the pretious ſtones & jewels which are diſtinguiſhed by ſundry kinds of principal colors, I wil proceed to the reſt, and diſcourſe of them alphabetically.

Chap. X.

¶ *Of certaine gems digeſted in order according to the Alphabet.*

THe Agat was in old time of great eſtimation, but now it is in no requeſt. Found it was firſt in Sicily neere to a riuer called likewiſe Achates, but afterwards in many other places. It exceeds in bigneſſe, and is full of varietie in colours, whereby it hath gotten many names;
E for called it is Phaſſachates, Cerachates, Sardachates, Hæmachates, Leucachates, and Dendrachates, as if the veins thereof reſembled a little tree. As touching the Agath, called Antachates, as it burneth you ſhall haue it to ſmel like vnto Myrrh. Alſo there is an Agath of a reddiſh colour reſembling coral, and thereupon called Coralloachates: and the ſame is beſet with certain ſpots or drops of gold in manner of the Saphyr: of which kind there is paſſing great plentie in Candy, where they call it the holy or ſacred Agat; for people are perſuaded that it auai-leth much againſt the ſting of venomous ſpiders and ſcorpions: which propertie I could very well beleeue to be in the Sicilian Agaths, for that ſo ſoone as Scorpions come within the aire and breath of the ſaid prouince of Sicilie, as venomous as they be otherwiſe, they die thereupon. The Agats likewiſe found among the Indians haue the ſame operation, and beſides doe re-
F preſent many other miracles; for you ſhall find imprinted naturally in them the forme and proportion of riuers, woods, and laboring horſes: a man ſhal ſee in them coaches and little Chariots or horſelitters, together with the furniture and ornaments belonging to horſes. As for phyſitians; they make their grinding ſtones therof for fine pouders. And it is holden for a truth, that only to behold and looke vpon an Agath, is very comfortable for the eies. If they be but held

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in the mouth, they quench and allay thirſt. The Phrygian Agats haue no part of green in them. G
Thoſe that be found about Thebes in Egypt are without red and white veins: howbeit, theſe alſo be effectuall againſt ſcorpions. Of the ſame credit likewiſe are the Cyprian Agats. Some hold opinion, that the ſingular grace and commendation of an Agat, is to be clear and tranſparent like glaſſe. There be found of them in Thrace, & about the mountain Oeta, in the hil Pernaſſus, in Lesbos and Meſſene, and ſuch haue floures imprinted in them like thoſe which grow in the highwaies and paths by the fields: alſo in the Iſland of Rhodes. But the Magitians obſerue diuers other ſorts; and as for thoſe that be like vnto a Lions skin, they haue the name to be powerfull againſt ſcorpions. In Perſia they are perſuaded, That a perfume of ſuch Agaths turneth away tempeſts and all extraordinarie impreſſions of the aire, as alſo ſtayeth the violent ſtreame and rage of riuers. But to know which be proper for this purpoſe, they vſe to caſt them H
into a cauldron of ſeething water; for if they coole the ſame, it is an argument they be right. but to be ſure that they may do good, they muſt bee worne tied to the haires of a Lions mane: for as touching thoſe Agates which ſeeme to haue the print of an Hyænes skin, the Magitions cannot abide them, as cauſing diſcord in an houſe. But they hold, That the Agath of one ſimple colour cauſeth thoſe wreſtlers to be inuincible who haue it about them. And a proof hereof they take by ſeething it in a pot full of oile, with diuers painters colours; for within one two houres after it hath ſiuered and boiled therein, it will bring them all to one entire colour of vermilion. Thus much of Achates or the Agath. The ſtone which is named Acopis reſembleth Sal-Nitre: hollow and light it is in manner of the pumiſh ſtone, howbeit ſpotted with golden
ſpots or drops in manner of ſtarres. Seeth this gently in oile, and therewith anoint the body, it I
riddeth away all wearineſſe and laſſitudes, if wee may beleeue the Magitions. The ſtone Alabaſtrites is found about Alabaſtrum a city in Egypt, and Damaſco in Syria, white of colour it is, and intermedled with ſundry colours. This beeing calcined with Sal-gem and reduced into pouder, is ſaid to correct a ſtinking breath and ſtrong ſauor of the teeth. In the geſiers of cocks there be found certaine ſtones, called thereupon Alectoriæ, which in ſhew reſemble Cryſtall, and be as big as beans. *Milo* that great Wreſtler of Crotone vſed to carry this ſtone about him, whereby he was inuincible in all the feats of ſtrength or actiuitie that hee tried, as Magitions would ſeem to perſuade vs. Androdamas is a ſtone of a bright colour like ſiluer, and in manner of a Diamant, ſquare, and alwayes growing in a table Lozenge-wiſe. The Magitions ſuppoſe,
that it tooke that name of repreſſing the anger and furious violence of men. As touching Ar- K
gyrodamas, whether it be the ſame or another ſtone, Authors haue not reſolued. Antipathes is a ſtone all blacke, and nothing at all tranſparent. You ſhall find whether it bee a true ſtone or no by ſeething it in milke, for no ſooner is it put in, but it cauſeth the milke to look like Myrrh. The Magitions would haue vs to thinke, That it is good againſt Witchcraft and eye-biting eſpecially. Arabica is paſſing like vnto Ivorie, and for Ivorie might it go, but that it is ſo hard, which bewraieth it to be a ſtone. It is thought, that as many as haue it about them ſhall finde eaſe of the paine of the ſinues. The ſtone Aromatites is thought principally to grow in Arabia, and yet it is found in Egypt about Pyræ: but whereſoeuer it is to be had, a hard ſtone it is, in colour and ſmell both reſembling Myrrhe: in which regard it is much vſed of queenes and
great ladies. Asbeſtos is ingendred within the mountaines of Arcadia, and is of an iron gray L
colour. As for Aſpilate, *Democritus* ſaith, that it is bred in Arabia, and of a fiery colour: which by his ſaying, ought to be tied with camels haire, and ſo hung faſt about them that be troubled with the ſchirroſities of the ſpleen: alſo (if he ſay true) it is found in the neaſt of certain Arabian birds. Another alſo of that name groweth there in the cape Leucopetra, but it is of a ſiluer colour, and glittereth withall: excellent to be worne about one againſt the phantaſticall feares and imaginations in the night ſeaſon. The ſame *Democritus* ſaith, That in Perſis, India, and the mountaine Ida, there is a ſtone found named Artizoë, gliſtering bright as ſiluer, three fingers thicke, formed in manner of a Lentil, and of a pleaſant and delectable ſauor: The Sages of Perſia neuer go about the election and ordering of a King; but they thinke it neceſſarie to haue it
about them. As for the Augites, many be of opinion, that it is no other ſtone than Callais, to M
wit, the Turquois. Amphitane is a ſtone knowne by another name alſo, Chryſocolla: found it is in that part of India where the Piſmires-Volant do take out gold; where it reſembles gold, and is in faſhion fourſquare. It is reported conſtantly, that it hath the ſame force naturally that the Loadſtone hath, but that it draweth gold to it as well as iron. Aphrodiſiace is partly white,

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A and partly reddiſh. Aſyctos being once heat at the fire, will continue a ſeuen-night after hot: blacke it is and ponderous, hauing certaine veins that diuide it: it is thought to be good againſt cold. As touching Ægyptilla, *Iacchus* taketh it for a white ſtone, with a veine partly of a Sard or Cornalline, and partly blacke, paſſing through it ouerthwart: howbeit the common ſort take Egyptilla to be blew, with a black mote in the bottome.

As for the ſtone Balanites, there be two kinds thereof; to wit, of a greeniſh colour, and reſembling Corinth braſſe: the former commeth from Coptos, the other out of the region Troglodytica; and they haue a fierie vaine cutting them juſt in the mids. The ſame Coptos ſendeth other ſtones to vs beſides, to wit, thoſe which be called Batrachitæ; the one like in colour to a frog, a ſecond to * yvory, the third is of a blackiſh red. *Baptes, how ſoeuer otherwiſe it be ſoft and ten-
B der, yet an excellent odor it hath. The ſtone called Belus eie is white, and hath within it a black apple, the mids wherof a man ſhall ſee to glitter like gold: this ſtone for the ſingular beautie that it hath, is dedicated to *Belus* the moſt ſacred god of the Aſſyrians. There is another ſtone named Belus, growing (as *Democritus* ſaith) about Arbelæ, to the bigneſſe of a wall-nut in manner and forme of glaſſe. As for Baroptenus or Baroptis, it is black, interlaced as it were with certain knots, both white and alſo of a ſanguine red, after a ſtrange and wonderfull manner. Botrytes is found ſomtime black, otherwhiles red, & like it is to a cluſter of grapes when it beginneth firſt to knit. As for it which is more like to the hair of women, *Zoroaſtres* calleth it * Boſtrychites. * Bucardia reſembleth an oxe heart, and is to be found onely about Babylon. Brotia is ſhaped in manner of a Tortoiſe head: it falleth with a crack of thunder (as it is thought) from hea-
C uen: and if we wil beleeue it, quencheth the fire of lightning. Bolæ are found after a great ſtorm or tempeſt, reſembling a clod.

Cadmitis were the very ſame which they cal Oſtracitis, but that otherwhiles it is compaſſed about with certain blew bubbles. Callais comes very neere to the Saphir, but that it is whiter, and reſembleth rather the water of the ſea about the ſhore. Capnites (as ſome think) is a kind of ſtone by it ſelfe, beſet with many wreaths, and thoſe ſeeming to ſmoke, as I haue ſaid already in due place: the naturall place of it is Cappadocia and Phrygia: in ſome ſort it is like yvory. As touching Callainæ, it is commonly ſaid, that they be found alwaies many joined together. Catochites is a ſtone proper to the Iſland Corſica: in bignes it exceedeth ordinary precious ſtones: a wonderfull ſtone, if all be true that is reported thereof, and namely, That if a man lay his hand
D thereupon, it will hold it faſt in maner of a glewie gum. Catopyrites groweth in Cappadocia. Cepites or Cepocapites, is a white ſtone, and the veins therein ſeem to meet together in knots; and ſo white and cleare withall, that it may ſerue as a mirrour to ſhew ones face. Ceramites in colour reſembleth an earthen pot. As for Cinædiæ, they be found in the braine of a fiſh named Cinædus: white they be and of a long faſhion, and of a wonderfull nature, if wee may beleeue that which is reported of the euent which they ſignifie; and namely, that according as they bee cleare or troubled in colour, they do preſage either ſtorms or calm at ſea. Cerites is like to wax; and Circos, vnto wreaths or circles. Corſoides, is made in maner of a gray peruke of haire: Corallo-achates, vnto a Corall ſet with gold ſpots: Corallis, to Vermillon, and is ingendred in India and Syene. Craterites hath a colour betweene the Chryſolith and the baſe gold Electrum,
E of an exceeding hard ſubſtance. Crocallis doth repreſent a cherry. Cyſſites is engendred about Coptos, and is of a white color: it ſeemeth as it were to be with childe, for ſomthing ſtirs and ratleth within the belly if it be ſhaken. Calcophonos is a blacke ſtone: if a man ſtrike vpon it, he ſhall perceiue it to ring like a piece of braſſe: and the Magitians would perſuade thoſe that play in Tragœdies to carry it about them continually. As for the ſtone Chelidonia, there be two ſorts of it: in colour they do both reſemble the Swallow, and of one ſide which is purple, you ſhal ſee black ſpots intermingled here and there among. Chelonia is no more but the very eie of an Indian Tortoiſe: of a moſt ſtrange nature by the Magitians ſaying, and working great wonders, but they will lie moſt monſtrouſly: for they would promiſe and aſſure vs, That after one hath well rinſed or waſhed his mouth with hony, and then lay it vpon the tongue, hee ſhall
F preſently haue the ſpirit of propheſie, and be able to foretell of future things all a day long, either in the full or change of the Moon: but if this be practiſed in the wane of the Moon, he ſhall haue this gift but onely before the Sunne-riſing: vpon other daies, namely while the moone is croiſſant, from ſix of the clock or ſun-riſing ſix houres after. Moreouer, there be certaine ſtones called Chelonitides, becauſe they be like to Tortoiſes, by which theſe Magitians would ſeeme

* *Ebori*: ſome ſay, *Ebeni*, *i.* Ebene.
* *i.* Amber died red with the iooт of Orchanes.
* A kind of Amiantum or Alume de plume.
* A kind of Turquoiſe.

to tell vs by way of propheſie and reuelation, many things for to allay tempeſts and ſtormes: G
but eſpecially the ſtone of this kinde which hath golden drops or ſpots in it, if together with a flie called a beetle it be caſt into a pan of ſeething water, it will auert tempeſts that approch. Chlorites is a ſtone of a graſſe green colour, according as the name doth import; and by the ſaying of Magitians, it is found in the geſier of the bird called Motacilla or Wagtaile, yea and is ingendred together with the ſaid bird. They giue direction (forſooth as their manner is) to inchaſe or incloſe it with a piece of yron, and then it will doe wonders. Choaſpites taketh that name of the riuer Choaſpes, green it is and reſplendent like burniſhed gold. Chryſolampis is found in Æthyopia; all the day long of a pale colour, but by night it glowes in manner of a cole of fire. Chryſopis is ſo like to gold, as a man would take it for no other. The ſtones called Cepionides, grow in Æolis about Atarne, a little village now, but ſomtimes a great town: they haue H
many colours, and be tranſparent; ſometimes in manner of glaſſe, otherwhiles like Cryſtall or the laſper: ſuch alſo as be not cleare through, but foule and thick within, are notwithſtanding ſo pure and neat without, that they will repreſent a man or womans viſage as wel as a mirroir or looking glaſſe.

D Daphnias is a ſtone, whereof *Zoroaſtres* writeth, and namely that it is good againſt the falling ſickneſſe. Diadochus is like to Berill. Diphris is of two kinds, the white and the black, the male and the female; wherein may be perceiued very diſtinctly, thoſe members that diſtinguiſh the ſex, by reaſon of a certain line or vein of the ſtone. Dionyſias is a blacke ſtone and hard withall, hauing certain red ſpots intermingled: if it be ſtamped in water, it giueth the taſt of wine, and is thought to withſtand drunkenneſſe. Draconites or Dracontia, is a ſtone ingendred in the brains I
of ſerpents, but vnleſſe it be cut out whiles they be aliue, namely after their heads be chopt off, it neuer grows to the nature of a precious ſtone; for of an inbred malice and enuie that this creature hath to man, if perceiuing it ſelfe to languiſh and draw on toward death, it killeth the vertue of the ſaid ſtone: and therefore they take theſe ſerpents whiles they be aſleepe, and off with their heads. *Sotacus* (who wrote that he ſaw one of theſe ſtones in a kings hand) reports, that they who go to ſeek theſe ſtones vſe to ride in a coach drawn with two ſteeds, and when they haue eſpied a dragon or ſerpent, caſt in their way certain medicinable drugs to bring them aſleep, and ſo haue means and leiſure to cut off their heads: white they are naturally & tranſparent, for impoſſible it is by any art to poliſh them, neither doth the lapidary lay his hand to them.

E Encardia is a precious ſtone, named alſo Cardiſcæ: one ſort there is of them, wherein a man K
may perceiue the ſhape of an heart to beare out: a ſecond likewiſe there is ſo called, of a greene colour, and the ſame doth repreſent alſo the forme of an heart: the third ſheweth the heart only black, for all the reſt is white. Enorchis is a faire white ſtone; the ſame being diuided, the fragments thereof do reſemble a mans genetoirs, whereof it took that name. As touching Exhebenus the ſtone, *Zoroaſtres* ſaith, that it is moſt beautifull and white, and therewith goldſmiths vſe to burniſh and poliſh their gold. As for Eriſtalis, being of it ſelf a white ſtone, ſeemes as a man holdeth it to wax red. Erotylos, which ſome cal Amphicome, others Hieromnemon, is commended much by *Democritus*, for ſundry experiments in propheſying and foretelling fortunes. Eumeces groweth in the Bactrians country, like to a flint; being laied vnder a mans head lying aſleep vpon his bed, it repreſenteth by viſions and dreams in the night all that hee is deſirous to L
know, euen as well as an oracle. As for Eumetres, the Aſſyrians call it the ſtone or gem of *Belus* the moſt ſacred god among them, & whom they honor with greateſt deuotion: as green it is as a leeke, and ſerueth very much in their ſuperſtitious inuocations, ſacrifices, and exorciſms. Eupetalos hath foure colors, to wit, of azur, fire, vermilion, and an apple. Eureos is like the ſtone of an oliue, chamfered in manner of winkle ſhels, but very white it is not. Eurotias ſeemeth to haue a certain mouldines that couers the black vnderneath. Euſebes ſeemeth to be that kind of ſtone whereof (by report) was made the ſeat in *Hercules* temple at Tyros, where the gods were wont to appear and ſhew themſelues. Mereouer, any precious ſtone is called Epimelas, when being of it ſelfe white, it is ouercaſt with a blacke colour aloft.

G The gem Galaxias, ſome call Galactites, like vnto thoſe laſt before-named, but that it hath M
certain veins either white or of a bloud color running between. As for Galactites indeed, it is as white as milk, and therupon it took that name. Many there be who call the ſame ſtone Leucas, Leucographias, & Synnephites, which if it be bruiſed yeeldeth a liquor reſembling milk, both in color and taſt; & in truth, it is ſaid, that it breeds ſtore of milke in nources that giue ſuck: alſo

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A that if it be hung about the necks of infants, it cauſeth ſaliuation; but being held in the mouth, it melteth preſently. Moreouer, they ſay, that it hurteth memory and cauſeth obliuion: this ſtone commeth from the riuer Achelous. Some there be, who call that Emeraud Galactites, which ſeemeth as it were to be bound about with white veins. Galaicos is much like to Argyrodamus, but that it is ſomewhat ſouler: commonly they are found by two or three together. As for Gaſidanes, we haue it from the Medians, in colour it reſembleth blades of corne, and ſeemes beſet here and there with floures: it groweth alſo about Arbelæ: this gem is ſaid likewiſe to be *conceiued with young, and by ſhaking to bewray and confeſſe a child within the wombe, and it doth conceiue euery three moneths. Gloſſi-petra reſembleth a mans tongue, and groweth not vpon the ground, but in the eclipſe of the Moone falleth from heauen, and is thought by the B magitians to be very neceſſary for pandors and thoſe that court faire women: but we haue no reaſon to beleeue it, conſidering what vaine promiſes they haue made otherwaies of it: for they beare vs in hand, that it doth appeaſe winds. Gorgonia is nothing els but Coral: the name Gorgonia groweth vpon this occaſion, That it turneth to be as hard as a ſtone: it aſſuageth the trouble of the ſea and maketh it calme: the magitians alſo affirme, that it preſerueth from lightning and terrible whirlewinds. As vaine they be alſo in warranting ſo much of the hearbe Guniane, namely, that it will worke reuenge and puniſhment vpon our enemies.

* Haply our Bezoar.

The pretious ſtone Heliotropium, is found in Æthiopia, Affricke, and Cyprus: the ground thereof is a deepe green in maner of a leeke, but the ſame is garniſhed with veins of bloud: the reaſon of the name Heliotropium is this, For that if it be throwne into a pale of water, it chan- C geth the raies of the Sun by way of reuerberation into a bloudie colour, eſpecially that which commeth out of Æthiopia: the ſame being without the water, doth repreſent the body of the Sun, like vnto a mirroir: and if there be an eclipſe of the Sun, a man may perceiue eaſily in this ſtone how the moone goeth vnder it, and obſcureth the light: but moſt impudent and palpable is the vanity of magitians in their reports of this ſtone; for they let not to ſay, that if a man carrie it about him, together with the herbe Heliotropium, and beſides mumble certaine charmes or prayers, he ſhall goe inuiſible. Semblably, Hephæſtites is of the nature of a looking-glaſſe, for although it be reddiſh or of an orenge colour, yet it ſheweth ones face in it: the meanes to know this ſtone whether it be right or no, is this: in caſe being but into ſcalding water, it preſently cooleth it; or if in the Sun it wil ſet on fire any dry wood or ſuch like fewel: this ſtone is D found growing vpon the hill Corycus. Horminodes is a ſtone ſo called, in regard of the greene colour that it hath reſembling the herbe Clarie; for otherwhiles it is white, and ſometime againe blacke, yea and pale now and then; howbeit hooped about it is with a circle of golden colour. Hexecontalithos, for bigneſſe is but ſmall, and yet for the number of colours that it hath, it got this name: found it is in the region of the Troglodytes. Hieracites changeth colour all whole alternatiuely by turns; it ſeemeth to be blackiſh among kites feathers. Hamnites reſembleth the ſpawne of fiſhes: and yet ſome of them be found as it were compoſed of nitre, and otherwiſe it is exceeding hard. The pretious ſtone called Hammons-horne, is reckoned among the moſt ſacred gems of Æthyopia: of a gold colour it is, and ſheweth the forme of a rams horne: the magicians promiſe, that by the vertue of this ſtone, there will appeare dreames E in the night which repreſent things to come. Hormeſion is thought to be one of the louelieſt gems that a man can ſee, for a certaine fiery colour it hath, and the ſame ſpreadeth forth beams of gold, and alwaies carrieth with it in the edges a white and pleaſant light. Hyenia tooke the name of the Hyens eie: found they are in them when they be aſſailed and killed: and if we may giue credit to Magitians words, if theſe ſtones be put vnder a mans tongue, hee ſhall preſently propheſie of things to come. The bloud-ſtone Hæmatites is found in Æthiopia principally, & thoſe be ſimply the beſt of al others, howbeit there are of them likewiſe in Arabia and Affrick: in colour it is like vnto bloud, and ſo called: a ſtone that I muſt not ouerpaſſe in ſilence, in regard of my promiſe that I made to reproue the vanities and illuſions of theſe impudent & barbarous magicians who deceiue the world with their impoſtures: for *Zachalias* the Babylonian, F in thoſe books which he wrote to king *Mithridates*, attributeth vnto gems all the deſtinies and fortunes that be incident vnto man: and particularly touching theſe bloud-ſtones, not contented to haue graced them with medicinable vertues reſpectiue to the eies and the liuer, he ordained it to be giuen vnto thoſe for to haue about them, who carry any Petition to a king or great prince, for it would ſpeed and further the ſuit: alſo in caſe of law matters it giueth good iſſue

and ſentence on their ſide,yea and in wars,victory ouer enemies. There is another of that kinde, G
called by the Indians Henui,but the Greekes name it Xanthos:of a whitiſh colour it is vpon a
ground of a yellow tawnie.

I The ſtones called Idæi Dactyli,be found in Candy:of an yron colour they be,and reſemble
in forme the thumb of a mans hand. As touching Icterias,there be foure kinds therof,to wit
one like to a pale coloured bird called the Lariot;and therefore is thought to be good againſt
*Lividior. the jaundiſe:a ſecond there is of the ſame name,but more enclining to a * ſwert color:the third
reſembleth a green leafe,broader than the former,weighing little or nothing,and is beſides full
of pale and wan veins:the fourth is of the ſame colour, but it hath blacke veins running too and
fro. The ſtone called *Iupiters* gem,is white,light, and tender. The ſtone Indico taketh name of
thoſe nations from whence it commeth;the colour outwardly is ſomewhat reddiſh, and if it be H
rubbed,there commeth from it a certain purple humor in manner of a ſweat. There is another
of that name,but it is white,and ſheweth like vnto duſt or powder. The ſame Indians haue ano-
ther gem called Ion,for that it reſembleth the colour of the March violet; but ſeldome ſhall a
man ſee it with a freſh and gay blew indeed.

L The ſtone Lepidotes doth repreſent skales of fiſhes in ſundry colours. Lesbias taketh name
of the Iſle Lesbos the natiue place thereof:howbeit they are found in India likewiſe. Leucoph-
thalmos, is otherwiſe reddiſh or tawnie, howbeit in that colour it carrieth the forme of an eie,
both for white and blacke. Leucopetalos ſheweth white in manner of ſnow,and yet the ſame is
garniſhed with a luſtre of gold. Libanocrus in colour reſembleth frankincenſe,but a liquor or
moiſture it yeeldeth anſwerable to hony. Limoniates ſeemeth to be all one with the Emeraud. I
As touching the vnctuous ſtone Liparis, I find this only written of it, That a ſtinke or perfume
thereof fetcheth forth any venomous vermine. The ſtone Lyſimachus is like vnto the marble
of Rhodes,and hath in it certaine veines or ſtreakes of gold: This ſtone muſt be poliſhed vpon
marble:and when all the ſuperfluities be fetched off,it is found to grow narrow pointwiſe. Leu-
cochryſos ſeemeth to be made of a Chryſolith, hauing white veins or ſtreakes betweene.

M A gem there is called Memnonia,but I haue not read the deſcription thereof. As for Media,
it is a blacke ſtone,and found it was firſt by that famous *Medea*,of whom the Poëts write ſo
many fables, yet certaine veins it hath of a golden colour:a kind of ſweat iſſueth from it yellow
as ſaffron,and in taſt much reſembling wine. Meconites doth repreſent expreſſely,poppy heads.
The ſtone Mitrax we had from the Perſians,and the mountains along the red ſea:many colours K
it hath,and againſt the Sun it glittereth diuerſly. Meroctes is green like vnto a leeke,and yet if
you rub it,you ſhall ſee a humour come from it like to milke. The Indian ſtone Morion(which
is moſt blacke and yet tranſparent) They call Pramnion:if it be intermingled with the fiery red
of the Carbuncle or Rubie,they call it Alexandrinum;like as the Cyprian, Morion,which hath
a ſhew of the Sarda or Cornalline:found there be of them in Tyrus and Galatia. *Xenocrates* re-
porteth,that vnder the Alpes alſo they be gathered. Theſe be the gems that be fitted for to en-
graue the forme of any thing from a pattern. As for Myrrhites,it hath the colour of Myrrhe,and
the forme of a fine pretious ſtone:it yeeldeth the ſmell of a ſweet perfume or ointment,and be-
ing rubbed giueth a ſauour alſo of Nard. As touching Myrmecias,it is blacke,and hath certain
riſings in it like to werts. Myrſinites in colour reſembleth hony,and in odour the myrtle. Me- I.
ſoleucos is a gem diuided juſt in the mids with a white line: contrariwiſe, Meſomelas, when
there is a blacke line cutteth threugh any other colour in the middeſt.

N Naſamonites is in colour like to bloud,howbeit certaine blacke veins it hath. Nebrites is a
ſtone conſeciate to god *Bacchus*: it tooke that name of the reſemblance which it hath to thoſe
skins of deere that he was wont to weare: there be others of the ſame kind, but blacke they are.
The gem Nympharena keepeth the name of a city and nation in Perſia;and it reſembleth the
teeth of a water-horſe.

O Orca is the barbarous name of a certaine pretious ſtone,which is very pleaſant vnto the eie:
wherein concurre together blacke,yellow,greene,and white. Ombria,which ſome call Notia,is
*As the haire growing in the forhead, and ſuch things, whereof aſſay was giuen firſt to the fire. ſaid to fall from heauen in ſtormes,ſhowers of raine, and lightening, after the manner of other M
ſtones,called thereupon Ceraunia and Brontia:and the like effects are attributed to it, as be re-
ported of Brontia:and thus much moreouer, That ſo long as it lieth vpon the hearth of an altar,
the * libaments will not burne that be offered thereupon. Orites is in forme round as a globe:
ſome call it Siderites,it will abide the fire and feele no harme therby. Oſtracias or Oſtracites is
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A made in manner of a ſhell,and is exceeding hard. A ſecond kind there is of it reſembling an Agath,but that an Agath in the polliſhing ſeemeth to looke greaſily, which the Oſtracias doth not. And the harder kind of this ſtone is of that power,that the fragments thereof will ſerue to engraue other gems. As for Oſtracites,it took the name of an Oyſtre ſhell,which it doth repreſent. The Barbarians haue a pretious ſtone,which they call Ophicardelos;blacke of colour,and the ſame encloſed with two white lines or circles. As touching the ſtone Obſidianus, I haue written ſufficiently in the book going next before: and yet there be certain gems of that name, and carrying the ſame color,not only in Æthyopia and India,but alſo in Samnium,as ſome are of opinion,yea,and in the coaſts of the Spaniſh Ocean.

Panchrus,according to the name,ſeemeth to conſiſt(in manner) of all colours. Pangonius is P
B no longer than a mans finger:it differeth from Cryſtall in this onely, that it hath more angles in number, whereupon it got the name. As for Paneros, what manner of ſtone it is *Metrodorus* hath not ſet down,howbeit he reciteth an elegant verſe of queen *Timaris*, which together with the ſtone ſhe conſecrated to *Venus*: whereby is giuen to vnderſtand, That by the meanes thereof ſhe became fruitfull and bare children: Some there be who call this gem Panſebaſton. Now concerning the gems of Pontus,knowne by the name of Ponticæ,there be many ſorts of them. One is full of ſtars,garniſhed with bloudy or blacke ſpecks in maner of drops;and this is counted among the ſacred ſtones:another in ſtead of ſtarres hath ſtrakes and lines onely of the ſame colours:and there be of them again which repreſent the forme of mountaines and vallies. The gem Phloginos,which is called likewiſe Chryſites, is found in Ægypt, and is likened vnto the
C Oſtracias of Attica. Phœnicites tooke the name of the ſimilitude that it hath to a Date. And Phycites was ſo named,becauſe of the likenes it hath to the ſea weed or lectuce,named Phycos in Greeke. Perileucos is a ſtone, ſo called by occaſion of a whitiſh lace that ſeemeth to go from the mouth of the gem downe to the very bottome. The gems Pæantides,which ſome name Gemonides, are ſaid to conceiue and to bring forth other litttle ſtones: but a ſingular vertue they haue to help women that be in trauell of child-birth. Such be found in Macedonie, neere vnto the monument or ſepulchre of *Tireſias*,and that which they bring forth,ſeemeth like vnto water growne to be congealed into yce.

The Sunnes gem is white, and after the manner of the Sunne, whoſe name it beareth, it ca- S
ſteth forth ſhining raies round about on euery ſide. Sagda is a ſtone,which the Chaldæans find
D ſticking to ſhips,and they ſay it is greene as Porrets or Leekes. Samothracia the Iſland yeelds vs a pretious ſtone of the owne name, blacke of colour,light in hand, and like to [rotten]wood. As for Saurites,it is found (by report) in the belly of a green Lizard,ſlit open with the edge of a cane or reed. Selenites is a pretious ſtone,white & tranſparent, yeelding from it a yellow luſtre in manner of hony,and repreſenting within it the proportion of the Moone, according as ſhee groweth toward to the full,or decreaſeth in the wane againſt the change: This admirable ſtone is thought to be found in Arabia. Siderites is much like to yron: and ſuppoſed it is, That if it be brought among them that are at ſome variance or controuerſie already in law, it will breed diſcord and maintain diſſention ſtill. Of this Siderites is made another ſtone,which is engendred in Æthyopia,called Sideropœcilos,for the ſundry ſpots therein. Spongites is like vnto a
E ſponge,euen as it carrieth a name reſpectiue vnto it, Synodontites commeth from the braine of certaine fiſhes called Synodontes. The ſtones Syrtitæ be found in the ſhore of the Syrtes in Barbary,yea,and in Lucania, ſhining with the colour mixt of ſaffron and hony, but within they containe certaine ſtarres, which haue but a dim and duskiſh light. The ſtone Syringites is hollow throughout in manner of a pipe, and is like vnto a ſtraw betweene two joints.

Trichrus that commeth out of Affricke is blacke, howbeit if it be rubbed it yeeldeth three T
kinds of humours from it; to wit, from the root or bottome blacke, out of the mids like bloud, and in the head white. Telirrhizos is of an aſh colour or reddiſh, and yet the bottome thereof is a louely & ſightly white. Telicardios is much eſteemed in the realme of Perſia, where it is engendred:in colour it reſembleth the heart,and they call it there in their language,a Spot. The
F ſtone Thracia is of three kinds; the firſt green, the ſecond more pale,and the third full of ſpots of bloud. Tephritis,although otherwiſe it be of the color of aſhes,yet it repreſents a new Moon croiſant and tipped with hornes. Tecolythus ſeemeth like to the ſtone or kernill of an Oliue: It is not raunged in the number of pretious ſtones,but whoſoeuer licke thereof, ſhall find, That it will breake the ſtone and expel it. The ſtone called *Venus* haire, is exceeding black and ſhining;

how it maketh a ſhew of red haires ſprinkled among. G

V Veientana is a gem proper vnto Italie, found about Veij, a citie in Tuſcane: this ſtone is blacke and croſſed through the middeſt with a white path.

Z Zanthenes (as *Democritus* writeth) is found ordinarily in Media: in colour it reſembleth baſe gold Electrum: and if a man doe ſtampe it in Date wine and Saffron together, it will relent in manner of wax, and caſt a moſt ſweet and pleaſant ſmell. Zmilaces is a ſtone which the riuer Euphrates yeeldeth, like to the marble of Proconneſus, but that in the middeſt it hath a greeniſh colour. Finally, Zoroniſios is engendered in the riuer Indus: commonly it is called the Magicians gem: more of it I find not written.

Chap. XI. H

¶ *Of certaine pretious ſtones, taking their names from the members of mans body, from beaſts alſo and other things.*

BEſides thoſe gems comprehended vnder the Alphabet, there be more pretious ſtones alſo compriſed after other ſorts of diſtinction, according to diuers ſignificant varieties: for ſome there be which bear the names of certain members of the body; as for example, Hepatites, of the liuer; Steatites, of the ſundry ſorts of fat, greaſe or tallow of each beaſt. Adad * Nephros is a ſtone worſhipped among the Ægiptians, ſo is Theudactylos alſo. As for Adad, hee is the chiefe god among the Aſſyrians. The ſtone Triophthalmos groweth together with the Onyx ſtone, and repreſenteth three eies of a man together. I

* It taketh the name of the kidnies.

There be gems take their names likewiſe of beaſts, to wit, Carcinias of the colour which the ſea-crab hath; Echites, of a Viper; Scorpites, either of the color or form of a Scorpion; Scarites, of the fiſh Scaurus, *i.* a Gilthead; Triglites, of the Barble; Ægopththalmos, of a Goats eye; like as another, for the reſemblance that it hath to the * eie of a ſwine. Geranites tooke name of a cranes color; euen as Hieracites of the Hawkes or Faulcons color. Aëtites reſembles the color of that Ægle which hath a white taile. Myrmerites ſheweth the forme of a Piſmire creeping within the ſtone; ſo doth Cantharias, of Beetles. Lycophthalmos hath the reſemblance of a Wolfes eie, and conſiſts of 4 colours; the outward parts are tawnie, enclining to a bloud red, in the middeſt there is a black, encloſed within a white circle, as like to the ſaid eie as poſſibly can be. The ſtone Toas is like to a Peacock, euen as the gem Chelonia to the Tortoiſe. In Hammochryſos there is a reſemblance of ſand, as if ſand & gold were entermingled. Cenchrites is made like to the graines or ſeeds of Millet ſcattered here and there. Dryites hath a great affinity with the ſtock of a tree: and the ſame will burn after the maner of wood. Ciſſites is white, and in that white ſhining ſeemeth to be claſped euery where with leaues of yvie. Narciſſites likewiſe is diſtinguiſhed and parted with veines of yvie. Cyamea is black, but being broken, it yeelds out of it a reſemblace of a Beane. Pyren is ſo called by reaſon of an oliue ſtone or keruill which it reſembleth: within this ſtone there appeare otherwhiles as it were fiſh bones. Chalazias as it carrieth the name of haile, ſo it repreſenteth as well the color as the ſhape thereof; but as hard it is as the Diamant: It is reported alſo, that if it be put into the fire, yet it wil continue cold & not alter a whit. The fire ſtone Pyrites is verily black: but rub it with your finger, you ſhal find it to burne. Polyzonos is a black ſtone of it ſelfe, but many white fillets it hath about it. Aſtrapias is white or blue like Azur, yet from the middeſt thereof iheir ſeeme to ſhoot raies of lightening. In the ſtone Phlegontis there appeare a burning flame within, and neuer commeth forth. In the Granat named Authracitis, there is a ſhew otherwhiles of ſparkles running to & fro. Enhydros is euermore abſolutely ſmooth and white, containing within a certain liquor that moueth too and fro if a man ſhake it, as he may perceiue in egges. Polytrix is a greene ſtone, bedecked with fine veines in manner of the haire of ones head: but (by report) it will make the haire to ſhed off as many as carry it about them. Of a Lions skin, Leontios beareth the name: like as Pardalios of a Panther. The golden color in the Topaze gaue it the name Chryſolith: ſo the graſſe green of a Leeke was occaſion of the name Chryſopraſos: and of hony was deuiſed the colour and name Melichrus, although there be many kinds of it. As for Melichloros it is of two colours, partly yellow, and partly reſembling hony. Crocias is yellow as Saffron: and Polia ſheweth a certaine greyneſſe in manner of Spart. As for Spartopolios the blacke, it ſheweth like ſtriſtly veins to the other, but much harder. Rhodites took name of the Roſe: Melites of the apple, the colour wher-

* Hyophthalmos

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A of it shews: Chalcites of brasse; and Sycites of a fig. I see no proportion or reason at all between the stone Borsycites and that name; this stone is blacke and branching, and the leaues are white, or red like bloud; no more than I do in Gemites, which representeth (as it were) engrauen in the stone, white hands clasped one within another. As for Ananchitis, it is said, That spirits may be raised by it in the skill of Hydromantie: like as by Synochitis, the ghosts which are raised, may be kept aboue still. What should I speake of the white Dendritis, which if it be buried in the ground vnder a tree that is to be fallen, the edge of the axe that heweth it, will not turne or wax blunt. There be a number of other, and those in nature more prodigious than the rest: for which the Barbarians haue deuised strange names, professing to vs, that they were stones indeed. for mine owne part it shall suffice that I haue disproued their lies in these abouenamed.

B

Chap. XII.

¶ *Of new stones, and those naturall. Of such as be counterfeit and artificiall. Of diuers formes and shapes of gems.*

THere grow still precious stones vnlooked for euery day, that bee new and haue no names, such as that in Lampsacus, where one was found in the gold mines so faire and beautifull, that it was thought a present worth sending to K. *Alexander* the Great, as *Theophrastus* writeth. As touching the stones Cochlides, which now are most common, they seeme rather artificial than natural: and verily it is said, That in Arabia there be found of them huge masses which
C are sodden in hony 7 daies and nights together continually; by which means, after that all the earthy and grosse refuse of this stone is taken away, the stone it selfe remaineth pure and fine: and then comming vnder the lapidaries hand, they be diuided into sundry veines, and reduced into drawne or inlaid worke of Marquetage, as he will himselfe. And herein is seen the cunning of the cutter, for that it is so vendible, & euery mans mony. In old time they were made of that bignesse, that the KK. of the East had their horses set out therewith, not only in their frontstals, but also in the pendants of their caparisons. And verily, al other precious stones being decocted in hony, look faire and neat with a pleasant lustre: but principally the Corsicks, which abhor all things els that are more eager than hony. Moreouer, this is to be noted, that our lapidaries haue a tearme for those stones which are of diuers colors, and they call them Physes, as if they had
D not another vsuall name for them: & this they do in the subtilty of their wit, to make them seem more wonderful by these strange words of art, as if they would vendicat them for their very wonders of Natures worke: whereas indeed there be an infinit number of names, deuised all by the vain Greeks, who knew not how to make an end, which I purpose not to rehearse; and verily, after I had discoursed of the noble and rich stones, I contented my selfe in some sort to specifie those of a baser degree, such I mean as were more rare than others, & to distinguish them that were most worthy to be treated of. But this eftsoons would be remembred, that one & the selfsame stone changeth the name, according to the sundry spots, marks & werts that arise in them: according also to the manifold lines drawn in them, the diuers veins running between, and the variety of colors therein obserued. It remains now to set downe some generall obseruations indifferent to all sorts of gems, and that after the opinion of the best approoued and experienced
E authors in this kind. Any stones that be either hollow & sunk in, or bearing out in bosse or belly be nothing so good as those which cary an euen and leuell table. The long fashioned gems are most esteemed: next to them such as be formed like to lintil seed: after them those that be round in manner of a targuet: and as for such as be made with many faces & angled, they be of al other least accounted of. To discern a fine & true stone from a false and counterfeit, is very difficult, forasmuch as there is an inuention to transform true gems into the counterfeit of another kind. And in truth men haue deuised to make Sardonches by setting and glewing together the gems named Ceraunia, & that so artificially, that it is vnpossible to see therein mans hand: so handsomly are couched, the black taken from this, the white from that, & the vermilion red from a-
F nother, according as the richnes of the stone doth require, & all those in their kind most approued. Moreouer, there be in my hands certain books of authors extant, whom I wil not nominate for all the good in the world, wherein is deciphered the manner and means how to giue the tincture of an Emeraud to a Crystall, & how to sophisticat other transparent gems; namely, how to make a Sardonyx of a Cornalline, & in one word, to transform one stone into another: & to say a truth, there is not any fraud or deceit in the world turneth to greater gain and profit than this.

CHAP.

G

Chap. XIII.

¶ *The way how to make proofe of fine precious ſtones.*

LEt other writers teach how to deceiue the world by counterfeiting gems, for mine own part I will take a contrary courſe, and ſhew the means how to find out falſe ſtones that be thus ſophiſticat: for ſurely, wanton and prodigall though men and women bee in the exceſſiue wearing of theſe jewels, yet meet it is they ſhould be armed and inſtructed againſt ſuch couſiners. And albeit I haue already touched ſomwhat reſpectiuely as I treated of the chiefe & principall gems, yet I wil adde ſomwhat more to the reſt: firſt and formoſt therfore this is obſerued, That all ſtones which be tranſparent, ought to haue their triall in a morning betimes, or at the H
fartheſt (if need ſo require) within foure hours after morning light, but in no wiſe later. Now there be diuers experiments that ſerue for this purpoſe, to wit, the weight of a ſton, for commonly the fine gem indeed is heauier than the other: ſecondly, the very body and ſubſtance is to bee conſidered; for it is an ordinary matter to ſee in the ground and bottome of falſified ſtones certain little puſhes as it were riſing out; to feele them rough in hand outwardly; alſo to perceiue their filaments not to continue their luſtre ſurely, and to beare it out to the very eie, but commonly in the way to vaniſh and be ſpent. But the moſt effectuall proofe of all, is to take a little fragments, to be ground afterward vpon a plate of yron: but lapidaries wil not indure this triall; they refuſe alſo the experiment made by the file: furthermore, the fragment of the black Agath
or Geat, wil not raſe or skarifie true gems. *Item*, Falſe ſtones if they be pierced or ingrauen, will I
ſhew no white. Such difference there is moreouer in ſtones, that ſome ſcorne all ingrauing with an yron punſon: others likewiſe cannot be cut but with the inſtrument or grauer bent & turned back: but there is not one but may be ingrauen with the Diamant. And verily, the moſt material thing herein, is to heat the grauing ſteele or punſon.

As touching riuers that affoord precious ſtones, Aceſines and Ganges are the chiefe: and of all lands, India is the principall.

And now hauing diſcourſed ſufficiently of al the works of Nature, it were meet to conclude with a certain general difference between the things themſelues, and eſpecially between country and country. For a finall concluſion therefore, go through the whole earth and all the lands lying vnder the cope of heauen, Italy wil be found the moſt beautiful & goodlieſt region vnder K
the Sun, ſurpaſſing all other what ſoeuer, and worthily to be counted the chiefe and principall in euery reſpect: Italy (I ſay) the very lady and queen, yea, a ſecond mother next to dame Nature of the world: chiefe for hardy men, chiefe for faire and beautifull women, inriched with captaines, ſouldiers, and ſlaues: flouriſhing in all arts and ſciences, abounding with noble wits and men of ſingular ſpirit; ſcituat vnder a climat moſt wholeſome and temperate, ſeated alſo commodiouſly (by reaſon of the coaſts ſo ful of conuenient hauens) for traffick with all nations, wherein the winds are moſt comfortable (for it extendeth it ſelfe and lieth to the beſt quarter of the heauen, euen in the midſt juſt between Eaſt and Weſt;) hauing waters at command, large foreſts & faire, and thoſe yeelding moſt healthful air; bounded with mighty rampiers of high mountains, ſtored with wild beaſts, and thoſe harmleſſe: finally, the ground ſo fertile for corn, the ſoile ſo battle for L
herbage, as none to it comparable. In ſumme, what ſoeuer is neceſſary and requiſit for the maintenance of this life is there to be had, in no place better: all kind of corne and grain, wines, oile, wooll, linnen, woollen & excellent bœufs; as for horſe-fleſh, I haue alwaies heard, euen from the mouth of thoſe that be profeſſed runners in the race with horſe and charriot, That the breed of Italy paſſeth al others: for mines of gold, ſiluer, braſſe, & yron, it gaue place to no country what ſoeuer, ſo long as it pleaſed the ſtate to imploy it that way; and in lieu of thoſe rich commodities which it hath ſtill within her womb, ſhe yeeldeth to vs variety of good liquors, plenty of al ſorts of corn, and abundance of pleaſant fruits of all kinds. But if I ſhould ſpeake of a land after Italy (ſetting aſide the monſtrous and fabulous reports that go of India) in my conceit Spaine is next in all reſpects, I meane thoſe coaſts which are inuironed with the ſea. M

FINIS.

20030
copy 1

An Index pointing to the principall matters contained in the second Tome of *Plinies* naturall Historie.

A B

Baculi, what they be, 598.*l*
Abaculus, an Iſland, 606.*i*
Abiga, an hearbe, 181,*e*. why ſo called. *ibid*.
Abort, what things do cauſe, 101,*i*. 200,*i*,*l*. 229,*e*. 286,*k* 309,*b*. 340,*h*. 396,*i*. 427,*a*. 449,*a*.
women having ſuffered Abort, how to be cured, 104.*h*
Abort how to be preuented, 312,*l*. 319,*f*. 339,*c*. 396,*l*,*m* 398,*m*. 403,*a*. 427,*a*. 448,*l*. 590,*m*, 591,*b*.
Abortiue fruit how to be fetched away when a woman trauelleth therewith, 180,*g*. medicines cauſing
Abort not to be put downe in writing, 213,*d*.
Abrodixtus, a ſurname that Paraſius the painter ſtiled himſelfe with, 536.*h*
Abron a painter, 549.*f*
Abſinthites. See Wormewood wine.
Abſterſiue medicines, 144,*g*. 197,*d*
Abſtinence from wine medicinable, 303,*c*. from all drinkes, *ibid*. from fleſh meats, *ibid*.

A C

Acacia, what it is, 194,*k*. from whence it commeth, *ibid*.*l* how drawne, *ibid*.
Academia, a houſe of pleaſure, 402,*g*. why ſo called, *ibid*.
Academica queſtions, why ſo called, 402.*g*
Acanos, or Acanon, what hearbe, 119.*f*
Acanthion, what hearbe, 194,*i*. the medicinable vertues thereof, *ibid*. how emploied in the Eaſt parts, 194,*k*
Acanthios. See Groundſwell.
Acaros, what it is, 237.*a*
Acaſigneta, an hearbe Magicall, 204,*g*. why ſo called, *ibid*. named alſo Dionyſonymphas, and why, *ibid*.*h*
Acceſſe eaſie and fauourable to princes, how to be obtained, 357.*b*
Acedaria, what they be, 12,*i*. why ſo called, *ibid*.
Acenteta, when they be, 603.*b*
Aceratæ, what ſnailes, 380,*l*
Acetabulum, what meaſure it is, 113.*e*
Achates, a pretious ſtone. See Agath.
Achilleæ, what Images, 490.*k*
Achilles how he is painted, 516,*h*
Achilleos, a ſingular wound-hearbe, 216,*i*. found by Achilles, *ibid*. he cured prince Telephus with it, *ibid*. the ſundry names it hath, *ibid*. the deſcription, *ibid*. the vertues, *ibid*.*k*
Achæmenis, a magicall hearbe, 203,*b*. the deſcription, *ibid*, the wonderfull operation, *ibid*. 244,*h*. why called Hippophobas, 203.*b*
Ach of the hill or mountaine Parſely, 24,*g*. the deſcription, *ibid*. See Oreoſelinum.
Acidula, a water medicinable, a fountaine medicinable,

A C

402,*l*. actually cold, *ibid*.
Acidulus, a fountaine, 402.*l*
Acinos what hearbe and the vertues, 111.*b*
Aconiti, what it ſignifieth, 549,*d*
Aconitum, a poyſonous hearbe, 43,*e*. a moſt ſpeedie poyſon, 269,*f*. the deſcription of it, 271,*a*. why called Cammoron, *ibid*. how it firſt was engendred, according to the Poets fables, 270,*g*. why called Thelyphonon, 271,*a*. how emploied for the killing of Panthers or Libards, 270,*i*. named by ſome Scorpion, and why. 271,*a*. by others Myoctonon, *ibid*. why called Aconitum, *ibid*.
what remedies againſt Aconitum. 43,*e*. 119,*a*. 153,*b*. 262,*h*. 170,*g*. 237,*f*. 270,*i*. 323,*d*. 363,*e* 431,*c*.
Aconitum how it may be vſed for the health of man, 270.*g*
Acopis, a pretious ſtone, 624.*h*. the deſcription and vertues, *ibid*.
Acopa, what medicines they be, 354,*l*. what go to them. 417,*d*. 426,*g*. 450,*i*. 591,*b*.
Acopos, an hearbe. See Anagyros.
Acornes, and their medicinable vertues, and properties. 177,*c*.
Acoros. See Galengale.
Acragas, a ſingular engrauer, 483,*e*. ſundry peeces of his handy-worke, *ibid*.
Acro, who was the firſt Empericke Phyſician that euer was, 344.*h*
Acrocorios, a kinde of Bulbe, 19.*a*
Act of generation how it is helped, 130,*h*. 131,*a* 132,*g*. See more in Venus. how it is hindered. 58.*k* 59,*d*. 187,*a*. 190,*h*. 221,*d*. 256,*l*. See more in Venus.
L. Actius the Poet. 490.*l*
L. Actius being of low ſtature, cauſed his ſtatue to be made tall. *ibid*.
Actius Nanius the Augur, 491.*b*
Actius Nanius his ſtatue erected vpon a Columne at Rome, *ibid*.

A D

Adad, the Aſſyrian god, 630.*h*
Adad-Nephros, a pretious ſtone, *ibid*.
Adamantis, a magicall hearbe, 203.*c*. why ſo called, *ibid*. the ſtrange vertues and properties thereof. *ibid*.
Adarca. See Calamochnus.
Adarce, what it is. 74,*l*. the vertues and properties that it hath, *ibid*.
Adders tongue. See Lingulaca.

Aditiales Epulæ, or Adijciales, what feasts they be, 355.c
Admiranda, the title to a booke of M. Ciceroes, 403.b
Adonis garden, 91.c
Adonium a flowre, ibid.
in Adoration of the gods what gesture obserued, 297.e
Adulterie how a woman shall loath and detest, 434.k

A E

Ægilops, a kinde of bulbe, 19.b
Ægilops an hearbe, 235.a. *the qualitie that the seed hath,* 99.c.
Ægilops, what vlcer, ibid.
Ægina, an Island famous for brasse founders, 488.b *in great name for the branchworke of brasen candlestickes there made,* ibid.k
Ægipt stored with good hearbes, 96.l. *what they be,* ib. 97.b
Ægypt famous for singular hearbes, and commended therefore by Homer, 210.l
Ægiptian beane, 111.c. *the vertues,* ibid.
Ægiptilla, a pretious stone, 625.a. *the description,* ib.
Ægles, why they hatch but two at one airie, 590.k
Ægle stone. See Aëtites.
Ægophthalmus, a pretious stone, 630.i
Ægolethron, an hearbe, 94.b. *why so called,* ibid.
Ægonichon. See Greimile.
Ægypios, a kinde of Vulture or Geere, 365.d
Æra Militum, what, 486.i
Ærarium, the treasurie of Rome, why so called, ibid.l
Ærarij Tribuni, what officers in Rome, ibid.
Aëroïdes, a kinde of Berill, 613.d
Æroſum, what gold, 472.g
Æchines, a Physitian af Athens, 301.e
Æschynomene, a magicall hearbe, 204.i. *why so called.* ib. *the strange qualitie that it hath,* ibid.
Æsope the player his earthen platter, 554.g
Æsope the Philosopher, 578.g. *a bondslaue together with Rhodope the harlot,* ibid.
Aëtites, a pretious stone, why so called, 396.l. 590.k. *foure kindes thereof,* ibid. *male and female,* ibid. *their description,* ibid. *the vertues of them all,* ibid.m
Aëtites, a pretious stone, 630.i
Æthiopis, a magicall hearbe, 244.g. *the incredible effects thereof,* ibid. *from whence we haue it,* 269.d *the description of it.* 271.c. *the roots medicinable,* ibid.d

A F

Africa, the word is a spell in Africke, 297.d

A G

Agaricke, what it is, 227,d. *male and female,* ibid.d,e *the ill qualitie that the male hath,* ibid.
Agath, a pretious stone, 623,d. *why called Achates,* ibid. *the sundry names that it hath,* ibid.
Indian Agaths represent the forme of many things within them, 623.f
the Agath serueth well to grind drougs into fine powder, 623.f.
diuerse kindes of Agaths, 624.g
the chiefe grace of an Agath, ibid.
incredible wonders reported of the Agath by Magicians, 623,b.
Agath of King Pyrrhus, with the nine Muses, and Apollo therein naturally, 601,a,b
Agathocles, a Physician and writer, 131.e
Agelades, a famous Imageur in brasse, 497,c. *hee taught Polycletus,* ibid. *his workes,* ibid. *he taught Myro,* 498.b
Ageraton an hearbe, 271.d. *the description,* ibid. *why so called, and the vertues.* ibid.
Aglaophotis, a magicall hearbe, 203,a. *why so called,* ibid. *why named Marmaritis,* ibid. *vsed in coniuring and raising spirits,* ibid.b
Agnels how to be cured, 38,i. *See more in Cornes.*
Agnus Castus a tree, 257.c
Agogæ, what conduits they be, 468.m
Agoracritus, an Imageur in Marble, 565,d. *beloued exceedingly by his master Phidias.* ibid.
Agrimonie, an hearbe, 220,k. *why called Eupatoria,* ibid. *the description,* ibid. *the vertues,* ibid.l
Agrion a kinde of Nitre, 420.b
Agrippa Menenius enterred at the common charges of the Romane Citizens, 480.i
M. Agrippa how he cured the gout with vinegre. 156.k *his admirable workes during the yeare of his Ædileship.* 585,e. *how he conueighed seuen riuers vnder Rome.* 582.b
Agues, what medicines they do require, 137.a. *See more in Feuers.*

A I

Aire of sea water wherefore good, 412.k
Aire, which is good to recouer strength after long sickneſſe, 181.d.
change of Aire, for what diseases good, 303.e

A L

Alabastrum, See Stimmi.
Alabastrites, what kinde of stone, 574.g. *what vses it serued for.* ibid. *the degrees thereof in goodneſſe,* ibid.b
Alabastrites a pretious stone, 624,i. *the place where it is found,* ibid. *the description and vertue,* ibid.
Alabastrites, a kinde of Emerand, 613.a
Albicratense, a gold mine in France, yeelding the best ore, with a 36 part of siluer, and no more, 469.e
Albi, hils in Candie, 408.k
Albucum, what it is, 100.g
Albulæ, what waters about Rome. 402.m
Alcamenes, a fine Imageur and engrauer in brasse and marble, 501,a. *his workes,* ibid. 565.d
Alcæa, an hearbe, 249.b
Alcæa, an hearbe, 272.k. *the description,* ibid.l
Alcæus, a Poet and writer, 131.a
Alcibiades honoured with a statue at Rome, 492.i. *reputed the hardest warriour,* ibid.
Alcibiades, most beautiful in his youth & childhood, 568.g
Alcibion, an hearbe, 275.e. *the vertues,* ibid.
Alcimachus a feat painter, 549,c. *his workemanship,* ibid.
Alcisthene a woman and a paintresse, 551.a
Alcmena hardly deliuered of Hercules, 304.m. *the cause thereof,* ibid.
Alcon the Imageur, 514.g. *he made Hercules of yron and steele,* ibid.
Alcontes, a rich Chirurgian, 348.g. *well fleeced by Claudius Cæsar,* ibid.
Alder tree what vertues it hath in Physicke, 189.c
Alectoriæ, pretious stones, 624.i. *why so called,* ib. *the vertues,* ib. *why Milo the wrestler caried it about him.* ibid.
Ale, an old drinke, 145,b. *what nourishment it yeelds.* 152.g

20030
copy 1

Alectorolophos, an hearbe, 275.c. the deſcription and vertues. ibid.
Alax, what kinde of ſauce, 418.g. how made, ibid. the vertue and vſe thereof in Phyſicke, ibid.i
Aleos, a riuer of a ſtrange nature, 403.d
Alexander otherwiſe called *Paris*, excellently wrought in braſſe by *Euphranor*, reſembling a iudge, a louer and a murderer, 502.g
K. *Alexander* the great vſed to viſit *Apelles* the painter his ſhop, 538.m. he gaue away his concubine faire *Campaſpe* to *Apelles*, 539.a. a conqueror of his owne affections. ib.b
Alexipharmaca, what medicines they be, 106.h
Aliacmon, a riuer, 403.d
Alica, what it is. 139.c. compared with Ptiſane. 140.k
See Frumentie.
Alincon deſcribed. 128.l.m. two kindes thereof, and their vertues. 129.a
Aliſanders, an hearbe. 24.g. how ſtrangely it groweth. 30.g the vertues thereof. 54.i. See Hippoſelinum.
Aliſma, what hearbe. 231.a. the names that it hath. ibid. the deſcription. ibid. the two kindes and vertues. ibid.
Alkakengi, an hearbe. See Halicacabus.
Alkanet. See Orchanet.
Almond, a diſeaſe of the throat. See Amygdales.
Almond tree what medicinable vertues it affourdeth. 171.d
Almond milke, ibid.e
Almonds bitter, their vertues, ibid.e.f
Almonds ſweet their medicines, 172.g
oyle of *Almonds*. 161.b. the effects thereof. ibid.
Aloe, an hearbe. 251.b. the deſcription. 271.d.e. an excellent wound-hearbe. ibid. how the iuice is drawne out of it. ibid. a gum iſſuing from it without inciſion. ibid.
Aloe mineral about Ieruſalem. 271.f
the concrete iuice of *Aloe* how to be choſen. ibid. how it is ſophiſticated. 272.g the manifold vertues it hath. ib. the onely purgatiue comfortable to the ſtomacke. ibid. the doſe of *Aloe*. ibid.h
Alopecia, a diſeaſe, when the hair falleth vnkindly from the head and beard. 232.h.i. 364.l. the remedies. See Haire ſhedding and baldneſſe.
Alſine, an hearbe. 272.m. the reaſon of the name. ibid. the deſcription. ibid. called by ſome *Myoſ-oton*. ibid. and why 273.a. the vertues, ibid.
Alpheus, a riuer running vnder the ſea. 411.b
Alphion, a meere, hauing water medicinable. 403.a
why ſo called, ibid.
Althæa, what kind of Mallow, 71.e
Alum, an hearbe. 275.d. the deſcription. ib. the vertues. ib.e
Alume, what it is. 558.g
Alume white or cleare, the vſes thereof. ibid.g.h
Alume blacke or dim, and the vſes thereof. ibid.
Alume how engendred, how made. ibid.h
Alums Minerall, where, ibid.
two principall kindes of *Alume*, ibid.i
Alume cleare, the vertues, ibid.
Alume Schiſtos, for what it is good in Phyſicke. ibid.k.l
Alume, which is ſimply the beſt. 559.a. it taketh the name in Greeke of the aſtringencie it hath, ibid.
Alume vſed to trie and fine gold. 466.i
Alutatio, what it is. ibid.l
Alypon, an hearbe. 272.l. the deſcription. ib. the vertues. ib.
Alyſſon, what hearb. 192.k. why ſo called. ibid. how it differeth from Madder. ib. the wonderfull operation of it. ib.l

A M

Amatorious medicines and meanes making thereto, 40.l 41.b. 119.c. 237.c. 278.k. 288.l. 299.e. 313.b. 314.h.
to withſtand *Amatorious* drinkes, a remedie, 316.g
Amazon, an image, why called *Eucnemos*, 503.a
Amazones, Images of warlike women, repreſented by diuers artificers, 501.e
Amber in requeſt next to Criſtall, 605.c. *Plinie* ſeeth no reaſon thereof, ibid.d
Poets fables as touching the originall of *Amber*. ibid.e
Amber, why it is called *Electrum* in Greeke. ibid. ſundrie opinions as touching *Amber*, & the beginning therof. 606.g
Amber called *Succinum*, *Thyeum*, and *Sacrum*, 607.a
the true originall of *Amber* according to *Plinie*, ibid.d
worne much in Lumbardie and thoſe parts in old time, as an ornament, and medicinable beſides. ibid f. how to be cleanſed, 608.b
the ſundry kindes of *Amber*. ibid. which is beſt, ibid.i. it is apt to take a tincture or die, ibid.
Plinie ſeeth no cauſe why *Amber* ſhould be ſo much eſteemed, 608.l.m
what *Amber* is called *Chryelectrum*, 609.b. the properties of this gold *Amber*, ibid.
Amber is proper to counterfeit the *Amethyſt*, ibid.c
the vertues of *Amber*, 608.k
Ambroſia, properly what hearbe. 222.h. called it is *Artemiſia*, 273.d
Ambroſia, a common name to many hearbes, ibid.
Ambroſia the right deſcribed. ib. why it is called *Botris*. ib.
Ambroſia, one of the names of Houſleeke, 237.c
Ambugia, or *Ambubeia*, what hearbe, 47.d
Ambuſhes and ſecret forelayings how to be auoided. 111.b
Amerimnos, one of the names of Houſleeke, 237.c
Amethyſt, a pretious ſtone, 620.m
Amethyſts, which are beſt. ibid. where they be found, ibid.
the reaſon of the name *Amethyſt*, 621.a
Amethyſts Indian of a deepe purple colour, ibid.
Amethyſt inclining to a Iacinct, the Indians call *Sacodion*, and the colour *Sacon*, ibid.
what *Amethyſt* the Indians call *Sapiros*, 621.b
the *Amethyſt Paranites*, why ſo called, ibid.
the beſt *Amethyſts* what properties they haue, ib.
beſt *Amethyſts* called *Pæderotes* and *Auterotes*, ibid. why they be called *Venus* gems. ib. the reaſon of the name *Amethyſt*, according to the Magicians. 621.c. the vanities of the Magicians as touching this ſtone. ibid.
Amiant ſtone, 589.a. the deſcription and vertues, ibid.
Ammi, what hearbe, and the vſes thereof, 62.i
Gum *Ammoniacke*, 180.k. the vertues that it hath. ibid.
Ammonitrum, what it is, 598.g
Amomum, 247.b
Ampelites, a kinde of earth medicinable, 560.g. how to be choſen, ibid.
Ampelolince, what plant. 149.c. the deſcription, ib.d
Ampelopraſos, what hearbe. 199.b. the vertues it hath. ibid.
Ampelos Chironia, what hearbe, and why ſo called, 215.a
Amphion a painter, excellēt for diſpoſition of his work. 537.f
Amphiſbæna, a ſerpent or venomous worme, 70.k
the ſtrange effects and nature thereof, 387.e. why ſo called. ibid. the remedie againſt the venome thereof, 70.k
Amphyctions, who they were, 553.f

Amphitane, a pretious stone, 624.m. called also *Chrysocolla* ibid. the force of it, ibid. it draweth gold as the loadstone yron, ibid.
Amygdales of the throat and their inflammation how to be cured, 51.a.59.e.64.k 70.g.71.c.102.i.120.k.123.c 135.d 138.g.165.e.169.d. 200.k.245.b. 272.i.301.e 328.i.419.b.559.a.c.
Amylum. See Starchfloure.
Amulius a painter giuen to grauitie and formalitie, 545.e his *Minerua* and other workes, ibid.

A N

Anabasis, what hearbe, 246.i
Anacampseros, a magicall hearbe, 204.k. the strange operation thereof, ibid.
Anadyomene Venus, the famous picture wrought by *Apelles*, 539.b. how highly it was esteemed by *Augustus Cæsar*, 540.g. the hurt it tooke was the credit of it, ib.b
Anadyomene, another painted table begun by *Apelles*, but neuer finished by him or any other, ibid.
Anagyros, 273.e. the description, ibid.
Anancitis, a pretious stone, 631.a. the vertue it hath, ibid.
Anapauomenos, a painted table of *Protogenes* his making, 543.b. the reason of the name, ibid.
Anarrhinon, an hearbe. See calues snout.
Anaxilaus, a writer in Physicke, 236,i.450,k
Anchusa, what hearbe, 278.d.124,k.125,b. the description and vse, ibid. See Orchanet.
Andrachne Agria, an hearbe, See Illecebra.
Andreas, a Physitian and writer, 68.g
Androbius, a fine painter. 549.b
Androdamus, a stone, 590,b. why so called, ibid. the nature and proofe, ibid.
Androdamus, a pretious stone, 624,i. the forme and reason of the name, ibid.
Androsaces, an hearbe, 273,a. the description, ibid. the vertues. ibid.
Androsemon, an hearbe, ibid.b. the description, ibid. why so called, ibid. the vertues, ibid.
Anemone, 109.d
Anemone Coronaria, an hearbe proper for guirlands, ibid.c
Anemone vsed in Physicke, ib. three kindes of *Anemone*, ib.
Anguinum, what kinde of egge. 353,f. the ensigne or badge of the *Druida*, Magicians of France, 354,b. the vertues, ibid.i
Anio a water seruing Rome, 595,d
Anonis, an hearbe, 273,e. the description, ibid.
Ankles swelling how to be allaied, 258,k
Anonymos, an hearbe, 274,g. why so called, ibid. incredible things reported by this hearbe, ibid.b
Anthalium, an hearbe in *Ægypt*, 97,a. the description and vse thereof, ibid.b
Anthalium, 111.d
Anicetum. See *Anisum*.
Anisum, an hearbe, 30,l.65,d. how necessarie it is in the kitchin, and otherwise, ib. the degrees of *Annise* in goodnesse, ibid.f. why it is called in greeke *Anicetum*, ibid. how it is hurtfull to the stomacke, 67,b
Antachates, a pretious stone, 623.e
Anthemis, what hearbe, 125.c
Antheneum, an hearbe, 255,b. the description, ibid.
Antheræ, what compositum, 188.k
Anthericon, the main stem of the *Asphodell*, 128,g. annoied much by Snailes, ibid.
Anthologicanum, bookes treating of floures, 82.i
Anthracites, a kinde of *Schistos*, 590.i. the description and nature, ibid.
Anthriscus, an hearbe, 130.b
Anthyllion or *Anticellis*, an hearbe, 111.d the description and vertues, 254.m
Anthyllis, an hearbe described, ibid.m
Antimonium, 366.k. See *Stibi* or *Stimmi*.
Anthracites, 630.l
Anthermus. See *Bupalus*.
Antidotus, a cunning painter, 547,e. wherein he excelled, ibid. he taught *Nicias*, ibid.
Antheus reproued by *Pliny* for making medicines of a mans skull. 294.g
Anthropographus, the surname of a painter, 544.k
Antidotes, what they are, 289.f
Antipater, a fine grauer, 483,e
K. *Antipater* practised with *Aristotle* to kill K. *Alexander* the great, 400.b
Antipathia, a kinde of vernish for yron workes, 515.e
Antipathie betweene the Puffin or Forke-fish, and plants, 430,b.
Antipathie betweene red Deere and Serpents, 321.d
Antipathes a pretious stone, 624.k. the forme and triall of it ibid good against eie-biting of Witches, ibid. other vertues there of, ibid.
Antiphilus, a commendable Painter, 549,a. his workes, ib.b 544.k.l.
Antirrhinon, an hearbe. See Calues snout or Snapdragon.
Antispodium, what it is, and the vertues thereof in Physicke 159.f.168,b.
Antispodos, what, 512.i
Antistius Vetus possessed of *Ciceroes Academia*, maintained it, 402.b
Antonius Musa, a renowned Physitian, 344.i. he changed the order of Physick before his time, k. his cure of *Augustus Cæsar*, contrarie to the course of other Physicians, ib.
M. Antonius his Admirall ship staied by the fish Echeneis before *Actium*, 426 g. he made counterfeit money, and sent it abroad, 479,a. See more in Cleopatra.
S. Antonies fire, a disease, the remedies for it 38,i.41,d.45.c 46,i. 47,b. 58,b. 68,b.70,b. 71,b. 72,k. 102,l. 103,b 104,b. 105,a. 111.f. 122,k, 123,c. 140,b. 142,g 146,k. 158.g.l. 159,c. 161,a. 174,k. 184.g. 191.d 193,d. 194,m. 197,a. 205,a. 278,l.284,k. 307,c 309,d 336,m. 336,a. 351,d,f. 391,f. 392,g. 419,d 424,b.433,b.446,l.450,k.475,a.
Anubis, the god of the *Ægyptians*. 478.l
Anulare, a kinde of white colour, 531,d. why so called. ibid.

A P

Apparell how to be kept sweet, 162,i.110.i, how to be preserued from vermine, 264.b
Aparine what hearbe, 274.i
Aphaca, an hearbe, 99,d
Aphace, an hearbe, 275,b. the description, ibid.
Apelles, a writer in Physicke, 316.c
Apelles, the most excellet painter that euer was, 437,d. whē he flourished, ibid. his perfection, ibid. he wrot bookes of painting, ibid. his grace or Venus in all pictures inimitable, ibid. he knew when to make an end, 537.e. wherefore he reproued *Protogenes* in his worke, ibid. the historie of him

20030
copy 1

him and Protogenes at Rhodes. 558.*g.h.i.his excellent hand in drawing a ſmall line. ibid. his ordinarie and daily exerciſe,and his Apothegme thereupon.ibid.k.hee expoſed his pictures to the cenſure of people paſſing by in the ſtreet. ibid.k.l*

Apelles thought not ſcorne to be reproued in his workemanſhip.ibid.l. his apothegme to a ſhoomaker, finding fault with ſomewhat above the ſhooe in his picture ibid.m. his courteſie and faire language. ibid. beloued of King Alexander the great. ib. how mildly he reproued king Alexander being in his ſhop.539.a. in loue with Campaſpe, whom he drew naked. ibid. by what patterne he made Venus Anadyomene. ibid b. of a kinde nature to other painters of his time. ibid. how he brought Protogenes into credit.ibid c.his dexteritie in reſembling fauour and countenance moſt liuely.ibid.d. what welcome he had in king Ptolomees court in Egipt.ibid.e.how he was couſened there,and how he detected the couſener.ib. how he painted king Antiochus, who had but one eie. ibid.f.his picture of king Alexander, holding lightening in his hand 540.i.the price thereof.ibid other workes of his.ibid k.l.m.541.a.b.c. the horſe which he painted in contention with others.540.m.his deuiſe to haue iudgement paſſe iuſtly on his owne ſide.541.a. how he painted things that cannot be pourtraied.ibid.b.the ſecret of his blacke verniſh. ibid.c

Aphrodiſiace. 624.*m*

Aphrodiſium, a riuer. 403 *a*

Aphron, a kinde of Poppie, why ſo called. 69.*a.b*

Aphye, what fiſh, and why ſo called. 418.*h*

Aphytacores, certaine trees.606.m.what the word ſignifieth. ibid.

Apiaſtrum,what hearbe according to Plinie.54.i.the vertues and effects. ibid.

Apicius the glutton loathed the crops of Coleworts. 26.*g*

Apilaſcus, what it is. 467.*a*

Apion ſurnamed Pliſtonices.613.b. he raiſed vp ſpirits to know what countriman Homer was. 375.*c*

Apios-Iſchas,what hearbe.253.b.the deſcription. ibid. the root medicinable, and when to be digged. ibid. why it is called the wild Radiſh. ibid.

Apocynon, a bone in a Toads ſide of wonderfull power. 435.*a.why ſo called. ibid.*

Apocynon,a ſhrub deſcribed.193.a. bane to dogs and other foure-footed beaſts. ibid.

Apollodorus,a moſt curious workeman in braſſe.502.l. hee neuer reſted content with his owne workemanſhip.ibid. ſurnamed Inſanus, i. Mad, and why. ibid.m

Apollodorus,a writer in Phyſicke.119.a.two of that name. 39.*d.*

Apollodorus an excellent Painter.534.b.what were his inventions. ibid.his workes. ibid. he opened the dore for other artiſans. ibid.

Apollonius Pytaneus, a writer in Phyſicke. 366.*i*

Apollonius reproued for vſing the members of mans body in Phyſicke. 294.*g*

Apollonides, a cutter in pretious ſtones. 601.*d*

a great Magician. 373.*c*

Apollophanes,an herbariſt and writer in Phyſicke. 126.*b*

Apoſtopos, a picture. 549.*b*

Apothecaries,their deceitfull dealings.507.e. againſt them and their compoſitions. 176.*l*

Apoxyomenos,a braſſe image of Lyſippus his making.499.b Tiberius the Emperour was enamored on it. ibid.

Apoſtemes or ſwellings tending to ſuppuration, how they are cured 38.b. See more in Impoſtumes and Tumors.

Appetite to meat, what medicines ſtir vp.41.b.59.c.63.e. 65.e.f. 108.g. 143.e. 147.b. 148 g. 155.e. 171.d. 174.k. 194.b. 202.b. 277.a. 286.m. 359.c. 416.l. 418.k.l.437.c.

Apples Melimela, or honey Apples,what medicinable vertues they haue. 164.*b*

Apples round what vertues they haue in Phyſicke. 164.*i*

Apronia,what plant. 150.*i*

Aproxis an herbe, the wonderfull vertue thereof. 202.*l*

Apua, a fiſh. 418.*b*

Apuſcidamus, a lake, wherein all things ſwim. 404.*i*

Apuſcorus a Magician. 372.*i*

A Q

Aquifolia. 279.*c*

Aquilius, a Romane generall taken priſoner by K, Mithridates. 463.*e. forced to drinke molten gold. ibid.*

A R

Arabica, a pretious ſtone. 624.*k. like to yuorie. ibid. the vertues. ibid.*

Arabicke bloud ſtone, why ſo called. 590.*b*

Arabus, a ſtone. 591 *b. the vſe of it. ibid.*

Arcadia a towne ſo called in Creet. 410.*l*

Arcebion, what herbe. 125.*b*

Arceſilaus, an excellent workeman in potterie. 552.*l his moulds in cley exceeding deare.ibid.his workes. ibid.*

Arceſilaus,a ſingular imageur in marble, his Lioneſſe and the Cupids. 570.*i*

Archagathus,the firſt profeſſor of Phyſicke in Rome.345.e firſt called the vulnerarie Phyſician or Chirurgion.ib.f afterwards named the bloudie butcher,. 346.*g*

Archangell. See Dead Nettle.

Archers how they ſhall ſhoot and neuer miſſe. 313.*d*

Archezoſtis, an hearb. 260.*g*

Arcion. See Perſonata and Perſolata.

Arction,an hearbe.274.k.the deſcription.ib.the vertues.ib.

Arcturus, an hearbe. See Arction.

Archigallus, a picture wrought by Paraſius. 536.*g. how highly eſteemed by Tiberius the Emperor. ibid.*

Arellius, a painter giuen to looſeneſſe of life, and to wenching. 545.*d*

Arethuſa the fountaine ſenteth ſometime of dung. 411.*b the reaſon thereof. ibid.*

Argemonia, an herbe,how it differs from Anemone. 109.*d*

Argemonia,an herbe.227.c.the vertues that it hath. ibid. three kindes and their deſcription. ibid d

Argentaria,a kinde of chalke or white earth.560,l.why ſo called. ibid.

Argyrodamus, a pretious ſtone. 624.*k*

Arianis, a magicall hearbe. 203.*d. the ſtrange operation thereof. ibid.*

Aris, what hearbe. 200.*d*

Ariſtida, what hearbe. 283.*d*

Ariſtides, a famous painter 541.e.his gift in expreſſing the conceptions and diſpoſitions of the mind.ib.d.the perturbations alſo.ib.his admirable picture of a ſucking babe. and the mother dying vpon a mortall wound. ib.b. ſundrie excellent peeces of his handiworke. 541.e.f.542.g. for one picture he receiued 100 talents of ſiluer. ibid.

Aristides, a Painter, 544.h
Aristius, a fine grauer, 483.e
Aristoclides, a good Painter. 549.a
Aristogiton, a Physitian and writer. 274.g
Aristogiton honoured with an image of brasse for killing Pisistratus the Tyrant. 490.g
Aristolaus, an approued Painter. 548.l
Aristonidas, a cunning imagenr. 513.e. *his deuise to expresse the furie and repentance of Athamas both together.* 513.f
Aristophon, a cunning Painter. 549.b
Aristolochia, an hearbe. 226.g. *the foure kindes.* g.h.i. *the round, the male, Clematis or of Candie, Pistolochia.* ibid. *their description.* ibid. *their medicinable vertues.* ibid.k
Aristolochia, the round, why of some it is called the poyson of the earth. 226.k. *See more in Birthwort.*
Aristotle a Philosopher. 303.e. *noted for deuising a cup of a Mules houfe to carrie poyson in it.* 400.h
Arithmeticke necessarie for painters. 537.b
Arme-holes, the ranke and strong smell how to be remedied. 101.b. 105.d. 128.k. 131.b. 207.f. 379.f. 422.l 558.k.
Armenius lapis. See Verd-de Azur.
Armoracia, a kinde of Radish medicinable. 39.b
Arnutius a Physitian growne to great wealth. 344.l
Aromatites, a pretious stone. 624.k. *much vsed by Queenes and great ladies.* ibid.
Arrenogonum, what hearbe. 257.d
Arrugia, what they be in searching for gold. 467.c
Arsen. See Mandragoras.
Arsenicke of three kindes. 521.a. *their description.* b. *their vertues.* ibid.
Arsenogonon, an hearbe described. 268.h. *the vertue that it hath.* ibid.i
Artemisia, an hearbe. 222.g. *called sometime Parthenius, and why.* ibid. *wherefore it tooke the name Artemisia.* ib. *the description of it.* ibid.h. *the vertues.* 232.g
Artemon, an effeminat person. 498.g. *why surnamed Periphoretos.* ibid.
Artechoux described 78.l. *their vertues.* ibid. *they cause desire of drinke.* ibid.m. *they helpe in the act of generation.* 131.a. *See more in Thistles.*
Artemon a Physitian. 294.g. *reproued for his magicall medicines made of the parts of mans bodie.* ibid.
Artemon, a singular painter. 549.c. *his peeces of worke.* ibid.
Arteriacum, a composition in Physicke. 69.b. *how it is made.* ibid.

A S

As, in Rome what it signified. 462.k
As, of twelue ounces, stamped with the image of a sheepe. 462.l.
As, of two ounces, stamped with a two-faced Ianus of one side, and the beakehead of a ship on the other. 463.a
As, of one ounce. ibid.b. *of halfe an ounce.* ibid.c
an Asse delighteth in the hearbe Ferula, or Fennell geant. 176.b.
Asses houfe burnt to ashes, medicinable, 324.l
Asses greene dung medicinable. 325.e
Asses consecrated to Bacchus, and why. 176.b
Asses yeeld remedies against serpents and scorpions. 322.l
Asse soles vrine what it is good for. 324.b. *how to be corrected.* ibid.
Asses yeeld many medicines, but the wild Asse is most effectuall. 323.b
the stone that a wild Asse voideth with his vrine, being killed in chase is very medicinable. 333.e
Asarotos œcos, in Pergamus, the common hall, why so called. 596.b
Asarubas his opinion as touching Amber. 606.k
Asarum, or Asarabacca, an hearbe. 104.i. *the medicinable vertues thereof.* 104.i
Asbestinum, a kinde of Line or Flax. 5.a. *the admirable vse thereof.* 4.m.5.a
Asbestos, a pretious stone. 624.l
Ascalabotes, what it is. 361.b
Ascanius, a lake of Nuire. 420.m
Ascalonia, what kinde of Onion. 20.g. *why so called.* ibid. *the properties.* ibid.
Asclepias, an hearbe. 274.l. *the description and vertues.* ibid.l.m.
Asclepiades, the author of a new profession in Physicke. 344.i. *hee reuiued and cured one supposed to bee dead and carried forth to his funerals.* 243.d. *at first he was an Oratour, and afterwards became a Physician* 242.m *he altered the practise of the former Physicke.* 243.a. *he deuised fiue principall remedies for all diseases.* ibid. *which they are.* ibid. *he was called the cold water Physitian, because he allowed his patiets to drinke cold water.* c
Asclepiades deuised bathing first, and pendant beds for the sick. 243.c. *his deuises whereby he grew in credit.* ib.d
Asclepiodorus, a painter, excellent in measures and proportions. 537.f. *admired therefore by Apelles.* 543.e *his picture of the twelue principall gods.* ibid.d. *what reward he had for it from King Mnason.* ibid.
Ascyroeides. an hearbe. 275.a. *the description.* ibid. *why it is called Androsemon.* ibid.
Ascyron and Ascyroeides, hearbes resembling one another. 275.a.
Ash tree, the medicinable vertues thereof. 184.l. *the seed and cods which it beareth.* ibid.
Ashes of a man or womans bodie burnt, medicinable. 301.e
Asio, a kinde of Owle. 366.i
Asplenum, an hearbe. 274.k. *the description.* ibid. *the vertues.* ibid.l
Asplenas reproched for his poysoned earthen platter. 554.k
Asprenates, a familie at Rome. 383.d. *two brethren of that name, how cured of the Collicke.* ibid.
Asperugo, an hearbe. 258.h. *why so called.* ibid.
Asphodell an hearbe. 99.f. *the description.* ibid. *the vse of root and seed.* ibid.a *soueraigne hearbe.* 127.e. *the harme that commeth by Asphodell seed,* 128.e
Asphilate a pretious stone. 624.l. *two of that name, and their description and vertue.* ibid.
Aspis, a venomous serpent killeth by a sleepie poyson, and is killed likewise by a soporiferous hearbe. 113.a.b
Aspis a most deadly serpent with a sting. 356.k. *it killeth by drousinesse.* ibid. *inwardly taken, it is no poyson.* ibid.
how the Aspis may be intoxicated. 201.b. *the miraculous cure of a man stung with an Aspis.* 156.h. *what remedies against the venomous sting of the Aspis.* 67.b. 106.i 143.d. 200.g. 228.g. 355.e. 356.g. ibid l.
Assaults of serpents, wild beasts, and theeues, how to bee anoi-

20030
copy 1

auoided. 359.b
Aſſius, a ſtone medicinable. 587.e. the floure of this ſtone good in Phyſicke. ibid.f
Aſtaphis, what it is. 148.k
Aſter an hearbe. 274.m. the deſcription. ibid. why called Bubonium. ibid.
Aſter a kinde of Samian earth. 559.d. the vſe in Phyſicke. ibid.e. how knowne. ibid.
Aſteria, a kinde of white gem called a Giraſole. 622.i. the deſcription and reaſon of the name. ibid.k
Aſtericum, an hearbe. 123.d. the deſcription. ibid.
Aſterion, a kinde of ſpider. 360.i
Aſtragalus, what hearbe. 249.b. the vertues. ibid.c
Aſtragalizontes. 497.f. an excellent peece of work wrought by Polycletus. 498.g
Aſtrape, a picture of Apelles his workemanſhip. 541.b
Aſtrapias, a pretious ſtone. 630.l
Aſtrios, a pretious ſtone of a white colour. 622.k. the deſcription and reaſon of the name. ibid.l
Aſtringent medicines. 48.g. 141.a. 147.a. 148.h. 158.i 161.c. 162.g. 163.e. 172.l. 175.b. 182.m. 192.h 194.g. 195.d.f. 196.i. 223.c. 237.e. 249.c.ib.f.250.g 255.a. 263.d. 275.b. 277.a. 278.i. 281.c. 284.h 286.k. 287.b.d. 319.b. 418.k.l. 421.e. 473.d. 474.h 485.b. 506.m. 511.c. 516.h. 519.c. 520.m. 529.d 557.d. 559.i. 556.a.
Aſtringent medicines and binding the belly, bee diuretical. 249.c
Aſtroboles a pretious ſtone. 622.l
Aſtroites, a pretious ſtone. ibid.
Aſtylis, the hearbe Lectuſe, why ſo called. 24.k
Aſturia the richeſt part of Spaine for gold mines. 469.c
Aſyctos, a pretious ſtone the forme and vertue of it. 625.a
Aſyla, what hearbe. 234.l

A T

Atalanta, her picture at Lanuvium. 525.d
Athamanticum, a kinde of Spikenard or Meu. 77.a. why ſo called. ibid. the deſcription. ibid.
Athara, what it is. 138.i
Athemon of Marona, an excellent Painter, wherein he excelled, and his workes. 548.h.i
Atizoe, a pretious ſtone. 624.l. the forme and vſe thereof. ibid.
Atlantion, what it is. 312.m
Atramentum, painters blacke, an artificiall colour. 530.h
Atramentum Sutorium naturall. See Vitriol.
Atrophia, what infirmitie and defect of the body. 143.c the remedies thereof. ibid. 317.d.e.318.h
Atrophi, who they be. ibid.
Atractylis, an hearbe. 97.c. why ſo called. ibid.
Attalus, a writer. 297.c
Attalica veſtis, what kinde of cloath. 466.g
Attelabi, a kinde of vnwinged Locuſts. 361.d
Attir in the breaſt & chiſt how to be diſcharged 58.g.67.d See more in Breaſt.
Attractiue medicines to the outward parts. 139.b. See more in drawing.

A V

Auens, an hearbe. 247.d. the deſcription and vertues. ibid.
Auernus, a lake wherein nothing will ſlote. 404.i
Aufeia, what water. 408.g
Augites, a pretious ſtone, thought to be Callais, or the Turquois. 624.m
Auguſtus Cæſar ſigned at firſt with the image of Sphinx. 601.e. the ſeaſt that aroſe thereupon. ibid.f. he gaue it ouer, and vſed afterward the image of king Alexander the great. 602.g
Auguſtus Cæſar his owne image ſerued as a ſignet vnto his ſucceſſors to ſeale withall. 601.d
Auguſtus Cæſar crowned with an obſidionall or graſſe coronet. 117.e.f
Auli, the male ſhell-fiſhes. 444.h
Auncients commended for their induſtrie. 165.e. 208.c. for their loue to poſteritie. ibid.l. 209.c. for their labour and trauaile. 209.a
Auſtrauia, an Iſland, the ſame that Gleſſaria. 607.d
Autolicus a boy, repreſented lively in braſſe by Leocras the Imageur. 502.i
Autopyros, a kinde of bread. 141.a. how medicinable. ibid.

A X

Axinomantia, what kinde of Magicke. 589.d
Axungia, what greace it is. 320.i. why ſo called. ibid. the vertue and vſe in Phyſicke, and otherwiſe. ibid.

A Z

Azonaces taught Zoroaſtres art Magicke. 372.i.
Azur minerall or naturall. 484.h. what it is. ibid.l. ſundrie ſorts. ibid.
Azur artificiall. ibid. how it is coloured. ibid.
Azur the beſt how it is knowne. 485.a
falſe Azur how it is made. ibid.b
the vertues medicinable of Azur. ibid.

B A

Babes how preſerued from eye-biting of Witches. 300.i See Infants.
Bacchar, an hearbe. 85.e. the root onely is odoriferous. ibid. what ſauour it hath. ibid. where he loueth to grow. ibid. how medicinable it is. 104.g
Bacchus his image moſt cunningly wrought in marble by Scopas. 568.g
Backe paine how to be eaſed, and the weakeneſſe ſtrengthened. 49.e.52.g.53.a.54.h. 125.a.191.d.199.b.248.i 313.b.450.i.
Baianus, a vale full of medicinable Springs. 401.d
Baines naturally hot, became of a ſuddaine cold. 411.b
Baines hot not vſed for Phyſicke in Homers daies. 412.h
Baines of Brimſtone, for what good. ibid.
Baines of Bitumen in what diſeaſes medicinable. ibid.
Baines of Sal-nitre for what infirmities wholeſome. ibid.
Baines of Alume in what caſes good. ibid.
hot Bains, Stoues, and Hot-houſes how dangerous. 348.m 349.a. how ſuch are to be vſed. 303.f
in Baines naturall, how long the patient is to ſit. 412.h
Baines or bathing in cold water after hot. ibid.
who deuiſed it. 222.l
Baines of cold water deuiſed by Charmis, and approued by Annæus Seneca. 345.b.c
forbearing Baines and Bathes, is medicinable. 303.c
heat in a Baine or Stoue how it may be better endured. 407.f.419.c.
Balance, all contracts and ſales paſſed by it in Rome. 462.l.

Balanites, a pretious stone. 625.a. two kindes of it and their forme. ibid.
Balaustia, what they be. 165.e
Baldnesse or Bald places occasioned by Alopecia. how to be repleniſhed with haire. 364.i.k.l.m.365.a.b.432.h. See more in Haire ſhedding.
Baleare Iſlands yeeld earth medicinable. 561.d
Balis a wonderfull hearbe. 211.b. a young dragon and a man were by it reuiued. ibid.
Ballote an hearbe. 278.g
Baltia an Iſland. 606.i
Balances, what they be. 469.b
Banchus, a fiſh medicinable. 439.e. the ſtones in the head likewiſe medicinable. 444.g
Baptes, a pretious ſtone. 625.a
Baraine women how to proue fruitfull. 306.g. 312.k. 313.c.397.a.b.402.g.l.403.a. See more in Conception.
Barraineſſe what things doe cauſe. 274.l.403.a
Barble fiſh medicinable. 433.e. hurtfull to the eye-ſight. 438.i.442.h.
Barble of the ſea what harme he taketh by taſting of the Sea-hare. 427.a.b
Barley what medicinable vertues it doth affourd. 138.i 140.i. which barley is beſt. ibid.
Barley groats. See Polenta.
Barley meale, what effects it worketh in water and wine. 176.i.
Barme, what it is and the vſe thereof. 145.b
Baroptenus, a pretious ſtone. 625.b. the deſcription. ibid.
Baroptis. See Baroptenus.
Barſaltes, a kinde of marble reſembling yron. 573.d. thereupon it tooke the name (out of the Hebrew.) ibid.
an image of Barſaltes within the tẽple of Serapis in Thebes of Ægypt. 573.e. the ſtrange qualitie of it. ibid.
Baſanites, a kinde of touch or whetſtone of the beſt kinde. 590.h. 592.g.
Baſil-gentle, a ſweet hearbe, how it floureth. 19.f. the ſeed how to be ſowne. 23.b
Baſil condemned by Chryſippus, and why. 54.l. the diſcommodities of Baſil. 54.l. why goats refuſe it. 54.m it hurteth the braine, eyes, ſtomacke and liuer. ibid. it bringeth folke out of their wits. ibid. it turneth into a ſerpent, maggots, and worms. 55.a. how it gathereth ſcorpions vnto it. ibid. it engendreth lice. ibid.
Baſil commended and maintained by other writers. ibid.
Baſil wild, the vertues that it hath. 55.e
Baſiliske, a ſerpent venomous and deadly with his eye. 356.m. the Magicians tell wonders of his bloud. ibid. they call it the bloud of Saturne. 357.a
Battailes repreſented in braſſe by diuerſe Imageurs. 503.b
Battaile in picture firſt ſhewed by M. Valerius Max. Meſſala. 526.a
Batts, what vanities are reported of them by the Magicians. 359.f
Batts hurt by the Plane tree. 184.k
Batis an hearbe, and the vertues medicinable that it hath. 111.b.
Batis of the garden, is Sampier. 254.k
Batrachion, what hearbe. 286.m.239.c. See Crowfoot.
Batrachites, a pretious ſtone. 625.a three kindes thereof. ibid.
Batrachus and Saurus, two moſt excellent maſons and cutters in ſtone. 570.i. their deuiſe alluding vnto their names. ibid.k
Baulme or Balſam oile. 162.g
the ſingular vertues that it hath. ibid.
to be vſed warily. 162.h
Baulme the hearbe. 106.k
the names that it hath in Greeke reſpective to Bees and honey. ibid. the medicinable vertues that it is endued withall. ibid.l

BE

Beanes, their medicinable vertues. 141.c
Bearefoot, what hearbe. 224.i for what it is ſoueraigne. ibid. 247.e.
Bears greaſe medicinable. 323.f
Bears gall. 324.k
Beaſts how to be cured of many and ſundry diſeaſes. 58.l 285.b.342.k.
Bebelo a ſiluer mine in Spaine. 472.l. of long continuance and very rich. ibid.
Bechion, an hearbe. See Folefoot or Coughwoort.
Bedas, a fine imaguere, and his works. 501.c
Bedegnar or white Thyſtle, vſed both in guirlands and alſo in meats. 92.l.194.i
Bed-rid of long ſickneſſe, by what meanes to be recouered. 219.e.
Beech tree what medicines it doth affourd. 178.l
Beere, a drinke vſed in old time. 145.b
what nouriſhment it yeeldeth. 152.g
Bees ſubiect to the laske how to be remedied. 93.d
how they are to be fed. 93.e.94.g.95.e.
Bees what floures they delight moſt in. 93.c
Bees ſtraying abroad from the hiue how to be reduced and brought home. 400.g
Bees ſtolne thriue worſt. 23.e.
Bees killed, if a menſtruous woman touch the hiue. 308.m
Bee-hiues become well a garden of floures. 93.c
Bee-hiues how they are to be made. 95.c. how they ſhould ſtand. ibid.
Bees ſting, how to be remedied. 40.b.56.m.95.a.106.k 153.b.174.a.363.d.399.f.
Bees how to be driuen away that they ſhall not come neare to ſting. 53.b
Beeſtings, what it is. 317.b
Beeſtings crudling in the ſtomacke is poyſon. 323.b. how to be remedied. ibid.
See Coloſtrum.
Beet of ſiluer offered to Apollo. 17.d
Beet ſeed commeth not all vp in the firſt yeare. 23.a
Beets of two ſorts. 25.c
Beets how to be eaten. 25.c.d
Beets are of diuerſe and contrary qualities. 25.d
how garden Beets and other hearbes may be made to cabbage. 25.d.e
Beets ſpread much. 25.e
Beets reſtore the taſt to wine. ibid.
Beets when to be ſowne and tranſplanted. ibid. their medicinable vertues. 47.a
Beetles, certaine flies, honoured by the Ægiptians ſuperſtitiouſly. 390.k
Appian would ſeeme to giue a reaſon thereof to excuſe his conntrimens vanitie. 390.l

20030
copy 1

Belus, a pretious ſtone. 625.*b.* conſecrated to god *Belus*. *ib.*
Belching ſower and ſtrong, how to be repreſſed and eaſed. 66.*b.* 249.*c.*
Bellie ach how to be allaied, 383.*e.f.* 422.*k.*
Seemore in Wrings.
Bellie ach in beaſts, 342.*l.*
Bellie ſubiect to many diſeaſes, 248.*k.*
Bellie and mouth together chiefe means to worke our death. *ibid.*
Bellie ſwolne and hard how to be mollified, 40.*i.* 107.*f.* 186.*i.*
See more in Tumors.
for the *Bellie* appropriate medicines, 154.*g.* 158.*g.*
Bellie coſtiue how to be looſened, 40.*b.* 43.*b.* 47.*c.e.* 48.*k.* 51.*c.* 53.*a.* 160.*l.* 318.*b.* 331.*a.*
See more in Soluble.
herbe *Benet*. *See Auens.*
Beeuers in much requeſt among Phyſicians, 451.*b.*
they liue on land and water, 430.*i.* whether they bite off their owne ſtones or no, *ib.k.* the deſcription of their ſtones, and how they be ſophiſticated, *ibid.* how *Beeuers* ſtones be knowne the true for falſified, *ibid.l.* the degrees in goodneſſe of their ſtones, *ibid.*
See Caſtoreum.
Beeuers vrine a counterpoiſon, 431.*c.*
oile of *Ben* the vertues that it hath, 161.*e.*
Benummed parts for colder otherwiſe how to be chafed and reſtored, 58.*b.* 108.*k.* 134.*g.* 168.*g.* 173.*d.* 178.*k.* 259.*f.* 359.*c.*
Beryll, a pretious ſtone much of the nature of the Emeraud. 613.*b.* India the naturall place thereof, *ibid.* how it is to be cut, 613.*c.* which is the beſt, *ibid.*
Beryls of diuerſe kindes. 613.*c.d.*
Chryſo-berillus, 613.*c.*
Chryſo-praſos. *ibid.*
Hyacinthizon, *ibid.*
Aeroides, 613.*d.*
Beryls, *Cerini*, *Oleagini*, *Chryſtallini*, *ibid.*
the blemiſhes and faults of *Beryls*, 613.*d.*
the grace of *Beryls* lyeth in their length, 613.*d.e.*
how they be ſophiſticated, 613.*f.*
Betonie the herbe, called *Vettonica*, whereupon, 224.*g.*
named *Serratula*, *Coſtion*, and *Pſycotrophon*, *ibid.*
the deſcription and praiſe of this herbe. *ib.* the vertuees 224.*g.h.*
Beautie and fauour procured to the bodie by herbes in old time, 114.*k.* 231.*f.*
how to be helped, 150.*b.* 314.*k.*

B I

Bi-con, a kinde of wine, 155.*c.* wherefore it is good, *ibid.d.*
Bialcon, a writer in Phyſicke, 342.*g.*
Bigati, what peeces of ſiluer coine at Rome, 463.*c.*
Biles or fell puſhes how to be diſcuſſed or reſolued, 56.*b.* 128.*b.* 140.*b.* 143.*c.* 158.*g.* 169.*c.* 587.*f.*
how to be ripened, 141.*e.*
See more in Impoſthumes.
Bindweed, *Smilax Nicephoros*, an herbe, 190.*l.* the deſcription. *ibid.* the vertues that it hath in Phyſicke. *ibid.*
two kindes, *ibid.*
Bindweed. *See Elatine.*
Birds, how they may be ſtilled by a picture, 546.*g.*
Birth of children, how it may be eaſed and ſecured. 36.*i.* 41.*d.* 52.*k.* 66.*k.l.* 72.*b.i.* 110.*g.* 131.*c.* 173.*d.* 174.*g.* 180.*b.* 198.*k.* 202.*g.* 207.*d.* 268.*b.* 273.*f.* 288.*b.* 290.*i.* 299.*e.* 301.*c.d.* 313.*c.d.* 315.*d.* 339.*c.d.* 340.*g.b.* 340.*k.* 353.*a.* 396.*g.k.l.m.* 448.*k.* 449.*a.*
how to be haſtened, 205.*c.*
after-birth how to be ſent or brought away, 43.*f.* 50.*b.* 54.*b.* 57.*f.* 60.*k.* 65.*d.* 74.*b.* 78.*g.* 106.*g.* 110.*g.* 127.*c.* 129.*d.* 150.*g.* 157.*c.* 174.*g.* 182.*m.* 197.*b.* 199.*d.* 201.*a.* 216.*g.* 266.*l.* 267.*a.c.d.e.f.* 273.*f.* 279.*a.* 288.*b.* 290.*i.* 339.*d.* 341.*a.* 395.*f.* 417.*e.* 430.*m.* 448.*i.* 448.*m.*
Biſontes. *See Buſles.*
Biting by man or woman how to be cured, 61.*b.* 143.*b.* 172.*b.* 301.*a.* 443.*l.*
Bitumen approcheth the nature neere to brimſtone, 557.*b.*
Bitumen ſlimie in Iurie, *ibid.*
Bitumen Minerall in Syria. *ibid.*
Bitumen liquid where it is found, *ibid.*
where it is white. *ibid.*
Bitumen vnctuous in the territorie of *Agragantum*. 557.*c.*
how the paiſants gather it, *ibid.*
the vſe thereof. *ibid.*
marks to know good *Bitumen*, 557.*c.d.*
the operation of *Bitumen*, 557.*d.*
the plaiſter of *Bitumen* for what it is good, 557.*e.*
how it ſerueth to enhuit veſſell of braſſe. 557.*f.* 558.*g.*
with cement of *Bitumen* the wals of Babylon were built. 558.*g.*
how *Bitumen* ſerueth yron-ſmiths and nailers, *ibid.*

B L

Blacke and blew vnder the eies how to be diſcuſſed, 272.*b.* 277.*c.*
Blacke of painters called *Indicum*, 530.*k.*
Blacke of Dyars made of ſtorey, *ibid.*
Blacke colour of painters called *Trygnon*, *ibid.*
vſed much by *Polygnotus* and *Mycon*, painters, *ibid.*
an artificiall colour. 530.*b.* which is beſt, *ibid.*
Blacke Elephantinum, deuiſed by *Apelles*, 530.*k.*
ſhoemakers *Blacke*, 510.*k.m.*
Blacke and blew marks vpon ſtripes and bruſes how to be taken out, 39.*c.* 44.*k.* 50.*g.* 54.*b.* 62.*b.* 64.*l.* 109.*b.* 126.*l.* 134.*g.* 141.*b.* 143.*f.* 149.*c.* 161.*c.* 163.*a.* 172.*i.* 192.*a.* 200.*k.* 240.*g.* 272.*b.* 277.*c.* 289.*c.* 318.*l.* 337.*d.* 350.*i.* 352.*i.* 394.*k.* 413.*b.* 424.*b.*
Blacke ſtones, 588.*b.*
Bladder pained how to be eaſed, 129.*a.* 130.*g.* 140.*m.* 207.*a.* 238.*m.* 254.*g.b.i.k.* 255.*a.b.c.* 263.*d.* 384.*k.* 430.*g.*
Bladder ſtopped how to be opened, 77.*b.*
See more in vrine.
Bladder itching how to be helped, 130.*i.*
Bladder ſcabbed, excoriate, and exulcerate, or otherwiſe grieued, how to be mundified and eaſed, 38.*i.* 46.*i.* 47.*d.e.* 61.*a.* 70.*b.* 72.*l.* 102.*g.* 107.*f.* 110.*g.* 120.*b.* 161.*c.* 171.*d.* 206.*l.* 255.*c.* 267.*b.* 290.*i.* 352.*b.* 437.*c.*
for the *Bladder*, appropriate and comfortable medicines, 148.*k.* 150.*l.* 163.*b.* 167.*c.* 171.*c.* 174.*i.* 179.*b.* 180.*k.* 181.*f.* 216.*h.* 289.*a.* 359.*c.* 384.*h.* 444.*g.* 589.*f.*
Blains, *See Biles and Puſhes.*
Blatta, a kinde of flie or Beetle medicinable, 370.*i.k.l.m.*

diuerse kindes of them described. ibid. and their sundry vertues. ibid.
Blattaria, what hearbe, and why so called. 228.k. the description. ibid.
Bleach. See Itch and Scabs.
Blechnon. See Ferne.
Bleeding occasioned by feeding much vpon fish. 447.a
how the same is staied. ibid.b
Bleets, a foolish hearbe. 76.l. the danger thereof. ibid.
Blemishes in the visage how to be taken away. 52.i.55.c 56.i. 58.k.133.c.144.g.314.k. 422.m. See more in Visage, Skin, Pimples, and Freckles.
Blenny certaine fishes of the Mullets kind. 444.g. the ashes thereof be medicinable, ibid.d
Blindnesse what remedies for it. 421.d. See more in Eye-sight.
Blisters red, how to be cured and preuented, 43.f.139.b 158.k.338.l.
red Blisters rising like purples how to be repressed, 186.h
Blisters vpon burning or scalding, how to be healed, 303.c 351.c.
Blisters how to be raised, 166.m
See more in Causticke.
Bloud, what engender and encrease, 46.g.152.g
Blood-suckers, 361.d. See Horsleeches.
Bloud of a bucke goat is strong. 321.c
the effect that it hath in edge tools, ibid.
Bloud of goats maketh a pale looke, ibid.
Drusus a Tribune of Rome drank it for that purpose, ib.
Bloud of red Deere. ibid.f
Bloud of Saturne, what it is, 357.a
Bloud of man or woman is medicinable, 301.d
Bloud of horses and mares is corosiue and dangerous. 321.b
Bulls bloud venomous. ibid. vnlesse it be at Ægira a citie in Achæa. ibid.
Bloudisals how to be healed, 148.l.173.c.258.m.324.k. 393.e.589.b. See more in Chilblanes.
flux of Bloud in horse how to be staied, 342.k
Bloud cluttered and congealed in the bodie, how to be dissolued and expelled, 39.e.103.a.110.i.141.c.156.g 157.a. 167.f.182.g. 412.m. 557.e. how to be kept from cluttering. 162.h
Bloud breaking out at times in sundry places, how to be repressed, 263.f
Bloud lost how to be recouered, 156.m
Bloud-stone, See Hæmatites.
Bleeding how to be staunched, 45.c.52.h. 57.d. 59.d 78.k. 119.f. 120.i. 127.c. 140.l. 142.k. 146.k 158.k. 169.d. 170.i. 171.d. 174.l. 178.l. 184.k 196.b. 197.a. 199.b. 223.f. 245.a. 263.a. 272.i 273.d. 274.a. 284.b. 307.c. 337.f. 338.g. 350.b 365.e. See more in Issue of bloud.
Bloud vomiting how to be repressed, 263.f.424.i.430.g 529.a.589.f. See more in bloud voiding vpward.
Bloud spitting reaching, and voiding vpward, what remedies therefore, 39.c.f. 43.a.c.44.i. 48.h. 49.d. 55.c 58.g. 59.d. 73.c. 75.a.f. 102.g,k.l. 138.l. 140,m 146,i. 147,c,b,f. 149,c. 159,a. 160,g. 163,a,e,g 164,l. 165,e. 171,c. 172,g,l. 174,b. 178,l. 179.a 184,b. 186,l. 188,k. 190,g. 194,g,i. 195,c. 196.g 197,d. 245,f. 246,g. 247,b,c,f. 249,f. 263,e. 272,i 274.g. 275,e. 285,d. 289,c. 291,d. 305,d. 329,b,c 352,b. 353,a. 380.i,k. 381,b,c. 412,k. 424,i. 442,i 559,d.
Bloudie flix how to be cured. 37,b.39,a,e.40,k.42,b.46,i 47,b,d. 48,g. 49,d. 52,k. 55,c. 66,i. 72,k. 73,c,d,e 102,b. 106,l. 120,l. 126,g. 129,a. 130,l. 137,b 139,f. 142,i. 146,i. 147,a,b. 148,b,i. 153,c. 161,c 163,e. 165,f. 168,g. 172,i. 174,b.l. 177,b,c,d,f 190,b,k. 195,e. 196,i. 197,f. 220,l. 248,m. 249, a,b,c,f. 250,g,b,i. 263,d. 272,l. 281,a. 285,b 287,c. 289,c. 291,d. 311,c. 314,g. 318,k. 331,b,c d,e,f. 332,g. 352,b,l. 353,c,d. 382,i,k,l,m. 418,k 443,f.516,g.520,i.557,e.559,c.
the paines proceeding thereupon how to be assuaged, 148,l. See more in Dysenterie.
a Blouding called in Latine Sanguiculus, 332.g

BO

Bodies of those that haue been stung with serpents or bitten by mad dog, make egs addle vnder a hen, and cause ewes and such to cast their young vntimely, 299.b
the remedie, ibid.c
Boëthus, an excellent imageur and engrauer. 483.b
Minerua of his workemanship, ibid.
a child throtling a goose wrought by him. 503.c
better he was in siluer than in brasse, ibid.
Boy children, by what means they are thought to be gotten and bred, 215,f.226,k.257,b.279,b,d.288,m 339,e.340,m.
Boies, how Salpe caused to looke young and smooth, without haire on their faces, 449,c
Bolæ, certaine pretious stones, 625.c
Bole-armen common, a painters colour, 528.i
Bolbiton, what it is. 336.l
Boleti, what Mushroms, 132.m
Bolites, what it is, 110.l
Bombace, See Cotton.
Bone ach how to be eased, 67.d
Bones grieued how to be helped, 262.k
Bones broken how to be knit and sowdered, 40,h. See Fractures.
Bones growing within the ground, 588.h
stones of a Bonie substance. ibid.
a Bone found in a horse heart for what it is good, 326.m
Bonet vailing, wherupon and for what cause it arose, 305.a
Borage, See Bugloss.
wild Bores, what they do yeeld aduerse to serpents. 322.h
wild Bores greace medicinable, 324.k
their vrine likewise and gall, 325.d
Bores greace medicinable, 230,b
Bores troubled and skalt with their owne vrine, 332.l
Bostrychites, a pretious stone, 625.b
Bots in beasts how to be expelled, 326.l
Botches, See Impostumes.
Botches in the emunctories, how to be discussed or else ripened, 121,d.122,g.144.g. See Impostume called Pani.
Botryon, what medicine, 301,e
Botrys, what hearbe, 222,h. the description, ibid.
Botrys, 278,h. what names the Cappadocians giue it, ibid.
Botrytes, a pretious stone, 625,b
Borax naturall, 454.g. a minerall and where found, 470,l the degrees of Borax in goodnesse, and where to be had, 470,l,m.
Borax artificiall, 470,m. called Lutea or yellow Borax,

20030
copy 1

rax, 471.a. how it is made and prepared. ibid.b. how coloured, ib. of two sorts, ibid.
Borax which is best, and how knowne, 471.c
the prices of the seuerall kinds of Borax, ibid.d
Nero paued the great Cirque at Rome all ouer with greene Borax, 471.c
Borax of three kindes, ibid d
Borax in powder, how to be laid in painting, ibid.
Borax that goldsmiths vse, is called Chrysocolla, or Goldsoder, 571.f. it is altogether artificiall, ibid. how it is made, ibid. the vertues medicinable, 471.c
Borysthenes, a famous riuer, 410.k. floteth ouer the riuer Hypanis, 411.c. once in the Summer looketh of a violet colour, ib. the water of it very light, ibid.
Borsycites, a pretious stone, 631.a
Bowels their obstructions how cured, 259.a
See Præcordiall parts.

B R

Brabyla, 278.i
Bracelets giuen to Roman citizens for their seruice in wars 461,c.
Bracelets of gold worne by men next to their arme bare, 461.f. why they are called Dardania, 462.g
Brains and the pellicles thereof impostumat, how to be cured, 185.f
Braine pellicles how comforted, 189.d
Braines light how to be setled, 67.a
Braines intoxicated, by Halicacabus or Dwale, how to be helped, 113.a
Braine how it is purged of phlegmaticke humours. 47.c 232.l.233.c.234.k.
Braines of a wild Bore aduerse to serpents, 322.b
Brainsicke or bestraught of wits, how to be cured, 44.g.46.i 56.h.219.d.283.a.591.a.
Brambles, what medicinable vertues they be endued withall, 195.f. they are exceeding astringent, 196.k
Branded markes how to be taken, 240.g
Brankursine, an hearbe to what vses it serueth, 129.b. two kindes thereof, ibid. the medicinable vertues, ibid c
Branches for lights in temples made ordinarily of brasse. 489.c.
Brasse pots how they may be scoured, & rid frō furring. 51b
Brasse ore. See Cadmia.
Brasse a mettall greatly esteemed, 486.i
of Brasse-founders a confraternitie at Rome, ibid.k
Brasse weighed out for paiment and money, 462.k
Brasse first coined by Ser. Tullius K. of Rome, ibid.l
what was the stampe, ibid. the valew enhaunsed and raised at Rome, 463.a
Brasse mines, where the best, 486.l
they are medicinable, 506.g
Brasse tried out of the ore, 486.k
Brasse made of Cadmia, 486.h
Brasse Cyprium or copper made of Chalcitis, ibid.m
Brasse Sallustianum, 487.a. why so called, ibid.
Brasse Liuianum, ib. why so called, ibid.
Brasse Marianum, 487.a
Brasse Cordubense, ibid.
Brasse Mascelin, a cōpound temperature of the best, 487.c
Brasse Corinthian, what mixture it was, ib.d. highly esteemed, ibid. Corinth brasse mettall of three kinds. 488.g
Brasse of Ægina highly esteemed, 448.b
Brasse of Delos much accepted. ibid.
Brasse of Corinth emploied both in publike and priuate buildings, 489.a
Brasse Coronarium, what it was, and why so called, 505.b
Brasse Regulare, ib. called also Ductile and why, ibid.c
Brasse Caldarium, 505.c
Brasse Campanum, ibid.
Statuaria what temperature of Brasse it was, 505.e
and why so called, ibid.
Tabularis, what temperature of Brasse, and whereupon so named. ibid.
Brasse Collectaneum, what it is, ibid.
the temperature of Brasse called Formalis, 505.f
the temperature called Ollaria, ibid.
colour of brasse named Grecanicke, 505.f
what vernish saueth Brasse from rust, 506.g
Brasse serueth for perpetuitie of registers, 506.g
Brasse skales, 507.c
Brasse rust or Verdegris, 508.g
diuerse waies to gather it, 508.h
how it is sophisticated, 508.i. how discerned, ib.k
Brasse green rust or Verdegris, how to be calcined and prepared for vse in Physicke, 508,k.l. vncalcined, what medicinable vertues it hath, 509.a
Bread at Rome different according to states & degrees. 11.b
Bread leauened, 141.a
Bread downe-right, ibid.
Bread busket, ibid.
besides nourishment, what vertues medicinable it yeeldeth, ibid.
Sea-Breams Melanuri, how they feed of crumbs, 429.a
how they beware of a bait within an hooke, ibid.
Breath stinking an vnseemely disease, 239.f
proceeding from corrupt lungs, how remedied, 329.b
what maketh a sowre and strong breath, 377.a.441.a
Breath how it may be made sweet, 64.g.65.c.79.a. 105.d. 131.c. 140.i. 156.m. 162.i. 164.i. 174.b 239.f.240.g.304.g.313.a.326.k. 328.k. 350.g.377.a 441.a.624.i.
for diseases and paine in the Breast, what medicines be appropriat. 46.l 53.a. 56.h. 66.g.i. 74.i. 76.l. 120.b 154.g.180.l.182.l.186.i.192.l.193.b.246.g. 247.c.d 250.l.290.i.k.275.e.284.h.289.f.
for Breasts impostumat, remedies, 141,c.246.g. Suppurations in the breast how clensed, 144,h.216.i vlcers in the breast how healed, 208.g
Breasts of women swelled how to be helped, 51.b.54.g 58,i.59,f.
for womens breasts conuenient medicines, 587.f.589,b
Breasts or paps of women how they may be trussed round decently and not hang downe flagging, 397.a.b
Breasts of women newly laid, if they be swolne and hard, how to be mollified and eased, 395,e.437.d
Breasts of women sore and Impostumat, remedies therefore. 395.f.448,b.589.a. how to be preserued from swelling and the ague, 397.a. from pricking and shooting paine. 397,a. if they be in paine, how to be eased, 397.b.589.a
See more in Women.
Breast full of purulent matter, how to be discharged, 353.a
Briazus, the name of a god and temple, 404.k
Bricks good, of what cley, 555.c. the best season for making bricke. ibid.

how

how old bricke ought to be before it be vsed in building. 555.d.
Brickes of three sizes, ibid. how according to euery size they be emploied in Greece, ib.e. what buildings of perpetuitie were made of bricke, ibid.f
Bridge Sublician or of wood ouer Tiberis at Rome, framed and set together without either pin or naile, 581.d. the reason why, ibid.
Brimstone of wonderfull power, 556.i.k. where the best is found, ib.i. foure kindes of brimstone. ibid.
Brimstone naturall, 556, i. the vse in Physicke, ibid.
Brimstone artificiall, 556.k. the vse of it, ibid.
how Anaxilaus was woont to make sport at a merry meeting of guests, with brimstone. 556.l
Brine to heat & comfort the sinewes, how it is made, 413.d
Britannica, what hearbe, 112.l. the description, ibid. the vertues thereof, ib. why so called, ib. from whence it is brought, 269.d
Brixiades, a famous Imageur, 566.l
Broome, whereof they make thred and net cordage, 4.g
the Broome Genista, for what vses it serueth, 188.g
Bees delight therein, ibid. 93.d
whether it be Sparton of the Greekes, or no, ibid.
Bromos, what it is, 145.a. the description, ib. the medicinable properties, ibid.
Bronchocele, what disease it is, and how helped. 142.h
Brontia, a pretious stone, 625.b
Brontes, a picture of Apelles his deuising & making, 541.b
Brookelime, an hearbe, 255, a. the description, ibid.
for inward Bruises and cluttered bloud thereupon, fit medicines, 50.k. 58.h. 64.h. 73, a. 103.b d. 109.b. 22.k 123.d. 141.a. 146.l. 157.a. 161.c. 167.f. 192.h.i 201.f. 226.l. 262.i. 264.g. 277.c. 289.c. 337.d. 349.f 350.i. 370.a. 412.k. 559.c.
Bryaxis, a famous founder of brasen images, statues, and colosses, 495.e. his workes. 501.c
Bryon Thalassion, a sea mosse, 278.i. the description. ibid. & 445.b. good for the gout and ioynts, ibid.
Bryonie the white, an hearbe, 149.f. the vertues, 150.g
Bryonie the blacke, ibid. the vertues, ibid.h.i

BV

Bubonium an hearbe. See After.
Bucardia, a pretious stone, 625.b
Buceros, an hearbe. See Fenigreeke.
running Buckewheat. See Elatine.
Buffles or wild bulls yeeld medicines, 323.c
Bugloſſos, an hearbe, 223.d. why so called, ib. wherefore it is named Euphrosinon, ibid.
Bulls how they may be taken and made to stand still, 169.b
Bulls bloud a poison, the remedies for it, 51.a. 131.e. 168.l 323.e. 422.k. See more in Blood.
Bulls gall, medicinable, 325.d. for what, 324.b
Bulls vrine medicinable, ibid.
Bulapathum, what docke, 73.e
Bularchus, an excellent painter. 533.a
Bulbous plants, 18.l
of Bulbs, diuerse kindes. 19.b
Bulbous roots, when to be digged vp, 19.c
Bulbous roots, as onions, and such, how they will grow big, 21.b. their medicinable vertues. 21.b. 52.h. their discommodities, 52.l
Bulbine, 19.b. the description thereof, and the vse. 52.m
Bulla, the brooch of gold or pendant tablet, how it first came vp. 455.c
Bullois, their vertues, 169.d
Buildings at Rome in Plinies daies compared with those of ancient time, 583.b.c
the Romanes exceeding in sumpteous Buildings, 583.a.b.c
Buleuterion, a publike hall in Cyzicum, why so called, 581.c
the wonderfull frame thereof, 581.c.d
Bumastos, a kinde of grape, 268.i
Bunch swelled of the throat, how to be cured, 142.b
See Bronchocele.
Bunias, what kind of Nauew, 39.a. the vertues, ibid.
Bunion a kind of Nauew, 39.a. the vertues, ibid.
Bupalus and Anthermus, two brethren and imageurs in marble, 564.l. how they abused the Poet Hipponax by pourtraying him and proposing his image as a laughing stocke. 564.l. their pride and vaine glory, 565.a
Bupleuron, an hearbe, 129.c. the description and vertues. d
Bupleuros. 278.k
Bupreſtis, an hearbe, 129.d. whereupon it tooke that name. ib. in this hearbe the Greekes are inconstant. ibid.
Bupreſtis, a venomous worme or flie, hurtfull to kine and oxen, 362.h. 377.d. why it is so called, ib.e. what remedies against the poyson thereof, if it be swallowed down, 150, m. 157, c. 160, k. 161, d. 307, f. 318, h. 322, k 422, i. the vse of this flie in Physicke, 362, i. how to be prepared, ibid.
a Burre described, 99.d
little Bur, called Lappa Canaria, 206.h. the description, ib.
clot-Burre, 227.f. the names, description, and vertue, ibid.
butter Burre Persolata, 229, c. the names, description, and vertues thereof, 229.c
for Burns or scalds, proper remedies, 38, i. 42, l. 46, i. 47, c d. 70, l. 72, k. 78, i. 103, d. 110, i. 122, k. 123, c. 124, l 128, i. 129, c. 130, g. 139, b. 140, g, i. 141, e. 142, b 146, k. 155, e. 158, h. 160, m. 161, c, f. 167, e. 170, m 174, k, m. 175, a. 178, g. 181, c. 184, k, l. 185, c, e 190, h, i, k, l. 194, g. 201, a, e. 262, k. 273, c. 274, k 275, b. 306, i. 352, k. 392, k 446, l. 473, e.
fresh and new made, what is to be applied, 418, i. 419, d
how it may be kept from blistering, 159, b. 319, d. 337, c 350, i. 419, d. 587, b. 590, h.
how to be skinned vp without a skarre, 168, g. 262, k 337, c. 392, k. 422, k.
to take out the fire of a burne or scalding, ibid.
if the place be raw how to be skinned, 437, d
Burnt shins how to be remedied, 52, l
Burrets shell medicinable, 438.b
Buthyreus an excellent Imageur, 502, i. his workes. ibid.
Butyr held for a most daintie meat, 319, a. it distinguisheth the rich from the poore, ib. whereupon Butyr tooke that name, 319, a. how it is made, ib. stale nd ranke Butyr medicinable, 319, b. of what qualitie it is, ibid.
Butyr-milke. See Chermilke, and Oxygala.
Butterflies hurtfull to Bee-hiues, 95, d, e. how to be chased away, ibid.
Byrthwoort called Aristolochia, for what cause, 226.g
it is named Malum terræ, ib.h. foure kindes thereof, ib. their descriptions, 226, h, i
Bythus of Dyrrhachium, a writer in Physicke, 309, c
Byturos, a strange beast, mentioned by M. Cicero, 399.e

20030
copy 1

C A

C Acalia, an hearbe.246.h. See Carawaies wild.
Cachla, what hearbe, 223.e
Cachrys, what it is.193.b. 254.k. of diuerſe kindes, 193.c
Cacizotechnos. See Callimachus.
Cackerils ſalted, are medicinable, 442.g
Cactos, what hearbe, and how it is vſed, 98.k
Cadmia, 486.l. *of ſundry ſorts,* 506,h. *how to be prepared, ibid.k. the medicinable vertues, ibid.l*
Cadmia Capnitis, what it is, 506.i
Cadmia Botryitis, the beſt, and why ſo called, ibid.
Cadmia Placitis, 106,k. *the reaſon of the name, ibid.*
Cadmia Onychitis, ibid.
Cadmia Oſtracitis, ibid.
Cadmitis, a pretious ſtone, 625.c
Cæcilius Bion, a writer, 330.i
Cæciliana, what kinde of Lettuce, 24.i
M. Cæcilius accuſed Calphurnius Beſtia for murdering his two wiues, 207.a
Cælia a kinde of drinke. 145.b
Cælius, a Romane writer, 404.i
Cænus, a painter, 549,d. *his workes, ibid.*
Cæria, a kinde of drinke, 145.b
Cærulens, a fountaine ſeruing Rome, 586.g
Cala, an hearbe, 278.l. *of two ſorts, their deſcription and vertues, ibid.*
Calamis, a fine imageur and engrauer, 483,e. *his works,* 501,a.
Calamita certaine frogs medicinable, 438.k. *their deſcription.* 439,b. *why ſo called,* 447.b
Calamochnus, what it is, 450.i. *the deſcription and nature, ibid.*
Calcifraga an hearbe, 281.a. *See Empetron.*
Calcining, how to be performed, 362.l
C. Caligula the Emperours effeminat apparell, 603.b
C. Caligula the Emperour his roiall ſhip ſtaied by the fiſh Echeneis, 426.g. *he was killed by his owne ſouldiors, ibid.h. he extracted pure gold out of Orpiment,* 469.d
Calixenus, a writer, 575.e
Callaina, pretious ſtones, 625.c
Callais, a pretious ſtone, ibid.
Callias the Athenian deuiſed firſt the vſe of Vermilion, 474.e.
Calliblephara, ointments to beautifie womens eies, 473.e
Calliblephara, the beſt oiſters, 436.m
Callicrates his paſſing fine workemanſhip in ſtone, 570.m
Callicia, what hearbe, 202.k. *the wonderfull operation thereof, ibid.*
Calligonon, what hearbe, 287.a
Callimachus, a Poet, 131.b
Callimachus, an imageur in braſſe, famous for his ſurname Cacizotechnos, 504.k. *why he was ſo tearmed, ibid.*
Callimachus wrote a treatiſe of guirlands & chaplets, 82.b
Callion, what hearbe, 112,b
Callionymus, a fiſh medicinable, 438.h. *he is named Vranoſcopus,* 438.i. *and why, ibid.*
Calliſtus, a rich enfranchiſed ſlaue, 479.e
Callitricha, what hearbes, 232.i
Callitriche, ibid.l
Calloſities, how to be ſoftened and rid away, 108.g. 139.b 191,c. 320.g. 423.f.
Calphurnius Beſtia killed his two wiues with the poiſonous hearbe Aconitum, 270.g
M. Calphurnius Flamma honoured with a chaplet of graſſe. 117.b.
Caltrap thiſtle Tribulus deſcribed, 98,k. *the properties of it,* 98.l
Calues-ſnout, an hearbe, 231,e. *the deſcription, names, and vertues, ibid.*
Calues yeeld remedies againſt ſcorpions, mad dogges, &c. 322,l. *their ſewet and marrow medicinable,* 324,h,m *their gall vſed in Phyſicke,* 324.h
Calous the Oratour, why hee vſed to weare a thin plate of lead to his backe, 418,l. *he complained that kitchen-veſſell was made of ſilver,* 480.l
Calypſo, a woman, a fine paintreſſe, 551.a
Camels bodie, what medicines it doth affourd, 311.b
Camels braine, gall, taile, what vſe they yeeld in Phyſick, 311,b,c. *their dung reduced into aſhes, and the haire of their tailes,* 311.c
Cammaron. See Aconitum.
Campaſpe a famous courtizan, entertained by K. Alexander the Great, 539.a
Canachus an excellent imageur, and his workes, 501.d
Canalitium, or Canalienſe, what gold ore, 466,m. *the maner of getting it and the reaſon of the name,* 467.a *how it is to be ordered after it is landed vp to the pits mouth,* 467.a
Canaria, what kinde of graſſe, 225.b. *why ſo called, ib.*
a Candleſticke of braſſe coſt 50000 *ſeſterces,* 488,k
K. Candaules otherwiſe named Myrſilus, paied, the weight in gold for a painted table, 533.a
Canephorus, a virgin, wrought in marble by Scopas, 567.c
Cantabrica, what hearbe, 224,h. *the deſcription, ibid.*
Cantharias, a pretious ſtone, 630.i
Cantharides taken inwardly, how their venome is to be repreſſed, 49,m. 71,b. 150,l. 157,c. 160,k. 161,d. 318,h 323,c,d. 364.g.
Cantharides hurtfull to the bladder, 361,e. *how they are to be taken and vſed in Phyſicke, ibid. their wings medicinable,* 362,g. *Phyſicians agree not where their venome lieth,* 362,g. *how they be engendred, ibid. diuerſe kindes of them, ibid. their deſcription, ibid.h. how to be prepared, ibid. their nature and operation, ibid.*
Cantharides, held at an high price by Cato Vticenſis, 362.i
Capers, how, where, and when, to be ſowed and ſet, 30.h
Capers of Italy harmleſſe, 62.l
Caprites, a pretious ſtone, 625.c
Capnos, what hearbe, 236,l. *the deſcription, ibid.*
Caprarienſe, what it is, 518.h
Carawaies, why ſo called, 30.h. *how & where they grow, ib. wild Carawaie Cacalia deſcribed,* 232.l. *the operation, ibid.*
Carbuncle, a pretious ſtone, 616.h. *it hath the name in Greeke of fire, and yet fire hath no power ouer it, ibid.*
Carbuncle, a diſeaſe when it firſt came into Italy, 241.d *the manner thereof, and the accidents accompanying and following it,* 241.d.e
Carbuncles how they are brought to maturation, broken, and cured, 56.k. 58.h. 69.a. 70.l. 134.i. 143.b. 144.g 148.k 158.k. 160.g.h. 163.e. 167.e. 172.i. 183.d. 193.d 260.l. 392.h.

Carbuncles how to be cooled, 448.g.599.c
Carcinias, a pretious stone, 630.i
Carcinetron, what hearbe, 287.b
Cardiacke passion, what it is, 153.c. *what medicines be good for it, ibid.* 154,m.196,h,i.446,i.
Caries in wine, what it is, 152.k
Carneades the Philosopher purposing to answer Zeno, purged his braine first with Ellebore, 217.f
Carnosa, what they be, 13.e
Carobs, their properties good and bad, 172.l
a Carob tree alwaies blossoming about a certaine fountaine, 405.c.
Carot or Dauke, 18.g
Carots of foure kindes, or rather of twaine, 228.m
Corot of Candie described, 229.a
wild Carots where they grow, ibid.
Carpasum, the iuice of it is poison, 436.h. *the remedie against it, ibid.*
Carpathum yeeldeth a venomous iuice, 323,a. *the remedie for it, ibid.*
Carrhæ, a citie built all of salt, 415.a
the huge Carrick that transported an obelisk out of Ægipt, sunke of purpose in the hauen of Ostia, for the safetie of the harbour, 575.e
Caruilius Pollio his wastfull excesse in garnishing and making both tables and beds of siluer, 481.d
Caruilius a famous brasse-founder in Italie, 495.e
Caryatides, what images, 569.f
Cassidoine or Cassedoine, a faire stone, whereof cups and other vessels were made, 454.i. *See Onyx, or Onychitis.*
Cassidoine stones how to be chosen, 604.h
their sundry kindes, ibid.g
a Cassidoine cup of great price, 603.c
Cassidoine vessell from whence it commeth, ibid.f
the stone whereof they be made, described, 604.g
Cassius Hamina, an Historiographer, 345.e
Sp. Cassius his statue pulled downe and melted by authoritie, and wherefore, 493.b
Antonius Castor, a notable Herbarist and Physician, 210.i
his garden, ibid. his age and health, ibid.
Castor, a writer in Physicke, 78.l
Castor, a beast. See Beeuer.
Castoreum, what it is, 430.k. *how prepared against sundry poisons,* 431.a.b. *the ordinarie dose of Castoreum,* 431.b
Castoreum medicinable otherwise, 438.h.442.g
Catagusa, an image of Praxiteles his making, 500.k
Catanance, 278.k. *an amatorious hearbe, ibid.*
Cataract or suffusion of the eies what remedies proper for it. 105.b.106.h.198.m.233.f.237.b.306.g.312.g.314.k.l 316.g.324.k.366.i.k.l.367.b.c.419.a.431.e.432.k 438.i.509.a.557.d.
Catagrapha, what pictures, 533.b
Catarrhs falling to the throat and chest, with what medicines staied, 378.h.352.g.380.l
Catarrhs violent, by what meanes they are restrained, 154.g 156,g.173,c.183,c.194,i.286,l.287,d.
Cato Vticensis endited for selling Cantharides, 362.i
Cato, a writer in Physicke and naturall Philosophie, 48.k
Cats-haire, a sore. See Felons.
Catochites, a pretious stone, 625.c
Catopyrites, a pretious stone, 625.d
Cattaile, how to be secured from all harmes. 193.f
Catus Ælius a Consull of Rome serued with earthen vessels at his owne bourd, 481.b. *he refused siluer plate presented vnto him, ibid. had neuer in siluer more than two drinking cups,* 481.b
Cauaticæ, what snailes, 380.k
Caucalis, what hearbe. 130.i
Caucon, what hearbe, 247.c
Caulias, a kinde of Laser, 9.a
Caulodes, a kinde of Colewort, 48.k
Caustick medicines, or potentiall cauteries, 50,i.56,k.61.a 65,a.74,i.109.f.134.b.162,h.168,i.172,h.191,e 207,b.223,c.239.d.252.i.267,c.280,l.281.c.286,m 362,h.377,d.385,e.418,l.443,c.450,i.485,b.521.b 595,c.
Cauterie actuall of yron, what operation it hath, 516.g
Cauterizing of a bodie performed by the meanes of a chrystall glasse, 605.b
Canteries potentiall. See Caustick.

C E

Cedrelate, what kinde of Cedar, 179.c
Cedria, what rosin, ibid. the strange properties that it hath, ib. the discommodities of it, ib. the danger in vsing it, ib.d
Cedrides, what, 179,e. *the vertues, ibid.*
Cedrostes, what plant, 149.c
Celendine the great, an hearbe, 224,m. *why called Chelidonia, ibid. two kindes and their description,* 225.a
Celendine the great, soueraigne for the eies, 234.g
Celendine the lesse, 225.a. *the iuice of Celendine when to be drawne, ibid. the vertues thereof, ibid.b*
Celeres at Rome, who they were, 461.a
Celeres, horse-runners in Greece, 490.l
Celsus, a writer in Physicke, 40.i
Celtibericæ, what they were, 462.g
Celticæ, what they were, ibid.
Cement made very strong of earthen potshards broken. 554.i
a Cement to soder broken glasses, 353.e
Cemos, a magicall and amatorius hearbe, 278.k
Cenchris, a venomous worme, 75.d
the remedies against it, ibid.
Cenchrites, a pretious stone, 630.k
Cenchron, a kinde of diamond, 610.h
Cendeuia, a riuer in Phœnice famous for the matter of glasse, 597.b.c
Centaurie the greater, an hearbe, 220.l. *why so called, ibid. named also Chironeum, and wherefore, ibid. a wonderfull incarnative and healer,* 221.a
Chiron the Centaure healed by it, 220.l. *the description, ib. where the best groweth,* 220,m. *Iuice drawne out of it in manner of Lycium,* 221.a
Centaurie the lesse, an hearbe, ibid.a. the sundry names it hath, ib. why called Lepton, ibid. why Libadion, ibid. the description, ibid.b, why called the gall of the earth, ibid.b when to be gathered, ibid. why the Gauls call it Exacos, ibid. the vertue, ibid. 266.l
Centauris, an hearbe of the kinde of Centaurie, 221.b
why called Triorchis, ibid.c
Centauris, another hearbe, 258.k
Centipeda, what worme, 381.a
Centipellio, what it is, 321.c
Centuncapitæ, the white Eryngium or Sea-hulner, 119.b
wonders reported by it, ibid.b.c
Centunculus an herbe, 199.d. *the description & vertues, ib.*

20030
copy 1

Cepæa, an hearbe. See Brookelime.
Cephiſis, a lake, 606,*l.called otherwiſe Electris,* *ibid.*
Cephiſſodorus, a cunning imageur, and his workes, 501.*d* 567,*b.ſonne of Praxiteles,* *ibid.*
Cepionides, pretious ſtones, 626.*h*
Cepites, a pretious ſtone, 625.*d*
Cepocapites, a pretious ſtone, *ibid.*
Cerachates, a pretious ſtone, 623.*e*
Ceramicum, a famous ſtreete in Athens, 552.*k.whereupon it tooke that name,* *ibid.*
Ceramites, a pretious ſtone, 625.*d*
Ceraſtes, a venomous ſerpent, 62.*k.the remedies againſt it.* 62,*k.*158,*g.*183,*b.*418,*l.*431,*b.*434,*g.*
Ceratia, what hearbe, 250.*b*
Ceratitis, a kinde of wilde Poppie, 68.*m.why ſo called,* 69.*a*
Ceraunia, a white pretious ſtone, 622.*m. the deſcription of it,ibid.the diuerſe kindes,* 623,*a. their properties,* *ibid. which of them be called Betuli,* *ibid.*
Ceraunia, another pretious ſtone which Magicians onely can find, 623.*b*
Ceraunium, a kinde of Muſhrome or Toadſtole, 7.*f*
Ceraunobolos, a picture of Apelles his making, 541.*b*
Ceremonies and circumſtances obſerued in gathering and vſing ſundry medicines, 106,*b.*112,*g.*122,*k.*125.*a* 126,*l.* 142,*m.* 164,*b.* 165,*c.* 168,*b.*169,*a,b.* 170,*i.k* 178,*i.* 188,*i.* 198,*l.* 205,*b,c,d,e.* 206,*m.* 217,*d,e.f* 228,*b,i.* 234,*l.* 238,*k.* 245,*d.* 252,*g.* 256,*i,k.* 260,*i* 283,*c.*286,*g.*330,*k.*368,*m.*381,*d.*390,*k.l.m.* 391.*a* 392,*i.*515,*e.f.*
Cerinthe, an hearbe and floure, 93,*c.the deſcription,* *ibid.*
Cerites, a pretious ſtone, 625.*d*
Ceron, a ſpring, 403,*c. the water of it maketh ſheepe blacke,* *ibid.*
Cerrus, a kinde of great oke, 178.*k*
Ceruſſe, a very poyſon being taken inwardly, 526.*l the remedies againſt it,* 136,*i.*160,*k.*168,*l.*318,*h*
Ceruſſe how it is made. 520 k
Ceruſſe burnt, a painters colour, 528.*k*
the occaſion how it was firſt burnt, 529.*e*
Ceruſſe-purple, what price it beareth, 529.*e. how it is made at Rome,* *ibid.*
Ceruſſe, how it is vſed for a blaunch or white complexion, 520.*l.*
Ceſtron. See Betonie.

C H

Chæreas an imageur, 502,*e. his workes,* *ibid.*
Chæreas, a writer of ſimples, 79.*a*
Chains of gold beſtowed by Romans vpõ auxiliaries, 461.*b of ſiluer vpon naturall citizens,* *ibid.c*
Calamine. See Cadmia.
Chalaſtræum, or Chalaſtricum, the beſt kind of nitre, 420.*i the vſe thereof,* 421.*e*
Chalazias, a pretious ſtone, 630.*k*
Chalazius, what ſtone, 592.*g*
Chalcanthum. See Vitriol.
Chalcetum, what hearbe, 248.*g*
Chalcidicæ, venomous worms, 431.*b.called alſo Sepes,ibid. the remedies againſt their venome,* 431.*b.*434,*g*
Chalcites, a pretious ſtone, 631.*a*
Chalcitis, what it is, 486,*m.how it differeth from Cadmia,* 509,*d.where it is engendred,ibid.*509.*e. the deſcription, ibid.the medicinable properties,* 509.*e.f*
Chalcitis, a kinde of alume, 558,*k.why ſo called.* *ibid.*
Chalco-ſmaragdos, what kinde of Emerald, 613.*a*
Chalcophonos, a pretious ſtone, 625.*e*
Chalcoſthenes, a famous potter or imageur in cley at Athẽs 552,*k.*
Chalcus, what it is in weight, 113.*c*
Chalke of Rhodes cauſeth wine to be ſooner refined. 176.*i*
Chalke of many kindes, 560.*h*
Chalke vſed for to marke the feet of bondſlaues, to be bought and ſold in markets, 560.*l*
Publius the rimer, Manilius Antiochus the Aſtrologer, and Taberius Erotes the Grammarian, ſlaues marked with chalke, and came ouer all three to Rome in one ſhip together, *ibid.m.*
Chamæbatos, an herbe, 196.*l.the deſcription,ib.why called Neuroſpectos,* *ibid.*
Chamæciſſos, an herbe, 190.*l.the deſcription,ib. the medicinable vertues thereof,ibid.* 199.*a*
Chamæciſſos, a kinde of Cyclamine, 229.*f*
Chamæcypariſſos, an hearbe, 199.*b.the deſcription,* *ibid.*
Chamædaphne, what hearbe, 110,*m. the vertues,* *ibid.*
Chamelæa, what hearb, 198,*k.the deſcription,ibid.the vertues,* 198,*l.the iuice of Chamelæa,* 223.*a*
Chamæleon, an hearb, 123.*f. two kindes of it,* *ibid. why ſo called,* 124.*g*
Chamæleon, a beaſt, 315.*b. it affourdeth many medicines,* *ibid. Democritus wrot a booke of this beaſt and the anatomie thereof,ib. the deſcription,ibid. Chamæleon moſt fearfull and therefore ſo mutable,ibid.aduerſe to hawkes and all birds of prey,* 315.*b.c*
Chamæleuce, what herbe, 199.*a.the vertues thereof,* *ibid.*
Chamæmelon, See Chamamile.
Chamæpeuce, an hearbe, 199,*b.the deſcription,* *ibid.*
Chamæpitys, what hearbe, 181.*e.what other names it hath,* *ibid.the diuerſe kinds and their deſcription,ibid.the vertues,* *ibid.*
Chamæpitis, the name alſo of the hearbe Hypericon, 255.*a*
Chamærops, what hearbe, 248,*i.the deſcription,* *ibid.*
Chamæcyſe, an hearbe, 198.*l. the deſcription,* *ibid.*
Chamæzelon, what hearbe, 228,*l*
Chamamile an herbe, 91.*d.the deſcription,ib. how it floureth,* 99.*c. the ſundry names that it hath,* 125,*c.d. why it is called Chamæmelon,ib.three kindes of it,* *ibid.*
Chaplets of gold and ſiluer foiles repreſenting floures of the garden, 81.*a*
Chaps in the fundament, feet, and elſewhere. See Fiſſures.
Charcole once quenched, giue the greater heat afterwards, 471.*i.*
Charcole and their nature, 599.*b*
Chares, a famous imageur and founder in braſſe, 495.*c*
Chargers of ſiluer weighing one hundred pound weight apeece, 481.*d*
a Charger of fiue hundred pound weight in ſiluer, *ibid.*
Charis. See Apelles his grace or Venus.
a Charriot of cley, growing bigger as it was baking in the furnace,what it betokened, 296.*g*
Charriots with horſes, what Imageurs delighted to caſt in braſſe, 503.*e.*504.*g*
Charms condemned by Plinie, 213.*e*
Charms whether they be effectuall in witching ſerpents or no, 296.*k.why ſerpents ſeeme to auoid them and ſhrinke away,* *ibid.*

Charmes for loue,296,*k*.*for skarfires*,*ibid*.*l*.*for ſtaunching bloud*,*ib*.*m*. *for the ſciatica or the gout*,*ibid*.*for diſlocations or bones out of ioint*,*ibid*.*for the ſpleene*, 381.*d*

Charms for ſundry diſeaſes, 109.*c*.206.*h*.207.*a* 256.*i* 285.*a*.289.*e*.296.*k*.*l*.*m*.301.*d*.310.*h*.

Charmes of loue how to withſtand, 316.*g*

againſt charms & enchantmẽts,52.*h*. *See more in Words*.

Caſar Dictatour, *neuer ſet forward in any iourney without pronouncing a certaine charme*, 279.*a*

three Charites,*images in marble at Athens of rare workemanſhip*, 396.*a*

M.*Charmis a Marſilian*,*profeſſed Phyſick at Rome*,3 5.*b* *he condemned hot baths*,*and brought in bathing in cold water*, 345.*b*. *he bargained to haue* 200000 *ſeſterces for one cure*, 348.*g*

Chaſt-tree, 257.*c*

Chaſt, *how folke may be made*, *that were looſe and wantonly giuen*, 314.*h*.316.*m*

Chaws ſwelled how to be aſſwaged,158.*i*. *See Throat*.

Cheeſe is medicinable, 318.*l*

Cheeſe of mares milke vſed in Phyſicke, 318.*k*.*l*

Cheeſe greene, *freſh*, *and ſoft*, *ibid*.

Cheeſe old and hard for what it is good, 318.*l* *for what it is hurtfull*, *ibid*.

Cheeſe rotten, *putrified*, *and mouldie*, *in what caſe wholeſome*, 318.*m*

Cheeſe ſowre medicinable, *ibid*.

Cheeſe,*how it may be kept ſafe from the mouſe*,*and alſo vncorrupt*, 399.*b*

Chelidonia, *a pretious ſtone*,625.*e*.*two ſorts of it*, *ibid*.

Chelonia, *the Tortoiſe eie*,*held for a pretious ſtone*, 625.*e* 630.*k*.*the magitians tell ſtrange things of it*. 625.*f*

Chelonitides pretious ſtones reſembling Tortoiſes, 625.*f*

Cherries, 171.*a*. *their properties*, *ibid*. *how they doe both looſen and bind the bellie*, 171.*a*

Chernmilke. *See Oxygala*.

Chernites, *a pretious ſtone preſeruing dead bodies*, 587.*e* *in one of them Darius the K*.*was interred*, *ibid*.

Cherſiphron,*a famous architect*,580.*k*.*he reared the frame of the temple of Diana in Epheſus*, *ibid*.

Cherſidrie,*perillous ſnakes or adders*, 119.*a*. *remedies againſt their poiſon*, *ibid*.

Cheruile an hearbe,*named Pæderos*, 31.*b*

Cheruile toothpicke named Gnigidium,*the properties that it hath*, 41.*a*

Cheeſlips,*certaine wormes*,138.*k*. *againſt their malice*,*medicines*, 138.*k*

Cheſtnuts their medicinable vertues, 172.*l*

Chibbols, 20.*g*.*k*.*l*

Chickweed an hearbe. *See Alſine*.

Chilblanes, *what medicines be good for them*, 37.*d*.50.*g* 58.*i*.64.*m*.70.*k*.76.*g*.148.*l*.158.*l*.160.*h*.168.*l*. 171.*e* 174.*l*.188.*l*.277.*d*. *See Bloudiſalls*.

againſt chilling cold, *what remedies*, 54.*i*.138.*g*.169.*f* 173.*e*. 186.*i*.218.*l*.260.*k*. 305.*c*. 354.*l*. 387.*e*.422.*i* 625.*a*.

Children piſſing bed,*how to be helped*,398.*h*. *See Vrine*.

Chiliodinama, *an hearbe*. *See Polemonia*.

Chincough in children, *what remedies for it*, 56.*g*.105.*b* 315.*a*.398.*g*.

Chios earth medicinable, 559.*f*

Chirocineta, *what booke*, 203.*a*

Chironia,*what plant*,150.*i*.*what other names it hath*, *ibid*.

Choking in young birds how to be preuented, 206.*g*

Choking by bone how to be auoided, 302.*d*

Choking by bread going wrong,*how preuented*, 302.*m*

Choler riſing vp into the mouth and cauſing bitterneſſe,*how to be repreſſed*, 148.*g*

Choler what medicines purge downeward, 39,*a*.49,*b*.75,*c* 110,*l*.111,*f*. 121,*a*. 140,*h*.162,*l*.171,*c*. 182.*h*.186 *g* 198,*l*. 216,*h*. 218,*i*. 247,*c*. 250,*h*,*k*,*l*,*m*. 251,*a*,*b*,*c* 252,*h*,*l*,*m* 284,*i*. 288,*g*. 442,*l*. 443,*a*. 273.*c*. 275,*b* 277,*a*. 281,*b*,*e*.291,*b*.

Choler blacke and aduſt,*what purgeth downeward*, 412.*m*

Choler, *a diſeaſe*,46,*k*. *what remedies for it*, 46,*k*.55.*c* 59,*b*.*f*.70,*m*.141.*f*.147,*b*. 148,*g*. 163,*e*.195,*e*. 196,*i* 287,*c*.413,*c*.

Choaſpes a riuer in Perſia whereof the KK.*drinke*, 406.*l*

Choaſpites,*a pretious ſtone*, 626.*g*

Chondris is baſtard Dictamne, 249.*e*

Chondrylle,*or Condryllon*,*an hearbe*,131,*e*.*the deſcription*, *ibid*.*the vertues*, *ibid*.

Chlorites, *a pretious ſtone of a graſſe greene colour*, 626.*g* *where it is found*, *ibid*.

Cholos, *a kinde of Emeraud*, 612.*m*

Chryſanthemon, *an hearbe*, 110,*h*.*the deſcription*, *ibid*.

Chryſermus, *a writer in Phyſicke*, 128.*i*

Chryſippea, *what hearbe*, 256.*k*

Chryſippus, *an excellent Phyſician*,242,*k*. *he dealt onely in hearbes*,242,*k*. *he wrote a booke in praiſe onely of Coleworts*, 48.*i*

Chryſippus a Phyſician altered the whole courſe of Phyſicke, 344,*g*.

Chryſites, *a pretious ſtone*. *See Chalazius*.

Chryſitis, *an hearbe and floure*. *See Chryſocome*.

Chryſitis,*the beſt litharge of gold*, 474.*i*

Chryſoberylli, *what pretious ſtones*, 613.*c*

Chryſocarpos,*a kinde of Iuie*, 190,*g*. *what vertues it doth affoord*, *ibid*.

Chryſocolla. *See Borax*.

Chryſocome,*an hearbe bearing a faire floure*,89,*d*.*the vertues thereof*, 106.*i*

Chryſolochanon,*what hearb*,279,*e*.*two kindes thereof*,*ibid*. *the vertues*, *ibid*.

Chryſolampis,*a pretious ſtone*, 626.*g*

Chryſolith, *a pretious ſtone*, 630.*l*

Chryſopis, *a pretious ſtone*, 626.*g*

Chryſopraſius, *a pretious ſtone*,619,*d*.*the deſcription*, *ibid*. *the vſe*, *and where it is found*, *ibid*.

Chryſopraſos, *a pretious ſtone*, 630.*l*

Chryſopraſos, *a kinde of Beryl*, 613.*c*

Chryſothales, *what hearbe*, 237.*c*

C I

Ciceculum, *a kinde of Sinopre*, 528.*l*

Ciceronian baths or hot ſprings ſoueraign for the eys,401.*f*

Cich peaſe, *and the properties that it hath*, 142,*k*,*l*

Ciches Columbine,*their vertues*, 143.*a*

Cichling, *and the properties that it hath in Phyſicke*, 142.*l*

Cichorie the herb,*the ſundry kinds*,24.*l* *their vertues*,48.*g*

Cichorie wild, 47,*d*.*the properties in Phyſicke*,*ib*. *it is called Chreſton and Pancration*,*wherefore*, 47.*f*

Cichorie wild of Ægypt how employed, 97.*a*

Cichorie of the garden,48,*g*.*the vertues thereof*, *ibid*.

Cici. *See Cnicus*.

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Cimolia chalke of two sorts. 560.*h*. both medicinable. 560.*h*.a kinde of it called *Sarda*, and why. *ibid.i*. for what it is good, *ibid*. See Fullers earth.
Cimon, a cunning painter, 533,*b*. hee deuised the pictures Catagrapha, and other curious points about them, *ibid.c*
Cinædi, the onely fishes all yellow, 451.*d*
Cinædia, what stones they be, 368.*i*
Cinædia, pretious stones, 625.*d*
the foreshew stormes and faire weather, *ibid.*
Cinnabari or *Cinnabaris* of the Indians, what it is, 476.*g* an excellent colour for painters, *ibid.* The same that *Minium*. *ibid.*
Cinnabaris of another kind, good in Physicke, 476.*g.h*
Cinquefoile the hearbe, described, 228.*l*. the diuerse names that it hath. *ibid.* the affinitie betweene it and the vine, *ibid.* the vse thereof, *ibid.*
Circe, a famous witch, 210.*k* canonized a goddesse therefore. *ibid.* her feats, 372.*k*
Circæum an hearbe, 278.*m*
Circeion, an hearbe. See *Mandragoras*, 278.*m*
Circos, a pretious stone, 625.*d*
grand-*Cirque* at Rome made by *Cæsar* dictatour, 581.*e* the description of it, *ibid.*
Cirsion an hearbe, 279.*a*. the description and vertue, *ibid.*
Ciffanthemos, a kinde of *Cyclamine*, 229.*e*
Cissites, a pretious stone, 630.*k*
Cissos Erithranos, what plant, 190.*k*. the vertues, *ibid.*
Cisterns, how to be made for to hold water, 594.*h*
Cisthos, a plant, 190.*k*. the medicinable vertues thereof, 190,*k*. the sundry kindes and their description, *ibid.*
Citrons and their medicinable vertues. 164.*i*

C L

Claudius Cæsar put a gentleman to death, for hauing the serpents egge about him when he pleaded at the bar. See *Anguinum*.
Claon, a spring of water, 404.*g*. why so called, *ib.*
Clarie the wild an hearbe, 256.*l*
the first *Classis* at Rome, how valued and taxed, 462 *m*
Clauer hearbe, 253.*c*
Cleanthes, a painter, who drew first the lineaments of a bodie in blacke, 525.*c*
Cleemporus, a Physician. 131.*d*.202.*m*
Clema, what hearbe, 227.*b*
Clematis, an hearbe, 191.*a*. the description, *ibid.* the effects in Physicke, *ibid.*
Clematis, called in Latine *Centunculus*, 199.*d*
Clematis, a common name to many hearbs, 199.*e*
Clematis of Ægypt, 200.*g*. the sundry names that it hath, *ibid.* and 202.*m*.
Cleon a painter, 549.*d*
Cleopatra the Queene, how shee made sport with *Antonie* by a coronet of flowres, 82.*i*
Cleophantes, a Physician and writer, 200.*k*. hee brought in first the vse of wine in Physicke. 243.*c*
Cleophantus a painter, who first pourtraied a personage in colours, 525.*c*
Clesides a painter, famous for the picture that he made of queene *Stratonice*, 549.*e*
Clesippus, a brasse-founder, how he plaied his part with dame *Gegania*, 488.*l*
Cliduchus an image, wrought by *Phidias*, 497.*d*. by *Euphranor*, 502.*h*
Clinice, what kinde of Physicke, 344.*g*
Clinopodium, an hearbe, 199.*c*. the sundry names it hath. *ib.*
Clitorius, a water which causeth loathing of wine, 403.*e*
Cluers, what herbe, 206.*g*. why called *Philanthropos*. *ibi.* the effects that it worketh in Physicke. *ibid.*
Clodian plate, 480.*k*
P. Clodius what he paid for one house, 582.*g*
Clœlia, a virgin, honoured with her statue on horsebacke in Rome, 492.*l*
Clupean earth medicinable, 561.*d*
Clymenos, an hearbe, 221.*d*. why so called, *ibid* the description, *ibid.e*. both hurtfull and wholesome, 221.*d*. the iuice medicinable, *ibid.e*

C N

Cneoron, an herbe, 90.*h*. two kindes thereof. *ibid.*
Cnicus or *Cicigon* hearbe in Ægipt, 97.*c*. the diuerse kinds and the oile that it yeeldeth *ibid.* 113.*c*

C O

Coaches all of siluer, 480 *l*
Coccum Gnidium the berrie described, 280.*k*. the nature and vertue of it, *ibid.*
Cochlacas what they be, 421.*b*
Cochlides, what pretious stones, 631.*b*. how they be ordered in Arabia for inlaid workes, *ib.c*. their sundry vses. *ibid.*
an old Cocke how medicinable, 359.*c*. how a cocke shall not crow, *ib.d*. cockes, capons, and such like pullen, what medicines they doe affourd, 319.*b*
Cocke broth medicinable, how it was made, 359.*d*
Cocks-combe, an hearbe, 275.*c*
Cockles good to expell grauell, 444.*b*
Cods if one hang downe lower than the other what remedie, 445.*a*. *Cods* swelling by what meanes helped, 52.*l*.61.*e* 62.*g*.76.*k*.103.*b*.106.*m*.107.*f*.128.*g*.256.*g*. See more in *Genetoirs*.
Codiaminon, when it floureth, .92.*g*
Cofins of cley for a dead corps, 523.*d*
Cœlon, what kinde of *Azur*, 485.*a*
Colchicon a poison, the remedie against it, 318.*h*
Cold poison, 180.*m*
Colds extreame, how to be auoided or endured, 160.*k*, 189.*c* 193.*b*.260.*k*.289.*d*.449 *a*
Cold fits in agues how to be shortened or put by, 173.*f*.189.*a* 289.*d*.422.*l*.424.*g*.446.*g*.
Colique how to be cured, 53.*a*. 55.*e*. 62.*h*.129.*f*. 141.*c* 144.*i*.383.*c*.*d*.*e*.419 *c*.511.*e*.519.*c*.521.*a*.558.*l*.590.*g* 104.*l*.139.*e*.*f*.163.*c*.165.*b*.167.*d*.169.*d*.171.*f*.182.*b* 190.*h*.253.*d*.313.*b*.318.*g*.332.*i*.
Colique, when it first began at Rome, 242 *g*
Colliquation. See *Consumption*.
Collyria, a kinde of Burrets. 441.*a*. their description and medicinable vertues. *ibid.*
Collyrie of saffron, 105.*a*. other collyries, 133,*c*.147,*b* for *Collyries* appropriat *species*, 160,*g*.163,*a*.197,*c*.236,*l* 270,*m*.272,*k*.285,*d*.350,*i*.351,*d*.356,*h*.419,*a*.430,*g* 471,*e*.474,*h*.575,*a*.506,*k*.508,*l*.510,*k*.
Colocasia of Ægipt, 96.*l*. See more in *Cyanos*.
Colostrati, what infants, 317.*b*
Colostrum, what it is, *ibid.*
Colotes, what lizard it is, 361.*b*
Colotes a famous painter, 532.*m*
Colours in painting, which be gay and liuely, 521,*i*. which be dead, sad, and duskish, *ibid.* the *Colours* foure which

the best painters vsed, what they were. 352.f
Colossi, geantlike images. 495.a
Colosse of Iupiter in the Capitoll, by whom erected. 495.e
the Colossian images at Rome of Apollo and Iupiter Pompeianus, ibid.a
Colosse of Hercules at Tarentum wonderfully made, ib.b
Colosse of the Sunne at Rhodes seuentie cubits high all of brasse, ibid.c
Colosses made by Italian workemen as well as by strangers. ib.e
Colosse of Apollo at Rome, an excellent peece of workemanship, ibid.
Coluber, a water snake, 435,b. the efficacie thereof in hunting crocodiles, ib. he is called in Greeke Enhydris, 440.k his teeth are good to skarifie the gumbs for toochach, ib.
Comagenum a sweet composition, 354,k. why so called, ib. how it is made, ib.l.m. the vertues. ibid.
Comagene an hearbe and a countrey, 354.l
Combretum the hearbe and floure, 85,f. the vertues, 104.i
Comfrey the hearbe, 249,b. See Cumfrey.
Compitalia, festiuall holidaies instituted by K. Serv. Tullius vpon what occasion, 599.d
a Complexion for a red. See Fuk.
against cempositions and mixtures in Physicke, Plinie inveigheth, 137.c.348.i.k
Conception of men children, how to be procured, 79.a. See more in Boies.
Conception by what meanes it may be helped. 36.i.40.l 43.c.62.k. 130.k. 178.i.279.b. 339.c. 340.l. 341.a 396.g. 399.a.
what hindreth Conception. 58.k.179.d.360.h
Conchylium, a shelfish, the bloud whereof is medicinable. 439.e.
Conditum, what hearbe. 130.h
Condrylla, an hearbe, 99.d
Conduits and their pipes, 411.d. the manner of carrying water by them from the head of the spring. 411.d
the Conduits begun by Caligula the Emperour, and finished by Claudius his successor, were wonderfull. 585.f
the charges of making those conduits, with their manifold vses. 586.g
Colewort. See Coules.
Come, an hearbe. See Tragopogon.
Condurdum, an herb. 245.e. the description and vertues. ib.
Conserua, what it is, 280.h. a wonderfull cure done by it. ib.
Coniurations, whether they be of power to raise thunder and lightening. 295.c
Coniurations of sundry sorts, 313.e how they may be preuented and withstood. ib.
Consiligo, i. Bearefoot an hearbe. 224.i
Consumption of the lungs, 422.m. See Phthysicke.
Consumption of the whole bodie, by lungs, hecticke feuer, or otherwise, how to be recouered. 134,l.259.c.310.m
Conyza an hearbe, 90.m. two kindes male and female, and their description. 91.a.267.e
Coponius, a cutter in stone. 570.i. his workemanship. ib.
Q Coponius condemned for sending an earthen amphore to one for his voice at the election of magistrates, 553.f
Copper how to be calcined and washed, 507.a.b
Coracini, fishes medicinable. 435.f.438.i
Corallis a pretious stone, 625.d
Corall highly esteemed among the Indians, 429.d. where the best is to be found, ib. how it is gotten forth of the sea, ib. whereupon it is named Curalium, ib. in great account among the priests and wisards of India, 429.f it resisteth the power of fire, 430.g. how the Frenchmen vse it, ibid. how it is become scarse. ibid. the medicinable vertues of corall. 430.g
Corallo-Achates, 623.e. called the sacred agath in Candie. ibid. the vertues. ibid.
Corallo-achates a pretious stone, 625.d
Corchoros. See Pimpernell.
Corchorum, an hearbe much vsed by the Ægiptians. 113.b
Cordiall medicines, 41.b. 119.c. 130.i. 247.c. See Counterpoisons.
Cordyla the Tunie fish, when so called. 451.d
Coriacesia, an herbe, and the admirable nature of it, 202.k
Coriander an herbe, 70.k. the vertues thereof, the best commeth out of Ægipt, ibid.
Coriander rectified and corrected by wine, 153.b
the strange effects that Coriander worketh as touching womens tearmes, 71.a
Corinthas. See Menais.
Corinthian works, 496.k. so much esteemed that many carie them whersoeuer they went, ibid.
Corinthian gallerie at Rome, 489.b. why so called, ibid.
Corion, what hearbe, 255.a
Coris, what hearbe, ibid.b
Corke tree, what vertues medicinable it hath, 178.l
Corns of the feet or elsewhere, how to be cured, 38.g.65.d 76.m. 103.a. 105.d. 134.g,h.i,k. 139.b. 141.a. 143.a 180.k. 186 l. 258.m. 302.l. 320.g. 334.l. 386.l
Cornaline, a pretious stone. See Sarda and Sardoin.
Corne, what vertues in Physicke it doth affourd, 137.f
Corollæ, and Corollaria, what they were, 80.m
Coronarium, what kind of brasse, 479.a
Coronæ and Coronets, 80.i. the originall of these tearms, ib.
Coronets of gold bestowed vpon Romane Citizens for good seruice in the wars. 461.c. by whom giuen first. ibid.
Coronopus, what hearbe. 98,m.124.i.k
Corpulencie how it may be procured, 152.m
Corroborative medicins, 152.g. 178.k. See more in Cordials and Caunterpoisons.
Corrosiue medicins, 159.f.160.g. 168.i.191.f 286.f.338.i 441.d.447.e.516.k.521.a. See Causticke.
Corynda, the wild Sperage, what other names it hath, 28.i 53.c. the vertues. ib. hurtfull to the bladder, 53.d
Corrugi, what they be, 468,i
Corsici, pretious stones, 631.c. their properties. ibid.
Corsoeides, a pretious stone, 625.d
Corycia, certaine caues. 405.d
Corymbi in Ferula, what they be, 32.g
Corymbias, what it is. ibid.
Corythia, shee fishes. See Collycia.
Cossi, what wormes, 339.f
Cossinus killed with a potion of Cantharides, 261.f
Coticula. See Touchstone.
Cotonea what hearb, 248.h. the description and vertues. ib.
Cotton and the shrub that beareth it, 3.e.f
Cotton found in certaine fruits, as Apples and gourds. 4.g
Cotton-weed. See Cudword.
Cotyledon, an hearbe. See Vmbilicus Veneris.
Coughwort, what hearbe. 246.i
Cough busie in the night, how to be staied. 329.b

for

20030
copy 1

for the Cough, remedies appropriat, 37,*b.*e.* 39,*b.* 41,*d.* 41,*e.* 42,*l.* 43,*c.* 44,*i,l.* 52,*g.* 56,*h.* 57,*d.* 60,*l* 61,*a.*63,*c.*64,*i.*66,*g.*67,*d.*72,*h,m.*75,*a,b.*101,*c.*104,*h* 105,*a,c.* 107,*d.* 108,k. 110,*g.* 122,*g.* 123,*c.* 128,*i* 134,*k.l.* 136,*i.* 138,*m.* 141,*c.* 144,*h.* 145,*a,* 148,k 151,*d.* 153,*c,f.* 154,*g.* 156,*g.* 158,*h.* 159,*a.* 167,*d* 171,*f.* 172,*g,k.* 173,*b.* 179,*f.* 180,*g,l.* 182,*g,i,m* 183,*d,e.*184,*h.* 186,*i.* 191,*c.f.* 192,*l.* 193,*c.* 194,*b* 195,*d.* 197,*d.* 198,*i.*199,*b.* 200,k,*l,m.* 208,*g.* 219,*e* 245,*f.* 246,*g,b,i,*k. 247,*d.e.* 249,*e.* 263,*d.* 275,*c* 284,*h.*287,*f.*290,*i.*303,*e.* 304,*g.* 305,*b.*315,*a.*319,*d* 329,*a.*336,k.352,*g.* 353,*a.* 380,*l,m.* 381,*c.* 382,*i* 419,*e.*422,k.442,*i.*521,*a.*557,*d.*

Coules or Coleworts of three kindes, 26,*g.*49,*c.when to be ſowne, ſet, and cut,ibid. how they will cabbage and grow faire in the head,ibid. how they will proue ſweet in taſt, ibid.how to be dunged,* *ibid.*

Couleworts of ſundrie countries, *ibid.*k*

the crops or Couleworts called their Cymæ, how to be cut, ibid.m.

the commendable properties Couleworts, 48,*i,*k*

Couleworts contrary to wine, 49,*c. how they bind and looſen the bellie,ibid.their diſcommodities,* 50,k

Couleworts and Vines cannot agree together, 176.*g.*

Couleworts may not abide either Origan,or Cyclamine, ib.

Countercharmes or preſeruatiues againſt ſorcerie, witchcraft, enchantment,and Magicke, 149,*c.*195,*e.*229,*d* 300,k.306.*m.* 310,*b.* 313,*b.f.*320,k. 322,*m.* 357,*a* 364,*g.*387,*a,b.*430*g.* 431,*e.* 433,*f.*370,*i.* 515,*e,f* 589,*a.*609,*a.*619,*e.*

Counterpoiſons, 38,k.39,*a,c.*45,*e.*56,*l.* 59,*b.*71,*e.*107,*c* 144,*i.*160,k. 164,*i.*169,*c.*172, *h,*k. 174,*m.* 186,*i* 190,*m.* 192,*g.* 193,*c.* 200,*l.* 202,*l.* 215,*c.* 227,*b* 233,*b.*246,*g.*270,*i.k,*288,*i.*306,*m.*314,*g.*316,*l.*321,*c* 323,*a,b,c,d.*356,*g.* 364,*g.*631,*a,c,e.*433,*e.* 434,*g,i,l* 435,*b.*437,*d.*529,*b.*610,*m.*

poiſons how they become Counterpoiſons,and the manner of their working, 270.*b*

C R

*Crabfiſhes,*435,*d. their vertues medicinable,ibid. enemies they be to ſerpents,* 435,*e.*436,*i*

Crambe the beſt kinde of Couleworts, 48,k

for Crampe in feet or legs a remedie, 305,*b*

for Cramps in generall,conuenient medicines, 40,k.41.*d.e* 44,k.46,*i.* 48,*g.* 49,*e.* 50,*h,k,*52,k.50,*e.* 60,*l.* 61,*a* 63,*a.* 64,k. 67,*d.* 72,*l.*74,*i.* 75,*b.*77,*c.* 102,*g.* 104,*b* 108,k. 119,*d.*123,*a.*128,*i,m.* 129,*b,c,f.* 134,*l.* 150,*g* 154,*g.*191,*c.*162,*h.* 167,*f.* 168,*g.*179,*f.* 180,*g.* 182,*l* 183,*e.* 186,k. 191,*c.* 193,*c.*194,k.198,*i.*199,*c.*219,*d* 226,*l.* 248,*h.* 259,*c.* 262 *l.* 264,*g.* 275,*e.* 283,*a,e* 289,*c,e.*290,*i.*312,*i.*313,*c.*320,*g.*354,*f.*422,*m.*431,*a* 432,*i.*442,*g.*599,*c.*

Crapula, a mixture in headie wine. 153.*f. why ſo called,* *ibid.*

M. Craſſus the richeſt Romane that euer was, but onely Sylla Dictatour 479,*d. his apoth gme. ibid. his lands what they were,ibid.ſurnamed Optimus for his wealth,* 479,*e.his couetouſneſſe,* *ibid.*

Cratægon,an hearbe, 279.*e*

Cratæogonum,what hearbe, 257.*d*

*Cratæogonos,an hearbe,*279.*b.the deſcription and vertues, ibid.a ſecond kinde called Thelygonos,* *ibid.*

Craterites,a pretious ſtone, 625.*d*

Craterus a cunning painter and Comædian both, 549.*e*

Crateuas, a renowmed Phyſician, 129,*b. hee wrot of hearbs and ſet them forth in colours,* 210.*g*

Crathis,a riuer, 403,*c. the water of ſtrange operation. ibid.*

Creiſiſhes of the riuer how medicinable they be, 435.*c*

Creiſiſh head drieth vermine out of a garden, 32.*l*

Creſſes an hearbe, 29,*a. why called Naſturtium, ibid. it helpeth the wit and vnderſtanding,ibid.*56.*g.two kindes of it,and their properties, ibid. which be beſt,* *ibid.*k

Creſtmarine, an hearbe. See Sampier.

Crickets much eſteemed by Magicians, 370,*b. the reaſon wherefore, ibid. the manner of hunting and catching them,* *ibid.*

*Cricke in the nape or pole of the necke how to be eaſed,*70.*g See more in Crampe.*

Criers publicke at Rome were rich coats embrodered and ſtudded with purple like as Senatours, 459.*d*

Crinas of Marſiles, a famous Phyſician, 345.*a. by what meanes he woon credit,* 345.*a.b. a great Mathematician and Aſtrologer, ibid. a ceremonious obſeruer of daies and houres.* 345,*b. a man of exceeding wealth,* *ibid.*

Criſta Galli, what hearbe, 275.*c*

Crocallis,a pretious ſtone, 625.*d*

Crocias, a pretious ſtone, 630.*m*

Crocinum, a ſweet ointment, 105.*b*

Crocis, a magicall hearbe, 204.*k. the ſtrange qualities thereof,* *ibid.*

Crocodiles skared away by the voice onely of the Tentyrians, 299.*a*

againſt the Crocodiles bitt what remedies, 158,*h.*315.*a* 418.*k.*419,*e.*434,*b.*

Crocodiles affourd medicines from ſundry parts of their bodie, ibid. two kindes of them, ibid. one kinde liuing both in land and water, ibid. a ſecond liueth onely vpon the land,ibid.i.his dung is ſweet and medicinable, ibid. the reaſon why, *ibid.*

Crocodile good meat, all ſaue head and feet, *ibid.m*

Crocodilea,what it is,ibid.k how to be choſen, ibid. how it is ſophiſticated.ibid.l. the vertues thereof, *ibid.k,l*

Crocodilian an hearbe, 279,*c. the deſcription and vertue,* *ibid.*

Crocomagma,what it is,and the vſe thereof, 105,*b*

Crœſus rich in gold, 464.*b*

Cronius,a cutter in pretious ſtones, 501.*d*

*Crow-foot,what hearbe,*239.*c.the ſundry kindes, ib. their deſcription,ibid.d. why it is called Strumea,* *ibid.e*

Crudana,what veine it is of ſiluer, 472.*m*

*Crudities in the ſtomack how to be digeſted,*64,*h.*66,*i.*67.*e See Indigiſtion and Digeſtion.*

*Cruſhes how to be cured,*350.*i. See Bruſes.*

*Chryſtall,*454.*i. how it is engendred,* 604,*i. why ſo called, ibid. whereupon found.ibid. how to be vſed, ibid.l. it groweth naturally ſix cornered,* *ibid.*

one peece of Cryſtall weighing fiftie pound, 604.*l*

Cryſtall veſſels of what capacitie, *ibid m*

the imperfections and blemiſhes in Cryſtall, 605.*a*

a Cryſtall glaſſe once broken cannot be reunited, *ibid.c*

Cryſtalls without fault and blemiſh be called Acenteta,ib.b

Cryſtallion. See Pleawort.

C T

Cteſias, a writer, 404.i. his opinion as touching Amber, 906.l
Cteſidamus, a painter, 549.d
Cteſilas, a fine Imageur, 501.c. his curious workemanſhip. ibid.
Cteſilaus, a famous Imageur, 501.e. his workes, ibid.
Cteſilochus, a painter, 549.d. his picture of Iupiter in trauell with Bacchus, &c. ibid.

C V

Cuckowes meat, an hearbe. See Oxys.
Cucubalum, an hearbe, 280.g. ſundry names that it hath, ibid. the vertues, ibid.
Cucumbers of the garden a commendable meat, 13.d much affected by Tiberius the Emperour, 14.g. how preſerued growing vpon the ground all Winter, ibid.
Cucumbers without ſeed, 14.l. how to be preſerued, 15.f
Cucumber ſeed how to be prepared and ſet in the ground, 14.h. when to be ſowne or ſet, 15.a
Cucumbers how they grow, and in what forme, 14.h. they loue water and hate oyle, ibid.h.i
how Cucumber plants may be kept freſh all the yeare long, 14.l.
Cucumbers, a delicate ſallad, 37.d
of Cucumbers three kindes, 14.l. how they bloume or floure, 15.c
Cucumbers wild, 35.e.f. the fruit, ibid. where they beſt do grow. 36.k
root of wild Cucumber for what it is good, ibid.g
Cucumber Serpentine or wandring Cucumber, 36,m. the decoction thereof, and the vertue, ibid.
Cudwort an hearbe, 258.l.283.b
Cuit, what medicinable properties it hath, 148.k
Cuit called Sapa, the nature thereof, 157.c
Cumfrie of the rocke, an hearbe, 275.d
Cumin, an hearbe, 61.c. the deſcription and vertues. ibid. where it loueth to grow, and when to be ſowne, 29.f. good to procure appetite, ibid.
Cumin ſeed how to be ſowne, 23.d
what Cumin is beſt, 30.g
Cumin cauſeth paleneſſe of colour, 61.d
Cumin Ethiopicke, ibid.f. the properties of it. ibid.
Cumin of Affricke, 62.g. the vertues thereof, ibid.
Cumin wild, and the vertues, 248.h
Cunila, what hearbe, 30.i
Cunila Bubula, 63.b. why called Panax, ibid.c
vſed by Tortoiſes as a defenſitiue againſt ſerpents, ibid.
Cunila Bubula, wild Origan, 226.m. the vertues that it hath, ibid.
Cunila Gallinacea: the ſame that Origanum Heracleoticum, 63.c. the vertues that it hath, ibid.
Cunila Libanotis, why ſo called, ibid.c
Cunila the ſoft, 63.d. the deſcription and vertues. ibid.
Cunilago, what hearbe, 30.i. the vertues, 63.d. mothes gather to it, ibid.
Cupid, an Image at Theſpia, wrought by Praxiteles, 566.m.
Cupid, at Parium, wrought by Praxiteles, 567.a. comparable euery way to Venus of Gnidos, ibid. abuſed by a wretched wanton, ibid.
Cupid wrought to the patterne of young Alcibiades, 568.g
Cupids fountaine and the effects thereof, 404.b
Curalium. See Corall.
Curalium, a ſtone. See Pyrites.
C. Curio his deuiſe for two woodden Theatres at his fathers funerals. 584.i.k.l
Curtius, a fountaine ſeruing Rome, 586.g
Cutiliæ, waters medicinable, 402.m. their nature and ſoueraigne vertues, 404.a. they ſtand vpon ſalnitre, 412.g.
Cuttle fiſhes, their nature, 428.k. their medicinable vertues, 438.k.l

C Y

Cyamea, a pretious ſtone, 630.k
Cyamos of Ægipt deſcribed, 96.l. the vſe of this hearbe, 97.a
Cyanos, a floure and a painters colour, 89.b
Cyanos, a pretious ſtone, 620.k. which is the beſt, l. who deuiſed firſt to giue it a tincture, 620,l. male and female, ibid.
Cyathus what meaſure or weight, 113.e
Cybia, the ſquare peeces of the Tunie fiſh, 451.c
Cybium, an hearbe, 359.e
Cyclaminos, 229.f. what hearbe, ibid.c. called Tuber Terræ, ibid.d. the deſcription, ibid. the vertues, ibid. the root how to be ordered, ib.d. the venomous qualitie that it hath, ibid.e. three kindes thereof, ibid.
Cydias, a famous painter, 547.d. his Argonauts, a coſtly picture, ibid.
Cydnus, a riuer, 403.b
Cyma, the tender crops of Coleworts, 26.g. how fruitfull of them Coleworts are. ibid.h
Cynocephalia, a magicall hearbe, 375.b. much commended by Apian the Great Grammarian, ibid.
Cynogloſſos, what hearbe, 223.d
Cynoides. See Fleawort.
Cynomorion, what weed it is, 145.a. why ſo called, ibid.
Cynomyia, an hearbe, 233.d. why ſo called, ibid.
See Fleawort.
Cynoſbatos, and Cynoſbaſtos. See Dogbrier.
Cynoſorchis, an hearbe, 279.d. See Orchis.
Cynozolon, one of the names of the herbe Chamæleon, 124.i the reaſon of the name, ibid.
Cyperis, what hearbe it is and the properties thereof, 101.e
Cyperus, an hearbe, 99.e. the kindes and properties, 101.c a diſtinct ruſh from Cypirus, 100.m
Cypirus, what it is, 100.i. the deſcription, 101.a. the diſtinct kinds and properties, ibid. the diſcommodities of it, 101.a.b
Cypreſſe tree Apples, their vſe in Phyſicke, 179.b
King Cyrus, rich in gold, 464.b
Cyſſites, a pretious ſtone, 625.e
Cytini in Pomegranats, what they be, 165.c. their properties, ibid.
Cyzicum earth hardeneth to a ſtone in the water, 554.l
Cyzicus, a prince that built the ſtately temple at Cyzicum, 581.a.

D A

Dactylios, what it is, 455.d
Dactyliotheca, what it was. 602.g. who firſt had

20030
copy 1

had any ſuch, *ibid.*
Dactylos, what graſſe, 207.*b. why ſo called,* *ibid.*
Dædalus, an excellent Imageur in braſſe, 501.*f. his workemanſhip,* *ibid.*
Daffodils deſcribed, 85.*a. how they differ from Lillies, ibid. their operations in Phyſicke,* 103.*c*
Daiſie, a floure and hearbe, 89.*c. the deſcription,* *ibid. the medicinable vertues,* 245.*e*
Dalion, a Phyſitian, 66.*k*
Damaſonium, what hearbe, 231.*b.* 256.*i*
Damion, a writer in Phyſicke. 52.*i*
Damophilus, an excellent Imageur and workeman in cley, 552.*i. his workemanſhip,* *ibid.*
Dampe in ſinking of pits it may be foreſeene, and the danger prevented, 409.*d.e*
Dandruffe in head and beard how it may be ſcoured and rid away, 44.*h.* 47.*a.* 52.*g.h.* 56.*i.* 59.*c.* 72.*g.* 103.*b* 127.*e.* 138.*m.* 155.*f.* 157.*e.* 158.*m.* 161.*b.d.* 168.*l* 171.*e.* 173.*c.* 174.*k.* 179.*d.* 182.*h.* 191.*c.* 207.*c.f* 232.*k.* 249.*c.* 267.*f.* 306.*a.* 324.*g.* 365.*c.* 432.*h* 559.*b.*
Danewort, an hearbe. See Walwort.
Danubius the riuer, 405.*a*
Daphnias, a pretious ſtone, 626.*h*
Dardanium, what ornament of the bodie, 462.*g*
Dardanus, a magician, maſter to Democritus, 373.*c*
Darnell, what medicinable vertues it doth affourd, 139.*a* 144.*l.*
Dates Myrobalane, 163.*b*
Date tree, Spathe, what vertues it hath, *ibid.*
Dates, what diſcommodities they bring, 162.*l*
the liquor of Dates, what vſe it hath in Phyſicke, *ibid.m*
Dates Caryotæ, what properties they haue medicinable, 163.*a.*
Date ſtones their vertues, *ibid.*
Date trees reſembled naturally within ſtones, 588.*h*

D E

the Dead, with what reuerence and proteſtation they were named, 297.*b*
Deafeneſſe or hardneſſe of hearing, what medicines doe helpe, 40.*g* 413.*c. See more in Eares. what cauſeth deafeneſſe,* 450.*k*
Debate what things are thought to breed, 435.*a*
Debts, why called in Latine Æs Alienum, 479.*d*
P. Decius Mus honoured with two graſſe coronets, 116.*k* *his praiſe worthy deeds,* *ibid.l*
Decuries of Iudges at Rome ordained by Auguſtus Cæſar, 459.*d. of what perſons they did conſiſt, ibid. foure in all at firſt,* 459.*e. a fift erected by C. Caligula the Emperour,* 460.*i. with what regard they were elected,* 347.*b*
a Defenſatiue againſt inflammation, 206.*k*
Deformities in the skin of the face how to be done away, 268.*k. See Viſage.*
Delphicke baſons of braſſe, 489.*c*
Demetrius a Phyſician wrote a treatiſe of the number four. 305.*e.*
K. Demetrius, in what regard he had Protogenes the painter, 543.*a*
Demetrius, an excellent Imageur and engrauer, 501.*e. his curious workes.* *ibid.*
Democritus, a profeſſour and writer in Phyſicke, 203.*a* *reproued for his vanities and lies as touching the Chamæleon,* 315.*b.c. addicted ouermuch to the vanities of Magicians, ibid. condemned for ſetting downe receits in Phyſicke made of mans bodie,* 293.*f. a maintainer of Magicke,* 373.*c. in ſome ſort excuſed for his loud lies,* 316.*g.*
Demos Athenienſium, what picture it was of Paraſius his doing, 535.*e*
Demoſthenes the great Oratour caried poiſon ordinarily in his ring, 458.*l*
Demoſtratus, a writer in Philoſophie, 606.*h*
Denarius or Denier, a ſiluer peece at Rome. for what it was currant, 463.*a. going for ten Aſſes, it was ſtamped with the Decuſſis X.* 463.*b. going for ſixteene Aſſes, with this number XVI.* *ibid.*
a Denier in ſouldiers pay, was neuer aboue ten Aſſes, *ibid.*
Denarius, a peece of gold coine, 462.*i*
Dendrachates, a pretious ſtone, 623.*e. the reaſon of that name,* *ibid.*
Dendritis, a pretious ſtone, 631.*a*
Dentifrices for to make the teeth white, 326.*i.k.* 327.*b* 352.*l.* 376.*h.* 422.*g.* 437.*d.* 440.*l.* 591.*b.*
Dependere, what it ſignifieth, 462.*g*
Depilatories, 50.*i.* 110.*d.* 110.*k.* 122.*g.* 146.*i.k.* 166.*l* 171.*a.* 187.*a.* 190.*h.* 268.*k.l.* 280.*l.* 302.*g.* 312.*i.k* 315.*a.* 316.*g.* 340.*h.i.* 341.*a.*
against the abuſe of roſins Depilatorie, and pitch plaiſters to take away haire, 349.*a*
Deſiccatiue medicines, 138.*m. See more in Exſiccatiue.*

D I

Diacodium, what compoſition it is, 68.*h*
Diadochus, a pretious ſtone, 626.*h*
Diadumenus, an excellent Image of Polycletus his making, 497.*e.*
Diaglaucium, a ſingular collyrie or eyeſalue. 282.*k*
Diagoras, a Phyſician, 67.*e*
Diagraphice, what kinde of painting or pourtraying, 537.*b* *learned by gentlemens children,* *ibid.*
Dialeucon, a kinde of Saffron, 86.*i*
Diamant, the moſt pretious thing in the world, 609.*f*
Diamant, the onely precious ſtone found in mettall mines, 609.*f.*
ſix kindes of Diamants, 610.*g*
the Indian Diamant deſcribed, *ibid.*
deſcription of the Arabian Diamant, *ibid.*
how the true and perfect Diamant is tried, ibid.b. why it is called in Greeke Adamas, *ibid.*
Cyprian Diamant, ibid.i. the deſcription, *ibid.*
the Diamant Siderites, why ſo called, ibid. the ſecret Antipathie betweene Goats bloud and the Diamant, 610.*k*
Diamant how it may be broken & reduced into pouder, ib.l
enmitie betweene the Diamant and Loadſtone, *ibid.m*
the vſe of a Diamant in cutting other ſtones, *ibid.l*
the medicinable vertues of the Diamant, *ibid.m*
why the Diamant is called Anachites, 611.*a*
Diamoron, a compoſition of Mulberries, 192.*h*
Diamoron made of common blacke bramble berries, comparable to the other of Mulberries. 196.*i*
Dianaes Image at Chios cut in marble, 565.*a*
the ſtrange caſt of the eye, *ibid.*
Diana Anaitis, an Image of beaten gold, 470.*g*
caried away out of the temple by Antonie, *ibid.*
the pleaſant anſwere of a Bononian to Auguſtus Cæſar

far as touching this act of Antonie, 470.h
Diarie or day feauer how it is dispatched, 155.e
Dibutades (as some thinke) deuised first to forme an Image or likenesse in clay, 551.e.f. by what occasion. ibid. his inuentions besides in building, 552.g. he deuised Protypa and Ectypa, ibid.
Diceus, an image of Leonteus making, why so called, 498.l
Dictamnus, an hearbe growing onely in Candie, 225.c three kindes thereof with their description, ibid.c.d.e the vertues of Dictamnus, knowne to vs by meanes of the Hind, ibid. of great power to prouoke womens tearms, 266.m. women with child must be warie of it. ib.
Dictyotheton, a kinde of worke in Masonrie, 594.g
Didoron, what size of Bricke, 558.d
Diet of great power to correct the humors of the bodie, and to reforme the affections of the mind, 136.h
Diet exquisite, ibid.g
Diet nothing exquisit and precise, best for health, 304.h
Dieuches, a writer in Physicke, 40.k. he wrot a booke in praise of Coleworts, 48.i
Digestion by what meanes it is helped, 40.l.41.e.52.g 63.e.70.g.132.g. 134.h. 151.e.f. 154.g. 156.l. 162.k 182.m.247.d.259.e.272.k.277.a.290.k.303.e.
Digestiue medicines and concocting cruditie of humours, 182.m.249.d.359.c.
Digitellus, what hearbe, 237.c
Dill, an hearbe, 30.l. the medicinable properties, 67.c. the discommodities thereof, ibid.
Dinocrates, a cunning Architect, 515.a. his deuise to couer the temple of Arsinoë, with a roufe of Loadstone, ibid.
Diocles, a writer in Physicke, 41.b.112.l.242.k
Diodorus, a Physician and writer, 55.a
Diodotus, a writer in Physicke, 200.l
Dionysias, a pretious stone, 626.h
Dionysius, an Herbarist and writer, 71.a. he depainted hearbes in their colours, 210.g
Dionysius, a painter, 551.b. he was good at nothing but in pourtraying the personages of men and women, 544.i hereupon he was surnamed Anthropographos, ibid.
Dionysodorus, a vaine Musician, 601.c. he loued to be at his change of rings and pretious stones, ibid.
Diopetes small frogs medicinable, 438.k
Dios-Anthos, what manner of floure, 91.a.b
Dioscorides, a cunning engrauer and cutter in pretious stones. 601.d
Dios-pyros, 284.l
Diotimus, a Physician and writer, 309.e
Dioxippus, a famous challenger at the games Olympica, 549.c. pictured by Alcimachus, ibid.
Diphris, a pretious stone, 626.h. male and female, ibid.
Diphryges, what it is, and why so called, 512.l. three kindes thereof, ibid l.m. the vertues medicinable, 513.a. how the good is tried, ibid.
Dipœnus, a renowned cutter & engrauer in marble, 564.h his workes, where they were rife, 565.b
Dipsacos, an hearbe, 280.k. See more in Tazill.
Dipsas, a venomous worme, 434.g
Diræ, vnluckie birds, 295.a
Discussiue medicines, 141.a.180.i.233.d.273.d.303.a 319.c. 418.k.l. 421.e. 423.d. 556.l. 557.d. 560.g. 588.m.595.d.
Diseases deadly of man or beast, what cureth, 313.a. diuerse diseases of a strange nature, 241.c
Dislocations of ioints, how to be helped, 46.i. 49.a.52.k. 63.f. 64.h.73.a. 103.d. 108.g. 109.b. 121.d. 124.l 129.c.136.k.141.a.146.k.154.f. 159.d.161.d. 162.g 172.h.187.e.191.d.195.e.201.a.205.d.208.g.261.d 275.e.303.a.320.g.337.b.349.e.f.386.i.414.g.419.f 450.s.595.d.
swelling occasioned thereby how to be assuaged, 261.e
Distaues vndizened and so carried by women, held ominous, 298.i
Dittander, an hearbe, 30.k. the description, ibid. where it groweth, ibid. the properties, 65.a
Diuites, s. rich, who were properly called, 479.d
Crassus, surnamed Dines, proued a bankrupt, ibid.
Diureticall medicines, 149.d.186.g.i.l.190.k.191.b 254.k.281.b.287.b.442.l.443.a.e.444.g.h.
See more in Vrine.
Dizzinesse of the head how it is remedied, 47.b.60.h.62.g 67.a.d.111.f.149.e.155.d.157.a. 177.b.219.d.233.e 283.f.289.e.381.b.437.a.591.a.

D O

Docke, an hearbe, the roots medicinable, 19.d
Dodecatheos, an hearbe, 214.h. why so called, ibid. the description and vertue, ibid.
Dogbrier or bramble, 196.k. called Cynosbatos and Cynospastos, ibid. the description, ibid.
Dogs grasse Canaria, 225.b
Dog how enuious to man, may be seene in that and another hearbe, ib.c
Dogges are killed with the iuice of the hearbe Chamæleon, 124.g.
what else is deadly to Dogs, 53.d
Dogs crucified and hanged aliue yearely at Rome, 355.b the reason wherefore, ib.
Dogs how to be kept from barking and doing harme, 362.m 399.e.450.h.
curst Dogs how to be appeased, 435.a
Dog burnt to ashes, in what case medicinable, 324.i
Dogs head medicinable, 362.l.m
wormes engendred in a Dogs carkasse, medicinable, ibid.
the haire of a dogs taile, for what it is good, ibid.
Dogs bloud serueth in Physicke, 355.c
Dogs head reduced into ashes medicinable, 362.k.l
Dogs biting that is not mad, how cured, 37.d.42.g.78.g 121.d.133.c.134.i.146.l. 155.f. 158.h. 172.h. 185.f 314.g.322.m.443.b.473.e.
mad Dogs how their tooth doth poyson, 231.c
mad Dogs biting how remedied, 43.e. 51.a.52.h.54.i.57.a 75.d.105.c.106.l.166.m.167.a.168.k.l.171.e, 172.k 192.k.199.c.212.g.231.c.278.h.301.b.306.k.309.d.f 313.e. 322.l. 350.h. 362.l. 363.a.b.c. 418.i. 422.h 434.h.443.c. 516.g.
a man bitten by a mad Dogge, cured by reuelation from the gods, 212.g
the biting of a mad Dogge incurable, if Hydrophobie ensue thereupon, 211.f
how Doggs may be preserued from running mad, 308.h 363.a.
a brasen Dog in Iunoes chappell, 494.m. with what charge it was kept, ibid.
Dog-fish medicinable, 440.g

Dog-

20030
copy 1

Dog-berrie tree, how it preſerueth hearbes from any vermine, 32.*m*
Dolphin fiſh yeeldeth aſhes medicinable, 440.*g.* *the liuer good in Phyſicke,* *ibid.*
Dolphins, peeces of ſiluer plate, which C. Gracchus had, 482.*h.*
Donaces be the male of ſhell-fiſhes, 444.*b*
Donax, a cane in Cypros medicinable, 191.*c.*450.*i*
Dora, why gifts are ſo called in Greeke, 555.*d*
Doris, what hearbe, 124.*m*
Doron, what meaſure it is in Greeke, 555.*d*
Dorotheus, a Poet, and writer in Phyſicke, 131.*f*
Doryenium, the poyſonous Dwale, 112,*k.* *why ſo called, ib.* *the counterpoyſon thereof,* 150.*m.*308.*g.* *what remedies more be appropriat for that poyſon,* 308.*g.*318.*h* 436.*h.i.*443.*b.*
Dorypetron, an hearbe. See Leontopodium.
Doryphorus, an image of Polycletus his making, 497.*e*
Doryphori, Images in braſſe, reſembling the guard of King Darius, 501.*e*
Doues foot, an hearbe. See Geranium.

D R

Draconites or Dracontia, a pretious ſtone, 626.*i*
Dracontium, an hearbe, 200,*b.* *whether it be the ſame that Dracunculus, ibid.* *the medicinable vertues of the herbe Dragon, whether it be Dracontium or Dracunculus,* 201,*b,c.* *three kindes of Dracontium, ibid.* *t differs from Aron, ibid.* *how it tooke the name,* *ib.*
Dracunculus the herbe, of two ſorts, different one from the other, 212,*h.* *one kinde ſheweth abone ground, anaretreth backe againe, according as ſerpents appeare abone the earth, or be hidden,* *ibid.*
Dragons, an hearbe. See Dracontium and Dracunculus.
Sea-Dragon, a venomous fiſh, 246.*k.* *the remedies againſt the pricke and poiſon thereof,* 246.*k.*277.*c* 418.*i.*433.*f.*434.*h.i.*
Sea-Dragon medicinable for the hurt that himſelfe hath done, 434.*i*
Dragons haue no venome within them, 357.*a.* *their greace driueth away all venomous beaſts,* 357.*d*
Dragons. See ſerpents.
Dram Atticke, what it doth peiſe, 113.*e*
for to Draw forth of the fleſh, ſpils, ſhiuers, bones, thornes, arrow heads, and ſuch like, proper remedies, 44.*k.*56.*g.h* 71.*f.* 76.*k.* 103.*d.* 105.*d.* 108.*l.* 119.*d.* 122.*l.* 135.*d* 144.*k.l.* 149.*f.* 150.*i.* 167.*a.* 168.*l.* 191.*d.* 195.*e* 206.*g.* 262 *i.* 264.*m.* 365.*a.d.* 266.*g.* 283.*d.* 291.*c* 306.*i.* 338.*m.* 371.*a.* 394.*l.*395.*a.b.* 447.*d.e.* 450.*k* 511.*b.*
to Draw ſkalie bones out of the ſkull, 233.*b.d*
Dreames fearefull and troubleſome, what do cauſe, 251.*a* 315.*e.* *meanes to auoid them,* 65.*e.*315.*e.* *when and how we dreame moſt,* 303.*e*
Drinking of cold water, more wholeſome than of hot drinks 304.*g.*
Drinking of waters naturally hot ouer liberally, hurtfull, 412.*h.* *where drought maketh durt, and raine duſt,* 410 *i.*
for the Dropſie diuers remedies, 36,*l.*39,*d.*40,*k.*42,*k.*43.*b* 44,*g.* 45,*b.f.* 51,*f.* 55,*c.* 57.*d.* 64,*k.* 66,*k.* 69,*e.*74,*b* 77,*c.* 101,*d.* 104,*i,l.* 106,*g,k.* 109,*b.* 110,*m.* 119,*d* 124,*g.* 127,*e.* 128,*k.* 134,*k.* 142,*l.* 148,*g.* 149.*b* 164,*g.* 166,*h.* 167,*e.* 174,*l.* 181,*c.* 182,*g.* 184,*l,m* 186,*g.*187,*c.*190,*g.* 191,*c.* 192,*h.*198,*i.*203,*e.* 218,*i,k* 219,*d.* 252,*g.*253,*c.* 260,*l.*261,*a.*273,*b.*276,*h.*283,*f* 284,*i.*287,*e.*290,*k.*336,*l,m.*362,*i.*391,*e.* 414,*h.*419,*e* 422,*i.*443,*a.*446,*i.*508,*g.*
Droſſe of braſſe, 507.*c*
againſt Drowſineſſe remedies, 74.*h.*206,*g.*218,*l.*260,*l* 336,*h.*446,*i,k.*
Drowſineſſe what doth engender, 101.*e*
Drowſineſſe occaſioned by the venome of the Aſpis, how cured, 356,*i*
the druidæ, together with Phyſicians, Prophets, and Wiſards, put downe by Tiberius Cæſar, 374.*g*
the Druidæ of France tell wonders of the ſerpents egge Anguinum, 354.*g*
Drunkenneſſe, what meanes to withſtand, 43,*b.*49,*c.*57,*d* 103,*e.* 105,*a,d.* 119,*d.* 153,*b.* 171.*f.* 190,*g.* 201,*b.* 259,*e.*342,*g.*
what things cauſe loathing of drunkenneſſe and wine, 399,*c.*626,*h.*450,*g.*
Drunkards, why they drinke pumiſh ſtone, before they ſit downe to quaffe wine, 591.*d*
Druſillanus Rotundus his vanitie and waſt in a ſiluer charger. 481.*e*
Druſus cured of the falling ſickeneſſe, by purging with Ellebore in the Iſle Anticyra, 218.*g*
Dryites a pretious ſtone, 630.*k*
Dryophonon, 280.*m.* *the deſcription,* *ibid.*
Dryopteris, 280.*d*

D V

Duckes-meat, an hearbe, 142,*h.* *the medicinable vertues thereof,* *ibid.*
Duckes and Mallards bloud bred in Pontus, medicinable, 364,*g.*
C. Duillius his ſtatue erected vpon a Columne at Rome, 491,*a.*
Dumbeneſſe comming ſuddenly, how cured, 42.*b*
Durus, a writer, 498.*m*
Duo, the bare word, a charme for Scorpions, 297.*e*

D W

Dwale, a poyſonous hearbe. See Doryenium.

D Y

Dyed colours, which be the richeſt, 88,*l*
Dying cloth and wooll with the iuice of hearbes, 114.*m* 123,*c.*
Dyers craft, 115.*c*
Dyſenterie or vlcer of the guts, how cured, 66,*i.*73,*a.*126.*g* 129,*a.*137,*b.*140,*i.*141.*f.* 153,*f.*318,*g.* 382,*k.*418,*k* 474,*h.*520,*i.*557,*e.* *See Blondie flix.*

E A

for EAres pained within, conuenient remedies, 38,*g.*42.*g* 44,*g.*54,*d.*57,*e.*60.*g.*62,*m.*66,*g.*68,*h.*70,*l.*102,*i* 103,*d.* 106,*m.* 131,*d.* 135,*e.* 140,*g.* 157,*b.* 161,*e* 162,*h.k* 169,*c,f.*172,*h,i.*173,*e.f.* 183,*f.*185,*a.* 188,*l* 189,*f.*196,*h.*200,*l.*237.*f.* 238,*g.* 277,*c.*307,*e.* 325,*d* 326,*c.*369,*b,c,e.*418,*k.*439,*e.*439,*f.*
Eares exulcerat, ſore within, and running with attir, how to be clenſed and healed, 120,*l.*160,*h.*165,*b.*174,*m* 180,*g.* 181,*a.*183,*a,c.* 189,*f.* 197,*d.* 216,*h.* 238.*g* 277,*e*

277.c.287.b. 306.h. 325.d. 326.g. 350.i. 369.b.d. 370.g,i.418.k.431.c.432.h.422.g.432.k.
for Eares deafe or hard of hearing, good medicines, 36.h 42.g.m.44.g. 49.b. 54.h. 56.i.57.e.63.e.75.c. 111.a 128.i. 149.a. 156.m. 157.b. 159.c.161.b.d. 162.h 165.a.173.c 325.e.f.326.g.369.b. 507.f.511.c.
comfortable things for the Eares in all infirmities, 131.d 160.m.161.b.178.g.186.m.249.e.259.c.273.a.274.i 303.e 307.e.356.h.369.d.370.k.371.a. 439.d.e.558.l 559.b.609.b.
for Eares ringing and singing, or having in them any vnnaturall sound and noise, 43.a.47.b.57.c.62.h.135.e 161.b. 162.h.180.m.308.h.510.i.
Eares smelling strong and stinking, how to be cured, 307.e.f 325.e.370.g.
against Earewigs or such like vermine crept into the eares, 300.k.369.e.
water gotten into the Eare, what medicins it doth require, 305,b.369.c.
Eares having wormes or vermine engendred within them, how to be cleansed, 59.b.62.m.77.c.78.h.142.k.161.b 306.h.
Eares wounded or cracked how to be healed, 52.i.326.g 369.f,439.f.
Eares tingling, and glowing what they betoken, 297.e
Eare-wax medicinable, 301.a
Earth in or about the skull of a man or woman enterred, held to be medicinable, 302.g
Earth Ebusitane is medicinable, 561.d. See more in Earth-wormes.

E B

Eben, the vertues thereof, 191.e

E C

Echeneis or the staysship fish, of a wonderfull nature, 425.e.f how it staieth a ship, 426,i. the forme and bignesse thereof, ibid. in the medicinable vertues of this fish the Greeks write contrarieties, 246.k
Echion, what medicine or collyrie it is, 366.l
Echion, an hearbe, 227,e. two kindes, ibid. the description and vertue, ibid.
Echion, a cunning painter, 537,c. his pictures, ibid.
Echites, a pretious stone, 630.i
Echites, an hearbe described, 199.e
Echo, what it is, 581,c. how it is caused naturally, ibid. at Cizycum there is an Echo by fortune, ibid. at Olympia, caused by art, ibid.
Eclipses of Sunne and Moone thought to be wrought by enchantment and witchcraft, 210.k
Ectypa, what they be, and who deuised them, 552.g
Eculeo, a writer, 536.g

E G

Egs of Hens, and their medicinable properties, 351.c
yolke of Hens egs, in what cases it is medicinable, 352.g
Egs all yolke, and without white, be called Schista, ibid.k
skinne of an Hens Egge-shell, good in Physicke, ibid.t
Hens Eggeshell reduced into ashes, for what it serueth, ibid.
the wonderfull nature of Hens Eggeshels. ibid.m
Hens Egges, all whole as they be, what they are good for, 353,a. the commendations of Hens Egges, as a meat most medicinable, ibid.b
Hens Egge, a proper nourishment for sicke folke, and may go for meat and drinke both, ibid.
Egge-shels, how they may be made tender and pliable. ibid.
white of an Egge resisteth fire, 353.e
of Geese Egges a discourse, 354.k
the serpents Egge, which the Latines call Anguinum, what it is, and how engendred, 353,f
Eglantine brier, Cynorrhodon, 196.k
the root soueraigne for the biting of a mad dog, 112.a
Egula, what kinde of brimstone, and for what it serueth, 556,k.

E I

dimnesse of Eies, what causeth, 438.i
for dimnesse of Eiesight threatning blindnesse, appropriat medicins, 40,g.41,f.46,k.50,g.51,d.56,g,h.57,b.65.a 73,d.74,k.l.75,e.76,h.77,b,c.78,l. 107,d.146,m 157,a.158,m.160,l 161,b.162,g.165,a. 168,g.179,b 180,k.183,f.186,l. 193,a,b. 198,m. 200,m. 218,i 222,m. 224,h. 233,e,f. 234,g,h. 236,l.277,c.286,k 304,l. 306,h. 311,b. 312,g. 314,m. 324,k. 325,c,d 366,i,k.l. 367,a,b,e. 368,g,i. 369,a. 422,g. 431,c,e 432,i.438,h,i,l,439,c.443,b,c.
for eies enflamed, swelled, and pained, 37,c.69,d.104,g,m 108,l. 140,g. 141,b. 155,c. 159,f. 164,g. 165,d. 173,a.184,h. 234,m.235,b.236,h,k. 287,b.307,d 308,h.325,c,d.351,a.352,g. 368,g,i. 423,d. 439,e 511,b.529.a.
for Eies bleared, 52,i.66,g.120,k.157,f.165,c,d.178,g 179,c.184,l.193,e. 194,h. 195,a.196.g.272,h.301.f 307,c.367,e. 368,k. 325,d. 174.i. 234,g. 234.m 286,g. 301,c. 304,g. 305,f. 311,f. 312,g. 313,c 318,i,325,a.368,h.i.423,d.439,a.
for Eies blond shotton upon a stripe, or otherwise fierie red, 58,k. 120,l.177,e.234,k. 307,d.308,h.367,e. 419,a 431,f.438,k.589,f.
vlcers in the eies how to be cured, 143,b.168,h.237,e 351,a.367,f.473,e.507,a.591,a,d.
corners of the Eies exulcerat how to be healed, 197,d
asperitie of the Eies how to be helped, 307,b.312.g.324,k 510,i.511,b.528,m.559,a.
cicatrices, scars, clouds, and filmes of the Eies, how to bee rid away, 125,e.146,m.180,k. 198,m.225,b.233,f 275,c. 286,k.306,g. 312,g. 314,k. 324,l. 367,b,c 421,f.507,a.432,i.438,l. 441,d.471,e. 511,b.557,d 609,b.438,h,l.
Pin and web in the Eies, what medicines doe scoure and scatter, 106,l.144,k.179,b.191,e,f. 198,l. 233,f 306,g. 315,c. 316,g. 367,c.368,h. 438,l. 506,m 509,a.
pearles, mailes, and spots in the Eies how to be dispatched, 144,k. 179,e. 180.k. 191,f. 306,g. 312,g. 315,c 316,g. 324,l. 325,c. 366,h.367,c,d,e. 422,g. 438,i 443,c. 507,a.509,a. 557,d. 366,i. 367,b. 368,g 369,a.
for Eies troubled with a violent flux or rheume falling into them, 307,d.308,h.423,d.473,e.506,m.511,b 561.c,d.359,c.366,k.368,k.l.369,a.
Eies goggled and readie to start out of the head, how to bee represſed, 69.f.158,k.196,h.306,h.519,c.590.g.
Eie-bals sunke and hollow, how to be raised, 519.e
Eies full of filthie gum and viscous matter, how to be cleansed, 236.k.237,e.506,m.
Eies of little children, if they be red and bloud-shotten, how to be cured, 351.d

tuni-

20030
copy 1

tunicles of the Eies broken, what things do heale, 325.c
367,b,d. *rough how to be ſmoothed,* 509.a
motes in the Eie how to be rid away, 395.b
Eies how to be clenſed from the Iaundiſe, 307.e
excreſcence of fleſh in the angles of the Eies, how to bee repreſſed, 418.m.438,b
Eies wearied with watching how to be comforted, 512.b
Eies blacke and blew vpon a ſtripe, how to be helped, 419,a 439,b.
dents and excauations in the Eies how to be helped, 312.g
for Eies continually weeping and watering, 37,c.38,b 42,g,l. 45,e.47,b.47,d.52,i.53,e.57,c.60,g.61,e.65,c 66,g. 67,c. 69,d,f. 70,l. 73,d. 76,b. 102,k,l. 103,e 104,g. 106,b,i. 108,b. 109,a,f. 122,k. 128,g. 138,g 140,l. 141,e. 147,b. 153,c. 155,e. 158,k. 162,i 169,c. 177,e. 186,i. 197,a. 199,e. 200,k. 206,l 234,g,h. 235,a. 236,b,i. 237,e. 239,a. 273,a. 277,c 281,a. 282,k. 289,c. 301,c. 305,f. 307,e. 324,k 325,a,c. 351,a.366,k.368,l.473,e.508,l.511,b.516,i 529,a.587,b.590 g.591,a.
for all infirmities and accidents of the Eies in generall, comfortable medicines, 36,g.42,g. 45,d,e.46,l.48.l.49,d 403,b. 416,h.419,a.424,i.432,k.511,e.559,a.589,b 590,i. 623.f.
Eie-browes how to be embelliſhed and beautified, 163.a 560,g.
Eie-lids, roughneſſe, itch, and ſcurfe, how to be amended, 146,m.147,b.166,l.272,h.350.k.368,k.
their aſperitie and excreſcence of fleſh, how to be cured, 421 f.424.k.438.k.443.c.516.b. *their hardneſſe how to be mollified,* 140.l.351.a
Eie-lids excoriat, how to be skinned, 158.k.272.b
the vntoward haires of the Eie-lids growing into the eyes, how to be rectified, 131.f.183.a.184.b.324.l.325.c 351.e.366.g.h.
from the Eie-lids what cauſe the haire to fall, 417.d
See more in Haires, how it is made to grow, 366.g
for all the imperfections generally of the Eie-lids, appropriat remedies, 36.g 63.c.74.k.106.l.306.g.324.m 438.l.509.a.
fiſtulaes about the angles of the Eies, how to be cured, 529.a
in Eies of Horſe or Beaſt, how the Haw is to be healed, 69.a.198.l.233.f.234.k.366.l.420.g.
Eie-ſalues, 286.k.324.l. *See more in Collyries.*
Eidyls & Eclogues of poets, why ſtored with charms, 296.k

E L

Elaphoboſcon, 225.c
Elaphoboſcon, an hearbe, 129.e. *the deſcription, ibid. preſerued for meat, ibid. the medicinable vertues it hath,* ib f
Elate, what Date tree, 163.b
Elaterium, what it is, 35.f. *how it is gathered, ibid. how reduced into troſches,* 36.g. *how long it will laſt, ibid. the proofe of it, ibid. the effects thereof, ibid. how to be choſen,* ibid.
the full doſe of Elaterium one Obolus, ibid.l. it is a purgatiue, ibid.k. it cleanſeth the matrice, 37.a. *it haſteneth an abortiue fruit,* ibid.
Elatine, an hearbe, 281 a. *the deſcription,* ibid.
Elatites, a kinde of bloud-ſtone crude, 590,b. *being calcined, it becommeth Miltites,* ibid.
Elatus, a riuer in Arcadia medicinable, 403.a
Elder tree, 185.f. *the vertues in Phyſicke,* ibid.
ground Elder. See Walwort.
Electrides, Iſlands, why ſo called, 605.c
trees, according to ſome, 366.b
Electror, the name of the Sunne in Greeke, 605.c
Electrum, baſe, whitiſh gold, naturall, 469.e. *the temper thereof with ſiluer, ibid. of credit in old time,* ibid.
Electrum artificiall, 469.e
a cup of Electrum dedicated by ladie Helena to Minerua at Lindos, 469.f
the ſingular properties of Electrum, ibid. *it diſcouereth poyſon,* 470.g
Electrum the ſame that Amber. See Amber.
Elecampane, an hearbe, 41.e. *the medicinable vertues that it hath, ibid. why called Helenium,* 91,b. *See more in Helenium.*
Eleliſphacos, what hearbe, 142.b.k
Elephants bodie affourdeth good medicines, 310.l. *their bloud medicinable,* ibid.
Elephants tooth medicinable, ibid.
the trunke of an Elephant vſed in Phyſicke, ibid.
Elephantiaſis, a foule diſeaſe. See Leprie.
Elephantis, a woman Phyſitian & writer in Phyſick, 309.e
Elichryſos, a floure and colour artificiall, 89.b
Ellebore the hearbe, 217,b. *two principall kindes, ibid. their deſcription,* ibid.b.c.d
blacke Ellebore, a very poyſon to cattaile, 217,c. *the beſt groweth vpon mount Helicon,* ibid.
blacke Ellebore, why called Melampodion, 217,d. *whereto it is vſed, ibid. with what ceremonious deuotion it is to be gathered, ibid.d.e. it is called likewiſe Eutomon and Polyrrhizon, ibid. it purgeth downeward, ibid. other vertues thereof,* 218,i *the doſe,* ibid.
white Ellebore, 217.d. *where the beſt groweth, ibid. with what regard and circumſtances it is gathered,* 217,e. *it purgeth vpward, ibid. how to be choſen,* 218,l. *the doſe,* 219.a
circumſtances to be obſerued in the taking of Ellebore, ibid.c
Ellebores at firſt were dangerous purgatiues, ibid. *taken by ſtudents to purifie their eies,* 217.f. *corrected by the mixture of Seſamoides,* 218.g
Ellebore the white, what properly doth correct, 431.c
Ellebore called in Latine Veratrum, and why, 218.g. *for vſe in Phyſicke how it is to be choſen, ibid.g.h*
the medicinable vertues of the Ellebores, ibid, how they are prepared, ibid.
vnto whom the giuing of Ellebore is prohibited, 219.e
the ſtrange operation of the white Ellebore root, 230.l
great care to be had in taking white Ellebore, 218,l,m
the time of miniſtring it, 219,b,c
the manner of the working of Ellebore, ibid.d
Elleborine, an hearbe. See Epipactis.
Elme, what vertues it yeeldeth in Phyſicke, 185.c
Elops, a venomous ſerpent, and the remedy, 434.g
Elutia. See Lead ore.

E M

Embaſſadours, why they carried a rod or mace with ſerpents pourtraied about it, 354.a.k
Emeraud, the moſt pretious things in the world after the diamant and pearles, 611.b
the green colour of the Emer and moſt pleaſing to the eye, ib.
why Emeraulds are not cut and engrauen, ibid.c
of Emeraulds twelue kindes, ibid.d

Scythian Emerauds, ibid.
Bactrian Emerauds, where they be found, and how. 611.e
Ægiptian Emerauds, ibid. *where they be found*. ibid *the rest are gotten out of brasen mines*, ibid. *the best therefore in Cypros*, ibid.
fishes how they were scared with Emerauds, standing as eyes in the head of a marble Lion, 612.g
the defects and blemishes in Emerauds, ibid.g.h. *in their colour*, ibid. *in their bodie and substance*, ibid.
Æthyopian Emerauds, ibid.i
Persian Emerauds, ibid.
Hermionian Emerauds, ibid.
the Atticke Emeraud, ibid.k
the Median Emeraud, ibid.
Carchedonian Emerauds, ib.l
Laconicke Emerauds, 613.g
Emerauds of great bignesse, ibid.a.b
Empetron, otherwise called Calcifraga, what hearbe, 281.a
the description and vertues, ibid.b
Empleclon, what worke in Masonrie, 593.f
Emydes what Tortoises they be, 431.d

E N

Enamelling. See Encaustice.
Encardia, a pretious stone named also Cardisce. 626.k
Encaustice, the feat of painting with fire, or enamelling, 546.h.i. *who deuised it*, ibid. *who excelled therein*, ibid.
Enchantments. See Charmes and Words. condemned altogether by Plinie, 213.c
Enchusa, what hearbe, 124.m
Endiue, the diuerse kinds and their medicinable properties, 47.d.
Engrauers in siluer who were famous, 503.d
Enhydris what serpent, 376.g. *the properties of it*, ibid.
Enhydros, a pretious stone, 630.l
Enneacrunos, a famous fountaine at Athens, 410.g
Enneaphyllon, an hearbe, with nine leaues iust, 281.c. *the nature and vertues*, ibid.
Enorchis, a pretious stone, 626.k. *why so called*, ibid.
Entrailes diseased, what medicines are proper therefore, 158.g. *inflamed how to be cured*, 165.d

E P

Ephemerides, an ancient inuention, 210.i
Ephemeron, what hearbe, 261.e
Ephemeron Colchicum, a poysonous herbe, with the remedy thereof, 323.c.d
Epichermus, a Greeke writer in Physicke. 50.b
Epicurus his picture much esteemed, 522.l. *his mouth-minds*. ibid.
Epigenes, a writer, 406.k
Epigonus, an excellent Imageur, 504.g. *renowned for representing an infant by the mother lying slaine*, ibid.
Epimelas in pretious stones, what it signifieth, 626.l
Epimenidion, an hearbe described, 281.c. *hurtfull to women*, ibid.
Epimenidium, a kinde of squilla or sea-Onion, 18.m
Epinyctides, accidents to the eyes, how to be helped, 438.l.m
Epinyctides, how Plinie taketh it, 42.l. *what is meant thereby in other writers*, ibid.
Epithymum, what hearbe. 250.l. *the true description*, ibid.m.

E Q

Equisetum, an hearbe, 263.b

E R

Eranthemon, what hearb, 125.d *why so called*, ibid.
Erasistratus, a Physician, 68.g. *he condemned Opium*, ibid. *he altered the course of the former Physicke*, 344.h. *how much mony he receiued for one cure*, ibid.
Eretria a white earth serving for painters colour, 518.k *why so called*, 329.f. *the vse in Physicke*, ibid. *two kindes thereof*, 559.e. *how the good is knowne*. ibid.
Erigonus, a painter, 550.k. *how he came by knowledge*, ibid.
Erineos the name of the wild figtree in Greeke, 169.b. *the name also of an hearbe*, ib. *the description of the hearbe*, ibid.c. *the vertues*, ib.
Eriphia a strange hearbe, 204.l. *the description*, ibid. *how it tooke that name*, ibid. *the vse thereof in Physicke*, ib.
Eristalis, a pretious stone, 626.k
Erith, an hearbe, 274.i. *the sundry names it hath*, ibid. *why called Philanthropos*, ib. *the vertues medicinable*, ib.
Erithales, one of the names of the lesse Housleeke, 237.c
Erotylos, a pretious stone, 626.k. *called likewise Amphicome and Hieromnemon*, ibid.
what Earth is like by the leere to haue water within, 409.b *what not*, ibid.c.d
in what place Earth turneth in time to be a stone, 554.l.m
the bountie of the Earth inenarrable, 553.b
Erthen workes and vessels both in diuine and ciuile vses also, infinit, 553.b.c. *of great price*, ibid.d.e
Erth pure, will not flame, 472.b
Erth medicinable, how to washed and prepared, 559.e
Erthquakes as they discouer springs, so they swallow them vp, 411.a
Erth-wormes medicinable, and therefore preserued, 361.d
Ervile the Pulse, what vertues in Physicke it hath, 143.b *the discommodities thereof*, ibid.d
Eryngo, a soueraigne hearbe against all poysons and serpents, 118.m. *the description*, 119.a.b
Erysisceptron, what plant, 195.b. *the sundry names of it*. ib. *the medicinable vertues wherewith it is endued*, ibid.c
Erythini fishes, hauing a propertie to stay the Laske, 443.e

E S

Esopus, what hearbe, 45.b
Esubopes, a kinde of the Colchians, rich and sumptuous both in siluer and gold, 464.i

E T

Ethe, what they be, 541.d

E V

Euax, a K. of Arabia, who wrote of hearbes, 210.g
Euclia what hearbe, 231.f. *the effects thereof, according to the Magicians*, ibid.
Eucnemos Amazon, an image, 503.a. *why so called*, ib. *why esteemed so much by Nero the Emperour*, ibid.
Eudemus, a Physician, 347.e. *ouer familiar with Livia the princesse, wife to Drusus Cæsar*, ibid.
Eudoxus, a painter and Imageur in brasse, 549.e
Euenor, a writer in Physicke, 112.l
Euenor a Painter, 534.g. *father and master to noble Parasius the Painter*, ibid.
Engalacton, an hearbe. See Glaux.
Eulæus, a riuer, out of which the kings of Persia vse to drinke, 406.l
Eumarus, a famous Painter, 533.a. *he first distinguished male from female*, ibid.
Eumeces, a pretious stone, 626.k

Eume-

20030
copy 1

Eumetres, a pretious ſtone, 626,*l*. called alſo *Belus* gem. *ibid.*
Eunicus, an excellent grauer, 483.*e*
Eunuchion, a kinde of Lettuce, 24.*k*. why ſo called, *ibid.*
Eupatoria, the hearbe, otherwiſe called *Agrimonie*, 220.*k* the reaſon of the name, *ibid.* the deſcription and vertues, *ibid.k.l*
Eupetalos, a pretious ſtone, 626.*l*
Euphorbia, an hearbe, 222.*k*. why ſo called, *ibid.* commended by king Iuba in one entire booke, *ibid.l.* the deſcription, *ibid.* where it groweth naturally, 269.*d*
Euphorbium, the iuice of the hearbe Euphorbia, 222.*l*. the manner of gathering it, *ibid.* how it is ſophiſticated, 223.*a*.
Euphorbus, a Phyſician, brother to Antonius Muſa the Phyſician, 222.*k*
Euphranor, an excellent Imageur, 502.*g*. his workes, *ibid.* he was beſides a cunning Painter, 547.*c*. he excelled in Symetries, whereof he wrote bookes, *ibid.* his imperfection, *ibid.* his workes, *ibid.*
Euphroſynon, an hearbe. See Buglоſſos.
Eupompus, a cunning Painter, 537.*a*. his workes, *ibid.* of great authoritie, *ibid.*
Eureos, a pretious ſtone, 626.*l*
Euripice, a kinde of fiſh, 101.*e*. the properties which it hath, *ibid.*
Eurotas the riuer repreſented in braſſe, 502.*h*. the praiſe of the workeman thereof, *ibid.*
Eurotias, a pretious ſtone, 626.*l*
Euſebes, a pretious ſtone, *ibid.*
Euthycrates, ſonne to Lyſippus, a ſingular Imageur, 499.*f* wherein he excelled, *ibid.* his workes, *ibid.*
Eutomon, what hearbe, 217.*e*
Eutychides. an imageur famous for the riuer *Eurotas* of his pourtraying, 502.*h*
Eutichides, a painter, 549.*f*

E X

Exacos, an hearbe. See Centaurie the leſſe.
Exagon, one of the Ophiagenes, 299.*a*. not hurt by ſerpents, but licked by them, *ibid.*
Exchange and bartering ware for ware, the old manner of merchandiſe, 454.*l*
Excrements of mans bodie medicinable, 302.*m*
Excrements of mans bellie, a counterpoyſon, 270.*k*
Excrements of a ſheepe baliered about their tailes, 351.*b* the medicinable properties thereof, *ibid.*
Excreſcence of proud and ranke fleſh, how to be taken away and repreſſed, 146.*l*. 158.*k*. 165.*a.d*. 167.*a*. 177.*f*. 264.*k* 265.*a*. 273.*e*. 338.*i*. 447.*e*. 474.*i*.
Execrations, bannings and curſings in a forme of words, thought to be of force, 296.*i*
Exedum, what hearbe, 206.*g*. the effects that it hath, *ibid.*
Exerciſe of the bodie maketh much for health, 303.*d*
Extrebenus a pretious ſtone, 626.*k*
Exorciſmes beleeued to be auaileable, 294.*l*
Exorciſmes and praiers interrupted by vnluckie birds Dica, 295.*a*
Exorciſme of the Deciy, *ibid.*
Expenſa, what the word ſignifieth, 462.*g*
Experience, the firſt ground and foundation of Phyſicke, 242,*m*.
Exſiccatiue medicines, 178,*h,k*. 249,*d.f*. 264,*m*. 286,*k* 320,*m*. 418,*k.l*. 421.*e*. 423,*e*. 471,*c*. 475,*a*. 506,*m* 511.*f*. 516,*h*. 529,*b,d.f*. 558,*l*. 559,*d*. 588,*m*. 591.*c* See more in Deſiccatiue.
Extractiue medicines, 595.*c*. See more in Drawing.
Exulceration by extreame cold or burning, how cured, 432.*g*.
Exulceration of the bellie, how to be helped, 168,*h*. 318.*g* See Dyſenterie.
Exulceratiue medicines and raiſing bliſters, 149,*d*. See Cauſticke.

F A

Fabianus a writer in Phyſicke, 303.*e*
Fabius (Cunctator) honoured with a graſſe Coronet, and why, 116.*m*. ſaluted by the name of Father, by the regiment of Minutius, 117.*a*
Fabricius, a patron of frugalitie, 483.*c*
Face rough and bliſtered with Sunne-burning, how to be cured, 366.*k*
Face broken out, by what meanes healed. 422.*k*. how to be cleanſed from freckles and pimples, 440.*m*. how to looke full, faire, and plumbe, 440.*m*. 441.*a.b*. how to be rid from ſpots and Lentils, *ibid.b*
Faint cold ſweats, how to be remedied, 48.*h*. 49.*f*. 52.*k* 58.*g*. 313.*d*. See more in ſweats Diaphoreticall.
Faintings about the heart how to be helped, 134.*l*. 155.*d* See Swouning.
Falernum, a kinde of Amber, 608.*i*. why ſo called, *ibid.*
Falling ſickneſſe detected by the fume of Brimſtone, 556.*k* by a perfume of Bitumen, 557.*e*. by the fume of leat, 589.*c*. by what meanes elſe it may be diſcouered, 335.*d*.
For to preuent and cure the falling ſickneſſe, appropriat remedies, 40.*l*. 44.*l*. 49.*f*. 57.*e*. 60.*k*. 66.*l*. 69.*b* 70.*h*. 72.*k*. 74.*g.h*. 78.*k*. 103.*e*. 107.*e*. 111.*e*. 119.*d* 126.*i*. 134.*m*. 140.*h*. 142.*l*. 149.*e*. 157.*a*. 167.*c* 171.*e*. 177.*b*. 178.*i*. 180.*g*. 181.*a*. 185.*b*. 218.*g* 219.*d*. 239.*a*. 260.*g.h*. 273.*e*. 283.*e*. 299.*f*. 300.*g* 301.*d*. 305.*e*. 309.*e*. 310.*m*. 311.*b.c*. 312.*m*. 314.*k* 318.*g*. 335.*a.b.c*. 341.*c.d*. 378,*f*. 388.*g.h.i.l.m* 389.*a.b.c*. 431.*a*. 431.*e*. 432.*h*. 445.*c*. 591.*a* 626.*h*.
for the verie fit of the Falling ſickneſſe, what remedies be conuenient, 432.*i.k*. 445.*c.d*. a ſingular clyſter for this purpoſe, 445.*d*
Falling ſickneſſe thought to be cured by drinking of mans bloud, 293.*c*
Falne from an high place how to be curod, 350.*i*. See more in Bruiſes.
Families driuing ſerpents away with their very preſence, 298.*m*.
a Familie how to be kept in concord and agreement, 312.*m* how it ſhall be fortunat, 357.*a*
Fantaſticall imaginations how to be preuented, 65.*c*. 313.*c*
Fantaſticall hob-goblins called Fatui, how to be driuen away, 286.*h*. See Illuſions.
Far, a kinde of wheat, for what to be vſed, 138.*h*
Farfuginm, an hearbe. See Fole-foot.
Farcins in Horſes, and ſcabs in beaſts, how to bee healed, 128.*l*

128.l. 130.l. 161.e. 183.f. 184.g. 196.i. 218.k. 310.g 338.l. See Scab and Mange.
Farcins in horse-neckes how to be cured, 150.i. 281.f
Fascinus, what it is, and of what force, 300.l
Fasting precisely from all meat is medicinable, 303.c
Fat of beasts, much esteemed, 319.b
Fatnesse and corpulencie, what things doe procure, 134.k 172.k. 303.d. 318.l. 445.c. what doth diminish, 443 c.
Fauete Linguish, what it meaneth, 294.m

F E

Feet benummed with cold how to be recouered, 38.k. 334.k
Feet pained and swelled about the anckles, how to be eased, 185.d. 414.h. 560.h.
Feet fretted, ga ed, and excoriat, how to be remedied, 334.k.l. 386.k.
Feet scorched with heat of Sunne, how to be reduced into temper, 334.k
Feet chapped, how to be helped, 431.f. See Fissures.
Feet surbatted how to be eased, 334.k
Feet galled by stubborne shooes, how to be cured, 334.l
Feet of Kine & Oxen, how to be k pt from surbatting. 342.l
Fel terræ, an hearbe. See Centaurie the lesse.
Fellons how to be healed and prevented, 56.i. 64.m. 71.b 140.i 141.c. 144.k. 161.b.c. 167.a.d. 180.g. 188.m 262.g. 300.h. 309.d. 320.g. 337.b. 370.l. 392.i.k 419.b. 588 m.
Fennell, an hearbe wherein serpents delight much, 31.e. 77.b
Fennel cleareth the sight, 77.b
Fennell iuice how to be drawne, ibid.c. which is best, ibid.
Fennell of diuers kindes. ibid.d
Fennell much vsed in the kitchen, pastrie, and bake-house, ibid.
Fennell-geant an hearbe. See Ferula.
Fenigreeke, 87.a. 207 c. the sundry names that it hath, ib. why it is called Buceras and Ægoceras, ib. the vertues thereof, ibid.
Ferne of two kindes male and female, 281.d. why it is called in Greeke Pteris, ibid. the roots when and how to be vsed, ibid.e
women must beware of Ferne, for feare of abort and barrennesse, ibid.f
Oke Ferne, 280.l. the description, ibid.
Ferula, what plant, 32.g. the description, 78.i
the stalkes good to be eaten, ibid. how to be serued vp to the table, ibid.
Ferula an enemie to Lampries, ibid.k
poyson to Horses, 176.h
Ferulacea, what they be, 13.d
Ferus Oculus, what hearbe, 234.l. the vertues thereof, ibid.
Feuers periodicall, what they be, 38.g. 314.h. how to be cured, ibid.i. 335.e. 445.e
Feauers intermitted how to be cured, 38.g. 260.i. 310.h See more in Tertian. Quartan, and Quotidian.
day-Feauer. See Diarie.
Feauers called Stegnæ, what they be, 167.b
Feauers ardent, what remedies they require, 50.h. 70.h 148.g. 160.l.
Feauers cold, i. comming with cold fits, how cured, 260.h 445.e. See intermittent.
for Feauers in generall, proper remedies, 187.b. 260.i. 310.i 335.e. 446.l. 435.b. 609.b.
Feuerfew, an hearbe, 111.e. the description, ibid. the sundry names it hath, ibid.

F I

Figwort, an hearbe. See Celendine the lesse.
Figtree yeeldeth a milkie iuice, medicinable, 166.k
Figtree ashes medicinable, 167.f
Figtree barke reduced into pouder, what remedies it affourdeth, 168.b
Figs, their properties good and bad, 167.a.b
Filberds and Hazellnuts, 172.g. their medicinable vertues ibid.
their discommodities, ibid.k
Filicula, what hearbe, 251.a
Fingers which were honoured with rings first, 458.i
middle finger adorned with a ring in Brittain and France, ibid.
Finials in house-tops who deuised, 552.g
Finkle. See Fennell.
Fire what doth soonest quench, 472.h
Fire auerted by powerfull words, 296.l. See Fyre.
Fishes reduced into 176 kinds, 450.m. their names according to the A B C. ibid.
Fish glew, what vertues it hath in Physicke, 439.a. 441.a
Fishes cured by Persely, 53 e
Fish broth is laxatiue, 442.l
ordinance of king Numa as touching Fish, 429.c
Fishes small deuoured by great, for what they are medicinable, 445.a
sea Fish in request at Rome from the beginning, 429.c
Fishes, where they bee in steed of an Oracle, 404.k
Fishes in some water all blacke, ibid.m. in what water they be all deadly, 404.m. 405.a
Fishes in the Arabian seas of extraordinary bignesse, 427.c
the wit of some fishes wonderfull, ibid.b
Fishes tame, and comming to hand, 428.k
Fishes lured with a whistle, ibid.l
they giue presage of future euents, ibid.
Fishes tame, playfull, and wanton, within the poole of Venus, 428.m
Fishes about Pele tast all bitter, 429.a. where they be all of a sweet tast, ibid.
where Fishes of the sea be naturally salt, ibid.
salted Fish which be medicinable, 434.g.h. 440.g.h 444.m.
salt Fish in Italy may be made very fresh at Beneuentum, 429.b
Fissures, chaps, and clifts in the fundament, how to be cured, 104.g. 105.e. 120.i. 146.k. 169.e. 187.e. See Fundament.
Fissures or chaps in the feet how to be healed, 52.g. 128.h 169, a. 183.d. 258.l. 306, i. 334, k. 351, e. See more in Feet.
Fissures or chaps in any place of the bodie, what things doe cure, 128, g. 141, e. 159, d. 161, d. 169, a. 197, d 320.g.
Fistulaes or hollow sores, what remedies are appropriat for them, 44, k. 49, a. 50, m. 61, c. 104, h. 130, g. 144, i 146.l. 159, a, d. 181, a. 185, d. 201, e. 218, k. 264, l 265, b. 279, c, 280, l. 285, c. 290, l. 307, c. 350, i 430, h. 448, g. 470, k. 509, b. 510, k. See more in Vlcers.
Fistulaes how to be kept open, 191.e
Fistulous

20030
copy 1

Fiſtulous ſores in the ſecret parts, how healed, 136.*k. See Priuities.*
Fiſtula betweene the angle of the eye and the noſe, how it is to bee cured, 125.*e.*146.*m.*286.*g. it is called Ægilops,* 235.*a*
Fiſtulaes how they are bred in any part of the bodie, 262.*h*
Fits cold and ſhaking in an ague, how to be put by, 57.*d* 61.*b.*143.*a.*162.*h.*260.*i.*313.*a.*314.*i.*316.*l.*
Fits otherwiſe of chill cold how to be eaſed, 57.*f.*61.*a.*67.*d See more in cold.*
Fiue-finger or fiue-leaued graſſe. See Cinquefoile.

F L

Flags what hearbe. See Xiphion.
Flancke diſeaſed how to be cured. 37.*e.*40.*k.*54.*i.*275.*e*
Flatuoſities. See Ventoſities.
Cn. Flauius for what demerit he was created Ædile curule and Tribune of the Commons, 457.*a.b*
Flax the wonderfull power thereof, 1.*d.e.f*
the plant thriueth apace, 2.*h. the ſeed how it is ſowne, how it commeth vp and groweth,* 2.*i*
Flax of Spaine, 3.*a.b*
Flax of Zoela, 3.*c*
Flax of Cumes, *ibid.*
Flax of Italy, 3.*d*
ſpinning of Flax what manner of worke. 4.*k*
Flax how to be dreſſed, hetchelled, ſpun, beaten, wouen, &c. 4.*k.l*
Fleawort, the hearbe deſcribed, 233.*c. the diuerſe names it hath, ibid. the nature and vertues,* *ibid.*
Fleas how to be killed, 60.*l.*63.*c.*120.*l.*124.*m.*186.*h*
againſt the breeding of Fleas, 387.*f*
Fleagme viſcous, ſticking in the cheſt and throat, how to be cut and diſſolued, 46.*g.h.*64.*l.*73.*c.*74.*g* 107.*d.*121.*e* 122.*h.*130.*i.*167.*d.* 173.*e.* 183.*c.* 198.*i.* 200.*i.* 206.*i* 246.*g.i.*257 *a.*277.*b.*329.*b.*
Fleagme and fleagmaticke humors how to be purged downward, 72.*h.*75.*c.*140.*h.*150.*h.*170.*g.*172.*h.*182.*h* 185.*c.*186.*g.* 198 *l.* 218.*i.* 250.*l.m.* 251.*a.b.* 252.*h.l* 281.*b.*288.*g* 291.*b.*
Flemmings vſed Flax, and made linnen in old time, 2.*l*
Fleſh ranke and proud in vlcers how to be repreſſed, 50.*m* . 61.*b. See more in Vlcers and Excreſcence.*
Fleſh meat how it may be kept freſh and ſweet all Summer long, 71.*a*
how it is preſerued from maggot and corruption, 342.*i*
Flexumines at Rome, who they were, 461.*a*
Flint ſtone, where it is cut with the ſaw, 588.*i*
Flory of Painters, what it is, 531.*b*
Flos-Salis, i. Sperma Ceti, 416.*k*
Flos or floure of Antimonie, what it is, 474.*g*
Floures that bring tidings of the ſpring, 92.*g*
Floure-de-Lis root medicinable, 87.*d*
Floure-de-Lis where the beſt groweth, *ibid.d.e*
Floure-de-Lis of Illyricum of two ſorts, *ibid.e*
Floure-de-Lis called Rhaphantis, and why ſo, *ibid.*
why it is named Rhizotomus, ibid. the ceremonious manner of taking vp the root, 87.*e.f*
Floure gentle, ſurpaſſeth all floures for pleaſant colour, 89.*a. the deſcription and nature thereof, ibid. why it is called Amaranthus,* *ibid.b*
Spring Floures, 92.*g*
Summer Floures, *ibid.k*
Autumne Floures, 92.*l*
Floures of hearbes, different, 19.*f*
Floures and their varietie. 79.*e.f*
Floures differ in ſmell, colour, and iuice (i. taſt.) 86.*l*
Floures in Ægipt, why they ſent not well, 87.*b*
what Floures be employed in guirlands, 89.*e*
Flux of the ſtomacke or laske called Cœliaca paſſio, how to be ſtaied, 39.*e.*43.*d.*49.*d.*55.*c* 59.*d* 66.*h.k.* 68.*h.* 73.*d* 76.*g.i.*106.*l.* 108 *g.*111.*a.* 122.*g.* 124.*k.* 128.*l.*139.*f* 144.*i.* 147.*b.* 148.*h.i.*163.*e.* 164.*g.l.*151.*f.* 153.*c.f* 156.*g.* 158.*g.i.* 165.*b.e.* 167.*f.* 168.*g.* 172.*l.* 174.*k* 177.*c.f.* 178.*k.* 188.*l.* 192.*h.* 195.*e.* 196.*g.m.* 197.*e* 216.*h.* 249.*a.* 250.*g.* 285.*d.* 289.*c.* 291.*d.* 307.*c* 318.*l.* 332.*g.*331.*b.c.d.e.f.* 352.*h.i.* 353.*b.c.*382.*l m* 422.*l.* *if it be inueterat, and of long continuance,* 418.*k.*
Flux called Licuterie how ſtaied, 165.*e. See Laske.*
Flies where they are not at all, 95.*b. how to be killed,* 220 *g.*
Flies witleſſe creatures, 364.*k. they flie like clouds out of the territorie of Olympia at a certaine time, ibid. vpon what occaſion, ibid. their heads, bloud, aſhes, &c. yeeld medicines.* *ibid*

F O

Fœmur Bubulum, what hearbe, 282.*g*
Fole-foot the hearbe, why called in Greeke Aſarum, 86.*g*
Fole-foot, another herbe, called in Greeke Chamæleuce, and in Latine Farfugium, 199.*a. the deſcription,* *ibid.*
the vertues that it hath, *ibid.b*
why called Bechion and Tuſſilago, 246,*i. two kindes of it,* *ibid.*
wild Fole foot, a direction to find water, 246,*i. the deſcription thereof,* *ibid.*
the ſecond Fole-foot called Saluia, deſcribed, *ibid k*
Fome of a Dog and Horſes mouth, how they were liuely painted by chance and fortune, 542.*l*
Fome of water medicinable, 414.*h*
Food of light digeſtion, 141.*b*
Forke fiſh. See Sea-Puffin.
Formacei, what walls they be, 555.*b*
Fortune or Chance accounted a goddeſſe, 270.*l*
Fortuna huiuſce diei, 497,*d. a temple for her at Rome, ibid.*
Forum of Rome ſpread with caltraps, 5.*e. and why,* *ibid.*
paued with fine workes in colours, *ibid.*
Forum of Auguſtus Cæſar at Rome, a ſumptuous building, 581.*f. what Cæſar paid for the plot of ground where this Forum ſtood,* 582.*g*
Founderie, i. the feat of caſting images and workes of mettall ſo excellent, that it was aſcribed to ſome of the gods, 487.*c. an ancient art in Italy,* 493.*e*
a Fountaine purging and cleanſing of it ſelfe euerie ninth yeare, 411.*b*
Fountaines which be naturally hot, doe engender ſalt, 414.*m.*
Fountaines yeelding diuerſe ſorts of water, ſome hot, ſome cold, others both, 401.*c*
Fountaines yeelding water not potable for beaſts, but medicinable onely for men. *ibid.d*
Fountaines giuing names to gods, goddeſſes, and cities, ibid.
Fountaines ſtanding vpon diuerſe minerals, *ibid.*
Fountaines of hot waters able to ſeeth meats, *ibid.e.*
Licinian Fountaines hot riſing out of the ſea, *ibid.*

red fountaines in Æthyopia, 402.m. the vertues of them, ibid.
a Fountaine yeelding water resembling wine, 403.e
a Fountaine casting vp an vnctuous water, seruing in stead of oyle to maintaine lampes, ibid.f
a Fountaine seething vp with water of a sweet smell, 407.b the reason thereof, ibid.
number of (Foure) forbidden in some cases, 305.f
Fox greace, gall, and dung effectuall in Physicke, 324.h
Fox pizzle medicinable, ibid.k
Fox tongue medicinable, 325.d
Fox taile described, 99.b
Foxes, how they may be kept from Geese, Hens, and Pullaine, 342.k

F R

Fractures or bones broken how to be knit and soudered, 58.k.119.d.183.a. 200.l.233.b. 275.f. 335.e. 394.k.l 412.k.
Freckles how to be scoured out of the face, 140.m.161.b.e 168.k.173.c.174.l.175.b.308.g.314.k.
See more in Face and Visage.
Fresh water at sea how Saylers may haue at all times, 413.f.414.g.
against suddaine frights and feares, what remedie, 315.d.
Sea-Frogs, fishes medicinable, 434.i.440.h.i.k
riuer-Frogs medicinable, ibid.
a Frogs tongue will cause a woman to answere directly to questions in her sleepe and to tell all, 434.i
of Frogs, Magicians report wonders, ibid.k
Frogs, a good bait for Purple fishes, ibid.
Liuer of a Frog, 434.l.medicinable, 439.a.b.c
Frugalitie exiled out of Rome, 483.c
Fruits, which be hurtfull, 163.d
in Fruit gathering what ceremonious words vsed, 297.b
Frumentie made of Spelt, what medicinable vertues it hath, 139.c
Frumentie made of the common wheate Triticum, 140.l the vse thereof in Physicke. ibid.

F V

Fucus Marinus. See Sea-weed.
a Fuke for a red, 327.e
Fugitiue slaues arrested by charmes, and staied from running away, 295.c
Fugitiue stone in Cizycum, why so called, 581.b
Fullers thorne, what operation it hath, 195.b
Fullers hearbe. See Radicula.
Fullers, why neuer goutie in their feet, 306.h
how they may wash and scoure their cloth, 311.c.560.k
Fullers earth Cimolia, what vse it hath in Physicke, ibid.i vsed to scoure clothes, ibid. See Cimolia.
the act Metella prouiding for Fullers, 560.k
Fullo, a kinde of Beetle flie, 390.l
L.Fuluius Argentarius committed for wearing a chaplet of Roses, 81.d
Fumiterrie, the second kinde of Capnos, an hearbe, 236.l the vertues thereof, 247.c
a Funerall cloth will neuer after be moth-eaten, 299.c
for the Fundament, seat, or tuill, and the infirmities thereof in generall, appropriat remedies, 60.g.72.k.102.k.106.l 107.a.121.d.144.i.146.k.155.f. 165.b. 167.d.174.k 333.c.d.352.k.384.l.
accidents of the Fundament, proceeding of cold and moisture, how to be cured, 184.h.196.g
chaps and Fissures in the Fundament how to be closed and healed vp, 183.d.195.c.196.h.280.l. 333.d. 351.a.e 384.l.444.i.k.519.d.
Excrescences and werts there growing, 126.l.133.c 134.g.i.384.l.507.f.519.d.
Fundament or seat galled, 255.f.384 l.444.i
Fundament fallen, hanging forth or peruerted, how to be reduced and setled, 103.e.106.m.156.g.164 g.193.b 195.a.256.g.384.l.398.g.444.k.
blind hæmorrhoids in the Fundament or bigs incident thereto, how to be eased, 384.m.444.i.516.i.519.d.521.b
See more in Piles.
hæmorrhoids running extreamely, how to be staied, 385.a
See more in Hæmorrhoids.
Fundament enflamed and apposthumat how to be cured, 131.d.141.e.146.k.161.a.333.e.
exulcerat, how to be healed, 159.d.175.a.192.h.196.k 197.a.320.i.
Fungi, what kinde of Mushromes, 132.m. their generation and sundry kindes, ibid.
Furnian Plate, 480.k
Fusses and Fusse bals. See Mushromes.

F Y

Fylth scraped from wrestlers bodies, consisting of sweat and oyle together, in what causes medicinable, 303.a
Fylth scraped from the wals of wrestlers places, thought to be medicinable, ibid.c
Fyre medicinable, 596.b
the wonderfull power of Fyre, 598.m. the operations thereof, 599.a
hard to say, Whether Fyre consume or engender more, 599.b.

G A

Gads of steele quenched, what effects they doe worke. 250.i.
Gaodes, a stone, why so called, 589.b. the nature thereof, ib.
Gagates, the Ieat stone, 589.b. why so called, ibid. the description and generation thereof, 589.c. the nature, ibid.
Gall of a Bœufe good for the eares, 325.d
Gall af greater beasts, what operation it hath in Physicke, 321.a.
Gall of smaller beasts what vertue it hath, ibid.
Gall of Buls, for what good, 321.a
Gall of beasts, how to be ordered, prepared, put vp, and kept, ibid.
Gall of an horse reiected as a poison, 321.b
Galls betweene the legs how to be skinned, 146.k.181.c 185.b.187.f.189.c.334.g.474.i. how to be anoided, 256.g. if they be exulcerat, 474.i
Galled skin or fretted off in any place, how to be healed, 43.f 60.g. 101.b. 161.d. 178.g. 184.i.185.b. 192.i. 197.d 265.f.287.d.303.c.319.d.350.i.
Gall-nuts of diuerse kindes, 177.e. their vertues in Physicke, ibid
Galbanum, how to be chosen, 179.f. the vertues it hath, ibid. 180.i not good in the strangurie,

20030
copy 1

Galactitis, a pretious ſtone,626.m. why ſo called, ibid. ſome name it Leucographos, Leucas, and Synnephites. ibid. it cauſeth oblivion,627.a. it breedeth ſtore of milke in nources, 626.m
Galactites, a kinde of Emeraud, 627.a
Galæna, Lead-ore, 472.k.517.c
it ſerueth to trie ſilver, 472.k
Galacos, a pretious ſtone, 627.a
Galangall, what hearbe, 236.m. *the deſcription, ibid. the root, what vertues it hath in Phyſicke,* 237.b
Galatian earth, medicinable, 561.d
Galaxius, a pretious ſtone, 626.m
Galedragon, an hearbe, 283.c. *the deſcription, ibid. the vertues, ibid.*
*Galeobdolon,*282.g. *the deſcription, ibid.*
Galeon, an hearbe, ibid the deſcription, ibid.
Galeopſus, an hearbe, ibid the deſcription. ibid.
Galeos the Lamprey, enemie to the Puffen, 430.h
Galeotis, what it is, 361.b
Galerita, a bird, good for the cholique, 383.c.d. *how to be prepared and vſed, ibid.*
Galgulus, a bird. See Iclerus.
Galleries open. See Terraces.
Galli, the prieſts of the order of Cybele, with what ſhard of earth they gueld themſelues, 554.i
Gallus, a riuer in Phrygia of a ſtrange operation. 402.m
Gandergooſe, an hearbe. See Orchis.
Gangrens, what cureth, 75.c.76.k.139.a.141.f.142.m 144.g.148.l.149.d. 167.a. 172.i. 173.d. 188.l. 282.h 512.b.
Ganymedes, the faire boy, moſt artificially repreſented in braſſe by Leocras, how he was raviſhed and carried away by an Ægle, 502.i
Gardens of great eſtimation in old time, 10.b
Gardens of Alcinus and Adonis, ibid.
Gardens in a citie who firſt deuiſed, 10.k
Gardens pendant in the aire, 580.b. *who firſt deuiſed,* 10.b
Garden compriſeth Haredium, 10.i
cuſtodie of Gardens to whom aſcribed, 10.i.k
Gardens commended, 10.k.l.11.a.12.k
Gardens, where to be ſeated, or how ordered, 13.a.b
*Gardenage a ſure commoditie,*12.g. *the profit that a garden yeeldeth,* 12.b
a Garden ſheweth a good or bad houſewife, 12.b
Gardens gaue ſyrnames to noble houſes in Rome, 12.l
Gardens to be prouided of water, 13.a
Garden-hearbes diſtinguiſhed by their ſundry parts and vſes. 13.c
Syrians great Gardiners, 41.a
Gargariſmes, 102.k
Gargle in ſwine how to be helped, 216.l
Garlands. See Guirlands.
Garlicke the properties medicinable that it hath, 43.d *the diſcommodities thereof,* 44.m
Garlicke how to be ſet and ordered afterwards. 21.f.22.g
Garlicke heads deſcribed, 21.d
Garlicke the countrimans treacle, ibid.
Garlicke the Ægiptians do ſweare by, 20.g
Garlicke differeth one ſort from another by circumſtance of time, 21.e
*Garlicke cauſeth a ſtrong breath,*22.g.b. *how that is to be preuented, ibid.*
Garlicke vnſet and comming vp of ſeed. 22.b
how Garlicke and Onions are to be preſerued for vſe, without ſpurting, 22.i
Garlicke wild, or Crow-garlicke, called Alum, 22.k. *the vſe thereof, ibid.*
Garlicke wilde called Vrſinum, 22.k
Garlick helpeth beaſts that be ground in the bellie, and cannot ſtale, 45.a
Garon or Garum, a kinde of ſauce or pickle, 12.i. *why ſo called,*417.e. *of ſundry ſorts,* 418.b
Garum ſerued to many vſes, ibid.
Garum medicinable, 418.i
*Garum Sociorum,*417.f. *of what requeſt in old time,*418.g
Garon a fiſh, and the effects of it in a perfume, 417.e
whereof the ſauce or pickle Garum was made in old time, 417.f. *of what it was made in later daies, ibid. the price,* 418.g
Gaſidanes, a pretious ſtone, 627.a

G E

Gegania, a ſumptuous dame at Rome, 488.l. *enamoured vpon a foule ill-fauoured braſier, ibid.*
Gei a bird. See Vulture.
Gelon a ſpring of water, why ſo called, 404.g
Gelotophillis, a magicall hearbe, working a fit of laughter in them that taſt of it, 204.g
Gemites, a pretious ſtone, 631.a
Gemurſa, a diſeaſe in old time, now cleane gone, 242.g
Genealogie of Pandora pourtraied moſt artificially by Phydias, 566.b
Genetoirs or Cods, ſwolne hard, pained, and enflamed, how to be remedied, 141.c.142.l. 144.i.148.k.157.d.f 159.d.163.c.174.a.173.l.179.a.b.187.e.254.i.255.d 333.b.344.i.424.b.432.k.
ſwelled with wind or wateriſh humors, how to be aſſuaged, 413.b.424.b.560.i.
exulcerat, how to be healed, 141.e.254.i.385.b
Genetoirs galled how to be skinned, 184.i
*If one be relaxed, and hang downe vntowardly, how to be reduced,*385.b. *how to be preſerued from inflammation.* 422.b
for the Genetoirs in generall, appropriat medicines, 385.b 589.b. *See Cods.*
*Gentian the hearbe,*221.c. *how it tooke that name, ibid. the deſcription, ibid. the temperature thereof, and nature medicinable,* 221.f
Geometrie neceſſarie for painters, 537.g
Geranites, a pretious ſtone, 630.i
Geranium an hearbe, 259.b. *the ſundry names and deſcription, ibid.*
Germander, what hearbe, 198.b. *the ſundry names that it hath, ib. the deſcription, ib. why it is called Serrata, ibid. the medicinable vertues that it hath, ibid.*
Geruſia, the Senat-houſe at Sardeis, 556.g
Geſier of a ſtorke medicinable, 364.g
Geſtation, an exerciſe for bodily health, 303.d. *of diuerſe ſorts. ibid.*
Gethyum, what hearbe it is. 20.k

G I

Giddineſſe of head and braine. See Dizzineſſe.
Gidd in ſheepe, how to be helped, 218.k
*Gilleſloure of the wall,*104.g. *the medicinable vertues that it hath, ibid.*

Girls, how they may be gotten and conceiued, 215.*f*.257.*b* 279 *d*.288.*m*.
Gith, an hearbe. See Nigella.

G L

Glader-grasse. See Xiphion and Gladiolus.
Gladiolus what hearbe, 99.*c*.*the vse of the root,* *ibid.*
Glasse stone. See Specularis, and Talc.
Glasse sieling ouer head in arched roufs, 597.*a*
Glasse the deuise of making it, of sand, *ibid.d*
the occasion thereof, *ibid.*
other waies to make Glasse, 597.*e*
Glasse of India the best, *ibid.*
Sidonians excellent Glasse-makers, 597.*f*
Glasse how it is made in Italy, 598.*g*. *how in France and Spaine,* *ibid.*
Glasse made pliable and flexible, not apt to breake, 598.*h*
Glasse-makers put downe, and wherefore, *ibid.*
Glasse, which is best, *ibid.k*
Glasse will not abide the fire, *ibid.l*
burning or fire glasse, *ibid.*
Glasse commeth neere to Christall, 605.*c*
broken Glasses how to be sodered, 598.*l*
looking Glasses or mirrours deuised by the Sidonians, 597.*f*
Glaucias a writer of Simples, 79.*a*
Glaucion, an hearbe, 282.*i*. *the description,* *ibid.*
Glaucion, a iuice, ib. from whence drawne, *ibid.*
Glaucium, a kinde of Poppie, 69.*a*
Glaucomata, what imperfections in the eies, 366.*h*. *how cured,* *ibid.*
Glaux, an hearbe, 282.*h*. *why called Engalecton,* *ibid.* *the description,* *ibid.*
Glanders in horses, how to be cured, 218.*k*.254,*m*.
Gleba, a kinde of artificiall brimstone, 556.*k*.*for what it is good,* *ibid.*
Glessaria, an Island, 607.*d*
Glessum the same that Amber, *ibid.*
Glew the best and strongest, whereof it is made, 337.*c*.*d*
Glosse in painting, 528.*h*. *See Tonos.*
Glossopetra, 627.*a*
against gluttonie and belly-cheere, an inuected speech, 10.*l*
Glycera, a famous maker of floure chaplets and guirlands, 80.*k*.
Glycon, a writer of hearbes, 129.*a*

G N

Gnaphalion, an hearbe. See Cudwort.
Gnats how they may be driuen out of a garden, or killed, 32.*m*.65.*d*.154.*h*.166.*h*.277.*e*.
Gnawing and griping in the stomacke, how to be eased, 52.*g* 60.*i*.64.*h*.76 *a*.110.*k*.131.*d*.136.*g*.171.*c*. 307.*c*.

G O

Goats affourd many things contrary to serpents, 322.*h*
Goats neuer without a feuer, and yet they yeeld a thousand good medicines, 322.*i*
Goats and Roe-bucks see as well by night as day, 325.*a*
the reason thereof, ibid. their bloud medicinable, *ibid.b*
their liuer and the graule thereof medicinable, *ibid.*
Goats treddles how they be employed to make garden seeds grow, 33.*e*
Goats dung good for eies, 325.*c*
a Goat enraged how he may be ordered and tamed, 330.*g*
Goats milke cheese, wholesome, 325.*a*
Goats gall medicinable, 324.*g*.325.*b*. *how it is to be prepared,* *ibid.*
Goats milke medicinable, 324.*i*.
Considia cured by Democritus the Physician, with drinking milke of Goats feeding vpon the leaues of the Lentiske tree, 184.*i*
Goats dung how it serueth in Physicke, 324.*i*
Goats house burnt to ashes, medicinable, 322.*i*
Goats horne good in Physicke, 324.*i*
Goats how they may be kept from straying, 330.*g*
Gold a cursed mettall, wherefore, 454.*l*
crowns of beaten Gold shewed by Claudius Cæsar, 464.*l*
Gold laid vp for treasure, 456,*h*,*i*. *how much treasured vp by Camillus,* *ibid.*
Gold serued to set out souldiers gallantly to the field, 456.*i*
not worne at all in the house of the Quinty at Rome. 457.*f*.
Gold how emploied at sacrifices, 461.*e*. *excessiuely worne by souldiers in the campe, ibid. superfluitie of gold vsed by the dames of Rome, ibid.f. abuse of wearing gold both in men and women,* 462.*g*.*h*.*stamped for coine,* *ibid.i*
at what time, 463.*c*. *a scruple of gold in coine at what value taxed,* *ibid.d*
Golden vessell abused by M. Antonius and Queene Cleopatra, 464.*g*
excesse of gold emploied in buildings at Rome, 465.*a*.*b*
Gold why it is preferred before other mettals, 465.*b*.*c*
Gold wasteth not in the fire, *ibid.*
what riuers yeeld gold, 466 *k*
Gold gotten in riuers is perfect, *ibid.*
the painefull toile in getting gold-ore by cleauing mountaines, 467.*c*
Gold gotten by Arrugia or cleauing mountaines, needeth no fire, 469 *b*
Gold artificially extracted out of orpiment, 469.*d*.*it would not quit the cost,* *ibid.*
Gold in the ore, of a diuers touch. *ibid.*
Gold ore hath euer siluer in it more or lesse. *ibid.*
the first statue of gold, 470.*g*
Gorgias Leontinus, the first man that caused his owne statue to be made of beaten gold, 470.*h*.*the medicinable vertues of gold,* *ibid.i*.*k*
Gold supposed to hurt hens couving and ewes in lamb, ib.h
Gold how it may be torrified and cleansed from all the hurtfull qualitie that it hath, 470.*i*
Gold and siluer the softer the better, 473.*a*
no grauer famous for working or grauing in Gold, 483.*c*
Agrippina the empresse in a mantle all of Gold, 466.*g*
cloth of Gold, *ibid.*
Gold first found and gotten three manner of waies, 466.*k*
Gold ore in some places sheweth ebb, *ibid.l*
Gold ore digged out of pits, 466.*m*
Gold not subiect to rust, canker or offence, by vinegre and salt, 465.*f*
Gold may be spun into thread and so wouen, 466.*g*
K. Tarquinius Priscus rode in triumph, arrayed in a robe of wrought Gold, *ibid.*
Gold in Spaine perfect within the earth, and needeth no fining, 465.*e*
the commendation of Gold aboue all other mettals, *ibid.f*
how Gold is melted, *ibid.d*
Gold soileth not the hands, nor coloureth with ruling, 465.*d*
of al mettals it is driuen out broadest, with the hamer, ib.

Nero

20030
copy 1

Nero the Emperour couered the theatre of Pompeius with gold, 464.l. Neroes golden house, ibid.
Goldfoile Prænestina and Questoria, 465.e
Philip K. of Macedonie noted for hauing a cup of gold vnder his head when he slept, 464.g
Agnon Teius thought prodigall for buckling his shooes and pantofles with gold, ibid.
great masses of Gold as well in coine as otherwise in old time, 464.h
Golden-eye, the fish Scarus, how subtill to escape when he is taken in a weere or net, 427.d.e
Gonorrhœa, a disease, what is the remedie, 518.l
Goose-grasse, an hearbe. See Cliuers and Erith.
a Goose thought to be sicke all Summer long, 353.a
Geese honoured at Rome, for what causes, ibid.
Gorgania, a pretious stone, 627.b. the reason of the name, ibid.
Gorgasus an excellent imageur and workman in cley, 552.i
Gourds, their nature, 14.m. when their seed is to be set or sowne, 15.a
Gourds of two sorts, 15.b. how they may be fashioned, ibid.
Gourds of a mightie bignesse, 15.c
the manifold vses of Gourds, 15.c.d
Gourd seeds how to be prepared. 15.e
Gourds what kind of meat, 15.d.e how to be preserued, ib.e
Gourd wild, 37.e. why called Somphos, ibid.
Gourd wild named Colocynthis, ib. how to be chosen, ib.
the operations thereof. ibid.
Gourds of the garden, and their vertues, 38.g.h
Gourds condemned by Chrysippus, 38.i
Gout hath no Latin name, 257.e. no old disease in Italie, ib.
Gout not incurable, 257.f. wearing away of it selfe without helpe of Physicke, ibid. cured also by the meanes of Physicke, ibid.
Seruius Clodius to be eased of a painefull Gout, benummed his legs and feet, and mad them paralliticke, 213.c
how a fit of the Gout may be brought to the feet, 315.f
Gout of the feet, how to be eased, 334,h,i,m.379.c.385.f 386,g,h.419,d.445,a,b.447,c.587.e.
Gout hot, how to be helped, 70,b.71.c.129,c.258,g.278,i 423,f.
for Gout in any ioint generally good medicines, 36.g.37,a 38,k.h.l.40,i.47,d.48,b,m.49,f.50,h. 52,i.59,b. 61.a 67,a,b.68,h.78,h. 104,g.106,l.108.g.111,b. 122,g,k 123,c. 128,k 134,l. 137,a. 138,g. 140,h,i. 141,f 144,i,k.148,l.150 k.159,d.160,m.166,l.168,i.171,a 179,a. 180,k. 185,b. 186,h,m. 193,b. 195,d. 201,a 208,g. 218,i. 219,d. 224,k. 257,f. 258,g,h,i.273,b,c 279,c. 301,b. 306,h. 307,c. 308,g. 309,d. 312,i 313,e. 317,c. 318,g. 319,d. 320,h. 334,i,m. 359,c 386,h,i.403,b. 413,a. 414,h. 419,d. 422,l,m. 432,l 443,a.445,c.557,d.588,g.
Gout or paines in Iades, how cured, 144.m
Gout rosat how to be cured, 128.h

G R

Grace of princes and potentates how to be obtained, 354,i 357,a.
Grace at the gods hands how to be procured, ibid.
Granius, a writer in Physicke, 301.e
Grapes black more vehement in operation than other, 147.d
Grapes how to be saued from pullaine, 148.g
Grapes white more pleasant than the blacke, 147,d
Grape eaten new gathered, what discommodities they bring, 147,e.
Grapes codite in wine, what effects they haue, ibid.
Grapes preserued in raine water, 148,g. their medicinable vertues, ibid.
Grape stones, what operation they haue, 148.h
Grasse Aculeatum, why so called, and the vertues thereof, 207,a. three kindes of it, ibid.
Grasse guirlands at Rome in great estimation, 115.e
few attained to the honour of wearing them, 116.b
to whom, by whom, and wherefore they were giuen, ibid., of what grasse they were made, ib.i. what generall captaines were honoured with grasse coronets, ibid.k
Grasse growing in the skull of man or woman, medicinable, 302.g
Gratia Dei, an hearbe, 225.c. why called Elaphoboscon, ib.
Gratian plate, 480.k
M. Gratidianus made an act at Rome, against base and counterfeit money, 479,b. honoured therefore with siluer statues throughout Rome, ibid.
Grauell in kidnies and bladder what doth expell, 53.b 54.i. 126.i. 130.i. 131.c. 159.b. 171.e. 238.m 255.a.b. 273.e. 332.l.m. 351.f. 444.g h.i. See more in Stone,
the paine occasioned by such grauell how eased, 253.g
Grauers in siluer, many were famous, 483.d. none in gold, 483.c.
Graue, how folke may be made that were vaine, 314.h
Greace of Swine vsed ceremoniously in old time, 319.b.c
with Greace, the bride striketh the dore-cheekes of her husbands house, 319.c
what Greace of swine is called Axungia, ib. the same of great efficacie, ib. the reason thereof, ibid. the vertues of swines greace, ibid.
Greace of goose or other foule, how to be prepared, 361.c
Græcians, a man and woman buried quicke at Rome, 295.b
against Greek writers who haue set downe medicines made of the parts and members of mans bodie, 293.d
Greimile, an herb, 284.l. the wonderfull forme and nature of this hearbe, and the seed, ib. the vertues, ibid.m
Grenate of Carthage, or the Carchedonian Grenate, a pretious stone of the kinde of Rubies, 618.g. why it is called Charchedonius, ib. where it is found and how, ibid.
Grenates, like as all the sorts of Rubies, signe not cleane vpon wax, 618.h
Grindstones, 593.a
Groine-botches or risings in the share called Pani, how to be cured, 105.e. 175.a. 250.i. 256.h.i.k. 333.a. 334.g
one vnsightly cure thereof, 256.i
for other accidents of the Groine fit remedies, 256.h 274.m.275.a.277.e.291.b.301.b 362.k.
Gromphæna, a bird. 399.d
Gromphena, what hearbe, 247.f
what Grounds yeeld good and wholesome waters, 409.b.c.d
Groundswell what hearbe, 238.i. the sundry names of it, ibid. the description and vertues, 238.k.l. why called in Greeke Erigeron, ib.l. why some name it Acanthus, others Pappos, ibid.
Grylli, what insects they be, 378.h. 379.d. their medicinable vertues, ibid.
Gryllus, the picture of a foole with his bel, bable, &c. 544.l
Grylli, all such pictures to make sport withall, ibid.

of

of Guirlands, 80.b.i. why they were called Strophion, 80.i
Guirlands and nose-gaies, called in Latine Serta and Seruiæ, and wherefore, ibid.
Guirlands Ægiptian, what they were, 80.l
winter guirlands what they were, ibid.
Tuscan Guirlands, what they were, ibid.
the vse of Guirlands representing health, 82.i
ordinances concerning Guirlands woon at solemne games, 81.c
the honour belonging to such Guirlands, ibid.
abuse in Guirlands, 81.e
Guirlands of floures how they were imployed, 82.g
Guirlands platted were the best, ibid.
superfluitie and excesse in Guirlands, 82.h
costly Guirlands or chaplets of silke perfumed with daintie odours, ibid.
Guirlands consist properly of floures and hearbes, 89.e
Gums in generall their vertues medicinable, 194.a
Gums soone dissolue in vinegre, 176.k
Gum of Chamæleon called Ixias, venomous, 39.d. the remedies proper therefore, ib. 64.h.153.b.157.b.182.m 277.c.323.a.323.d.431.b.
Gumbs of young infants pained, how to be eased, 449.e
Gumbs flaggie how to be knit and confirmed, 161.c
Gumbs swelled and impostumat, how to be allaied and cured, 161.e.238.b.249.c.419.b.
Gumbs sore, cankred, and exulcerat, how to be healed, 159.c 160,i.287,d.351,b.509,a.
for Gumbs pained or otherwise diseased, generall medecins, 51.e.63.g.70.g. 102.i. 156.m. 158.k. 165.d. 169.c 177.f.178.l. 184.g. 195.f. 197.d. 238.i. 272.i. 376.k 443.b.509.c.
Gurrie in horses & other beasts, how to be staied, 41.c.78.h
for the paine, wrings, and corosion in the Guts, proper remedies in generall, 37.e.53 b.60.i. 61.a.d. 62.i. 66.h 77.b. 187.e. 263.d. 41.d. 52.g. 72.l. 76.l. 77.e. 78.k 102.l. 105.c. 106.k. 109.b. 111.a.e. 174.k. 238.m 318.g. See more in bellie-ach and Wrings of Guts.
Guts exulcerat how to be cured, 38.i.76.c.107.e.200.k 207.e.249 c.272.k. See more in Dysenterie, and Bloudie flix.
grinding of the Guts in young children, how to be assuaged, 318.i.
to cleanse the Guts proper remedies, 272.k.283.a.443.a
Gutti the name of certaine people, 606.i

G Y

Gylding of marble, 466.g
Gylding of wood, 466.h
Gylding of brasse, ibid.
Gylthead, the fish Aurata, what medicines it doth affourd, 433.d.

H A

HAbergeon of K. Amasis wrought of linnen twist exceeding fine. 3.d
Haddocke fish hath a stone in the head medicinable, 445.e
Hamachates, a pretious stone, 623.c
Hæmatites, a red Bloudstone, 367.d
Hæmatites the Bloudstone described, 587.b
Hæmatites, a meere mineralt, 589.e. how calcined, ibid. how sophisticated, ibid. wherein it differeth from the stone Schistos, ib. the medicinable vertues that it hath, ibid. fiue kindes of Hæmatites or Bloud-stone. 590.g
Hæmatites, a pretious stone, 627,e. why so called, ib. where it is found, ibid. the wonderfull properties thereof according to the vaine magicians, 627.f
Hæmorrhis, a worme or serpent, 352.g. why so called, ibid. against the hurt of the serpent Hæmorrhois, what remedies 43,e.69,e.148,k.150,l.153.b.196.g.352.g.
Hæmorrhoid veins how to be opened, 42,k.200,k
Hæmorrhoid veins running immoderatly, how to be stopped 193,b. 256,g. 272,i. 511,b. 516,k. 519,d. 470,k 591.b.
Hæmorrhids aching how to be eased, 199.f.351,e
Hæmus a mountaine, yeelding springs of water sodainly by occasion of a fall of wood, 410,k.l
Haile-water hurtfull, 406.i
Haire shedding, how to be retained and recouered, 39.f 42,b. 47,e. 50,b. 56,i.74,l. 78,m.103,a.113,c.122,g 127,a,c. 128,b. 130,i. 163,c. 166,m. 174,k. 177,b 178,i,l. 183,d. 185,d. 191,c. 196,l. 205,c. 212,b 232,i,k. 239,d. 249,d. 272,b. 290,m. 291,a. 320,g 323,f. 324,i. 364,m. 437,f. 438,g. 446,l. 450,i 516,b.521.a.531,c.
Haire of mans head medicinable, 301,b. of a womans head, in what cases effectuall, 307,b
means to cause the Haire to grow thicke on head or beard where it was thin, 146,l.161,d.172,i.185,d.199,f 290,m.316,l.324,g,h,i.364,i.
Haire of eye-lids gorwing crooked into the eyes, how to be rectified, 397,f.438,i,k.557,d
Haire of eye-lids how to be kept from growing, 236,l. how to be taken away, 312,k. how it may grow, 324.g how preserued, 320,g
Haire of eyelids how to be kept from growing, 438,k.439.e
Haire of eyebrowes how to be trimmed, 102,k. how to haue a louely blacke, 397,d. how to be fetched off, 302.g how it shall grow no more, 324.l
Haire how to be curled, 127,a.128,l.181,b.311,c
how Haire shall come vp blacke, 365,a
Haire how to be coloured blacke, 43,d.71,c.127,a.143,d 163,c.170.g.174,i. 175,b.178,g.179,a. 184,h.186,g 190,h. 194,m. 196,m. 268,g,k. 277.e. 324,i. 438.g 560.g.
what coloureth the Haire yellow, 162,g.268,k.328,l 432,k. what giueth haire a red colour, 158,h.192,k
Haire how to be washed bright, 475.a
Haire growing vpon a mole or wert of the face, some make scruple to clip or shaue, 300,g
Haire how it shall grow vpon scarred places, 364.l
Haire what hindereth it in growing, 339,f.379,e,f. 397,b,c.449,c.
Haire how to be preserued from hoarinesse, 249,e.324,g 397,d.
Haire of a man-child not yet vndergrowne, thought to bee medicinable, 301,a,b
Halcioneum, what it is, 441,c. the sundry kindes, ibid. their description, ib. which is best, 441,d. their properties, ibid.
Halicacabus, a dangerous hearbe, commended by some, 112,l. the description thereof, ib.h. the hurtfull qualities that it hath, ibid.k
Halieuticon, a booke of the Poet Ouid, 427.d

20030
copy 1

Hallowing of houſes againſt ill ſpirits and ſorcerie, with brimſtone, 557.*a*
Halmirax, or Halmiraga, what it is, 420.*b. where found, ibid.*
Halmirida, a kinde of Colewoort, why ſo called, 27.*a*
Halum, what hearbe, 248.*b*
Hams of the legs pained, how to be eaſed, 305.*b*
Hammites, a pretious ſtone, and the deſcription, 627.*d*
Hammochryſos, a pretious ſtone, 630.*k*
Hammons horne, a pretious ſtone, 627.*d. the deſcription and properties, ibid.*
Hanch. See Loins.
Hand ſwolne or broken out how to be healed, 106.*m*
to ſit with one Hand in another and croſſe fingred, what effect it worketh, 304.*m*
Harefoot, an hearbe, 250.*i*
feeding vpon Hares fleſh cauſeth folke to looke faire, 341.*e*
Hares gall good for the eyeſight, 325.*d*
a Hare burnt to aſhes medicinable, 324.*i*
Hares rennet medicinable, 322.*k*
the ſea-Hare venomous, 71.*f. her wonderfull nature,* 427.*a*
the feeding vpon this fiſh dangerous to all liuing creatures but the Sea barble, 427.*a b*
thoſe of India be killed with the touch of a man. 427.*b*
the ſymptomes incident to thoſe that be hurt with the ſea Hare, ibid.
againſt the venome of the ſea Hare, remedies, 71.*f.* 165.*a* 179.*d.f.* 231.*b.c.* 318.*h.* 307.*f.* 323.*a.b.* 363.*f.* 434.*i* 436.*h.i.*
againſt the venome of the Hardiſhrew, remedies, 140.*i* 155.*f.*
Harmodius honoured with a ſtatue of braſſe for killing the tyrant Piſiſtratus, 490.*g*
Harmoge in painting, what it is, 526.*i*
Harpacticon, an emplaiſter made with brimſtone, why ſo called, 556.*m ibid.*
Harpax, why amber is ſo called, 606.*k*
Harpocrates his image worne in gold rings, 462.*h*
Harſtrang, 229.*f. the deſcription,* 230.*g. the iuice how it is drawne, ib. the vertue, ib. a notable healer,* 265.*c*
Harts horne burnt to aſhes, is medicinable, 324.*g*

H E

Head how to be defended againſt the extreame heat of the Sun, 424.*k*
Heauineſſe of the head how to be eaſed, 180.*m.* 289.*e* 304.*k.*
Head ſcald, how to be cured, 433.*b.* 437.*d.* 438.*h.* 474.*i*
Head annoied with bliſters and puſhes, what remedie, 443.*c.*
heat of the Head in children called Siriaſis, how to be amended, 38.*h.* 69.*e.* 104.*g*
Head how to be purged of ſteame, 74.*g.h.* 511.*b. how to be preſerued,* 74.*i.* 102.*l* 105.*c.* 109.*e.* 148.*l.* 189.*d.e*
Headach the greateſt paine that is, except that of ſtrangurie and ſtomacke, 203.*c*
againſt Headach, proper remedies, 43.*a.* 44.*i.* 47.*b.d.* 48.*l* 55.*b.* 56.*i.* 57.*b.* 60.*g.h.* 61.*c.* 65.*b.* 66.*g.i.* 68.*h.* 69.*e* 75.*e.* 76.*g.* 102.*k.* 104.*g.* 105.*d.* 106.*m.* 109.*e.* 126.*h* 127.*b.* 139.*a.b.* 146.*h.* 147.*b.* 155.*e.* 158.*k.* 160.*h.l* 161.*b.c.d.* 173.*a.e.* 174.*a.* 175.*c.* 178.*m.* 181.*a.c* 184.*h.* 187.*d.* 189.*b.d.* 190.*l.* 194.*i.* 198.*k.* 205.*b* 206.*h.* 207.*a.* 232.*k.l.* 233.*c.d.* 237.*e.* 272.*h.* 280.*h* 283.*c.* 288.*g.* 287.*d.* 302.*l.* 308.*h.* 310.*l.* 321.*f.* 319.*f* 324.*i.k.* 350.*i.* 359.*c.* 365.*c.d.e.f.* 413.*b.c.* 423.*d.* 433.*a* 438.*h.* 439.*a* 510.*i.* 529.*f.* 573.*b.*
Headach incident ordinarily to women, how to be helped, 300.*g.*
Healing medicines, 50.*m.* 106.*i.* 135.*d.* 303.*a.* 351.*f*
more Healing medicines that doe conglutinat and skin vp, 283.*e.* 423.*d.* 471.*e.* 474.*h.* 506.*k.m.* 509.*a.* 595.*c.*
See more in Wound-hearbes.
Health, how it may be euer preſerued, 72.*g*
Heart heauie, what cauſeth, 180.*m. See Hert.*
Heat in feuers, ſtomacke, or otherwiſe, how to be cooled or delayed, 135.*d.* 136.*g.* 148.*g.* 198.*k*
See Refrigeratiue.
Heating medicines, 180.*i.* 186.*h.* 198.*i.* 290.*h.* 319.*c* 320.*m.* 421.*e.* 521.*a.* 556.*l.* 588.*m.*
Heath, what plant, 187.*f. the vertues that it hath, ibid.*
Heauing at the ſtomacke or heart, how to be helped, 62.*h* 72.*h* 77.*e.* 102.*k.*
Hecale, how ſhee feaſted prince Theſeus 131.*b.* 254.*k*
Hecate a rare peece of worke in marble at Epheſus, 568.*m*
Hedypnois, what hearb, 48.*g. the properties thereof, ibid.*
Hegias, a famous imageur, 502.*b*
his workes, ibid.
Helcyſma, the droſſe of ſiluer, 474.*h. the medicinable vertues thereof, ibid.*
Helena, his picture at Lanuvium, 525.*d*
Helenium, an hearbe, 108.*h. the deſcription and vertues, ib.*
See more in Elecampane.
Helianthe, a magicall hearbe, 204.*h*
Heliocallis, the ſame hearbe, why ſo called, ibid.
Helicon hill full of good hearbes, 217.*i*
Heliochryſos, the floure, deſcribed, 92.*i.* 110.*h. the properties which it hath,* 110.*h.i*
Heliopolis the citie of the Sun in Ægypt, 574.*k*
Helioſcopium, an hearb, 126.*g*
Heliotropium, an hearbe, ibid.
Heliotropium, a pretious ſtone, 627.*b. the reaſon of the name ib.c. the vanitie of magicians as touching this ſtone, ib.*
Helxine, what hearbe, 123.*b. the deſcription,* 273.*a. why called Perdicium, why named Helxine,* 123.*b*
Hemereſios a picture of Pauſius his making, 546.*l. why ſo called, ibid.*
Hemerocalles, the hearbe and floure, deſcribed, 108.*g. the vertues thereof, ibid.*
Hemina what meaſure at Rome, 113.*e*
Hemionis the name of a galley, painted by Protogenes, 542.*h.*
Hemionium, what hearbe. 216.*l.m.* 248.*h. the vertue there of, ibid.*
Hemlocke a perillous hearbe what remedies for it, 121.*c* 153.*b.* 180.*m.* 232.*g.* 236.*g.* 280.*g.* 325.*d.* 277.*c* 323.*a. it reſiſteth the malice that is in the iuice of rue, the hearbe deſcribed,* 236.*g. it is a poyſon it ſelfe,* 235.*f malefactors ſuffered death at Athens by drinking it, ib. the vertues medicinable that it hath, ibid. how it killeth them that drinke the iuice thereof,* 236.*h*
Hempe, good for cordage, 31.*e. the deſcription of it,* 78.*h the ſeed when to be gathered, ibid. the ſtalke when to be plucked and pulled,* 31.*f*
diuerſe parts of Hempe deſciphered, ibid.
which is the beſt, ib.d.

Hempe

Hempe-stems as big as trees, 32.g
Hens egs. See Egs.
Hens flesh put into melting gold, what it worketh, 359.d
Hens dung, what part of it is medicinable, 363.e
Henbane, a dangerous hearbe, 215.c. *and the remedies against the poisonous qualitie thereof,* 39.d.43.e.69.e 121.c.136.i.308.g 323.a.
Henbane found by Hercules, 215.a. *the sundry names that it hath, ib. what vertues Henbane hath,* 228.g *many kindes of Henbane, and their descriptions, with their properties good and bad,* 215.b.c
Henui, a pretious stone, so called among the Indians, 628.g *the description thereof,* ibid.
Hepatites, a pretious stone, 630.h
Hepatizon, a kinde of brasse mettall masculine, 488.g. *why so called,* ibid.
Hephestites, a pretious stone, 627.c. *the description and triall, ibid. where it is found,* ibid.
Heptaphonos, a gallerie at Olympia, why so called, 581.c
Heptapleuron, one of the names of Plantaine, and why so called. 223.e
Heracleon Siderion, why so called, 215.a. *the description, ibid. the vertue that it hath,* ibid.
Heraclides a Physician, 66.m. *and a writer,* 41.b
Heraclides, a notable painter, 548.i
Heraclion, a kinde of Poppy, 69.a
Heraclion, an hearbe, See Nenuphar.
Heraclius Lapis. See Touchstone.
Herbes which come up soonest after they be sowne, 22.l *which be late ere they shew aboue ground,* ibid.
Herbes of the garden come vp by diuerse meanes, 23.c *they doe degenerat,* 32.h
Herbs are subiect to diseases, ibid.
Herbs loving the companie of other herbs, 30.l.31.b
Herbs why they be no more of them knowne, 211.d
Herbs annoied with vermine, 32.i
Herbs restoring to life againe, 21.b
Herbs differing in tast and otherwise, 33.f
Herberie in old time yeelded a reuenue to the state of Rome, 12.g.
how we come to the knowledge of Herbs, 211.e
Herbarists. their maliciousnesse, 105.e.f
Herbs written of after diuerse sorts, 210.h
Herbs are of mightie operation, and yet the opinion of them is greater, 211.c
Pythagoras wrote of Herbs, and attributed their inuention to the Gods, 211.a
Herbs growing vpon statues, 205.b. *of what effects such are,* ibid.
Herbs sowe will continue longer than others, 291.e
Herbs haue eternised the names of the inuentors, 208.m 213.a.
M. Cato the first Roman who wrote of Herbs, 209.b
C. Valgius wrote of Herbs, and dedicated his book to Augustus Cæsar. 209.c
Pompeius Lenæus wrote of Herbs, ibid.
Herbs pourtraied in colours giue no great light to the readers, 210.g.h
Herculaneæ, certaine pismires medicinable to scoure the skin, 377.d
Herculaneus, a riueret about Rome, 408.h
Hercules the patron of the Carthaginians, why his image standeth at Rome vpon the bare ground without a Piedstall, 570.g
Hercules Triumphalis, an image at Rome, why so called, 493.f.
Hercules Oetæus of brasse, in what habit and countenance pourtraied, 504.m.505.a *three titles thereupon,* 505.a. *vnknowne who was the workeman thereof,* 504.m
Hercules his statue of yron and steele, wherefore, 414.g
Hermerotes, what images, 569.b
Hermesias, what composition, 204.h *the wonderfull operation thereof,* ibid.
Hermippus, a writer, 372.h. *he commented vpon the Poeme of Zoroastres concerning magicke,* 372.l
Hermodorus honored with a statue, erected vpon a columne at Rome, for translating the lawes of the twelue tables, 491.c.
Herophilus, a singular Physician, he cured altogether with simples, 242.k. *he first searched into the causes of diseases,* 243.b. *his Apothegme as touching the operation of white Ellebore,* 219.b. *he altered the course of the former Physicke,* 344.i. *he obserued the pulses,* ibid.
Herpes, a running cancerous sore, called of some a Wolfe, 394.h.
Herpes, a worme. soueraigne for the sore of that name, 394.g
Hert fainting how to be relieued, 37.d.60.h.238.m
Hertlesse how to be recouered, 136.g
Hert trembling and beating, how cured, 312.i, *See more in trembling.*
Hesperis the herb, why so called, 87.c

H I

Hiberis an hearb, and deuised name, by Seruilius Danocrates, 224.k. *the description, ibid. the vertues in Physicke, ib. how to be vsed,* ibid.l
Hibiscum, or Hibiscus, what herb it is, 40.h. *the medicines that it doth affourd,* ibid.
Hicesius a Physician and writer, 41.b.123.a
Hieracia, what hearb, 45.d. *why so called,* ibid.
Hieracites, a pretious stone, 627.d. *the description,* ibid.
Hieracium, a collyrie or composition, 508.m. *the vertues medicinable thereof,* 509.a
Hierobotane, an hearb. See Veruaine.
High-taper. See Lungwort.
Hicket or Hocquet. See Yex.
Hickway, a bird enuious to the gathering of Paonie, 214.i 282.l.
Hills, some admit raine and are greene with woods on the North side, some one the South side onely, and others all ouer, 408.k
Hinds not enuious to mankinde, but doe shew vs medicinable hearbs, 255.c *they haue a stone in their excrements or wombe that is medicinable,* 339.c *bones found in the heart and wombe of an Hind medicinable,* ibid.
Hippace, what it is, 318.l
Hippace, another thing, 331.c
Hippiades, certaine images resembling women, 569.e
Hippice, what hearb, 223.f
Hippocrates the Physician, 71.b. *when and where hee flourished,* 343.f. *the first Clinicke Physician,* 344.g *he first reduced Physicke into an Art,* 242.a. *he dealt onely*

20030
copy 1

onely with ſimples, 242.i
Hippocus, a Magician, 372.i
Hippolytus raiſed from death by Æſculapius, 343.e
Hippomanes, a venomous thing, 326.l
Hippomarathrum, what kinde of Fennell, 77.c
Hipponax the Poet, how he was abuſed by Anthermus and Bupalus, 564.m. how he was reuenged of them, ibid.
Hippope, an hearbe, deſcribed, 121.a. the reaſon of the name, ibid.
Hippophæon. See Epithymum.
Hippophaſton, 283.e. the deſcription, ibid.
Hippophyes, an hearbe, deſcribed, 120.m. the reaſon of the name, 121.a
Hippuris. See Equiſetum.
the Greeke writers varie much about the name of this hearbe, 263.c. why it is called Anabaſis, ibid.

H O

Hogs greace how to be prepared and tried, 320.i
See Greace.
Holcus, an hearbe, 283.d the deſcription, ib. the vertues, ib. why it is called Ariſtida, ibid.
Holland, fine linnen made in old time, 2.l
Holme oke, what vertues it affourdeth in Phyſicke, 177.d
the graine of Holme oke medicinable, ibid.e
Holcochryſos, an hearbe, the vertues, 106.i
Holoſchœnos, a kinde of ruſh, 100.k
Holoſphyraton, what kinde of Image. 470.g
Holoſteon, an hearbe, 283.d. why ſo called, ibid. the deſcription, ibid.
Homer the Poet, Prince of learning, and father of antiquities, 210.l
Honey commended and compared with Laſer, 135.c
Honey, when and where it is venemous, 94.g
how to be diſcerned from that which is wholeſome, 94.h
what ſymptomes happen to them that eat of this honey, 94.i. the preſent remedies of this kind of poyſonous hony, 94.i. 362.k. 433.d. the ſingular properties that honey hath, 135.d. the diſcommodities of honey, 135.e
Honey called Mænomenon, and why, 94.k
Honey of Carina, medicinable, 95.b
Honey-combes their vertues 137.b
Honey-combs wholeſome and hurtfull, in one and the ſame hiue, 94.l
a glut or ſurfet of Honey how to be helped, 433.e
Honey wherein Bees haue been extinct ar ſtifled, medicinable, 362.k
Hoplitides, what pictures, 536.g
Horatius Cocles his ſtatue erected vpon a columne at Rome, for making good the bridge againſt king Porſena, 491.c
Horehound, an herbe, 74.m. the ſundry names that it hath, ibid. the iuice of Horehound, of what vertue it is, and how to be vſed, 75.a
Horehound to be taken warily for danger of exulceration of reins or bladder, 75.c
Horehound of two ſorts, ibid.
ſtinking Horehound, 272.g. the ſundry names, deſcription, and vertue, 278.h
Hormeſion, a louely pretious ſtone, 627.e. the deſcription, ib.
Horminodes, a pretious ſtone, 627.d. the reaſon of the name, ibid. the deſcription, ibid.
Horminum, a kinde of graine or corne deſcribed, 144.k. the vertues that it hath, ibid.
Hornets ſting, what remedies therefore, 40.h. 56.m. 75.f 110.l. 153.b. 166.l. 173.a. 361.d. 418.m.
Horſetaile, an hearbe, 263.b. the vertue that it hath in waſting the ſwelled ſpleene, ibid.
Horſes haue agues, and how to be cured, 260.k
Horſe dung greene, & burnt into aſhes, medicinable, 325.e
Horſe-fleſh and horſe-dung aduerſe to ſerpents, 322.k
Horſes how they ſhall neuer tire, 341.c
wild Horſes are medicinable, and more than tame, 323.b
Horſes loden with fruit are ſoone wearie, 176.h. what remedie, ibid.
riuer-Horſe taught vs the feat of Phlebotomie or Bloudletting, 316.k. he yeeldeth many medicines, ibid.
his bloud Painters vſe, 316.l
ſea Horſe Hippocampe medicinable, 436.h. 437.f. 440.l
haw in Horſe eyes how to be cured, 438.l. See Eyes.
Horſes and mares pained in ſtaling, how to be eaſed, 339.b
pained in the guts, or vexed with the bots, how helped, 399.c.
Horſes and aſſes tired, how to be recouered, and made luſtie, 153.c. ſtaling drop by drop how to be helped, 354.m
Horſleeches if they be ſwallowed downe in drinking, are venomous, 323.c. the remedies, ibid. 356.h. 361.d
Horſleeches medicinable, 438.g
Horſleeches how they draw bloud, 447.b. their vſe in Phyſicke, ibid. the diſcommodities that enſue in applying Horſleeches. 447.b
how they fall off from the place whereto they ſtuck, 447.c
the danger in plucking them off, ibid.
how they may be forced to fall off as they are ſucking, 356.h.
how to be taken off without danger, 447.d
Meſſalinus died by ſetting a Horſleech to his knee, 467.c
Horſeneſſe occaſioned by a rheume, how to be helped, 71.c 271.d. 275.e. 289.d. 352.g. 378.h. See more in Voice, and Throat,
Hortenſius the Oratour ſet great ſtore by the image of Sphinx, 496.l. how M. Cicero ſcoffed at him for it, ibid.
Hortenſij, what kinde of bulbs, and their vertues, 52.l
Horus K. of the Aſſyrians deuiſed a medicine againſt drunkenneſſe, 399.c
Hoſthanes a writer in Magicke, 306.m
L. Hoſtilius Mancinus attained to be Conſull by deciphering vnto the people of Rome the picture of Carthage by him aſſaulted and forced, 526.l
Hote waters or bathes naturall, for what diſeaſes in generall they be good, 401.e.f
Hote waters naturally be not alwaies medicinable, 412.i
See more in Bains.
Howlets, by a ſecret antipathie in nature, be moſt aduerſe to Horſleeches, 361.d
Hounds tongue, an hearbe, 223.d. why it is called Cynoglosſos, ibid. two kindes thereof, ibid. their deſcription, ib.
Houſleeke, what hearbe, 237.c. two kindes thereof, ibid.d
their deſcription, ibid.
Houſleeke chaſeth away cankers and other wormes out of a garden, 32.l. the ſundry names that it hath, 237.c. why it is called Stergethron, ibid. why called Hypogeſon, ib. named commonly in Latine Sempervivum, 237.d

H V

Hucklebone diſeaſed, how to be holpen, 143.f. 149.b. See more in Sciatica.

Hulwer or Hollie tree, 194.e. *the medicinable operation*, *ib.*
Hunger whether it be good in diseases, 140 *l*
Hunger, how it may be put by or satisfied, 120.*h*, 223.*f*
Hungrie worme in the stomacke, how to be represſed and cured, 259.d. *See Phagedæna.*
Hurds or Hirds. See Tow.
Husked barley, 139.c.d. *whose inuention*, *ibid. the vertues that it hath in Physicke*, *ibid. See more in Ptisana.*

H Y

Hyacinth the floure, why so called, 92.*i. where it loueth to grow*, 110.*k*
Frenchmen dye their cloth with it for default of graine, 110.*k. other properties and vses that it hath*, *ibid.*
Hyacinthizontes, what Beryls they be, 613.c. *why so called*, *ibid.*
Hyæna the wild beast, yeeldeth from sundry parts of her bodie many medicines, according to the Magicians, 311.c
the very bodie of the Hyæna, rauisheth and allureth the senses of man and woman, 311.d
Hyæna changeth the sex each other yeare, *ibid.*
aduerse to Luzerns or Panthers, 311.d
how the Hyæna shifteth in hunting, 311,e. *she doth intoxicat the head of the hunter*, *ibid.*
the vrine of great efficacie, 203.d
Hyænes, how they be hunted and taken, 311.e
Hyæns haire saued as a medicinable thing, 311.f
the skin of their head counted medicinable, *ibid.*
their gall emplied in Physicke, *ibid.*
the graue or dripping of their liuer esteemed medicinable, 312.g
what parts besides are vsed in Physicke, 312.*g.h.i.k.l.m* 313.*a.b.&c.*
Hyænia, a pretious stone, 627.e. *the reason of the name*, *ibid. where it is found*, *ib. the vertues thereof according to the magicians*, *ibid.*
Hydrargyrum, is quicke-siluer artificiall, 473.c
whereof and how it is made, 477.d
a verie poison, *ibid.e*
vsed in guilding siluer, and otherwise, 477.e
Hydrocele, a kinde of rupture and descent of humours into the bag of cods, how to be cured, 58.*i*
Hydrolapathum, what kinde of Docke, 73.*b*
Hydromel, what kinde of mead, 136.g
two kindes thereof, ibid. how made, 136.*g*.413.e
the vertues and operations thereof, 136.g
the discommodities that come thereby, 136.*k*
how vsed, 413.e. *wherefore reiected*, *ibid.*
Hydrophobie, what it is, 363.*a. the remedies of this fearefull accident*, 309.*f*.362.*l*.435.*c.d*.437.*g*.516.*g. See more in mad Dogs biting.*
Hydrus, a kinde of water-snake, 444.*i. in some cases medicinable*, *ibid. See more in Enhydris.*
Hyginus a Greeke writer in Physicke, 54.*i*
Hygremplastron, what kinde of emplaistre, 516.*k*
the composition thereof, *ibid. in what cases vsed*, *ibid.*
Hyopthalmus, a pretious stone, 630.*i*
Hyoseris, an hearbe, 283.*d. the description and vertues*, *ib.*
Hypanis, a riuer, 411.c. *sometimes it runneth vnder, and otherwhiles aboue Borysthenes*, *ibid.*
Hypecoon, an hearbe, 284.*b. the description and vertue*, *ib.*
Hypericon, what hearbe, 255.*a. the names thereof and their description*, 255.*b. a second kinde described*, *ibid.*
Hypobarus, a riuer, 606.*l. what the name signifieth*, *ibid.*
Hypochondriall griefs, and the remedies thereof, 39.*b*.277.*d See more in Flanke.*
Hypocisthis, an hearbe, 190.*k*.249.*e. where it groweth*, *ib. two kindes thereof*, 249.*e. how it tooke that name*, *ibid.*
Hypogeson, what hearbe, 237.*c. See Housleeke.*
Hypoglossa, an hearbe, 284.*g. the description*, *ibid.*
Hypophlomos, what hearbe, 235.*b*
Hyssope an hearbe, contrary to Radish, and corrected thereby, 40.*g. what Hyssope is best*, 233.*a. the properties that it hath*, *ibid.*
Hyssope according as it is taken, purgeth vpward or downeward, *ibid.*

I A

Ia, what Violets they be, 85.*d*
Iace, a kinde of Corall, 429.*d*
Iacinct, a pretious stone, 621.*d*
how it differeth from the Amethyst, *ibid.*
sundry kindes of Iacincts, 621.*d.e*
which be the best, *ib.*
how goldsmiths set them in gold, *ib.*
Iacincts, called Chrysolectri, and why, 621.*f*
a Citrin Iacinct or Chrysolith wheighing 12 pound, 622.*g*
Iacincts named Leucochrysi, *ibid.*
Iacincts which be called Capniæ, and wherefore, *ibid.*
Iacincts how counterfeited, and by what meanes detected, *ibid.*
Iacincts called Melichrysi, and the reason why, *ibid.*
Ialysus and his dogs some, a famous picture of Protogenes his doing, 542.*b*
K. Demetrius respecting it, forbare to burne the citie of Rhodes, 542.*m*
Iamnes a great Magician, 373.*d*
Ianthina Vestis, what kinde of cloth, 85.*d*
Ianus his image of brasse at Rome, 494.*g. the god of times and ages according as his pourtraiture importeth*, *ibid.*
Iasione, what hearbe, 99.*d. the description*, 130.*h. the vertues*, 130.*i*
Iasper, a gem, or pretious stone, 619.*e. of a greenish colour*, *ib. common to many countries*, 619.*f*
that of India, Cyprus, and Persia, *ibid.*
the Persian Iasper why it is called Aeriznsa, *ibid.*
the Iasper of the Caspian hils, *ibid.*
Iasper about the riuer Thermodoon, is blew as azur, *ibid.*
Iasper in Phrygia purple, *ibid.*
Iasper in Cappadocia, Pontus, and Chalcedon, *ib.* 320.*g*
sundry kindes of Iasper different in goodnesse, 620.*g.h*
Iasper Terebinthizusa, ib. what be the faults and blemishes of the Iasper, 620.*h. how it is falsified*, *ibid.*
Iasper which resembleth the Emeraud, most set by in the East parts, 620.*i*
Iasper, when it is called Grammatias, when Polygrammos, *ib. vanitie of Magicians as touching the Iasper stone*, *ib.*
Iasper Onychopuncta, 620.*k. the Iasper Capnias*, *ibid.*
the bignesse of the true Iasper, *ibid.*
the whole visage of Nero pourtraied in one Iasper stone, *ib.*
Iatraleptice, what course of Physicke, 344.*g*
Iaundise in a feauer, when it is a deadly signe, 261.*e. why it is called Regius Morbus, or a kings disease*, 136.*m*

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for the Iaundiſe, appropriat remedies, 37.*a.f.*43.*b.*44.*g* 47.*b.e.* 49.*f.* 52.*g.* 53.*c.* 54.*h.* 55.*c.* 59.*b.* 61.*f.* 64.*m* 71.*c.* 73.*c.* 75.*c.* 104.*i.l.* 106.*g.* 110.*k.* 124.*l.* 125.*e* 127.*c.* 128.*k.* 134.*k.* 136.*m.* 142.*l.* 143.*a.* 144.*i* 172.*g.* 175.*b.c.* 181.*a.b.f.* 189.*a.* 192.*i k.l.* 193.*b.d* 238.*m.* 245.*a.* 261.*e.f.* 262.*g.* 272.*k.* 277.*b.* 279.*e* 286.*l.* 335.*d.* 370 *l.* 389.*c.d.* 419.*c.* 422.*i.* 443.*a.f* 628.*g.*

Iberis, an hearbe, 234.*g. the vertues,* *ibid.*

I C

Icades, what they be, 522.*l*

Icetidas, a Phyſician and writer, 309.*e*

Ichneumon, driueth away all venomous beaſts with his ſtrong and violent breath, 357.*d*

Ichthyocolla, the name of a fiſh, 438.*m*

Ichthyocolla, fiſh-glew, ibid. how it is made, *ibid.*
the beſt what markes it ought to haue, 439.*a*
the vertues both of the fiſh and the glew, 441.*a*

Iconicæ, what images, 490.*g*

Icterias, a pretious ſtone, 628.*g. foure kindes thereof, ibid.*

Icterus, a bird, 389.*d. good for the iaundiſe if the patient doe but looke vpon it,* *ibid.*

Ictides, a kinde of Weazills, 355.*e. ſuppoſed to be our ferrets,* *ibid.*

Ictumulum, a gold mine, and the Act touching it, 469.*c*

I D

Idæa, an hearbe, deſcribed, 284.*h*

Idæi-dactyli, pretious ſtones in Candie, 628.*g. their deſcription,* *ibid.*

I D

Ieat or Iaiet. See Gagates,

I L

Iliacke paſſion is moſt grieuous, 382.*m*
remedies againſt the Iliacke paſſion, 39.*d.*44.*g.*58.*g* 59.*f.*443.*e.*

Illecebra, what hearbe, 237.*e. the deſcription,* *ibid.*
the medicinable vertues, *ibid.*

Illuſions fantaſticall, of bugs and goblins in the night driuing folke out of their wits, how to be driuen away, 214.*i.*312.*k.*609.*b.*610.*m.*387.*d.*315.*f.*624.*l.*

I M

Images and viſages of anceſtors pourtraied in wax, 523.*a*
attending funeralls, *ibid.*

Image of Emperour in Rome, when it was granted to bee engrauen and worne in iewels,, 462.*i*

Image of the Ox in the beaſt-market at Rome, of Æginetick braſſe, 488.*i*

Image of Iupiter in the temple of Iupiter Tonans, Deliacke braſſe, 488.*i*

firſt braſen Image at Rome conſecrated to Ceres, 489.*e*

Images of braſſe in old time veriniſhed with Bitumen, 489.*e*
who were at firſt honoured with ſtatues of braſſe, 489.*f*

an act of Meſſala, as touching the intermingling and confuſion of Images of diuerſe houſes, 523.*c*

Images compleat, for whom at firſt they were made, 489.*f*

Images of writers ſet vp in libraries, 523.*e*

Images to be erected in priuat houſes, from whence it came firſt, 490.*h*

Images in long robes,, *ibid.i*

Images naked, ibid. came firſt from the Greekes, *ibid.k*

Images in ſundry habits, 496.*k*

Imageurs of great name and cunning reckned vp, 497.*a.b*

Imageurs ſorted together, according to the workes wherein they excelled and delighted, 503.*e*
See more in Statues.

Imagerie in Cley, who inuented, 552.*g. See Potterie.*

Impendia, what it ſignifieth, 462.*g*

Impia, an hearbe, why ſo called, 205.*e. the deſcription and vertue,* *ibid.*

Impoſtumes behind the eares called Parotides, with what medicines to be cured, 36.*h.*51.*b.*62.*m.*64.*l.*72.*m* 73.*d* 76.*h.* 119.*d.* 121.*d.* 128.*i.* 143.*e.* 144.*i.* 167.*d* 168.*h.l.* 179.*a.*208.*g.*238.*g.*282.*h.*301.*f.*320.*h.*326.*h* 371.*a.*312.*l.*437.*d.*439.*f.*441.*f.*

Impoſtumes breeding how to be driuen backe and diſcuſſed, 49.*a.*103.*e.*120.*k.*138.*i.*141.*e.*150.*g.*158.*g.*161.*f* 167.*d.*179.*f.*181.*c.*182.*h.l.*184.*g.l.*185.*c.*188.*l.*205.*d* 274.*g.*278.*c.*286.*l.*556.*l.*560.*h.*

Impoſtumes about the midriffe, and in the bowels or precordiall parts, how to be cured, 39.*e.*75.*d.*123.*d.*154.*g* 186.*e.*381.*b.c.*

Impoſtumes betweene the eye corner and the noſe, how to be healed, 174.*i*

Impoſtumes hard, how to be mollified, 141.*a.*162.*h*

Impoſtumes painefull, how to be eaſed, 141.*d.*162.*h*

Impoſtumes tending to ſuppuration, how to be ripened, broken, and drawne, 47.*e.*49.*a.*54.*l.*65.*c.*70.*k.*103.*f* 158.*l.*166.*l.*171.*a.*184.*l.* 198.*i.* 205.*a.* 318.*k.* 233.*b* 262.*i.k.* 264.*i.* 286.*l.* 337.*b.* 356.*i.* 108.*k.* 119.*d* 123.*c.* 134.*i.* 138.*i.* 167.*d.* 179.*a.* 192.*k.* 195.*d* 233.*d.* 262.*i.k.* 274.*g.* 283.*b.* 289.*e.* 290.*i.* 265.*a* 510.*i.*

for all Impoſtumes or ſwellings in generall, fit remedies, 194.*m.*197.*b.*201.*a.*245.*a.*379.*c.e.*423.*f.*
See more in Tumors and Inflammations.

the Imprecation or exorciſme in a preſcript forme of the veſtall Nun, Tuccia, 295.*a. See Exorciſme.*

I N

Incarnatiue medicines, 50,*m.*119,*d.*121,*d.*134.*k.*140.*i* 159.*f.*167.*f.*183,*b,c.*265,*b.*272,*g.*285,*d.*303.*a.*319.*b* 320.*l.*475,*a.*485,*b.*529.*f.*

Incoctilia, braſſe veſſell ſo artificially tinned, as that it ſeemeth ſiluer plate, 517.*f. whoſe inuention,* *ibid.*

Indica, a pretious ſtone, 628.*g. why ſo called, ibid. the deſcription, thereof,* *ibid.b*

Indico, a rich painters colour, 528,*i. why ſo called,* 531.*a*

Indico, a kinde of azure or blew, 485.*a. the price thereof,* *ibid.*

Indico the Painters colour, what it is, 531.*b*
the artificiall Indico is Florey, 531.*b*
how the good Indico may be ſophiſticated, 531.*b*
how the deceit is found, *ibid.*
the worth of Indico, ibid. and the vſe in Phyſicke, 531.*c*

Indiſh pepper. See Piperitis.

Infants how to be kept from ſuddaine frights, 341.*c.*449.*e*
from ſtarting and ſhriking in their ſleepe, 340.*c*
from being froward, 351.*d*

Infants troubled with the wens or paines in the eares, how to be eaſed, 398.*k.*449.*e*

bleach or breaking out of Infants, how to be helped, 449.*f*

Infant ſticking in the birth how it may be borne, 395.*d*

Infants red-gumb, how to be healed, 559.*a*

Infants ſucking, how to be eaſed of the grinding and wringing in the bellie, 397.*e*

Infant, how it ſhall be borne with eyes and brows blacke, 397.d. *the heat of the head in babes called Siriaſis, how to be allaied,* 397.e.449.f
Infants foreſpoken or bewitched, how to be helped, 398.i
how to cauſe Infants puke that which is offenſiue in the ſtomacke, 398.k
Infant dead in the wombe, how to be expelled or fetched away, 58.g.76.h. 106.g. 107.f. 125.d. 135.e. 142.k 157.c.163.c. 180.h. 193.d. 266.l.m. 267.a.c.d. 273.f 339.e.340.i.350.g.448.l.
Infants mouthes ſore with the cankers, how to be helped, 341.b.d. *their gumbes ſore, how to be eaſed,* 341.b
Infants marrow and braines found by ſome to be medicinable, 293.d
Infection by water and aire, how to be corrected, 134.k
againſt Inflammations, proper remedies diſcuſſiue, 39.f 77.f.105.a. 111.f. 120.k. 143.f. 146.h. 161.a. 168.l 185.e.233.d.262.i.289.e.313.b.c.320.h.531.c.
Inflammations apoſtumat, how to be cured, 133.f.289.c *See more in Impoſtumes.*
Inflammation of the pannicles containing the braines, how to be cured, 76.k
Inguinaria, 256.h. *called by ſome Argemone,* ibid.
Inke of the Cuttle fiſh, 450.k. *the ſtrange operation thereof,* ibid.
writing Inke taketh the perfection by gum Arabicke, 530.l
Inula, an herbe, deſcribed, 18.i. *the manner of dreſſing it, and the vſe thereof, ibid how to be planted,* 18.k
how to goe Inuiſible, 315.e
Inundation of waters how to be ſtaied, 316.h
Invocation vpon the gods, thought to be effectuall, 294.l

I O

S. Iohns-wort. See Coris, and Hipericon.
Ioints ſhrunke, how to be mollified and drawne out, 78.h 126.i.
Ioints bruiſed and hurt by cruſh or rap, how to be cured, 394.k
for Ioints pained or in ach, and otherwiſe diſeaſed, comfortable medicines, 48.m.73.a.77.b.128.g. 146.h.174.l 189.c. 207.e. 258.k.l. 262.l. 423.f. 432.l. 443.a 445.a.c.557.e. *See more in Gout.*
Iollas, a Phyſician, 67.e.506.m
Ion, a pretious ſtone, why ſo called, 628.h
Iotapes, a magician, 373.d
Iovetanum, what, 518.h
Iphicrates, an excellent imageur and grauer, 501.b. *his workemanſhip,* ibid.
Iphis a painter, well thought for his workemanſhip, 549.f

I R

Irene, a woman, excellent in painting with the pencil, 551.a
Ireos, Iris, or Floure-delis, the vertues thereof in Phyſicke, 105.b. *See more in Floure-delis.*
Irinum, what oile, and where it is beſt, 88.g
Irio, an hearbe, 144.h. *the deſcription and medicinable properties that it hath,* ibid.
Iris, a pretious ſtone, 623.b. *why it is called the root of cryſtall,* 623.b. *wherepon it tooke the name Iris,* ibid. *the properties that it hath,* 623.c. *which is the beſt,* ibid.
Iris, another ſtone, ibid. *good againſt the bite of the Ichneumon,* ibid.

I S

Iſatis, an hearbe, 45.c. *what Plinie taketh it for,* ibid.
Iſchæmon, what hearbe, 233.f. *why ſo called,* 224.g. *the wonderfull power thereof in ſtaunching bloud,* ibid.
Iſchias, what hearbe. 123.a
Iſidorus, a famous imageur, and his workes, 502.i
Iſmenius, a vaine and gaudie minſtrell, giuen to weare many gems and pretious ſtones, 601.b *by his example, Muſicians were knowne by wearing of ſuch iewels,* ibid.
Iſodomon, what kinde of worke in maſonrie, 593.f
Iſoetes, what hearbe, 237.c
Iſopyron, an hearbe, 284.g. *the deſcription,* ibid.
Iſſues in the skin how to be made, 168.i
Iſſue of bloud out of the head or braine, how to be ſtaied, 473.e.
Iſſue of bloud guſhing out of any part, how to be ſtaunched, 263.c.287.e. 341.b. 352.l. 393.b. 407.f. 424.h. 473.e 509.e.510.k.589.a. 590.i.
out of a wound, how to be ſtopped, 424.i.557.e.559.a. *See Bleeding, and Noſe-bleeding.*

I T

Italie, the goodlieſt country in the World, 632.k *the commendation thereof in all reſpects,* 632.k.l
Italie furniſhed with hearbes of powerfull operation, 210.k
Italie full of gold mines and other, 469.c *an act forbidding to breake any ground for mines in Italie,* ibid.
Itch, and itching pimples, how to be killed, 49.c.60.l.64.k 73.d.e. 105.a. 143.c.f. 144.l. 148.i. 149.a. 155.f 173.c. 174.g. 180.k. 232.m. 277.d. 306.i. 307.b 316.m. 317.d. 320.h. 337.a. 353.a. 367.b. 395.a 413.b. 419.b. 422.l. 437.d. 446.m. 557.d. 558.i.k 559.a.
Itch occaſioned by iaundiſe, how repreſſed, 419.e 422.i.

I V

Iva Moſcata, an hearbe. See Chamepitys.
K. Iuba wrote the hiſtorie of Arabia, 427.c
Iubarbe. See Sengreene and Houſleeke.
Iudges of Rome, who properly were called, 459.d.460.g
chamber of Iudges inſtituted at Rome, 459.f. *See Decuries.*
Iuell-caskets, 602.g
Ivie, the vertues and diſcommodities that it hath, 189.d *killed with a touch of a menſtruous woman,* 308.m
Iulides, what fiſhes, 441.l
Iulius Rufas died of a carbuncle, 241.d
Iuniper tree, what vertues it yeeldeth in Phyſicke, 186.h
Ivorie Minerall, 588.h
Iupiters garden about Athens, 410.g
Iupiter Ammon, 415.b
Iupiter Labradius, 428.k
Iupiter Latrarius, 495.f
Iupiters image at Rome was vſually painted with vermillion againſt high daies, 475.c *the firſt thing enioyned by the Cenſors, to paint his viſage with vermillion,* 475.d
Iupiter Tonans his image at Rome, wrought by Leocras, 502.k.
Iupiter and Ianoes temple at Rome, miſmatched in the pictures and images that beautifie the places, and by what occaſion, 570.k
Iupiters image of cley in the Capitoll, 553.a *therefore it was vſually painted with vermillion,* 553.a

20030
copy 1

Iupiters gem, a pretious ſtone, 628.g

I X

Ixias, the viſcous gum and venomous, how it is mortified, 56,*l. where it is engendred,* 123,*f. why ſo called,* 124.g
Ixias, the hearbe Chamæleon, 123.*f*
Ixine, what hearbe, 98.*i*

K I

Kibed heels how to be cured, 47,*b.* 122,*g.* 128,*i,k.* 134,*k* 139,*b.* 141,*f.* 143,*c.* 159,*c.* 165,*b.* 167,*e.* 194,*m* 258,*m.* 274,*k.* 319,*c.* 334,*k.* 386,*i,k.* 413,*b.* 419,*d* 437,*d.* 445,*b,c.* 475,*b.* 559,*b,c.*
for Kidnies pained and diſeaſed, appropriat remedies, 37.*b* 43,*b.* 47,*c.* 57,*d.* 66.*k.* 119,*d.* 120,*b.* 124.*l.* 125,*c* 127,*c.* 130,*g,k.* 141.*f.* 150,*l.* 157,*a.* 171,*c.* 330,*b.* 422.*k* 556,*l.*
Kidnies obſtructed, what medicines doe open and cleanſe, 167,*c.* 444,*b.* 529,*b.*
Kidnies exulcerat, how to be healed, 171.*d*
Kilpes. See Reske or Seaweed.
Kine and Oxen how to be preſerued healthfull, 400.*g*
Kings euill, ſwelling and hard, by what medicines to be cured, 40,*b.* 44.*g.* 50,*m.* 52,*g.* 56,*h.* 58,*h.* 62,*m.* 65,*a* 72,*g,m.* 73,*b,d.* 75.*a.* 105,*e.* 106.*l.* 111.*f.* 119,*d* 120,*k* 122,*k.l.* 127,*c.* 128,*i.* 129,*d.* 138,*k.* 139,*a* 141,*e.* 142,*g.* 143,*e.* 144,*g.* 164,*b.* 166,*m.* 168,*b,k* 169,*a,b.* 178,*h.* 179,*a,b.* 180,*g,m.* 183,*d.* 193.*c* 199,*e.* 206,*l.* 118,*k.* 139,*b,e.* 245,*c.e.* 250,*h.* 251.*a* 256,*h.* 265,*b.* 289,*g.* 282,*h.* 301,*f.* 309,*d.* 320,*h* 328,*k.m.* 370.*l.* 379,*a,b,c,d,e.* 431,*e.* 432,*g.* 433,*a* 587.*f.* 588,*m.* 595,*d. Broken and running how healed,* 378,*m.* 379,*a,c.* 437,*d.* 441,*e.f.* 442,*g.* 589,*c.*
Kernils ſwelling and painefull behind the ears, how to be eaſed, 72.*g.* 122,*g.* 309,*d*
Kiſſing the right hand how it came to be taken up, 297,*e*
Knee gout or paine, how eaſed, 188,*h. See Gout.*

K N

Knights or Gentlemen at Rome, by what badges knowne and diſtinguiſhed from other degrees, 457,*c.* 459,*c*
Knight eſtabliſhed a third ſtate in Rome, by the meanes of M. Cicero, 460,*l.m*
why all Inſtruments paſſe in the name of the Senat, People, and Knights of Rome, 461.*a*
Knots in the ioints and other parts of the bodie. See Nodoſites.
Hercules Knot, 305.*e*
Knotgraſſe, an hearbe, 287,*a. the deſcription, ibid. the ſundrie names, ib. why called Calligonon, Polygonon, and Polygonaton, ibid. the vertues.* *ibid.*
Knotgraſſe of foure kindes, *ibid.*
Knotgraſſe the wild, 287,*c. the deſcription, ibid. the vertues,* *ibid.*

L A

Labyrinths, moſt monſtrous workes, 578.*i*
that of Ægipt by whome built, 578.*i*
the reaſon why it was built, 578.*k*
Labyrinth in Greece made by Dadalus, taken from the patterne of that in Ægipt, 578.*k*
Labyrinth in Lemnos, 578.*l*
Labyrinth in Italy, *ibid.b*
Lbyrinths of Ægipt and Lemnos deſcribed, 578,*l,m* 579,*c.* 599,*d.*
Labyrinth in Italy built by K. Porſena, and therein he was entombed, 579.*d*
Lactaria, an hearbe. See Tithymall.
Lactoris, what hearbe, 204,*l. why ſo called,* *ibid.*
Lactuca Caprina, what hearbe, 251.*e*
Lactucini, who they were, and why ſo called, 12.*l*
Lacuturres, what kinde of Coleworts, 26.*l*
Lada the hearbe whereof commeth Labdanum, 249,*d*
Ladanum, an hearbe, 249,*c. of two ſorts, ibid. the vertues, ibid.*
Ladanum, a ſweete gum or iuice concrete, 249,*c. whereof it is made, ibid. which is the beſt, ibid. d. the vertues, ib.*
Ladies and great Gentlewomen, what imageurs delighted to caſt and pourtray in braſſe, 503.*e*
our Ladies mantle, an hearbe. See Leontopodium.
Ladus, an excellent grauer, 483,*e. famous for pourtraying battailes,* 483.*f*
Lagines, what hearbe, 199.*e*
Lagopus, what hearbe, 250.*i*
Laia, a woman Phyſician, and who wrote of Phyſicke, 309.*c*
a Lake wherein leaues or any thing elſe will ſincke, 404.*i*
Lakes engendring ſalt, 414.*m*
Lala, a woman and paintreſſe, 551.*a. ſhee could handle both the pencill and the enamelling iron, ibid. her peeces of worke, ibid. b. her quicke hand, ibid. ſhee excelled Sopylus and Dionyſius, painters of her time,* *ibid.*
Lamps burning how they may repreſent the heads of horſes and aſſes, 327.*a*
Lampreys tooth venomous, 436,*g. the remedie, ibid. himſelfe is the Phyſician,* *ibid.*
Lamprey aſhes medicinable, 440.*l*
Lampreys what ſhifts they make to get forth of a net, 427.*e*
they ſwallow hooke and bait, they bite the line in twaine, 428,*g. how they cut the ſame with their finnes,* 428.*h*
how they may be ſoone killed, *ibid.*
Lampreys female onely, ibid. how they are conceiued, and how they engender, ibid. how they are taken, *ibid.*
Lanaria, an hearbe, 204,*l. what vertue it hath,* *ibid.*
Langa, what beaſt, 606.*h*
Languiſhing and long diſeaſes, how to be cured, 259.*a* 303,*d.* 391,*c.*
Languria, 606.*h*
Langurium, *ibid.*
Laocoon with his children and ſerpents, a ſingular peece of worke in marble, 569.*e*
Lap of the eare diſeaſed, how to be cured, 371.*a*
Lapathum Cantherinum, what herbe, 73.*b*
Lappa Boaria, a kind of Burre, 258.*l*
Lappago what hearbe, 258.*g*
Lapſana, a kinde of wilde Colewort, 27,*c. the deſcription thereof and the vertues,* 51.*c*
Larbaſon. See Stimmi.
Larch tree the medicinable vertues thereof, 181.*c*
Largeſſes and dole of money at Rome, when they began, 480,*h.*
Lartius Licinius, forewarned by certaine fountaines, of his deſtinie, 404.*l*

Laser, a sweet liquor or drug, and the vertues thereof, 8.*h*
Laser the liquor of Laserpitium, 8.*h*
the price thereof, ib. how rare it is, 8.*i.k. sophisticated,* 8.*i*
the manner of drawing Laser out of the plant, 9.*a*
the ordering of the said liquor, 9.*a.b*
how the best is knowne, 9.*d*
Laserpitium, the plant that yeeldeth Laser, 8.*h*
destroyed by Publicans, *ibid.*
a plant of Laserpitium sent as a great nouelty, *ibid.*
what effects it worketh in cattell that feed vpon it, 8.*i*
how Laserpitium was engendred about Cyrene, 8.*k*
the nature of Laserpitium, *ibid.*
the description, *ib.*
what vse of it, both for men and cattaile, 8.*l.m*
the root thereof, 9.*a*
Laserpitium of Persia and Syria, 9.*c*
a Laske, by what meanes medicinable it may be stopped, 41.*c.* 43.*d.* 47.*c.* 55.*b.* 67.*c.* 70.*m.* 73.*e.* 76.*i.* 77.*e* 101.*e.* 102 *l.* 107.*e.* 120.*k.* 124.*m.* 127.*b.* 130.*g* 131.*f* 139.*a.d.e* 140.*l.* 141.*a.d.* 147.*b f.* 151.*d* 156 *g.* 160.*h* 163.*b.c.* 164.*i.k.* 165.*b.f.* 166.*g.k* 169.*d.* 170.*g.* 171.*b.* 172.*l.* 174.*i.k.* 177.*a.* 179.*f* 181.*c.* 184.*g.* 186 *i.* 187.*c.* 190 *h.k.* 195.*c.d.* 196.*h.m* 199.*d.* 202.*h.* 206.*l.* 248.*l.* 249.*b.c.e.* 250.*h.i.* 255.*a* 257.*a.* 263.*d.* 267.*c.* 272.*l.* 375.*b.e.* 280.*k.* 283.*b* 284.*h.* 286.*l.* 290.*h.* 308 *g.* 318.*l.* 330.*l.m.* 331.*a.c.d.e.f* 341.*c.* 353.*c.* 383 *b.* 443.*e.* 528.*m.*
Lassitude how to be eased, 289.*c.* 354.*l*
See Wearinesse.
Latace, a magicall hearb, 244.*h. the operations thereof. ib.*
Latine, what festiuall holydaies, 276.*k*
Laton brasse, 486.*m*
Lauer what hearb, 250.*g*
Laurea Tullius his Decasticon vpon Ciceroes Academia, and the fountaines there, 402.*i*
Laurell tree, the nature thereof, and vertues medicinable, 173.*a.*
Laxatiue medicines, 140 *h.* 141.*d.* 161.*b.* 163.*f.* 167.*c* 168.*i* 180 *l.* 191 *a.* 192 *i.k.* 201.*a.* 218.*s.* 250.*k.m* 251.*a.* 252.*g.* 272.*g.* 275.*b.* 287.*e.* 311.*c.* 442.*l.* 443.*d*
See more in Purgatiue.

L E

Lea, what kinde of Colewort, 48.*k*
Lead vsed in fining gold, 465.*d*
siluer-Lead, Argentine, 517.*d*
two principall kindes of Lead, 516.*l*
white lead, called Plumbum Candidum in Latine, 516.*l*
in Greeke Cassiteron, ibid. where it is found, *ibid.*
how fined, *ibid.m*
Lead ore Elutra, 517.*a. why so called,* *ibid.*
blacke Lead or common Lead, 517.*a. two kinds therof, ib.b*
white Lead or Tinglasse Cassiteron, in request of old, 577.*b*
how it is knowne to be good and perfect, 518.*g*
the vse of blacke or common Lead, *ibid.h*
Lead ore lyeth deepe in Spaine and France, 518.*h. ebbe in Brittaine, ibid. the principall kinde of lead,* *ibid.*
Lead mines fore-let, grow againe, 518.*i. the reason thereof,* 518.*i. how a leaden pan will not milt ouer the fire, ib.k*
Lead in what cases medicinable, 518.*l.m*
plate of Lead applied to backe and breast, *ibid.*
Lead, how to be prepared and washed for vse in Physicke, 519.*a.b.c.*
the operation of Lead in Physicke, thus prepared, *ibid.*
Lead, how calcined into ashes, 519.*d.e*
drosse of Lead medicinable, 519.*e. which is best.* *ibid.*
vapour of Lead in the furnace killeth dogs, 519.*a*
Leana, an image of Iphicrates his making, 501.*b*
the historie thereto belonging, *ibid.*
how a bodie ouer-fat may be made Leane, 184.*m.* 303.*d* 318 *l.*
how a man should drinke to be Leane, and how to be corpulent. 152.*m*
Leaues of hearbes different, 20.*g*
Leaues which be employed in coronets, 89.*e.* 90.*g*
Q. Lecanius Bassus died of a carbuncle, 241.*d*
Lectuce an hearbe of sundry kindes, 24.*g.i*
Lectuce Laconicon, 24 *h*
why Lectuce is called in Latine Lectuca, 24.*i*
the nature of Lectuce, 24.*k*
Augustus Cæsar recouered from sickenesse by the meanes of Lectuce. 24.*k*
Lectuce much vsed, *ibid.*
Lectuce Caprina. 24 l. 45, a. the properties thereof, 45.*b*
Lectuce how to dressed for the table, 25.*a*
how Lectuces are to be replanted, 25 *b*
Lectuce wild and the diuerse kindes thereof, 45.*a*
the iuice of wild Lectuce medicinable, 45.*d*
garden Lectuces their medicinable properties, 46.*g*
their discommodities, 46.*m*
Leech-craft belonging to kine and oxen who wrote of among the Romanes, 209.*b*
Leekes, 21.*a*
Leeks headed or bolled, 43.c. their medicinable properties, *ibid.*
cut Leeks or vnset leekes, 21.a. vsed much by Nero the Emperour for to cleare his voice, 21.a. of two kindes, 21.*e*
Mela killed by the iuice of Leeks, 21.*d*
Lees of wine the nature and properties thereof, 157.*d*
Legs infirmities helped by the Assian stone quarries, and hurt by mettall mines, 587.*e*
to sit or stand crosse-Legged, what effect it worketh, 305.*a*
in what cases prohibited by law, *ibid.*
Lemonium, what herbe, 228 *k. the gum and vertues therof,* *ibid.*
Lenitiue medicines, 111.*c. See in Mollitiue.*
Lentiles the pulse, what medicinable properties they haue, 141.*d. their discommodities,* *ibid* 142.*g*
Lentiles wild, 142.*i. their description and medicinable vertues,* *ibid.*
Lentiles of the marish or poole, 142.*h. See Duckes-meat.*
Lentiles or spots in the skin how to be scoured, 125.*c.* 130.*l* 133.*c.* 138.*l.* 377 *d.* 441.*d.* 443.*b.c.* 450.*i. See more in Freckles, Visage, and Face,*
Lentiske or Mastick tree, the vertues medicinable that it affourdeth, 184.*g*
Leocras, a famous imageur, and his workes, 502.*i*
Leon, a painter, 550.*g*
Leontios, a pretious stone, 630.*l*
Leontine, what hearbe, 232.*l*
Leontiscus, a cunning painter, 549.*f. his pictures,* *ibid.* 550.*g.*
Leontius, a cunning imageur, and his works, 498.*k.l*
Leontopetalon, an hearbe, 284.*i. the description,* *ibid.*
Leontopodium, what hearbe, 250.*h*

the

20030
copy 1

the ſundry names, deſcription and vertues, ibid.
it cauſeth ſtrange viſions and illuſions, 250.i
Lepidotes, a pretious ſtone, 628.h
Lepidus his ſtately houſe at Rome, 583.a
Leptis in braſſe what it is, 507.c
Leprie or leproſie Elephantiaſis, when it began firſt in Italy 241.e. the deſcription and manner thereof, ibid.f
a maladie naturall and proper to the Ægyptians, 242.g
againſt the ſaid Leprie ſundry medicines, 44.k. 50.g.h. 51.a 53.b. 58.h. 59.a. 65.a. 65.c. 67.e. 73.d. 74.i. 103.b 122.h. 124.l. 125.c. 131.a. 139,a. 144.g. 146,i 149,e. 155,f. 157,e. 168,i. 179,d. 185,c. 191,a 192,m. 207,e. 219.d. 300,i. 318.g. 328.g. 362.i 370,k. 377.d.e. 394,k. 429.b. 422,l. 440,l. 441,l 443,b,c. 556,l. 557.d. 559,b.
Leſbias, a pretious ſtone, why ſo called, 628.h
Lethargie, what remedies for it, 39,c,d. 42,k. 55,b. 57,e 74,h. 75.e. 76,h. 121,d. 160,l. 171,e. 181,a. 183,d 187,f. 206,g. 260,l. 315,e. 336 g,h. 356,i. 390,h. 430.m 446,h,i,m. 447,a. 573,c.
Lethe, a fountaine, 403,d. the water whereof cauſeth obliuion, ibid.
Leucacantha, an hearbe. See Phalangites.
Leucanthemon. See Phalangites.
Leucacantha, what kinde of Thiſtle, 123,a. the diuerſe names it hath, ibid.
Leucachates, a pretious ſtone, 623.e
Leucacanthe, what hearbe, 111.e
Leucacanthemus what hearbe, 125.d
Leucacanthemum, what hearbe, ibid.
the vertues thereof, 109.a
Lence, an hearbe, 285.c. the deſcription, ibid. why ſo called, ibid. why named Meſeleucus, ibid.
Leuceoron, an hearbe. See Leontopodium.
Leucochryſos, a pretious ſtone, 628.h
Leucogæi, medicinable ſprings, 403.b. their vertues, ibid.
Leucographis, 285.d
Leucopetalos, a pretious ſtone, 628.h
Leucophoron, what kinde of ſize, 466,b. how it is made, 529,c.
Leucophthalmus, a pretious ſtone, 628.h
Leucoſtictos, a kinde of Porphyrite marble, 573,c. why ſo called, ibid.

L I

Libadion, an hearbe. See Centaurie the leſſe.
Libanocrus, a pretious ſtone, the deſcription, 628.h
Liberd bane, a venomous hearbe, 43,e. why ſo called, ibid.
Libards how they be cured after this bane, 270,k. See Aconitum.
Libralis As, and Libella what it was in Rome, 462.k
Libraries by whom deuiſed at Rome, 523.f
Libripendes, who they were, 462.l
Lichen, an hearbe. See Linerwort.
Lichen in Plum trees, what it is, and the vertues medicinable, 169.e
Lichen in horſe legs, what, 326.l
Lichenes, a kinde of wild and foule tetter, 240.l. how it began, 240.l. why it is called Mentagral ibid.
the manner of this foule diſeaſe, 240,m. who brought it firſt to Rome, 241,a. what perſons eſpecially it annoied, ibid. by what meanes it was contagious. ibid.b
the manner of curing it, ibid.
what remedies for Lichenes, 131.a. 289.d. 362,i. 440.g 441,d 470,k. See more in Tettars.
Lice or vermine of the bodie how to be killed, 399,b. See Louſie diſeaſe.
Lice in the head, what killeth, 413,b. 422.g. 559.b
Licinius Macer, a writer, 428.b
Life in paine and ſickeneſſe, is miſery, 292.m
Light in Pictures, 528.b
Lightning with what ceremonies adored, 557.a
Lightning reſembleth the ſmell and flame of brimſtone burning, ibid.
Lights and their infirmities how cured, 580,i. ſtuffed with viſcous fleame and purulent matter, how to be diſcharged thereof and cleanſed, 380,i. 443,a. 556,m. See more in Lungs.
Liguſticum, an hearbe, 30,i. called Panax, ibid. the deſcription, 290,b. why called Smyrrhinum, ibid.
of the garden Lillie, 84.k
iuice of Lillie floures, 103.b
oyle of Lillies called Lirinon, ibid.
Lillies white commended and deſcribed, 84,k.l
Lillie roots how to be ſet, ibid.m
Lillies will come vp ſtrangely of their owne liquor, ibid.
Lillies red, deſcribed, 85,a. where the beſt are to be found, ib.
Lillies purple, ibid.
Lillies how they may be artificially coloured, ibid.i
Lillie roots haue ennobled their floures, 103.a
water-Lillie. See Nenuphar.
May-Lillie deſcribed, 239.b
Lime for morter, which is good, and which bad, 594.i
Lime medicinable, 595.c
quicke-Lime catcheth fire ſooneſt by the meanes of water, 472,b.
Limæum, a French hearbe, 285,b. the vertues, ibid.
Limonia, what hearbe, 130,m
Limoniates, a pretious ſtone, 628.i
Limonium, a kinde of Beet, 47,c. the deſcription and vertues thereof, ibid.d
Limpins, ſhell fiſhes medicinable, 443.b
Limyra, a fountaine, eſt ſoones remooning, and thereby preſaging ſomewhat, 404,i,k
Linden tree, the inner barke thereof ſoketh vp ſalt, 176.b
the vertues that it hath otherwiſe, 185.d
Line ſeed where it loueth to grow, 2.i
Line much vſed, in what countries, 2,k.l
Line how it is knowne to be ripe, when it is gathered, and how dried, 4.g.h. how to be watered, dried againe, punned, and otherwiſe ordered, 4.h.i
Line-quicke, what it is, and the vſe thereof, 4,l,m. where it groweth, ibid.
Line ſeed ſerueth for meat, 4,b. it is medicinable, ibid.
Line called Byſſus, and the lawne or tiffanie thereof, 5.b
the price it beareth, ibid.
Linnen Setabine, 2,m. Allian, ib. Fauentin, 3,a. Retouine, b
Linnen cloth how to be bleached, 69.b
Linnen weauers where they were wont to worke, 2.l
Linnen, where the beſt is made, 2.m
Linnen cloath burnt to aſhes how employed, 5.b
Linnen died, as well as woollen, 5.c
Linnen curtaines and veiles of diuerſe colours, auerſpread the Theatres and Forum of Rome, 5.c.d

Linnen white esteemed best, 5.f
Lint of linnen cloath, for what purpose it is good, 5.b. *See more in Flax.*
Lings. See Heath.
Lingua, an hearbe the vertues thereof, 205.c
Lingulaca, an hearbe, described, 232.i
Linus, a medicinable riuer, 403.a
Lions paw, an hearbe, 250,b. *the sundry names that it hath*, ibid.
Lions bodie yeeldeth medicines, 310,m. *the greace, the teeth, haire, gall, and heart*, 310,m.311,a,b
Lions danger how to be auoided, 359.b
Liparæ among the Greeke writers, lenitiue and vnctuous plasters, 174,l.474,b *how such be made*, 520.i
Liparis, a pretious stone, 628.i
Lips chapped how to be cured, 327,f.328,b.352,l.377.b *See Chaps and Fissures.*
Lips scabbed, exulcerat, or otherwise diseased, how to be healed, 178,l.377,b.509,a
Liquirice described, 120,g. *the best Liquirice*, ibid. *the medicinable properties thereof*, ibid.
Liquirice iuice, 320,b. *why called Adipson*, ibid.
Litharge of three sorts, 474,i. *how it is made*, ibid.k *why called Spuma argenti*, i. *the froth of siluer*, ib. *what it is, and how it differeth from drosse*, ibid.
Litharge, how to be prepared, 474,l.m 475,a *the medicinable vertues of Litharge prepared*, ibid.
Lithospermon, an hearbe. See Greimile.
Lithostrata, what pauements, 596,m. *when they were deuised*, 597.a
Liuer obstructed or stopped how to be opened, 167,c.189,e 329,d.443,a.
Liuer pained how to be eased, 380,m.442,k
Liuer hard, and swelled, how to be mollified, 142,l.189,e
for the Liuer feeble or any way diseased, comfortable medicines, 37,b.40,k.41,d.47,d,e.57,d.59,d.61,a.62,g 63,a,c.69,a.75,e.76,i.77,e.104,i,l.106,i.119,c 120,b.124,l.125,c,e.127,e.130,g.138,i.143,e 147,a.150,l.163,b.171,e,f.173,b,d.181,a,b,d,f 184,l.185,a.191,c.193,a.207,d.238,m.247,b,c 248,g.254,g.277,b.278,l.281,c.301,c.359,c 590,b.
in the Liuers of Swine little stones medicinable, 332.k
Liuerwort the hearbe why it is called Lichen, 244,m. *the sundry kindes and description*, 245,a. *the vertues*, ibid.
Liuing creatures be most medicinable, 292,h,i,l
Liuius Drusus, how much plate he had, 481.b
Lix, what it is, 599.c
Lixivus Cinis or lie ashes, ibid. *the medicinable vse thereof*, ibid. *what vse fencers and sword-plaiers make of it*, ibid.
Lizards male, how they be knowne from the female, 398.b

L O

Loadstone, 515,a. *where it is to be found*, ibid.b. *it is not the right rocke Magnus*, ibid.
the wonderfull nature of the Loadstone, 586,l. *why called Magnes*, ibid. *how it was first found*, ibid. *fiue kindes thereof*, ibid.m
Loadstone male and female, 587,a. *the different sorts thereof*, ibid.
Æthyopian Loadstone best, ibid.b. *where it is found, and how knowne*, ibid.c
the medicinable properties of all Loadstones, 515,a.587.b
Loathing of meat how helped, 147,b.248,b.259,c.277,a *See Appetite.*
Loines or small of the backe in paine, how to be eased, 37,e 39,d.40,k.41,f.42,b.43,a.53,b.54,b.59,b.66,k.66,a 108,k.110,i.119,d.123,a.134,m 143,f.144,i.149,b 182,g.190,k.280,g.304,l.305,e.312,k.313,b.350,b 381,f.382,g.556,l.557,e.
white Lome troublesome to pioners working in gold mines, 467.e.f.
Lomentum, a kinde of painters colour in powder, 471.b 484,m. *the price*, ibid.
Lonchitis, what hearbe, 233.a. *the description*, ibid. *it differeth from Xiphion and Phasganion*, ibid.
Longaon, a gut. See Fundament.
Long-wort, an hearbe, 230,i. *two kinds thereof*, ibid.k. *male and female*, ibid.
Looking-glasses. See Mirroirs.
Loose-strife, an hearbe. See Lysimachia.
Lotometra, a kinde of Lotos, 125.f. *the description*, ibid. *holesome bread made thereof in Ægipt*, ibid.
Lotos, a name giuen to sundry plants, 177.a
Lotos, an hearbe, 99.c. *the qualitie that the seed hath*, ibid.
Lotos, an herbe, and not a tree, 125.e. *how it is proued*, ibid. *the vertues of this hearbe*, ibid.
Lotus, which is called the Greeke beane, 177.a. *the vertues*, ibid.
Loueach, why it is called Ligusticum, 30.i. *it is also named Panax*, ibid.
to win loue and fauour what medicines auaile, 47,f.108.b 311.a. *See Grace.*
Loue potions condemned by Plinie, 213.d
Lourie or Laureoll, an hearb, 174.g. *the medicinable vertues it hath*, ibid. *the description*, 198.k *the berries or seed what vertues they haue*, ibid.
for the Lousie disease remedies appropriat, 36.l.39.b.44.b 74.i.149.a.162.k.173.c.179.d.189.b.c.190.b.232.m 264.b.324.g.b.i.367.a.b. *See Lice.*
Sylla Dictatour died of the Lousie disease, 264.b
Louvers and lanterns ouer temples of potters worke in cley, who deuised, 552.b

L V

Lucipores, what they were, 459.a
Lucius Lucullus ouerruled by the streight hand of his Physician in diet, 304.i
Lucullus tooke his death by a loue cup, 213.c
M. Ludius Elotas, a painter who beautified the temple of Iuno at Ardea with pictures, 544.l. *verses testifying the same*, ibid.m
Ludius, another painter, who practised to paint vpon walls varietie of works, 545.a. *his grace and dexteritie therein*, ibid.
Lunaticke or out of right wits how to be cured, 107.e.149.e 218.i.219.d. 335.c. 381.b. 387.d. 402.l. *See Phranticke.*
Lungs enflamed, how to be helped, 64.i.135.d.275.e
Lungs exulcerat and purulent how to be mundified and healed, 37.b.43.c.57.d.61.a.179.e.308.b.329.b
Lungs stuffed with fleame, how to be discharged and scoured, 43.c.59.e.74.g.106.i.167.d
Lungs diseased, medicines in generall, 77.e.200.l.247.c.d
Lungs or lights in beasts diseased, how cured, 247.e.275.e. *See lights.*

20030
copy 1

Lungwort, an hearbe. See Longwort.
Lupines wild, 143.*d. their properties in Phyſicke,* *ibid.*
how Lupines may be made ſweet, *ibid.*
Lupus, a kinde of Phalangium or venomous ſpider, 360.*h*
Luſa, a citie, neare which, a well of a wonderfull nature, 403.*d.*
Luſt how prouoked or repreſſed. See Venus.
Luſtre or gloſſe in painting, what it is, 518.*h*
Lutea, a kinde of Borax, 471.*a*
Lutea, an hearbe, *ibid.*

L Y

Lychnis, what floure, 83.*e. why called Flaminea,* 110.*l*
Lychnites, the white marble of Paros, why ſo called, 365.*b*
Lychnites, a pretious ſtone, and a kinde of Rubie Balais, why ſo called, 617.*e*
the Indian Lychnites beſt, ibid. f. the ſecond ſort is named Ionis, and wherefore, *ibid.*
Lychnitis, an hearbe, and why ſo called, 230.*k*
Lyciſcus, an excellent Imageur in braſſe, and his workes, 502.*k.*
Lycium, what it is, and whereof made, 197.*b*
the beſt Lycium, ibid. c. how it is knowne, *ibid.e*
how Lycium is made, *ibid.b*
Lycophthalmus, a pretious ſtone, 630.*i*
Lycopſis, an hearbe, 284.*k. the deſcription and vertues, ib.*
Lycos, a kinde of ſpider, 381,*e. See Lupus.*
Lycas, a Phyſician, 71.*b*
Lydius Lapis. See Touchſtone.
Lydius Lapis, what ſtone, where to be found, and how vſed, 574.*h*
Lying in bed vpon the backe for what it is good, 303.*e*
vpon the bellie for what, ibid. vpon the ſides by turnes for what, *ibid.*
Lyncurium, what it is, according to Demoſtratus, 606.*h*
whether it be engendred of the Onces vrine, 607.*c.d*
Plinie thinketh all to be fables that is written of Lyncurium, *ibid.*
Lyron, what hearbe, 231.*b*
Lyſias, a famous Imageur and grauer in ſtone, 569.*d. his excellent workemanſhip,* *ibid.*
Lyſimache, prieſtreſſe to Minerua 64 yeares, 501.*e*
repreſented in braſſe by Demetrius the Imageur, *ibid.*
Lyſimachia the hearbe, 221.*f. it beareth the name of king Lyſimachus, ib. the deſcription,* 222.*g. the operation, ib. it may be called Lyſimachia, i. Looſe-ſtrife, in another reſpect,* *ibid.h*
Lyſippus, an excellent Imageur, 494.*k. he made in his time* 610 *molten or caſt images, of exquiſite workemanſhip all,* 494.*k. how it appeared that he wrought ſo many, ibid. l. he learned the art of no teacher, but attained vnto it by himſelfe, ibid. m. his rare skill and admirable workemanſhip,* 499.*a.b.c*
Lyſiſtrus of Sicyone drew a mans viſage to the life in Alabaſter or fine Plaiſter, 522.*h. and ſo proceded to the perſonage of the whole bodie,* *ibid.*

M A

Macedonicum, a kinde of Diamant, 610.*h*
Mads or Earthwormes, great healers, 393.*f.* 394.*g*
Mads. See Wormes,
Mad lake, why ſo called, 404.*g.*
Madir, an hearbe, 9.*d.e. the deſcription, ib. where it growes, ibid. the ſundry names it hath,* 192.*i. how it is emploied by diers, ibid. by curriers, ibid. by Phyſicians,* *ibid.*
againſt Madneſſe, what remedies, 72.*k.* 140.*h.* 219.*d*
Madon, what plant, 149.*c. See Nenuphar.*
C. Mænius his ſtatue erected vpon a columne at Rome, 491.*a.*
Magicke, fooliſh, vaine, deceitfull, and yet profeſſed with credit, and long time maintained, 371.*e. why it hath ſo long continued,* *ibid.*
Magicke proceeded firſt from Phyſicke, ibid. cloked by religion, 372.*g. intermeddled with Aſtrologie and Mathematickes,* *ibid.*
Magicke ſtudied by the greateſt Philoſophers, 373.*b. flouriſhed about the Peloponeſiacke warre,* 373.*d. profeſſed by Democritus,* *ibid.*
Magicke of old time practiſed in Italie, *ibid.*
in France, *ibid.f*
Magicke Ciprian, *ibid.d*
Magicke in Brittaine, 374.*g*
Magicke of diuerſe kindes, and which they be, *ibid.h*
Magicke ſacrifices and ceremonious rites cannot be exerciſed by them that haue red pimples in their faces, 328.*i*
Magicall hearbes of ſundry ſorts deſcribed, with their ſtrange properties, 202.*i.k.&c.*
Magicians firſt diſcredited Phyſicke hearbes, 244.*g*
Magicians condemned by Pliny, and their vanities derided, 213.*e.* 359.*e.f.* 244.*h.i.* 357.*c.*
Monarchs in the Eaſt, much ruled by Magicke, 372.*h. it firſt began in the Eaſt parts,* *ibid.*
Magides, what diſhes they were, 482.*h*
Magiciſcia, what cups, 484.*g*
Magnet ſtone growing in one entire rocke, differeth from the Loadſtone, 515.*b*
S. Magnus euill. See Leprie.
Magydaris, what it is, 9.*b*
Maiden-haire, an hearbe, 126.*m. why called Adiantum, ib. why Polytricon and Callitricon,* 127.*a*
Maiden-haire of two kindes, *ibid.*
Maiden-haire Trichomanes deſcribed, 290.*l.m*
Maidens-breaſts by what meanes they ſhall not grow, 236.*i* 281.*c.* 339.*e.*
Maioran Marierom, an hearbe, deſcribed, 91.*e. how it commeth vp, ibid. it is called Sampſuchus and Amaracas,* 109.*a. the oyle thereof, Amaracinum or Sampſuchinum, ibid. b. the vertues,* *ibid.*
Makarels pickle or ſauce called Garum, medicinable, 442.*h*
Maladies incident to mankinde, innumerable, 213.*b*
Maladies going away at the firſt game of Venus, 301.*e*
which be moſt greeuous and deadly, *ibid.*
Maladies of maidens ending at the ſight of their firſt fleurs, 301.*e.*
Maladies of the bodie vniuerſall how to be remedied, 259.*a*
Malandres in horſes, how cured, 338.*l*
Malache, what kinde of Mallow, 71.*e*
Malas, the firſt grauer in ſtone of any name, 565.*c*
Malicorium, the rind of a Pomgranate, 164.*l. why ſo called,* *ibid.*
Malobathrum, what vertues it hath, 162.*i*
Malope, what Mallow, 71.*e*
Mallowes grow to be trees, 13.*d.e*

Mallowes highly commended, 71.d. *they enrich a good ground*, 71.e. *hurtfull to the stomacke*, 72.h
garden Mallowes of two kindes, 71.d
Malum Erraticum, what hearbe, 255.d
Mariſh Mallow, Althæa, 71.e
the wonderfull power of mallowes to incite lust, 72.i
Mallow leafe killeth ſcorpions, 71.e
Mallowes not to be vſed with women with child, after the counſell of Olympias the midwife, 72.h
Maltha, what it is, and how to be tempered for pargetting, 559.d.
Mamurra his ſumptuous building, 571.e.f
Man medicinable to man, 293.b
Mans blond to drinke is abhominable, ibid.c
Mans head found in digging the foundation of the Capitoll temple at Rome, 295.d
Mancinus ordained his owne ſtatue to be made in that maner as he was deliuered to his enemies, 490.k
Mandragoras, the hearbe, 235.b
the ſundry kindes of Mandragoras, and their deſcription, ib.
the white Mandrage, what names it hath, ibid.
with what ceremonies the root of Mandrage is digged vp, 235.c.
how the liquor or iuice is drawne out of Mandrage, ibid.
the vſe of Mandrage, before the cutting or cauterizing of a member, ibid e
Mange in dogs, and other beaſts, how to be killed, 113.c 124.b.128.l.144.b. 149.e. 159.d.162.l. 183.f. 268.l 338.l.377.d.441.c.
Manicon, why Dwale is ſo called, 112.k
Manlius, a renowmed Methematician and Aſtronomer, 576.b. *his deuiſe vpon the Obeliske or Gnomon in Mars field at Rome*, ibid.
Maple tree the medicinable vertues that it hath, 185.a
a Mares head pitched vpon a garden pale, keepeth away cankerwormes, 32.l
againſt the enormitie of hewing marble out of the rocke, 562.k.l.m. *no lawes in Rome to repreſſe that exceſſe*, 563.b.d.
grauers, cutters, and caruers in Marble, who were the firſt, 564.b.
grauing in Marble as ancient as the reckoning of yeares by Olympiades, ibid.l
Marble of Paros white, 565.b
Marble ſpotted, 571.b. *of ſundry ſorts*, ibid.
Marble pillers and columnes in building of temples, why at firſt vſed, ibid. *men of Chios built therewith the walls of their citie*, 571.c. *the ſcoffe of M. Cicero vnto them by that occaſion*, ibid.d
Marble ſlit into thin plates, whoſe inuention, 571.d *who ſeeled the wals of his houſe firſt with Marble at Rome*, 571.e. *who built his houſe firſt at Rome vpon Marble pillers*, ibid.f
K. Mauſolus firſt garniſhed his pallace with marble of Proconneſus, 571.d
Marble Lucullian, whereupon it tooke the name, 572.g. *it is blacke*, ibid. *where it groweth*, ibid.
Marble ſtone ſlit and ſawed after what manner, ibid.h
Marble of ſundrie kindes, 573.a
Marble of Lacedæmon eſteemed beſt, ibid.
Marble Auguſtum and Tiberium, why ſo called, 573.b *how they differ*, ibid.
Marble ſerpentine, ibid. *the medicinable vertues thereof*, ib.
Marble of Memphis, with the medicinable properties, 573.c
Marble Coraliticum, where it is found and the nature of it, 574.i.
Marble Alabandicum, why ſo called, ibid. *it will melt, and drinking glaſſes be made thereof*. ibid.
Marble Thebaicke, 574.i. *the vertues that it hath*, ibid.k
Marble Syenites, why ſo called, 574.k. *it is named alſo Pyrrhopœcilos*, ibid. *it ſerued for long Obeliske*, ibid.
Marble gray, or Sinadian Marble, 522.i
Marble doth liue and grow in the quarrey, 586.i
Marcheſin, or Marqueſit ſtone. *See Cadmia and Pyrites.*
Marcion of Smyrna, a writer of hearbes, 300.k
Marcipores, what they were 459.a
C. Marius Cenſorinus how rich he died, 479.e.f
Q. Marcius Tremellius his ſtatue in a gowne, for what deſert, 491.e
Marigolds and their floures compared with Violets, 85.e
Mariſcon, a kinde of riſhi 106.k
C. Marius dranke ordinarily out of a wooden tankard, after the example of Bacchus, 482.l
Markes remaining after the cauterie or ſearing-yron, how to be taken away, 377.f
Marmaridius a Magician, 372.i
Marrow of what vertue it is, 320.m
what Marrow is beſt, ib. *how to be ordered and prepared*, ib.
Marſians, people reſiſting all poyſon, 95.a.b
Marſians deſcended from Circe, 210.l. *they cure the ſting of ſerpents by touching or ſucking onely*, ibid.
Martia, a water ſeruing Rome, 408.g. *moſt cold and holeſome*, ibid. *from whence it commeth*, ibid. *who conueied it to Rome, and maintained it*, ibid. *how it tooke that name*, 585.d
Q. Martius Rex his wonderfull workes, performed during his Pretourſhip, 585.d
Maſcellin mettall of gold, ſilver, and braſſe, 487.q.c
Maſſetum, what it is, 8.l
Maſſaris, 146.g. *a wilde Vine*, ibid.147.c. *how employed*, ibid.
Maſſurius, a writer of Hiſtories, 320.k
Thiſtle-Maſticke, what it is, 98.i
Maſticke, the gum of the Lentiske tree, and the medicinable vertues, 182.l.184.b
Matrice pained and vexed with throwes, what remedies for it, 39.f.53.b.66.k. 106.i.m. 121.f.186.k.198.m 207.d.266.l.267.b.f.268.g.279.a.283.a.308.g.339.c 340.g.
Matrice puffed vp, ſwelled, and hard, how to be aſſuaged and mollified, 72.l.103.c. 111.e.f.162.k.180.l.183.d 186.g.339.c.f.340.g.352.i.396.b.397.a.
Matrice enflamed and impoſtumat how to be cured, 55.e 59.d.71.b.267.d.303.a.350.g.351.a.
Matrice ſore and exulcerat, how to be healed, 140.i.159.d 161.c.175.a.267.d.340.g.m.
Matrice ouermoiſt and ſlipperie, how to be helped, 340.l
Matrice drawne in and contracted, how to be remedied, 303.a.
Matrice peruerted, fallen downe, or diſplaced, how to be reduced and ſettled againe, 303.a.339.b.340.b.396.b 557.f.591.b. *See more in Mother.*
Matrice obſtructed and vncleane, how to be opened, clenſed, and

20030
copy 1

and mundified, 43.b.c.55.d.57.c.62.k.77.b.101.d 168.i.180.l.268.g.340.k.104.i.121.f.133.e.158.h 175.b.182.g.187.d.192.l.266.l 267.c.d.271.d.
for the infirmities of the Matrice in generall, comfortable medicines, 102.h.k.108.k.109.b.c.111.d.119.d 121.e.154.g.173.a.175.a.179.f.181.b.183.e.193.b 196.g.207.c.267.f.271.d.313.c.318.h.339.d.340.i.l 395.c 448.i.449.b.589.b.
Maturatiue medicines, 76.k.103.c.139.a.183.d.303.a 556.l.
Muttiaci, what ſprings, 404.h
Maur-hils corruptly called Moul-hils, what they be, 397.d
Mauſoleum, the renowmed tombe erected by queene Artemiſia for king Mauſolus her huſband, 568.i. the deſcription thereof, and the workemen, ibid.

M E

Mead or honied water. See Hydromell.
one Meale a day no good diet, 304.h
Mechopanes, a painter full of curious workemanſhip, 548.m
Mecœnas Meſſius held his peace voluntarily for three years ſpace, 305.d
Mecœnas ſigned with the print of a Frog, 601.f
Mecon, a kinde of wild Poppie, 69.c
Meconis a Lettuce, why ſo called, 24.i
Meconites, a pretious ſtone, 628.i
Meconium, what it is, 68.i
remedie againſt Meconium, 160.k
Meconium Aphrodes, an hearbe, 257.f
Meconium, what kinde of medicine to make a woman fruitfull, 303.b
Medea, a pretious ſtone, 628.i. by whom found, ibid.
Medea, queene of Colchis, a famous witch, 210.k
Medion, an hearbe, with the deſcription, 285.e
Medius, a writer in Phyſicke, 39.e
Medlers, the fruit, and their medicinable vertues, 171.b
Megabizus, what he is, 548.i
Meges, a Chirurgian, 439.c
Mel-frugum. See Panicke.
Melamphyllon, what hearbe, 129.c
Melampodium, what hearbe, and of whom it tooke that name, 217.b
Melampraſium, 278.g
Melampus, a famous Diuinor or Prophet, 217.a
Melancholie the diſeaſe, what remedies are appropriat for it, 46.i.50.l.72.k.107.e.140.h.157.a.219.d.283.a 304.l.316.g.318.g.336.h.
Melancholie the humour, what medicines doe purge, 111.f 188.g.235.f.412.m.
Melandrium, what hearbe, 248.g
Melanthemon, what hearbe, 125.d
Melas a fountaine, the water whereof maketh ſheepe white, 403.c.
Melas, a cutter in marble, of great antiquitie, 564.k
Melichloros, a pretious ſtone, 630.m
Melichrus, a pretious ſtone, ibid.
Melilot, an hearbe, 90.g. why called Sertula-Campana. the deſcription thereof, ibid.
the vertues medicinable, 106.l
Melinum, a Painters white colour, 528.k. why ſo called 529.d. how it is gotten, ibid. the vſe in Phyſicke and the price, ibid.
Melitæi, what dogs, 380.h
Melites, a pretious ſtone, 630.m
Melitites, a kinde of Honied wine, 136.m. the properties it hath, 137.a
Melitites, a ſtone, why ſo called, 589.b. the vertues that it hath, ibid.
Melons their meat and medicinable properties 37.c
Melopepones, what they be, 14.k
Melothron, what plant, 149.c
Membranes wounded, how to be kept from inflammation, 423.e.
Memitha. See Glaucion.
Memnaria, a pretious ſtone, 628.i
Memorie helped by ſome water, 403.d
Memphites. See Marble.
Men, whoſe bodies are thought medicinable from top to toe, 298.m.
Men who had ſome eſpeciall part of the bodie medicinable to others, 299.f
Menæchmus, a famous Imageur and his workes, 502.k
Menais, what hearbe, and the vertues thereof, 202.k
Menander, a Poet commended for good literature, 372.m
Meneſtratus, an excellent Imageur in ſtone, 568.m
Menianthes, an hearbe, and a kinde of Treſoile, 107.b
Mentagra, a kinde of ſoule Tettar, 240.l. how the name came vp firſt, ibid. the remedies thereof, 44.k. See more in Lichenes.
Mentonomon, 606.i
Mentor, a famous grauer, 483.d
he wrote of Imagerie, 502.k
Mercurie, the hearbe, found by Mercurius, 215.e
the diuerſe names, kindes, and vertues deſcribed, ibid.
Merigals. See Gals.
Meremaids in Homer were witches, and their ſongs enchauntments, 372.k
Merocles, a pretious ſtone, 628.k
Merois, what hearbe, and the medicinable vertue thereof, 203.e.
Meſoleucas. See Leuce.
Meſoleucos, when a gem is ſo called, 628.l
Meſomelas when a gem is ſo called, ibid.
Meſſalinas died by ſetting an Horſe-leech to his knee, 467.c
Mettals, what melting they require, 472.h
Mettall mines and furnaces, kill flies and gnats, 519.b See Mines.
Metopoſcopi, who they be, 539.b
Metrodorus an excellent Philoſopher and Painter, 548.i he wrote in Phyſicke, 70.i. he painted hearbes in their colours, 210.g
Meum, an hearbe, 77.a. two kindes thereof, ibid.
Mezils and ſmall pocks how to be cured, 58.i.157.d.167.a 174.i.k.189.e.337.a.338.l.418.m.421.e.422.b 437.d.

M I

Mice how to be kept from gnawing bookes and writings, 277.e. contemptible creatures, yet medicinable, 355.d
betweene Mice and Planets, what ſympathie, ibid.
the liuer of what vertue, ibid.
Miction, an Herbariſt and writer, 78.g
K. Midas rich in gold, 464.h
Midriffe and precordiall parts ſwelled and diſeaſed, how to be cured. 52.k.55.c.64.i.66.i.67.d.102.l.104.i 107.e.113.c.119.d.138.l.163.b.202.g.207.c 239.a.

239.a.247.c.290.k. how to be cleanſed, 160.m
Migrame, what kinde of headach and how to be eaſed, 233.c.418.m.
Mileſium Halcioneum, 441.d
Miliaria, what weed, and the vertues thereof, 144.l
Militaris, an hearbe, why ſo called, 204.m
Milke in women nourſes breaſts, how to be encreaſed, 39.f 49.e. 65.c. 77.e. 109.e. 130.i. 131.c. 149.c. 187.c 193.c. 199.f. 268.i. 282.h.k. 288.i. 291.c. 340.g.h 396.g.397.b.448.h.l.
Milke by what meanes it is dried vp or diminiſhed, 55.c 158.g.236.i.279 a.
Milke, what will cruddle, 166.k.168.i. how it ſhall not cruddle in the ſtomacke, 137.b. being cruddled, what diſſolueth, 168.l
Milke cruddled in womens breaſts, how it may be diſſolued, 131.d
Milke cailled in the ſtomacke, how to be diſſolued, 134.l
mothers Milke beſt for all ſucklings, 317 b
Milke of nources with child, hurtfull to ſucking babes, ib.
Milke of women moſt nutritiue, 317.c
Milke of goats next to womans milke, ibid. it agreeth well with the ſtomacke, and the reaſon why, ibid.
Iupiter ſuckled with Goats milke, as Poets fable, and why, 317.c.
Conſidia cured by Goats milke, 184.i
Goats Milke for what diſeaſes good, 318.i
Milke of Camels ſweeteſt next to womans milke, 317.c
Aſſe milke for what good, 318.h
Milke of Aſſes moſt medicinable and effectuall, 317.c 323.a. excellent to beautifie and make white the skin, 327.c. it ſoone loſeth the vertue, and therefore muſt be drunke new, 323 b
what Milke is eaſieſt of digeſt on, ibid.
Milke of Kine aromaticall and medicinable, 323 b. it keepeth the bodie ſolluble, ibid. it is a counterpoyſon, 322.c.
Milke of Kine Phyſicke to the Arcadians, 225.f
beſt Milke how to be choſen, 317.d
what Milke is thinneſt and fulleſt of whey, and when, ibid.
a diet drinke made of Cow-Milke in Arcadia, for what infirmities, 317.d
for what diſeaſe Cow Milke is appropriat, 318.h
womans Milke or breaſt milke medicinable, 307.c. ſweeteſt of all other, ibid. how to be choſen, ibid. allowed in an ague. ibid.
Milke of a woman that bare a man-child better than of another, 307.d. eſpecially if ſhee bare two boy twins, ib.
Milke of a woman bearing a waiden child, for what it is good, 308.g
Milke of Kine feeding vpon Phyſicke hearbes, is likewiſe medicinable, as it appeared by two examples, 226.g
Milke boiled, leſſe flatuous than raw milke, 317.d
an artificiall milke called Schiſton, ibid.e. for what diſeaſes it is medicinable, 318.g
Milke of Ewes for what good, ibid.
Sowes Milke, for what ſickeneſſe it is good, ibid.k
Milke how to be cliſterized for the blondie flix, how for the collicke and oeher diſeaſes, 318.g.h
a clyſter of Milke much commended for the gripes of the belly occaſioned by ſome ſtrange purgation, 318.g
Milke in what caſes hurtfull, without good caution, ibid.k
the vertues medicinable of Milke in generall, 317.d
Milleſoile, an hearbe. See Yarrow,
Millepeed, what worme, and the venomous nature thereof, 37.d. the hurt comming thereby how to be cured, 37.d 42.h.i.78.g.
Millet the medicinable vertues that it hath, 139.e
Miltites, a kinde of bloudſtone, 590.b
Miltos, See Vermilion.
Mina, or Mna, what weight, 113.e
Minerua, an Image in braſſe wrought by Demetrius, 501.e why it was called Muſica, ibid.
Minerua Catuliana. another Image of Minerua in braſſe wrought by Euphranor, and why ſo called, 502.g
Minerua of Athens an Idoll of gold and yuorie, 26 cubits high, wrought by Phidias, 566.g. the curious workemanſhip of Phidias about the ſhield of that Minerua, ibid.g.h.
Minerua Καλλιμορφος wrought by Phidias, 597.d
Mines, minerals, and mettals, the riches of the world, 453.c
Mines of ſiluer and gold why called in Greeke Metalla, 472.l.
Minium. See Vermillion.
Mints, the hearbe, when and where to be ſet or ſowne, 29 d
wild Mint will propagat and grow any way, howſoeuer it be ſet, ibid.e
Mints called in Greeke ſometime Mintha, but now Hedyosmos, ibid.
Mints, a principall hearbe in a country houſe, ibid.
garden Mints, the ſingular vertues thereof, 59.c. it keepeth milke from cruddling in the ſtomacke, ibid.
water-Mints, where and how it commeth to grow, 31.d
wild Mint named Mentaſtrum, deſcribed, with the vertues, 58.m
Mint maſters at Rome choſen with great regard, 347.c
P. Minutius his ſtatue erected vpon a Columne at Rome, 491 b.
Mirroirs of tinne were before any of ſiluer, 517.d
Mirroirs of ſiluer plate, 478.i. the reaſon why they repreſent an image, ibid.
Mirroirs of ſundry makings, and ſhewing ſtrange ſhapes, 478.k.
which were the beſt Mirroirs, ibid.l
ſiluer Mirroirs, the inuention of Praxiteles, ibid.
Miſt king of the bodie how to be cured, 259.c.279.c. See Conſumption.
Miſon. See Miſy.
Miſſelto of the Oke is beſt, 178.h. how glew or birdlime is made thereof, ibid.
Miſy or Miſon, a kind of excreſcence out of the ground, 7.e
Miſy, a minerall, 510 h. how engendred, ibid. the medicinable vertues, ibid. the beſt, ib. how knowne, ibid. how calcined and prepared, ibid.i
K. Mithridates his praiſe, 209.c. he was beneficiall to mankinde, ibid. his ordinary taking of poyſons and preſeruatiues daily, ibid.d. he deuiſed counterpoiſons, ibid.
Mithridatium the famous compoſition, was his deuiſe, ibid. he ſpake readily two and twentie languages, 209.e he ſtudied Phyſicke, ibid. his cabinet ſtored with ſecrets in Phyſicke, 209.f
Mithridation, an hearbe, found by K. Mithridates, 220.h the deſcription, ibid.
Mithridates his opinion as touching Amber. 606.m

20030
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Mitigatiues of paine, 70,*i*.76,*k*.106,*h*.423,*d*.471,*e* 511,*c*.
Mitrax,a pretious ſtone, 628.*k*
Mitres,a King of Egypt,firſt cauſed Obeliskes to be reared and vpon what occaſion, 574.*l*

M N

Moaſon,a King,who much admired painted tables, 543.*d*
Mneme,a fountaine helping memorie, 403.*d*
Mneſias his opinion as touching Amber, 606.*l*
Mneſicles a Phyſitian, 68.*k*
Mneſtheus wrote a booke of Chaplets or guirlands, 82.*h*

M O

Moles in face or skin how to be taken away, 140,*m*.143,*b* 328,*h*.
Molemonium,what hearb. 248,*g*
Mollitiue medicines, 70,*i*.76,*i*.103,*d*.135,*d*.141,*a*.178.*h* 180,*i*,*k*.184,*g*.185,*b*.186,*i*.187,*e*.192,*m*.206,*i*303,*a* 319,*b*,*c*. 320,*m*. 423,*d*. 475,*a*. 529,*f*. 556,*l*. 560,*g* 591,*d*.
Mollugo,what hearb, and why ſo called, 258,*h*
Molochites, a precious ſtone, why ſo called, 619 *e.commended for ſcaling faire and cleane,ibid. the vertues that it hath,* *ibid.*
*Molon,an hearbe,*247,*a*. *the deſcription,* *ibid.*
*Moly,an hearb,*112,*l*.213,*f*.*by whom ſo called,* *ib.* *who found it out,* 214.*g*. *deſcribed by Homer and the Greeke Herbariſts diuerſly,* *ibid.*
*Molybdæus Metallica,what it is,*520,*g*,*h*.*the deſcription, nature, and degrees in goodneſſe, ibid. how the beſt is knowne,ib.the vſe in Phyſicke,* *ibid.*
*Molybdæna.*474,*l*. *See Galæna.*
*Molybditis,a kind of Litharge,*474,*i*. *it commeth from the lead that is melted with ſiluer,* *ibid.*
Momordica, an hearb. See Geranium.
Mony rained cauſe of couetouſneſſe, 463,*d*
Mony who counterfeited and how, 479,*a*
Mony plentifull,when it was at Rome, 480,*i*
baſe ſiluer Mony brought in by Liuius Druſus at Rome, 463,*c*.
Monochromata,what pictures, 525,*b*
what painters were excellent therein, 533,*a*
Monthly tearmes or Fleures of women, by what medicines procured, 39,*e*.46,*l*.47,*e*.48,*l*.54,*h*,*k*.57,*f*.60.*k*.61,*b* 62,*i*. 72,*h*.74,*h*.75,*b*. 78,*g*. 103,*b*,*f*. 104,*g*. 104,*l* 106,*k*,*l*.107,*f*.109,*a*,*e*.110,*h*,*i*.111,*b*. 119,*d*. 122,*h* 127,*e*.128,*i*. 130,*i*,*k*. 131,*e*. 134,*g*. 140,*k*. 142,*i*,*l* 144,*g*. 150,*g*. 153,*f*. 163,*c*. 166,*l*. 168,*i*. 171,*d* 173,*a*,*b*. 174,*g*. 177,*b*. 179,*b*. 180,*l*. 185,*e*. 187,*c* 189,*e*. 191,*c*. 192,*k*. 193,*b*. 198,*i*,*k*. 199,*b*,*c*. 200,*k* 201,*a*. 202,*g*.206,*i*. 207,*e*.215,*g*.266,*i*,*l*,*m*. 267,*a*, *b*,*c*,*d*,*e*. 268,*g*. 274,*g*. 277,*d*. 278,*l*. 286,*l*. 287,*f* 289,*f*. 290,*b*. 291,*b*. 303,*a*. 306,*h*. 308,*g*. 313,*a* 314,*k*.339,*b*. 362,*i*. 396,*k*,*l*. 430,*m*. 443,*a*. 448,*k*, *l*,*m*.557,*f*.*the immoderat flux thereof by what meanes to be ſtaied,* 101,*e*.104,*l*.119,*d*.142,*i*.158,*k*,*l*.163,*b* 164,*g*.165,*e*.170,*k*.178,*g*.185,*e*.188,*l*.189,*a*.192,*l* 194,*i*.195,*a*,*d*.197,*d* 266,*k*. 267,*b*,*c*,*e*. 282,*m*. 283,*b* 284,*b*.285,*d*.339,*d*. 340,*b*.341,*a*. 350,*g*. 352,*i*,*l*,*m* 353,*c*.396,*l*.448,*k*.510,*k*.516,*h*,528,*m*.
Monthly ſickneſſe in women, cauſe of madneſſe firſt in dogs, 310.*g*
*Monthly flux of women in what caſes wonderful,*310*k*.*l*.*m* *how venomous it is,*309,*ab*,*c*. *the remedies againſt it,* 309,*d*.433,*a*.*the ſame alſo is medicinable,* 309,*d*
Moon calues,moles,and falſe Conceptions, how to be diſſolued and ſcattered, 397.*d*
Moones,an hearbe. See Ophthalmos.
Mordicatiue medicines, 286,*l*.418,*k*.*l*.421,*e*.485,*b* 508,*l*.
Morell,an hearb. See Night-ſhade.
Morimals in the legs, how to be healed, 128.*g*.140.*g* 142.*m*.149.*d*.167.*e*.174.*m* 250.*g*.370.*l*.447.*f*.
Morion, an Indian pretious ſtone, 628.*k*. *the blacke is Pramnion,the red, Alexandrinum,if like the Sardoine, Cyprium,* *ibid.*
*Morion, what hearb,*112,*l*. *See Mandragoras.*
Morion, the pretious ſtone where it is found, and the vſe thereof, 628.*k*
Morphew in the face and skin otherwiſe, how to be ſcoured and rid away, 58.*b*.62.*l* 74.*i*.103.*d*.144.*g*.193.*b* 219.*d*.217.*a*. 290.*l*. 377.*c*. 394.*l*.*m*. 395.*a*. 403.*a* 422.*h*.440.*m*.557.*a*.
Morters for Apothecaries, Cooks, and painters, of what ſtone beſt, 591.*f*
Morter for building,which is beſt, 594.*k*
Morter that will make a joint in ſtoneworke to hold water, 594.*b*.
Morticini,what they be, 134.*k*
Mortification in members how to be reſtored, 259.*f*
Moſes the Hebrew ſuppoſed by Plinie to be a notable Magician, 373.*a*
Moſſe called Spagnos, Spacos, or Bryon, what vertues it hath, 181.*b*
Moſſe of the water for what it is good, 414.*b*
*Moth how to be kept from cloths and garments,*67.*b*.277.*e*
Mother riſing in women, with danger of ſuffocation, by what meanes it is remedied, 40.*k*.62.*b*.67.*a*.*d*.74.*b* 104.*l*.*m*. 106.*k*.121.*d*. 157.*a*. 180.*g*. 181.*a*. 218.*l* 266,*l*. 267,*b*,*c*,*d*. 283,*a*. 303,*a*. 307,*b*. 314.*l*.397.*a* 430,*m*.448,*i*,*k*,*m*.557,*f*.589,*c*.
*the Mother fallen or diſplaced, how to be ſetled,*57,*c*.60,*k* 61,*b*.103,*e*. 121,*c*.125,*c*. 156,*g*.161,*f*.164,*g*.174,*k* 178,*g*.180,*b*. 181,*d*. 183,*d*. 195,*a*. 267,*a*,*d*. 303,*a* 339,*b*.340,*i*.*k*.341,*b*.350.*g*. *See more in Matrice.*
Mountaines wherefore made, 562,*i*,*k*
Mountaines vndermined and clouen for gold, 467,*c*
breach of Mountaines waſhed with a currant brought by mans hand,and the manner thereof, 468,*b*,*i*
Mountaine digged through by Claudius Cæſar, a moſt chargeable and toileſome piece of worke, 586,*b*
Mouſe-eare,an hearb. See Myoſotis.
*Mouth ſores,vlcers,and cankers,how to be cured,*42.*g*.51,*a* 54,*b*.60,*l*.63,*a*.65,*c*.70.*g*.72,*g*.101.*d*.102,*i*. 120,*b*,*k* 141, *d*,*e*. 149, *a*. 156, *c*. 161, *f*. 165, *c*. 173, *c* 175, *a*. 177, *f*. 185, *e*. 187.*e*. 189, *c*. 190, *k* 195, *c*. 196, *g*, *k*. 197,*a*, 239,*e*,*f*. 252,*l*. 257,*a* 272,*i*. 286,*b*. 287,*d*. 313,*a*. 328,*k*. 351,*a*. 418,*k* 419,*b*. 432,*i*. 507,*f*. 509,*a*. 510,*b*. 511,*b*. 558,*i*,*l* 609.*b*.
Mouth ſores rheumaticke,how to be helped, 512,*b*
Mouth ſcalded how to be cooled, 377,*b*
for all the infirmities of the mouth in generall, appropriate medicines, 112,*l*.135,*d*.157,*b*.164,*m*.170,*b*.195,*a* 196,*g*.432,*i*.

The Table to the second Tome

M V

Mu, a sillable that nources vsed to pronounce as a countercharme to defend their babes. 300.*l*

Mud gathered in medicinable fountaines, how to be vsed. 412.*i*.

Mugwort the hearbe. *See Artemisia.*

Mulberie tree, the strange properties thereof, 170.*h*. the vertues of iuice and fruit, *ibid.g.h*

the composition of *Mulberries*, called *Parchrestes Stomatice* 170.*h*. how it is made, *ibid.*

other compositions of *Mulberries*, 170.*k.l*

Mullen, an herbe. *See Longwort.*

Mules, how they shall not kicke or winse. 400.*b*

Mules house of a strange nature, *ibid.*

Muliones, Gnats liuing but one day, 399.*e*

Mullet a fish, how crafty he is to auoid the danger of the hooke, 428.*g*

Mulse, what it is, 136.*m*

Multipeda, Manyfoot wormes. *See Cheeslips.* their venomous qualities how remedied, 139.*e*, 155.*f*. 323 *d*

L *Mummius*, why surnamed *Achaicus*, 526.*m*

P. *Munatius* committed for wearing vpon his head the coronet of *Marsyas*. 81.*d*

Mundificatiue medicines. 158 *i*. 160.*g*. 182.*l*. 193.*b*. 197.*d* 319.*b.c*. 418.*l*. 481.*e*. 485.*b*. 509.*a*. 511.*e*. 516.*b k* 520.*m*. 591.*d*.

Mirall chaplets, 115.*e*

Muralium, 111.*e*

Murre occasioned by a rheume, how to be discussed, 289.*e* 377.*f*. *See Rheumes.*

Muria, the pickle, wherof it is made, 418.*k*. the nature and vertues thereof, *ibid.*

Muscerda, Mouse dung, 364.*i*

Mushromes, their wonderfull nature, and how they grow, 7.*b.c*. sundry kinds of them, 7.*c*

in biting a *Mushrome*, there was found a siluer Roman Denarius, 7.*d*

a discourse of *Mushromes*, 7.*f*

obseruations touching *Mushromes*, 7.*f*.8.*g*

Mushromes distinguished by the trees vnder which they grow, 133.*a*

Mushromes dangerous meat, and yet medicinable, *ibid.b*

they be engendred in raine, *ibid.c*

Mushromes a perillous food, 133.*g*

Tiberius Claudius poysoned by the meanes of *Mushromes*, *ib.* their venomous qualities how they may be known, *ib.* the manner of *Mushromes* engendring, 132.*h*, when they may be gathered and eaten safely. *ibid.* how to be dressed, that they may be eaten with securitie, 133.*d*

Annæus Serenus, with others, poysoned by *Mushromes*, *ib.a*

remedies against venomous *Mushromes*, 39.*d*.43.*b*.49.*e* 51.*a*.56.*l*.74.*g*. 103.*a*. 113.*c*. 121.*c*. 133.*d.e*. 135 *d* 153.*b*. 157.*e*. 166.*i*. 174.*h.l*. 232.*g*. 277.*c*. 363.*e* 422.*i*.433.*e*.

Musica, an Image of *Minerva*, 501.*e*

Muscles, 443.*b*

Must or new wine of sundry kinds, 150.*k.l*. their properties. *ib.* their discommodities, *ibid.*

Mustard seed, what vertue it hath, 74.*g*

Mutianus, a writer, 404.*b*

Mutianus imagined that he preserued himself from bleared eies, by wearing a liue flie about him, 298.*k*

M Y

Myaces, shel-fishes medicinable, 442.*l*. their nature described, *ib.m.* the broth of these fishes hath many good operations, 443.*a*. the only inconueuience that commeth by them, *ibid.* of two sorts, *Mituli*, *Myscæ*, 443.*b*. their description, *ibid.*

Myscæ be medicinable, *ibid.*

Myagros, an herbe, 286.*g*. the description and vertues, *ib.*

Mycon, a famous painter, 533.*f*. two of the name, the elder and younger, 534.*g*

Myiodes, the god or Idoll of flies, 364.*k*

Mylœcos, a kind of Beele, 370.*k*. why so called, *ibid.* it is medicinable, *ibid.*

Myositis, Mouse-eare, an herbe, why so called, 273.*a*

Myosoton, an hearbe, 272.*m*

Myrmecias, a pretious stone, 628.*k*

Myrmecides, a famous cutter in stone, and his fine workemanship, 570.*d*

Myrmecion what manner of spider, 360.*k*

Myrmecites, a precious stone, 630.*i*

Myro, an excellent Imageur, 481.*i*. he vsed altogether Æginetick brasse, *ib.* his pieces of work, wherin he excelled, 498, *h.i*. he wrought also in marble, 569.*a*. his works, *ib.*

Myrrha or *Myrrhus*, an herbe, 202.*g*. the sundry names it hath and the description, *ib.* the medicinable vertues, *ib.*

Myrrhites, a pretious stone, 628.*k*

Myrsineum a kind of Fennell, 77.*c*

Myrsinites, a pretious stone, 628.*l*

Myrth, how it may be procured. 108.*b*. 180.*l*. 223.*d* 259.*e*. 297.*d*.

Myrtidanum, the medicinable vertues it hath, 175.*a*

Myrtle berries and their properties in Physicke, 174.*k*

Myrtle oile, and what medicinable vertues it hath, 161.*c* 174.*k*.

Myrtle wine, with the vertues medicinable, *ibid.*

Myrtopetalon, what herbe, 287.*b*

Mys, a passing fine grauer, 483.*e*. his workemanship. *ibid*

Myxon, a fish, 439.*d*. the same that *Banchius*, *ibid*

N A

NAiles growing crooked, rough, and ragged, how to be rectified or remooued with ease, 56.*k*. 71.*c*.73.*c* 76.*k*.158.*g*. 177.*f*.178.*i*.183.*d*.266.*h*. 320.*g*. 334.*m* 393.*a*.422.*g*.448.*h*.559.*b*.

Nailes troubled with the excrescence, turning vp, & loosenesse of the flesh about the roots, how to be cured, 101.*d* 120.*h*.147.*c*.165.*a*.167.*e*.174.*l*.177.*f*.194.*m*. 329.*a* 393.*n*.418.*m*.516.*h*.521.*b*.559.*b*.

Nailes loose how to be fastened, 148.*l*

Nailes bruised how to be healed, 328.*m*

grieued with whitflawes about their roots, how eased, 266.*h*.301.*a*.350.*h*. troubled with fissures or chaps about the roots, how to be remedied, 120.*h*

Names fortunat and significant, auaileable in presenting a sacrifice, 297.*a*

Napi Persicum, what herbe, 291.*b*

Narcissinum, what oyle, and the vertues thereof, 103.*d*

Narcissites, a prettous stone, 630.*k*

Narcissus, the Daffodill, why so called, 103.*c*

a *Narcoticke* medicine, 573.*c*

20030
copy 1

Nard Celticke deſcribed. 88.g. *the vertues thereof in Phyſicke,* 104.k
Nard ruſticke is not Bacca, but rather Aſara-Bacca, 85.f
Naſturtium, why Creſſes be ſo called, 29.a
Ad-Nationes, what place it is at Rome, 570.g
Natrix, an hearbe, 286.h. *the vertues thereof,* ibid.
Naturall heat how encreaſed, 290.k
Naturall parts of women. See Priuities.
Nauall chaplets, 115.e
Naucerus, an Imageur, and his workemanſhip, 502.k
Nauewes of fiue ſundrie kinds, 16.h. *their degrees in goodneſſe,* ibid.i
of Nauewes two kindes ſerue in Phyſicke, 38.m
Nauew baſtard deſcribed, 200.g
the medicinable vertues thereof, 202.g
againſt Nauigation an inuective of Pliny, 1.f
Nauils in children bearing out how to be cured, 69.f 254.h.
Nauſicaa, the name of a ſhip, called likewiſe Hemionis, 542.h.
Naxian ſtones what they are, 572.m

NE

Nealces, a famous painter, how he painted the froth falling from an horſe mouth, 542.l. *wittie he was and full of inuention,* 550.g. *his deuiſe in expreſſing the riuer Nilus.* ibid.
Nebrites, a pretious ſtone, why ſo called, 628.l
Necromantie of Homer painted by Nicias, 548.g
he would not ſell it to K. Attalus for ſixtie talents, ibid.
Nectabis, a ſumptuous King of Ægipt, 575.c. *the Obeliſk which he cauſed to be hewed,* ibid.
Necke ſwelled in the nape or pole, how to be eaſed, 158.i 245.e.
Necke ſinewes ſo pulled that the head is plucked backeward, how to be helped, 378.l. 392.m. 422.m. 431.a 442.g.
crickes in the nape of the Necke how to be eaſed, 300.i 305.b. 328.l. 352.k. 378.l. 442.g.
Necke impoſtumes how to be cured, 397.c
Necke ſinewes cut in twaine, how to be healed. 557.e
Neeſe-wort. See Ellebore.
Nemeſis, a Greekiſh goddeſſe, inuocated for diuerting of witchcraft, 297.b *ſhe hath no name in Latine,* ibid. *her ſtatue in Rome,* ibid.
Nenuphar the hearbe, 222.b. *why called in Greeke Nymphæa,* ibid. *Named alſo Heracleon by what occaſion,* 222.i. *why it is called Rhopalos,* ibid. *the deſcription,* 222.i.
two kindes of Nenuphar, ibid.
Nep, an hearbe, the vertues thereof, 61.b
Nepenthes giuen to ladie Helena by Polydamna the Kings wife of Ægipt, 210.l
Nepenthes, a noble drink. 108.i. *the vertue therof,* 210.l.m
Nerion what hearbe, 191.f
Nero, a monſter, and poyſon to the world, 132.g. *he ſtudied Magicke,* 374.i. *he could not attaine vnto it,* ibid.l
his deuiſe to haue exceeding cold water, 407.e
his Coloſſe or Image 110 *foot high,* 496.h
why he wore a plate of lead to his breaſt, 518.m
his golden pallace, 583.b
his waſtfull ſuperfluitie, 603.b. *his waſtfulneſſe in Caſſidoine veſſell,* 603.e.f
vpon euill tidings he broke two Cryſtall cups, 605.e. *he made a ſonnet in praiſe of Peppæa his wines hair,* 609.a *he was wont to behold the ſword-plaiers and fencers fight in a faire Emerauld,* 611.d
Nerues in ach and paine how to be eaſed, 105.c. 135.d 149.e. 141.d. 146.l. 179.a. 183.f. 258.k. 262.l 303.a. 313.b. 337.d. 349.e. 392.l. 419.c. 422.k 624.k.
Nerues wounded and cut in twaine, how to be healed, 45.b 103.b. 216.k. 262.m. 279.e. 288.k. 337.d. 394.g.h 446.m.
Nerues ſhrunke, plucked, and drawne together, how to be helped, 52.h. 126.i. 146.l. 262.l. 337.d. 392.l. *See more in Crampe.*
Nerues ſprained how to be cured, 337.d
Nerues enflamed, what remedie, 138.k
for Nerues and nervous parts, comfortable medicines, 66.i 72.l. 73.a. 108.k. 109.b. 128.g. 134.g. 154.g. 157.a 162.h. 187.a. 189.c.d. 226.l. 238.l. 262.l. 282.g 412.g.k. 431.a.
Net worke exceeding fine, 3.c
Nettles, 95.e.f. *their ſtinging how to be cured,* ibid.
Nettles and the ſeed wholſom and medicinable, 97.f. 121.c
oyle of Nettles, 121.c
dead Nettle, 78.g
Nettle Fulviana, whereupon it tooke that name, 255.d
ſea-Nettle, 255.d. *medicinable,* 444.g
Neurada. See Poterion.
Neuras, what hearbe, 231.a
Neuris, what hearbe, 112.k
New yeares ſalutations with good words, 297.a

NI

Nicæarchus, a painter famous for his workes, 550.g
Nicander, a writer of hearbes and ſimples, 78.b
Niceas his opinion of Amber, 606.k
Nicerates a cunning Imageur, and his workes, 502.l
Niceratus, a writer, 443.f
Nicias a painter commended by Praxiteles, 548.g
the table that he made, and the inſcription to it, 527.e
he painted women to the life excellently, 547.e.f
Nicias his works, 548.g. *he paſſed for making dogs eſpecially,* ibid.
Nicomachus, a famous painter, 543.d. *his peeces of worke,* ib.d.e.f.a *readie workeman, and quicke of hand,* 543.e *in how ſmall a time he painted the tombe of Teleſtes the Poet, to performe his bargain to Ariſtides the tyrant,* ib.
Nicomachus, a gay Minſtrell, with his varietie of pretious ſtones, 601.c
Nicophanes, a painter, 544.g. *his manner was to renew Old pictures,* ibid. *he affected grauitie in his workemanſhip,* ibid.
Nigella, an hearbe, how emploied, 30.l. *it is called Gith, Melanthium, and Melaſperiū,* 65.b. *the vertues of it,* ib. *iuice of Nigella how it is drawne,* 65.c. *the danger thereof,* ibid. *the ſeed how it is vſed,* 65.d
Night-mare, a diſeaſe, how it is driuen away, 283.a
Night ſpirits and Goblins how to be ſcared away, 315.d 357.a. *See Illuſions.*
Night-ſhade an hearbe, 286.h. *the deſcription,* ibid.
Nigina, an hearbe, 286.h. *Nigidius, a writer,* 357.d
Nil. See Spodos.
Nilios, a pretious ſtone, 619.d. *the deſcription and*

and place where it is found, 619.e. why so called. ibid.
Nilus the riuer, how it was represented by Nealces the painter in a picture, 550.g
Nilus the riuer pourtraied in Barselteo marble, with sixteene children playing about it, 573.d
Nits breeding in the head how to be auoided, 365.b. 413.b 422.g. 559.b. in the eye-lids, 557.a
Nitre, a discourse thereof. 420.h
Nitre artificiall made of Oke wood burnt, ibid.i.l
Nitrus water and fountaines, ibid.
a lake of Nitre naturall, with a spring of fresh water in the middest, ibid.
what Nitre is best, 420.m
Nitre pits and boiling houses, 421.a
rockes and mountaines of Nitre. ibid
stone-Nitre, and the vse thereof. ibid.
some of Nitre, when, and how to be made, 421.b
how the best Nitre is chosen, ibid.c. how sophisticated, and by what meanes detected, 421.c
where sal Nitre is, nothing else will grow, ibid.d
in sal-Nitre more acrimonie than in salt, ibid.
Nitre preserueth from blindnesse, ibid.
the vertues medicinable of salt-Nitre, and the pits 421.e
how to be prepared and ordered for Physicke, 421.f
sal-Nitre how it may be made stone hard, 422.m

NO

Nodia, what hearbe, 206.g. called also Mularis, ibid.
Nodosities in nerues how to be discussed, 392.k
Nodosities of scar swhat doth dissolue, 559.b
Nodosities in ioints how to be mollified, 303.a.b
Nodosities in generall how to be resolued. 166.l. 180.g.m
Nomæ, what vlcers, 50.m. 393.f
Nomi, the diuisions and seuerall iurisdictions in Ægypt, 579.a.
Nonacris, a fountaine, faire to see to, and yet hurtfull, 405.b.
Nongenti at Rome, what they were, 460.g
Nonius a Senatour suffered proscription, rather than hee would part with an Opall, 614.h
Nose bleeding how to be stanched, 42.l. 52.b. 57.d. 61.c.e 64.l. 121.d.e. 122.b. 207.b. 224.g. 263.a.d. 287.a 305.c. 350.g. 393.b.c. 447.b.d. 511.b.
Nose what will set a bleeding, 207.b. 279.c
Nose bleeding diminisheth the swelled spleene, ibid.
carnosities and excrescence of flesh within the Nosethrils how to be taken away. 507.f. 521.b
Nose vlcers called Noli me Tangere, what medicines doe cure, 50.k. 59.e. 66.g. 189.e. 195.c. 200.m. 238.g 240.g. 251.b.
stinking sores and vermine within the Nosthrils, how to be remedied, 189.e
all accidents in generall of the Nosthrils how to be healed. 164.m. 165.a.
callosities and werts growing in the Nosthrils, what doth take away, 197.d
pimples about the Nose and lips, what doth represse, 327.f 328.g.
Nosegaies, who were woont for to make most of all other. 80.i.
Notia, a pretious stone. See Ombria.

NV

Nucleus Ferri, what it is, 514.i.k. of diuerse sorts. ibid.
See Steele.
the greatest number in old time a hundred thousand, 470.c
Number odde, more effectuall than the euen, 297.a
critical dates obserued by Physitians, are of an odde Number, ibid b
Numbers ceremoniously obserued by Pythagoras, 299.d
Numidian red marble or Porphyrite, 522.i
Nummednesse vpon cold, how to be healed, 101.b. 105.c 108.l.
Nummed members or astonied. how to be recouered, 300.l
Nus, a riuer, so called of the effect, 403.e
Nutritiues, 136.l. 139.c. 151.c. 162.l. 167.c. 172.l. 256.l 445.c.

NY

Nyctalopes, who they be, 325.b. how such are to be cured of their dim sight, 325.b. 368.g. 438.l
Nyctigretum, what hearbe, and the properties thereof, 91.e.f
why it is called Chenomychos, 91.f. and why Nyctilops, 92.g
the Nymphes poole, 405.a
Nymphæa, an hearbe. See Nenuphar.
Nympharena, a pretious stone, why so called, 628.l
Nymphodorus, a Physician, 506.l

OB

OBarati, who they be, 486.k
Obelisks in Ægipt, what they were, and why consecrated to the Sunne, 574.k
who first erected Obeliskes, ibid.
Obeliske of K. Ramises, spared by K. Cambises, when hee burnt all besides, 575.b
an Obeliske eightie cubits high, 575.c. how it was remoued and conueyed from the quarrey, ibid.c.d
Obeliskes how they were transported from Ægipt to Rome, 575.e
Obeliske in the grand cirque at Rome, how high, 576.d
Obeliske in Mars field, ibid.
by what Kings of Ægipt those two Obeliskes were shewed, 576.d.
Obelisk in Mars field serueth for a Gnomon in a diall, ib.h
Obeliske erected by Nuncoreus in Ægipt, a hundred cubits high. 576.k
Obeliske at Rome in the Vaticane, ibid.
Obeliskes of Emerands, 613.a
Oblision caused by some water, 403.c
Obolus, what weight, 113.e
Obryzum, what gold, 465.d
Obsidiana, what kinde of glasses, 598.b
Obsidianus lapis, a stone, 598.b. why so called. ibid.
Obsidian stone, how employed, 598.i. where it is found, ib.k
Obsidianus, a pretious stone, 629.a. where to be found, ibid.
Obsidionall coronet what it was, 116.b
Obstructions in generall what doth open, 143.c. 443.e

OC

Ochre, 485.b. the vertues medicinable, ibid. See more in Ochre.
Ochus, a riuer yeelding salt, 414.m
Ocnos painted by Socrates, what it importeth, 549.a
C. Octauius being embassadour, killed by K. Antiochus, 492.g. honoured with a statue at Rome, ibid.

Odi-

20030
copy 1

O D

Odinolyon, why the fiſh Echeneis is ſo called, 426.*l*
Odious how an enemie may be made to all the world, 314.*g* 316.*g*.
Odontitis, an hearbe, 286.*i*. *the deſcription,* *ibid.*

O E

Oenanthe, what floure, 146.*g*. *why ſo called,* 92.*i*.110.*g* *the medicinable vertues,* 147.*a*. *where the beſt is,* *ibid.*
Oenias, a painter, famous for his picture Syngenias, 550.*b*
Oenophorus, an image of Praxiteles his making, and why ſo called, 500.*l*
Oenothera, what hearbe, 259.*e*
Oenotheris, a magicall hearbe of ſtrange effects, 204.*k*
Oeſypum, what it is, 308.*g*
Oeſypum medicinable, 350.*l*. *which is beſt,* *ibid.l.m.* *how to be ordered,* *ibid.*

O I

Oile graſſe greene, called Herbaceum, 162.*k*. *the vertues thereof,* *ibid.*
Oile of Henbane, 162.*i*. *the effects good and bad that it hath,* *ibid.*
Oile of Lupines and the vertues thereof, *ibid.i*
Oile of Daffodils, what vertue it hath. *ib.k*
Oile of radiſh, what operation, it hath, *ib.*
Oile of Seſama, what are the effects thereof, *ibid.*
Oile of Lillies, what other names and medicinable properties that it hath, *ibid.*
Oile Selgiticun, the vertues of it, *ibid.*
Oile called Elaomeli, the medicinable effects thereof, 162.*l*
Oile willingly doth incorporat with lime, 176.*i*. *See more in Oyle.*
Oinions of ſundry ſorts, 20.*g*
Oinions differ in colour, 20.*i*. *in taſt,* *ibid.* *how to be kept,* 20.*l*.
Oinion plots how to be ordered, *ib.l.m*
Oinions their properties, 41.*f*
the different opinions of Phyſicians as touching the nature and vertues of Oinions, 42.*i*
Oinions highly commended by Aſclepiades, and condemned by moderne writers, *ib.*
dogs Oinion Ornithogale deſcribed, 99.*c*
ſea-Oinion. See Squilla.
Ægiptians ſweare by Oinions, 20.*g*
Oiſier Willow, the operation thereof, 187.*a*
Oiſier Siler, the vertues in Phyſicke, 189.*b*
Oiſters and their commendations, 437.*c.d.* *their vertues medicinable,* *ibid.*
Oiſters a foot ſquare, 437.*b*
Oiſters Tridecna, why ſo called, *ibid.b*
Oiſters medicinable, 436.*i*. *a daintie meat,* *ib.*
Oiſters loue freſh waters, and therefore the coaſts, *ib.*
few Oiſters found in the deepe ſea, 436.*k*
a deuiſe to coole Oiſters, 437.*c*
Oiſters which be beſt, *ib.*
why the beſt Oiſters be named Calliblephara, 436.*m*
Oiſters deſire to change their water, *ibid.*
thereby they feed fat, 437.*a*
coaſts renowmed for their Oiſters, 437.*a*
the beſt Oiſters of Cyzycum, and their deſcription, *ib.a.b*

O K

Oke and Oline at war one with another, 176.*g*
Oke Apples their vertues in Phyſicke, 168.*i*
Oke of Ieruſalem an hearbe. See Botrys.

O L

Olach, is a riner detecting periurie, 404.*k*
Oleander what names it is knowne by, 191.*f*. *the ſtrange nature that it hath,* 192.*g*. *death to cattell counterpoyſon to man,* *ib.*
Oleaſtrenſe, what it is, 518.*b*
Olenus Calenus, a great Wiſard of Tuſcane, 295.*e*. *his practiſe with the Romane Embaſſadours to diuert the deſtinies and fortune from Rome,* *ibid.*
Olive tree gum, 159.*a*
Oline leaues medicinable, 158.*k*
Olines white, their commendable vertues in Phyſicke 159.*a*.
Olines blacke their properties, 159.*b*
Olines in pickle, their good and harme, *ibid.*
Olympias a woman paintreſſe, 551.*b*
Olympias of Thebes, an expert and ſage midwife, partly alſo a Phyſician, 72.*h*.339.*b*. *ſhee forbiddeth women with child to vſe Mallowes,* 72.*h*
Olympius the ſurname of Pericles, and why, 501.*c*
Olyra, the vertues medicinable thereof, 138.*i*

O M

Ombria, a pretious ſtone, 628.*m*. *called likewiſe Notia,* *ib.* *how it commeth,* *ib.* *the vertues,* *ibid.*
Omphacium. See Wine Verinice.
Omphilocarpos, what hearbe, 274.*i*

O N

Onces, of all foure-footed beaſts, haue the quickeſt eye-ſight, 316.*l*. *their body yeeldeth medicines for mans body,* *ib.l.m*. *they hide their owne vrine vpon enuie to mankinde,* 317.*a*
Onobrychis the hearbe deſcribed, 202.*b*
Onochelis, or Onochyles, 125.*b*
Ononis, or Anonis, the herbe Reſt-harrow, 98.*l*. *the deſcription,* *ib.*273.*e*. *the vertues medicinable,* *ib.*
Onopordon, an hearbe, 286.*k*. *why ſo called,* *ibid.*
Onoſma, an hearbe, 286.*k*. *the deſcription,* *ibid.*
Onuris, an hearbe, 259.*e*. *the deſcription,* *ib.* *the vertues,* *ib.* *See Oenothera.*
Onyches, female ſhell-fiſhes, 444.*b*
Onychites or Onyx, what ſtone, and where found, 573.*c* *how it was employed,* *ibid.*
Onyx a pretious ſtone, 615.*e*. *the deſcription and the ſundry kindes,* *ibid.*
Onyx of India and Arabia, 615.*e.f*
the true Onyx, 616.*g*

O P

Opall a pretious ſtone, 614.*g*. *naturally it is bred in India,* *ib.* *how it doth participat with other gems,* 614.*b*
ſundry kindes of the Opall, *ibid.*
Nonius proſcribed for an Opall, 614.*b*
the imperfections in the Opall, *ibid.k*. *how falſified,* *ib.* *the triall thereof,* *ib.* *why it is called Paderos,* 614.*l*
which Opall is beſt, *ib.l.m*
Ophicardelos, a pretious ſtone, 629.*a*
Ophidion, a fiſh like a Conger, medicinable, 445.*a*
Ophilius a writer in Phyſicke, 300.*k*
Ophiogenes, a race of people, aduerſe in nature to ſerpents, 298.*m*.
Ophion, a beaſt, 399.*d*
Ophion, a wild beaſt found onely in Sardinia, 322.*g*

Ophioſtaphillon, what plant, 149.c
Ophites, what Marble, 573.b
Ophiuſa, a Magicall hearbe, and the vertues thereof, 203.e
it worketh illuſions to as many as eat it, ibid.
the remedie to preuent ſuch effects, ibid.
Opion, a writer in Phyſicke, 41.a.130.g
Opiſthotonos, what diſeaſe, 328.m *the cure,* ib. *See* Cramp.
Opium, what it is, and how to be drawne, 67.e.68.g
Opium, if it be taken inwardly, how the malitce may bee corrected, and the danger preuented, 64.l.150.m 153.b.157.b.160 k.232.g.419.f.
the operations of Opium, 68.g
Opium was the death of Licinius Cecinaes father, ibid.
whether Opium may be vſed or no, a queſtion argued among Phyſicians, 68.g
Opium, in what caſes not to be vſed, ibid.b
Opium, by what markes it is tried, whether it bee good or no, 68.i.k. *how it is kept,* 68.l
Opocarpaſon, a iuice venomous, 443.b. *the remedie,* ibid.
Opopanax, Bucolicum why ſo called, 274.k
Oporice, a medicine, why ſo called, 197.f
the vertues that it hath, ibid.
Opuntia, an hearbe, and the properties thereof, 99.d

O R

Orach the herbe condemned by Pithagoras, Dionyſius, and Diocles. 71.a. *it breedeth many diſeaſes,* ibid.
Orbis, the Lomp-fiſh, 428.i. *his deſcription and nature,* ib.
Orca, a pretious ſtone of a pleaſant colour, 628.l
Orchanet, an herbe, deſcribed, 98.m. *the vſe of the root,* ib. 124.k. *the deſcription and vertues that the root hath,* ib.
Orchis, an hearbe, 256.m. *two kindes thereof,* ibid. *the deſcription,* ibid.
Oreon, an hearbe, 287.c. *the deſcription,* ibid.
Oreoſelinum, what Parſly, and the effects thereof, ibid.
Origanum, an hearbe, 64.h. *many kindes thereof,* ibid.
Origanum Heracleoticum, 63.c. *of three ſorts,* 64.i.214.l
Origanum Praſium, 64.i
Origanum emploied in Guirlands, 90.i
Orobanche, what weed, and why ſo called, 145.a. *the deſcription and vſe thereof,* ibid.
Orobathion, what hearbe, 249.e
Orobitis, a kinde of Borax artificiall, 471.b
Oromenus, a mountaine of ſalt, 415.a. *yeelding great reuenues,* ibid.
Orpheus, a writer in Phyſicke, 40.l. *he wrote exactly of hearbes,* 210.m
Orpiment, a minerall, whereout gold was extracted, 469.d *the deſcription and vſe thereof,* ibid.
Orpine, an hearbe, 290.l. *the deſcription,* ibid.
Orpin, a painters colour, 518.k
Orthopnoicke, how they be diſeaſes, and what remedies for them, 59.b.66.m.105.d.106.l.107.e. 108.i.k. 121.c 131.c.156.b.173.b.181.a.192.m.199.a.200.l.247.b 263.d.278.h.283.f.288.h.289.d.290.i.318.i.370.l.m 381.b.432.i 471.e.
Orthragoriſcus, or Porus, a fiſh, grunting like an Hog, 429.b.

O S

Oſſes. See Words.
Oſſifragus, a kinde of Geir or Vulture, 383.b
the gut of this bird medicinable, ibid.e
Oſthanes firſt wrote of Magicke, 373.a. *he ſet it firſt abroad in the world,* ibid.
Oſtracias, a pretious ſtone, 628.m. *the kindes,* 629.a. *how it differeth from an Agath,* ibid.
Oſtracites. a pretious ſtone, 629.a. *how it tooke the name,* ibid.
Oſtracitæ, what ſtones, 589.a. *why ſo called,* ib. *the vertues that they haue in Phyſicke and otherwiſe,* ibid.
Oſtratium, a ſhell-fiſh, thought to be the ſame that Onyx the fiſh, 449.b. *the vertues,* ibid.
Oſtrich greace ſold deare, 362.k. *the vſe thereof,* ibid.
Oſyris, an heaabe, 286.l. *the deſcription,* ibid.
Oſyrites, or Cynocephalia, a magicall herb in Ægypt, 375.b *the wonderfull power thereof by the ſaying of Apion,* ib.c

O T

Otemeale, the vſe and vertue thereof in Phyſicke, 140.m
Othonne, an hearbe, 286.s. *the deſcription,* ib. *called by ſome Anemone,* ibid.
Othus a riuer yeelding ſalt, 413.m
Otter, a kinde of Beuer, 451.b

O W

ſcritch Owle, what lies the Magicians haue deliuered of it, 359.e.

O X

Oxalis a kinde of Docke, 73.a
Oxalme, what it is, and the vſe thereof, 157.b
Oxus, a riuer yeelding ſalt, 414.m
Oxycraton, what it is, 155.e. *the medicinable vertues that it hath,* ibid.
Oxygala, what it is, 319.b. *how made,* ibid.
Oxylapathum, an hearbe, 73.b. *the deſcription and vertues,* ibid.
Oxymell how it was made in old time, 157.a. *the effects thereof,* ib.b
Oxymyrſine or Chamæmyrſine, an hearbe deſcribed, 175.b *named alſo Ruſcus by caſtor,* ibid.c
Oxys, a kinde of riſh, 100.k
Oxys, an hearbe, 286.m
Oxyſchœnos, a kinde of riſh, 100.k

O Y

Oyle of Oliues, or mother of oyle, what medicinable vertues it hath, 159.c. *how to be vſed in diuerſe caſes,* 159.c.d.
Oyle Oliue of ſundry kinds, which be medicinable, 160.h.i
Oyle Oliue Omphacium, for what it ſerued, ibid.i
Oyle Oenanthinum, the operations thereof good and bad, ib.
Oyle of Tick-ſeed, called Cicinum, the vertues therof, 160.m
Oyle of Baies the vertues that it hath, 161.c
Oyle of Chamæmyrſine or Oxymyrſine, of what operation it is, ibid.d
Oyle of Cypreſſe, what vertues it hath, ibid.
Oyle of Citrons, and the vertues, ibid.
Oyle Caryinum, or of Walnut kernels, & the operations, ib.
Oyle of Thymelæa ſeed, 161.e
Oyle of Lentiſk or Maſtick, what be the vertues thereof, ib.
Oyle of Cypros, to what vſes it ſerueth, 161.f. *See* Oile.

P A

PAcuuius, a poet and painter both, 526.g
Peantides, pretious ſtones, why they be alſo called Gemonides, 629.c. *their vertue,* ibid.

20030
copy 1

Paderos, what ſignifieth, 622.*b*. a pretious ſtone, *ibid*. the deſcription, *ibid*. the praiſe of it, 622.*i*. the beſt is the Argenon, the next the Indian Senites, *ib*. their defects, *ibid*. See Opal and Amethyſt.
Pæderos, an hearbe, 129.*c*
Q. *Pædius* borne dumbe, learned painters craft. 526.*i*
Pagaſæi, hot ſprings breeding ſalt, 414.*m*
Pagrus, a riuer-fiſh, medicinable, 445.*e*
Pains in horſes how to be cured, 144.*m*. 150.*k*
Paine of the ſtomacke how cured, 57.*c*. 60.*g*. 61.*d*
Paine occaſioned by the ſtone, how eaſed, 332.*k*
Pains generally of the bodie, how to be eaſed, 74.*i*. 387.*c* 128.*h*. 136.*k*. 144.*l*. 182.*l*. 233.*d*. 236.*i*. 313.*b* 350.*i*.
Pains enſuing vpon ſprains and diſlocations, how to be eaſed, 129.*a*
Paine proceeding from ſome ſecret and hidden cauſe, how to be aſſuaged, 423.*f*. 351.*b*. 354.*l*
old *Pains* and griefes, how to be mittigated, 313.*d*
Palace ſtately of Paulus *Æmylius*, 581.*e*
Palacræ, or *Palacrenæ*, what they are, 469.*b*
Palimpiſſa, what it is, 183.*e*
Paliurus, what thorne, 195.*d*. the ſeed medicinable, *ibid*.
Pallacana, what Onion, 20.*k*
Pallas, a rich ſlaue enfranchiſed, 479.*e*
Palonis, ſhell-fiſhes, and their medicinable vertues, 443.*c*
Palſie the diſeaſe, by what medecins preuented and cured, 49.*d*. 52.*k*. 62.*l*. 139.*e*. 155.*d*. 161.*c*. 183.*f*. 283.*f* 318.*g* 335.*d* 388.*g*. 412.*g*. 422.*k*. 431.*a* 432.*l*.
Pamphilus, a notable painter, learned withall and grounded in Areſthmaticke and Geometrie, 537.*b*. a deare teacher, *ibid*.
Panaces, an hearbe, why ſo called, 214.*i*. a common name to many hearbes, *ib*. aſcribed all to the gods, *ib*.
Panaces Aſclepion, why ſo called, *ibid*.
Panaces Heracleum what it is, and why ſo named, 214.*l* it is cleped alſo *Origanum Heracleoticum*, and why, *ib*.
Panaces Chironium, why ſo called, 214.*l*. the deſcription *ib*. the floure medecinable, *ibid*.
Panaces Centaureum or *Pharnaceum*, why ſo named, *ibid*. the deſcription, 214.*m*. the vſes whereto it ſerueth, *ibid*
Panchreſta, what medecines, 590.*h*
Pancras, a pretious ſtone, 629.*a*. the reaſon of the name, *ib*.
Pancration, an herbe, 287, *e*. the deſcription and vertues, *ib*.
Pancras, a pretious ſtone, 629.*b*. commended much by queene Timaris, *ibid*.
Panæus a painter, when he flouriſhed, 532, *m*. he painted the battaile at Marathon, with the full proportion of the captaines, 533.*c*. challenged by Timagoras and ouercome, 523.*d*
Pangonius, a pretious ſtone, 629.*b*. the deſcription and reaſon of that name, *ibid*.
Pani, biles in the ſhare and other emunctories, how to bee driuen backe in the beginning, 444.*k*. 560.*h* how to be ripened and broken, 385.*d*. 560.*h*. 444.*l* a ſingular ointment for that purpoſe, *ib*. how to be reſolued and diſcuſſed, 385.*e*. 433.*b*. 437.*d*. 444.*k*
Panicke, the medicinable vertues thereof, 139.*f* by whom called *Mel-frugum*, *ibid*.
Panniſcus, a picture of Tauriſcus his making, why ſo called, 550.*i*
Panſebaſtos, a pretious ſtone: the ſame that *Paneros*, 629.*b*
Pantheon, a temple at Rome, wherin the chapters of the pillars were all of braſſe. 589.*b*. built by Agrippa to the honour of Inpiter Reuenger, 581.*f*
Panthers, whom they will not aſſault, 359.*b*
Paps of women and maids ouerbig, how to be taken downe, 413.*c*. how they ſhall not ouergrow vndecently, 448.*i*
Paps impoſtumat how to be cured, 128.*g*
Pappos. See Groundſwell.
Papyr reed in *Ægypt*. the medicinable vertues, 191.*d*.*e*
Papyr made thereof, what operation it is of, 191.*e*
Papyrius Fabianus, a great Naturaliſt, 586.*i*
Paralium, a kinde of Poppie, why ſo called, 69.*a*
Paralus the name of a famous ſhip painted by Protogenes, 542.*h*.
Paraſius an excellent painter who chalenged *Zeuxis*. 535.*a* their peeces of workemanſhip, *ibid*. *b*. what *Paraſius* inuented and added to the Art, 535.*c*. his excellencie in pourfiling, 535.*e*. his defect in painting, *ib*. his aemule to paint the people of Athens, *ibid*. *e*. *f*. his pride, arrogancie, and vaineglorie, 536.*h*. *i*. he was put downe by Timanthes in the picture of Aiax, 536.*i*. his ſpeech thereupon, *ib*.
Paratonium, a painters white colour, 528.*k* why ſo called, 529.*c*. how ſophiſticated. *ibid*. the price and vſe. 529.*c*.*d*
Paraphoron, what kinde of Alume, 558.*i*
Pardalios, a pretious ſtone, 630.*l*
Parerga, what they be in painters worke, 542.*h*
Parget for wals, of *Paræus* his making, 595.*a*
Parietarie of the wall, an hearbe, 273.*a*. why it was called *Perdicium*, 99.*e*. why it was not named *Parthenium*. 123.*e*. See *Helxine*.
Paring of nails ſuperſtitiouſly obſerued, 298.*b*. for what it is good, 310.*h*.*i*
in Paros a vein of marble repreſenting within it the image of Silenus naturally, 565.*e*
Parſnep wild, or Madnep, 17.*f*
Parſnep white. See Skirwort.
Parſnep wandring called *Staphylinus*, the medicinable properties thereof, 40.*i*
Parthenis, an hearbe. See *Artemiſia*.
Parthenium, an hearbe, 111.*e*. 123.*b*
Paſſe floure *Anemone*, 92.*h*. when it floureth, *ibid*.
Paſiteles, an excellent cutter in marble and yuorie, 570.*h* his workes, *ibid*. he wrote fiue bookes of all workes of fine workemanſhip, *ib*. how heardly he eſcaped a Panther, *ib*.
Paſſernices, a kinde of whetſtones, 193.*b*
Paſt to glew withall, what it is good for in Phyſicke, 139.*c*
Paſture making horſes enraged, 226.*g*
Paſture driuing aſſes into madneſſe, *ibid*.
Patience hearbe deſcribed, 73.*b*. the root thereof, 19.*d*
Pauements whoſe inuention, 596.*g*
the maner of *Pauing* an open floure vpon a terrace, 596.*k*.*l*
Pauings called *Lithoſtrata*, 596.*m*. *Pauing Grecanick*, *ib*.*l*
Pauonacea, what workes in tiling, 592.*h*
Pauſias, a cunning painter, 80.*k*. 546.*k*. his delight was to draw ſmall pictures and prettie boies, *ib*. his celeritie in worke, 546.*l*
Peaches, a harmeleſſe fruit, and medicinable, 169.*d*
Peacocks dung medicinable, 367.*d*. they eat their dung againe ſoſoone as they haue mewted, for enuie to mankinde, *ibid*.
Pears what kinde of meat, 166.*k*. the medecinable vſe of *Pears*, and the aſhes of Peare-tree, 166.*l*.*k*

Peelen

Pecten Veneris, what hearbe, and why so called, 206.g. the vertues that it hath, ibid.
Pecunia, why mony in coine is so called, 462.l
Pedes Gallinacei, what hearbe, 236.l
Pedigrees and descents obserued among the Romans, 523.d
Pedunculi, creepers in the sea good for the infirmities of the eares. 439.e
Pedunculi terræ, what they be, 379.c
Peinting in ancient time reputed a noble art, 522.g
Peinting of stones when deuised 522.h
Turpillius left handed, an excellent Peinter, 526.h
Q. Pedius borne dumbe, learned to be a Peinter, 562.i
Peinted clothes deceiue birds, 526.l
when the first Peinted tables of a forreiners worke was brought to Rome, 527.a
Peinting with fire of two kindes, 551.b.c
Peinting of ships, 531.e
a Peinted table cost the weight in gold, 533.a
prises proposed for Peinters winning the best game, 533.d
art of Peinting reduced into three kindes by Eupompus to wit, Ionicke, Sicyonian, and Atticke, 537.a
Peinting schoole frequented by gentlemens sonnes, 533.b
Peinting with wax, 546.h
Peinting or pourfiling with a coale, who first deuised, 525.b
who first Peinted with colours, 525.c
Peinting Art, rauged in the first degree of Liberall Sciences, 537.b. it might not be taught vnto slaues, ibid.c
Peinting, whose inuention, 525.a
Pelagia, what oysters, and why so called, 436.k
Pelamis, the Tunie fish, when he is so called, 451.d
Pelamis is medicinable, 444.l
Pelecinum, an hearbe, 288.i. the description, ibid.
Pelops, a writer in Physicke, 433.d
Pelops his rib of Iuorie, 299.f
Penelope a singular picture of Zeuxis making, 534.k
Penicilli the softest and finest spunges, 423.d. where and how they grow, 424.l
Peniroyall an herbe, the vertues thereof, 60.h. male and female, 60.i
Peniroyall, why it is called in Greeke, ὀνίων. 61.a
Pentadactylon, what hearbe, and why so called, 207.b
Pentadora, what brickes, 555.e
Pentapetes, what hearbe, 228.l
Pentaphyllon, what hearbe, 228.l
Peplium, what hearbe it is, 69.d. the vertues thereof, ibid. hurtfull to the eyesight, 70.k
Peplos an hearbe, 287.f. the description, ibid.
Pepones what fruit, 14.b
Pepperwort. See Dittander.
Perches, the ashes of their heads medicinable, 444.m
Perdicium, what hearbe, 111.e
Perfumes by sweet hearbs commended by Orpheus and Hesiodus, 211.a
Periboetos, an Image of Praxiteles his making, why so called. 500.k
Pericarpum, an hearbe, 232.g. the kindes and description, ibid. the operation, ibid.
Periclimenos, an hearbe, 288.g
Perileucos, a pretious stone, why so called, 629.c
Perillus, a cunning brasse founder, famous for the brasen bull to torment folke, 504.h
punished worthily for his owne handy worke, 504.i
Peripneumonie or inflammation of the lungs, how to be cured. 167.d. 180.k. 200.l. 287.f
Perisson, what hearbe, 112.k
Peristereon, what hearbe, 228.g. why so called, 231.c
See Veruaine.
Pernæ, a kinde of fish, and the strange nature thereof, 452.l
Perpensa, what hearbe, 104.g
Perpressa, what hearbe, 255.c
C. Perreius Atinas, honoured with a grasse chaplet, 117.b
Perseus a painter, who wrote of painting. 544.h
Persley of diuerse kinds, 24.g. how to be sowne and ordered, 29.c.d. it serued in coronets, 29.d
how cooks and vintners vse Parsley, 34.h
Persley much practised, 53.e. the vertues thereof, ibid. male and female, 53.f. their description, ibid.
Persley not admitted to the table, and why, 54.g
the discommodities of persley, ibid.
stone Persley, commonly called Petroselinum, the vertues that it hath, 54.l
Persolata, what hearbe, 229.c. the description, ibid.
Persoluta, an hearbe vsed in guirlands, 113.d
Personages. See Images compleat.
Personata, an hearbe See Arcion, or Clot-burr.
Perwinkle, an herbe described, 92.m. named Chamædaphne, 110.m
Perwinkles, fishes, medicinable, 442.i
Pestilent infection, by what preseruatiues to be preuented, 173.e. 201.b. 202.h.
Pestilent aire, how to be corrected, 599.b
Petesuccus, a king of Ægypt, built the first Labyrinth, 578.i
Petilium, what floure, 89.c. the qualities thereof, ibid.
Petræa, a kinde of Colewort, 50.l. the description, ibid.
the medicines that it yeeldeth, ibid.
ePtræa Colewort, the greatest enemie to wine, 50.l. it killeth dogs. 51.a
Petridius, an Herbarist and writer, 78.g
Petroleum, or Petrelæon, a kinde of Bitumen, 415.e
Petronius Diodotus, an Herbarist and writer in Physicke, 48.h. 228.m.
T. Petronius vpon his death-bed brake a rich Cassidoine cup. 603.e
Peucedanum, what hearbe, 229.f. See Harstrang.
Peumene, what kinde of Litharge, 474.k
Pezitæ or *Pezici*, what Mushromes they be, 8.g

P H

Phacos, what it is, 142.h
Phagedæna, eating sores, 447.f. how cured. ibid. See Vlcers.
Phagedæna, what it signifieth otherwise, 259.d
Phalangion, or Phalangites, an hearbe, described, 288.l
the blew spider Phalangium described, and the sting thereof. 360.k
Phalangium, a venomous spider, the remedies against the pricke, 45.e. 52.l. 54.k. 101.e. 105.c. 106.k. 108.l 110.k. 126.k. 127.b. 153.b. 157.d. 170.g. 173.d 174.i. 179.b. 187.d. 188.m. 190.h. 202.h. 230.i 237.f. 274.g.i. 288.l. 290.i. 360.g.h.l. 413.b 433.e.
Phalangium vnknowne to them in Italie, 360.g. the sundry kinds, ib. the description, manner of sting, and cure, ibid.
Phalaris, an hearbe, 289.a
Phalaris a tyrant, who caused Perillus to be tormented by his owne engine and torture, 504.h

20030
copy 1

Phalereus Demetrius honoured with 360 ſtatues at Athens, 492.k. the ſame were all ouerthrowne within one yeere, ibid.l
Phalereon, a painter, and his workemanſhip, 550.h
Phanias a Phyſician, made a treatiſe in the praiſe of Nettles, 122.g
Phaon of Leſbos, why ſo beloued by Sappho. 119.c
Pharos the tower in Ægipt, what it coſt in building, 478.g Soſtratus the Gnidian was the architect of this watch-tower, ibid. the vſes of this tower, 578.h
Pharicum, a poiſon, what is the remedie, 323.a
Phaſganion, an hearbe. See Xiphion.
Phaſiolum. See Iſopyron.
Phaſſachates, a pretious ſtone, 623.e
Phellandrion, an hearbe, 289.a. the deſcription and vertue, ibid.
Pheneus, a riuer in Arcadie, 411.a
Phengites a ſhining ſtone, 592.l
Phenion, what hearbe, 109.c
Phidias, the moſt excellent imageur in ſtone that euer was. 495.f. he wrought the noble image of Iupiter Olympius, 497.a. he deuiſed chaſing and emboſſing in mettall, 497.c. his workes. 497.d. 566.g
Phidias was alſo a painter, 532.l. when he flouriſhed, ibid. he painted the ſhield of Minerua in Athens, ibid.
Philanthropos, an hearbe, See Aparine, Cliuers, and Erith.
Philemon, a writer of Naturall Philoſophie, 606.g
Philetæria, an hearbe. See Polemonia.
Philippenſis, the reſemblance of a boy in braſſe, why ſo called, 503.a
Philiſcus, a famous painter, 550.h
Philiſtio, a writer in Phyſicke, 40.k
Philocares, an hearbe, 74.m
Philocares a painter, famous for the picture of Glaucion and his ſonne Ariſtippus, 527.e
Philopes, an hearbe, 74.m
Philoſophers and learned men, what imageurs delighted to repreſent in braſſe, 503.e.f. 504.g.k
Philoxenus, a painter, 543.f. his workes and readie hand, 544.g.
Phinthia, a fountaine wherein nothing will ſinke, 404.i
Phlegmaticke humors, what doth purge, 432.l. 442.l 443.a. See Fleame.
Phlegontis, a pretious ſtone, 630.l
Phleon, what hearbe, 120.l
Phloginos, a pretious ſtone, called alſo Chryſites, 629.b
Phlonides, what hearbes, 230.k
Phlomos, an hearbe. See Lungwort.
Phlox, a floure vſed in guirlands, 91.b
Phœnicea, what hearbe, and the medicines that it affourdeth, 140.k
Phœnicites, a pretious ſtone, why ſo called. 629.c
a Phyſicall receit made of the aſhes of the bird Phœnix, a meere impoſture and fabulous deceit, 349.d
Phœnix, a famous imageur in braſſe, and his workemanſhip, 502.l
Phœnix, a great architect and enginer, 575.c
Phonos, an hearbe, why ſo called, 98.h
Phormion, what kinde of Alume, 558.i
Phragmitis, a reed medicinable, 450.i
Phrenſie cured beſt by ſleepe, 260.k
for the Phrenſie, appropriat remedies, 37.b. 44.g. 49.f. 57.c 64.i. 66.k. 75.c. 181.a. 187.f. 219.d. 350.g. 389.e 430.m. 573.c.
Phryganium, 391.c
Phrygian ſtone, why ſo called, 589.d. how calcined, and for what it is good, 589.e
Phrynion, what hearbe, 231.a. 288.i the effects that it hath, the names and deſcription, 231.a
Phthiſicke or conſumption, what remedies be reſpective to it, 43.a. 44.b. 76.i. 127.e. 129.c. 173.c. 181.d 183.d 199.f. 200.l. 202.h. 224.k. 247.d. 259.c.d. 303.d. 317.e 318.h.k 319.d.e. 320.g. 336.i.k. 388 g. 412.k. 446 k 588.g.
Phu, or Setwall, the vertues that it hath, 104.l
Phycites, a pretious ſtone, why ſo called, 629.c
Phycos Thalaſſion. See Reike and Sea-weed.
Phyllon, what hearbe, 123.a. 288.m
Phyſet, a tearme of Lipidaries, what it ſignifieth. 631.e
Phyſicke flouriſhed about the Peloponneſiacke warre, and was profeſſed by Hippocrates, 373.d
Phyſicke nature is ſimple, 176.k. that is the beſt, ibid.
Phyſitians well rewarded in old time for their cures, 344.b
Phyſicke drugs far fet and compounded, Plinie inveigheth againſt, 137.d.e. 176.l
Phyſicke in old time conſiſted of ſimples, 211.d. 242.b
Phyſicke moſt properly handled in the Greeke tongue. 346.l
againſt the abuſe in Phyſicke and of Phyſicians, an inuective, 347.a.c. 348.h.i. 349.a
Phyſicke noted for much incertitude and no ſolidite, 343.d a gainfull art, ibid. many times changed, 345.d
Phyſicke fathered vpon canonized gods, 343.d
Phyſicke, when it was regarded at Rome, 346.k.l
Phyſicke and Phyſicians, the occaſion of many enormities and miſdemeanors, 347.e
Phyſicians in Rome of great name, and reuenues by yeerely fees, 344.k
Phyſicians are not choſen and called as Iudges. Mintmaſters and others, 347.b.c
Phyſicians arguing about their patients, hinder the cure, 345.c.
many nations liue without Phyſicians, but not without Phyſicke. 345.d
Phyſicke long ere it was entertained at Rome, 345.e ſoone reiected, ibid. 349.b
M. Cato an enemie to the Greeke Phyſicians, 346 g.h he condemned not Phyſicke, 346.i he liued according to Phyſicke of Simples, and ſo maintained himſelfe and familie in good health, 346.i.k
Phyſiognomiſts, who they were, 539.d. See Metopoſcopi.
Phyteuma, an hearbe, 288.l

PI

Pibble ſtones not good for building vnleſſe they be bound with ſtrong mortar, 593.c
Piconia, a ſpring, 408.g
Picris, a kinde of Lettuce or Cichorie, 241. why ſo called 99.d. 127.e.
Pictores, a ſurname to the houſe of the Fabij, wherefore 525.f.
the anſwere of a Dutch Embaſſador as touching a Picture, 527.b.
Pictures liuely for the memoriall of men, 522.k. much eſteemed in old time, 524.g

Pictures inserted within books by M. Varro, 524.g
Atticus wrote a treatise of Pictures. ibid.
M. Agrippa his oration as touching remouing of Pictures out of priuat houses and setting them vp in publicke places, 527.c
Picture of Nero, Colosse-like in cloth, 120 *foot high,* 531.h
burnt with lightening, ibid.
Pictures of sword fencers, and their fight, who deuised, 532.i.
Pictures vnfinished, more admired than the perfect, 550.k.l
Prond pictures, when they were first entertained at Rome, 482.l.
Pigritis, a kind of earth, 559.f. *the operation,* 560.g
the sea-Pike Lupus, how wittie he is to auoid nets, 427.e
how he and the hooke part after he is caught therewith, 428.g.
Pillars in building, of foure sorts, 594.a. *Dorick what they be,* ib. *Ionicke,* ib. *Tuscanicke,* ibid. *Corinthian,* ibid. *Atticke,* 595.b
proportion of Pillers, of their length to the building, of height to their thicknesse, 595.b
Piles and painefull swelling bigs in the fundament, how to be cured, 105.c.106.l.120.i.134.g.139.c.158.l 160.h.161.c.d.f. 194.g. 169.e. 172.g.174.l. 193.b 196.h.255.f.256.g.272.i.278.h. 393.a. 306.i. 333.d 351.a.e.352.k. *See more in fundament.*
Pilewort. See Celendine.
Pills purgatiue. 252.h
Pills of goats dung oodg for the eye-sight. 325.a
Pimper nell the herbe, 234.i. *the diuerse kinds and their description,* ibid.
Pimples rising vpon sweat how to be represt, 161.e
Pimples red in the face or skin, by what remedies cured. 37.a.44.i. 47.c. 52.i. 55.e. 65.e. 70.k. 76.g. 173.c 184.k.187.e.320.h.327.d.328.h. 377.d.421.e.443.c 516.h.
Pin and web, what medicines do take away. 100.l.119.d 144.i. *See more in Eies.*
Pine-nuts or apples their vertues in Physicke, 171.c
Pionie or Pœonie the herbe most ancient, 214. *why so called.* ib. *the description,* ib.282.k. *two kinds, the male and female,* 282.l. *the vertues in Physicke,* 214.i
danger in digging vp the roots, 282.l.m
Pip in pullaine how to be helped, 44.m.189.c.193.d
Pipes for water conduits of clay baked, 411.d
Pipes of Lead, 411.e
Pipes of sundry sizes, ibid.
Pipes Denariæ, Quinariæ, ibid.
Piperitis the herbe, why so called, 34.g. *it is named Siliquastrum,* 64.g. *the description,* ib. *the vertues,* ibid.
Pismires in a garden how to be killed, 32.k. *they are medicinable, and their eggs likewise vsed in medicins for the eares,* 369.b
Pismires cure beares when they be sicke, ibid.
Pissasphaltum, what it is, 183.f.557.b. *Naturall and Artificiall,* 183.f
Pissæleon, what kind of pitch, 179.e
Pissing bloud, how to be cured, 111.a.180.k.195.c.199.b 205.a.254.m.
Pissing with difficultie how helped, 124.g.171.e *See Vrine.*
Pistana, what herbe, 100.b
Pit-waters, when coldest, 410.g. *when they decrease and rise,* 410.h
Pitch of diuers kinds, 183.b. *what Pitch is best,* 183.h *the seuerall vses of all the kinds of Pitch,* ibid.
Pitch agreeth well with oile, 176.i
stone Pitch, 183.b
Pitch tree, what vertues it yeeldeth medicinable, 181.c
Pituitaria, what herbe, 149.a
Pityocampæ, what worme, 362.h. *the remedies against it.* 157.c.160.k.318.h. *where it breedeth,* 362.h. *how to be prepared for vse in Physicke,* 362.i
Pityusa, what herbe, 182.g. *the description and medicinable vertues thereof.* ibid.

P L

for the Plague, a remedie. 155.d
Plaiers and Comœdians, what imageurs delighted to pourtray in brasse, 503.f
Plane tree, the medicinable vertues that it hath, 184.k
Plantaine the herbe, 223.b. *two kinds of it,* ib. *the description,* 223.c
Plaster both Naturall and Artificiall, 595.d.e. *how to be made and wrought,* 595.e. *the vse thereof in building,* 395.e.f.
C. Proculeius in a fit of the stomacke-paine, dranke Plastre and willingly killed himselfe, 595.f
Plaster taken inwardly, how the danger may be auoided, 160.k.318.h.
Plasta, who they be, 552.h
Plastice, what Art, 494.h.552.h. *See Potterie.*
Plate of diuers fashions, 480.k
inconstancie of men in the varietie thereof, ibid.
Plate vessell of siluer and gold, and the abuse thereof in Rome, 463.f
a captaine displaced for hauing fine pound weight in siluer Plate, 481.b
Pompeius Paulinus banished for hauing 12 *pound weight of siluer plate in the camp,* 481.c
superfluitie in Plate, brought vpon Rome the plague of ciuile warre betweene Sylla and Marius, 481.d.e
Plate costly for workemanship, 482.h
C. Gracchus his costly siluer Plate, in regard of the curious engrauing, 482.h
excesse in Plate, when it came generally into Rome, 482.i
a merrie speech of Carthaginian Embassadors as touching the Plate of the old Romans, 481.c
Platters called Patinarum Paludes, 554.b
Platyophthalmon, why Stimmi or Antimonie is so called, 473.e.
Platys, a broad Tendon, 255.e
a Plethoricall bodie, or rankenesse of bloud, how to be taken downe, 443.a
Pliniana, what cherries, 12.m
Plistonicus, a Greeke writer in Physicke, 35.c
Plumtree, and the medicinable vertues thereof, 169.c
Plumbago, an herb, 361.k.359.e
Plumbago, a fault or blemish in the Emeraud, 612.k
Plumbum, a disease in the eies, how to be cured, 236.k
Pluresie or Pleuresie, with what medicines it is cured, 40.k 57.d.63.c.65.a. 67.d.75.a.104.h.l.105.a.107.e.128.i 129.f.134.l.135.d.144.i.150.g.167.d.173.e.180.g.k 184.l.186.i.193.a.196.m. 198 i. 200.l.248.h. 255.b 271.d.287.f.

small

20030
copy 1

P O

ſmal Pocks and ſuch like eruptions, how to be cured, 418.*m* 421.*e.* 422.*h.* 437.*d.* 443.*b.*
ale-Pocks about the noſe how to be healed, 128.*h*
Pœcile, the gallerie, at Athens, why ſo called, 523.*f*
Pœnalties at Rome leuied at the firſt, of boxes and muttons, and not of coine, 455.*a*
Pœnicum, what ſtone, 592.*g*
Poets ignorant in Coſmographie, 606.*g*
Polea, what it is, 350.*i*
Polemonia, an herb, thought to be Sauge de Bois, 230.*i*
Polemonia an hearb how it tooke that name, 220.*k.* *why it is named Chiliodynama, ibid. the deſcription, ibid.*
Polenta, what it is, 139.*a. the medicinable vertues thereof, ibid.*
Polita, a pretious ſtone, 630.*m*
Polion an hearb, highly commended by Muſæus and Heſiodus, 211.*a*
Polium, an hearb, 88.*i.* *two kinds thereof, and the vertues, ibid. commended much by ſome, and condemned againe by others,* 106.*g.h*
Pollio Aſinius erected a Bibliotheque or Librarie at Rome 523.*f.* *he furniſhed it with ſtatues and images of rare workemanſhip,* 569.*a*
Pollio Romilius his Apothegme as touching honied wine and oile, 136.*m*
Pollution or ſhedding of ſeed in ſleepe vpon weakeneſſe, by what remedies it is cured, 46.*l.* 48.*g.h.* 58.*k.* 59.*c.* 70.*i* 256.*l.* 518.*l.*
Polyanthemon, an hearb, 286.*m. called Batrachion, ibid.*
Polybius, a Greeke writer, 424.*l*
Polycles, an imageur, and his works, 502.*l*
Polycletus, a famous imageur in braſſe, 488.*i*
he vſed Diliacke mettall, ibid.
his exquiſit works, 497.*e*
he brought the Art of founderie into a method, 497.*f*
diuers pieces of his making, ibid.
Polyclitus a writer, 403.*f*
Polycnemon an hearb, deſcribed, 265.*f.* *the vertues,* 266.*g*
Polycrates the tyrant his ring, and ſtone in it, 449.*b.* *it was a Sardonax,* 601.*a.* *he wilfully threw into the deepe ſea,* 600.*l.* *he found it againe in a fiſhes belly,* 601.*a*
Polygala, an hearb, why ſo called, 288.*i*
Polygnotus, a famous painter, 484.*k.* *his deuiſes and inuentions,* 533.*e.* *his rare workemanſhip, ibid.* *his liberall mind, ibid.f.* *how he was honoured by the ſtates of Greece,* 534.*g*
Polygnaton, what hearbe, 123.*a.* 287.*a*
Polygonum, an hearb, 287.*a.* *why ſo called, ibid.*
Polygynacon, what picture, of Atheman his drawing, 548.*h*
Polypus, an vlcer in the noſe, 251.*b.* *See Noſe vlcers.*
Polypodium, what herb, 251.*a.* *the deſcription, ibid.* *why called alſo Filicula, ib.* *the vertues, ib.* *the offences that it worketh,* 251.*b*
Polyrrhizon, what hearb, 216.*e.* 289.*a*
Polyrrhizos, what hearb, 226.*i.* *the vertues, ibid.k*
Polytricha and Callitricha, two capillare hearbs, their deſcription and how they differ, 232.*i*
Polytrix, a pretious ſtone, 630.*l*
Polyzonos, a pretious ſtone, ibid.
a Pomado for chaps in lips or face, 327.*f*
Pomadoes of other ſorts, 320.*k.l*
Pomegranats, their properttes in Phyſicke, 164.*k.* *whether to be eaten in a feuer or no, ibid.*
Pomegranate rind, what it ſerueth for, 164.*l.* *why called Malicorium, ibid.*
Pomona compared with Ceres, Flora, and Tellus, by the way of Proſopopœa, 145.*c.f*
Pompeius Lenæus, a Grammarian and Linguiſt, 209.*f* *he tranſlated into Latine the medicinable receits found in K. Mithridates his cloſet,* 209.*f.*
Pompeius Magnus his glorious third triumph, 602.*k* *what gold, ſiluer, iewels, & pretious ſtones, he then ſhewed,* 602.*k.l*
Plinie enueigheth bitterly againſt Pompey for this triumph, 602.*m*
his bounteous liberalitie in the ſaid triumph, 603.*a*
his triumph ſet the Romans a longing after pearles and pretious ſtones, 602.*h*
he brought Caſſidoine cups firſt into Rome, 603.*c*
Pompholix, what it is, and how it differeth from Spodos, 511.*d.e.* *the vertue thereof,* 511.*e*
Pompions. See Melons.
Pond-weed. See Water Speeke.
Pontica, the pretious ſtones of Pontus, 629.*b.* *the ſundry ſorts, ibid.*
Pontifie or high Prieſt letting fall a morſell of meat at the bourd was ominous, 298.*b*
Poplar white, a tree, what vertues it hath in Phyſick, 185.*a*
Poppæa the Empreſſe bathed ordinarily in aſſes milke, for to make her ſkin faire, ſoft, and ſmooth, 327.*c*
Poppæa ſhod her horſes with gold, 480.*m*
ſhee kept fiue hundred ſhee aſſes for to bath with their milke, 327.*d*
Poppies of three kinds, 30.*l*
the ſeed of the white Poppie confected. ib.
It ſeaſoned bread, 30.*m*
white Poppie heads medicinable, 67.*e*
blacke Poppie. 31.*a.* *wandring Poppie, ibid.*
the deſcription of wandring Poppies, 68.*l*
Poppies wild, their ſeuerall kinds and vertues, 67.*e.f.* 68.*g*
K. Tarquinius the Proud topt off Poppie heads, 31.*a*
what he meant thereby, 31.*b*
Poreblind or ſhort-ſighted, how to be helped, 367.*c*
the Porcellane ſhelfiſh ſtaied Periander his ſhip at ſea, 426.*i*
conſecrated at Gnidos, 426.*i*
Porcius Cato a great ſtudent, and looking pale therewith, 61.*d.* *his ſchollers affected to looke pale like him by eating Cumin, ibid.*
Pourcuttle fiſh Polypus, how he auoideth the hooke like to catch him, 427.*f*
Pourcuttles not to be ſodden with ſalt, and why, 447.*a*
Porphyrite marble, 573.*c*
Porpuis fiſh deſcribed, 436.*g.* *his finnes venomous, ibid.* *The remedy, ibid.* *his fat medicinable,* 440.*l*
Porret a kitchen hearb, how to be ſowne and ordered, 21.*a.b* *the medicinable vertues therof,* 42.*d.* *See more in Leeks,*
Porus, what ſtone, 587.*b*
Pourfiling, what it is, 535.*d.* *the hardeſt point in painting, ibid.*
Poſe, or a cold, what medicins do breake and reſolue, 65.*b* 289.*e.* 304.*k.* 377.*f.* *See Rheume.*
Poſidianus, a fountaine, why ſo called, and the nature of it, 401.*e.*

Posidonius, a renowmed grauer, 483.e
Potamogeiton, what herb, 250.g. *the description according to Castor, and how he used it, ib. the aduersatiue nature of it to Crocodils,* 250.h
Poteron, what hearb, 231.a.288.i. *the description,* ib.k
Pothos, what floure, 92.k
Potterie or working in clay more antient than founderie of brasse and other imagerie, 494.h.552.i
places ennobled for Potters worke, 553.d.e
Potterie or workemanship in cley, how it began, 551.e
Potterie ware, of great vse and estimation, 553.d.e
Potterie, mother of founderie or casting mettall, 552.l
much practised in Tuscan, 552.m
a confraternitie of Potters instituted at Rome by K. Numa 553.c.
manifold vses of Potterie and works in cley, ibid.
Posis, a famous Potter, and his fine works, 552.k
excellent workemen in Potterie as well for cley as playster and alabastre, 551.e.f.552.g.h.i.&c. *See Plastica and Plasta.*
Poysons septicke or corrosiue, their remedies, 323.c. *See Corrosiue and Caustick.*
preseruatiues against poysoned drinkes giuen by witches and sorcerers, 67.d.231.d.e.f.& deinceps.
Poysons cold, how to be corrected, 159.b.187.c
Poyson worne in the collets of rings, 456.k.458.l
Poysons, whether they may be put downe in writing or no, 213.c.d.
Poysons may be made counterpoysons, 215.d
for Poysons in generall, remedies, 38.k.75.c. *See Countrepoysons.*

P R

Præcordiall parts, what is meant by them, 380.g
pain and gripes about those parts, how to be eased, 153.e 163.c.380.g.413.c. *bruised or hurt how to be cured,* 274.g. *See Midriffe.*
Præstina, the best goldfoile, why so called, 465.e
the Præseruatiue confection of K. Mithridates, how it is made, 172.k
a Præseruatiue against all misfortunes, 193.e
Prasion, i. Horehound, an herbe, 74.m. *See Horehound.*
Prasius, a kind of pretious stone of a greene colour, 619.d
the seuerall kinds and their description, ibid.
Praxagoras, a Physition and writer, 44.g. *he vsed hearbs onely in all his cures,* 242.k
Praxiteles, a most excellent imageur and grauer, 483.e
he practised as well to cut in marble as to cast mettall, 500.i.
his workes, 500.k.566.h.i.l.m.567.2.b
his good nature and benignitie, 500.m
Pressior, what kind of Sinopre, 528.l. *the price and vse, ib.*
Prester, a venomous flie or worme, what remedies against it, 69.e.153 b.196.g.431.b.434.h
Pretious stones, 454.i
Pretious stones taking name from the parts of mans body, 630.h. *from beasts,* 630.i. *from plants, hearbs, seeds, and diuers things,* 630.k
Pretious stones engendred new daily, 631.b
all pretious stones fairer for being boiled in hony, 631.c
rules how to know and distinguish Pretious stones, 631.e
how Pretious stones may be artificially falsified, 631.f
how such falsified stones may be found out, 632.g
when Pretious stones are to be tried, 632.h
stones that will not be engrauen, 632.i
all Pretious stones may be cut with a Diamond, 632.i
riuers yeelding pretious stones, ibid.
lands wherein be best Pretious stones, ibid.
Pretious stones haue been of men diuersly esteemed, 615,a
Prick of vrchin, hedghog, or such like how to be cured, 306.i
Prickly hearbs, 97.d. *they are medicinable,* 118.k
why nature hath armed them with Pricks, 118.k.l
Prick-madam, what hearb, 237,c. *why it is called Trithales,* ibid.
Priuet or Primprint, a small tree or shrub, what vses it affourdeth in Physicke, 189.c
Priuities or members of generation, sore and grieued, by what medicins to be cured, 385,a,b.509.e
Itching and fretting, how to be eased, 183,a.385.a
exulcerat, how to be healed, 306,i.385,b.445.a
carbuncle, how to be remedied, 318,m.392.h
impostumat or vexed with botches, how to be helped, 444,l,m.
werts arising there how to be taken away, 385.a
Priuie parts, diseased in generall, what medicines do helpe and comfort, 42.g.50.h.63,c.70,l.75,b.77,f.101.d 111,b.120,i.138,k.165,a,b,e.195,a,c.196,g.197.a,d 208,g.254,i.255,d.257,e.273,a.320,i 333,a.351,a,b 353,a.558,l.
Priuities of men diseased, how cured, 510,k
Priuities or naturall parts of women, by what medicines comforted and preserued from maladies, 136,k.141,f 181,b.301,b.509,e.
hauing a schirre, how to be wollified, 207,c
if the necke be ouerstreight, how to be enlarged, ibid.
excoriat how to be healed, 397,b
Prodicus, the authour of the Physicke Iatraleptice, 344.g
Prodigies, whether they may be auerted and altered by words or no, 295,d
K. Prœtus his daughter cured of her melancholie, by what meanes, 217,b
Prometheus pourtraied with a ring of yron, and wherefore, 455,a. *thought to be the first deuiser of wearing a stone in a ring,* 600,k
Propolis, what it is, 135,c. *the vertues medicinable that it hath, ib from whence Bees gather it,* 185,b
Prosedamum, what infirmitie in horses, 257,c
Proserpinaca, an hearb, 289,b
Proteus, a great sorcerer, and his transformations, 372,k
Protogenes, a famous Imegeur in brasse, and a cunning painter withall, 504,k.537,e.543.c
he had this fault, that he knew not how to make an end, 537,e. *his kindnesse to Apelles his concurrent and challenger,* 538,i. *not regarded by the Rhodians his owne countrymen,* 539,e. *poore at the beginning,* 542.g
ouer curious in his workemanship, ibid.
his famous Ialysius with his dog, pictured, 542.h
why he liued of Lupins onely, when he painted this table, 542,i. *he was helped by fortune in the finishing there of,* 542,l. *he followed his worke when Rhodes his natiue citie was beleaguered,* 543,a. *his answer to K. Demetrius for so doing, ib. diuers pictures of his making,* 543,a,b,c
he gaue himselfe to curious works, 543.c
Protypa, what they are, and who deuised them, 532,g
Prytaneum, the towne hall of Cizicum, 581,b
Psaronium,

20030
copy 1

P S

Psaronium, what kind of marble, 591.f
Psegma, what it is, 512.k
Pseudinchusa, what herbe it is, 124.m
Pseudisidomon, what kind of building in masonrie, 593,f
Pseudodictamon, what herb, 225.d
Pseudosphekes, bastard wesps, 390,i. *their description,* ib.
their effects in curing quartans, ibid.
Psilothrum, what plant, 149.c
Psimmythium. See Ceruse.
Psoricum, what medicine, 509.f
Psycotrophon, an herb. See Betonie.
Psylli people with stand ing poyson. 95.b
Mountebanks, 231.a
by touching or sucking onely, they cure the sting of serpents, 298.m
Psyllion, an herb. See Fleawoort.

P T

Ptera in building, what they are, 579.b
Pteris an herb. See Ferne.
Pterygia, what imperfections or accidents about the nails, 101,d. *how they are cured,* 150,g. 245,e
Pterygiæ, a fault in Beryll, 613.f
Ptisana, husked barley, 139,c. *the medicinable vertues thereof,* ibid.
Hippocrates made one whole booke of it, 140.k
K. Ptolomæus his exceeding wealth, 480.g
his royall and sumptuous court that he kept, ibid.
K. Ptolomæus Philadelphus erected an Obelisk foure score cubits high, 575.e
Ptyas, a serpent with a deadly sting, how remedied, 413.b
why so called, 306.g

P V

Publicans at Rome, Farmers to the state, became Iudges, 460,l. *the middle degree betweene commons and Senatours,* ibid.
Pusses, a kind of Mushroms, 133.a
Puffin of the sea, called Pastinaca Marina, a venomous fish, how the poysonfull pricke is cured, 142,i. 323,e 430,i. 433,e. 436,h.
Puffin pursued and plagued by the Lamprey Galeos, 430,h
how a meat may be made of a Puffin, 436.b
Puffin liuer medicinable, 440.l
Pullain, how they may be kept from the weazill, 399,b
from ranening birds, 150.k
Pulmo Marinus, a sea-fish medicinable, 444,g
the strange vertue thereof to giue light, 450,k
Pumices in architecture, what they be, 591,b
Pumish stones, 591,c. *their vse to sticke the skin and polish bookes, &c. ibid. where the best be found,* ibid.
how to be calcined and prepared, 591.c
Punaises, how to be killed and kept away, 449,d. *See Wall-lice.*
Puppies or little whelps laid to the bare body, draw the disease from the patient into themselues, 380,g,h. 383,e
Purgatiue medecins by the seege, 44,g. 45,e. 51,c 52,g. 56,g. 68,m. 69,a,c. 104,i. 108,g. 110,l 126,h. 127,e. 149,d. 160,m. 170,g. 171,a. 174,g 182,h. 185,c. 186,h. 187,d. 188,g. 198,k. 216,h 250,k,l. 251,e. 252,l. 253,c. 267,e. 272,l,m. 273,c 278,l. 283,e. 288,g. 291,b. 403,b. 412,g. 413,d. 442,l 443,a.
Purgatiues in curing maladies, condemned by Asclepiades and most Physicians in old time, 243,f
Purgatiues, how they may lose their operation, 298,b.
Purgation how to be staied, 432.m
Pursiuenesse, how to be helped, 154,g
Purple fishes medicinable, 437,d. *their shels medicinable,* 438,b *how to colour a purple die,* 421,a
Purple embroidered coats, by whom worne in Rome, 459.d
Pushes or piles called Pani, arising commonly in the emunctories, how to be discussed or brought to maturitie, 36.b 70,l. 72,m. 158,l. 178,g,h. 180,k. 138,a. 183,d. 192,m 206,l. 208,g. 279,e. 282,h. 303,b. 307,c. 309,d. 316,k 320,g. 370,l.
other Pushes, or angry biles, how to be represt or resolued without suppuration and breaking, 72.g. 140,l. 142,g 144,k. 166,i. 167,d 180,g. 560,h.
Puteolana, a kind of Lead litharge, 474,k
Putrefaction of flesh, how to be cured, 208,g

P Y

Pycnocomon, what herbe, 251,a, *the description,* ib. & 262,h.
Pyction, a Physician, 370,k
a Pyramis erected vpon Mausoleum by the hand of Pythis a famous workeman and architect, 568,l
Pyramides in Ægypt bewray the vaineglory of those princes, 576,l. *why they made such monuments,* 576.m
where they were situat, 577,a,b
Pyramides of Ægipt testified by many writers, yet knowne it is not what prince built which Pyramis, 577.c
in building of one Pyramis, the number of workemen, and how many yeares were emploied, 577,c
how many talents of siluer expended in radish, garlicke, and onions, for the workemen about one Paramis, 577,d
the description and measure of the largest Pyramis, ibid.
the height of these Pyramides how it should be taken, Thalis Milesius taught, 577.f
Pyreicus, a famous painter, 544,h. *he practised to paint simple and base trifles,* 544,i. *surnamed thereupon Rhyparographos,* ibid.
Pyren a pretious stone, 630,k
Pyrgoteles, a famous Lapidarie and cutter in pretious stone 601,d. *he onely was allowed to engraue the image of K. Alexander the Great in a stone,* ibid.
Pyrites, the Marcasine stone, why so called, 588.l
where it is found, ibid. how calcined, ibid.
for what vses in Physicke it serueth, 588.m
vncalcined how it is medicinable, ibid.
Pyrites, a pretious stone, 630.l
Pyromachus, a cunning imageur, 402,l. *his works,* ibid.
Pyrrhus an imageur, and his works, 502,l
Pyrrhopœcilos, a kind of marble. See marble Syenites.
Pythagoras, a Physitian, 66.l
Pythagoras superstitious in obseruing numbers and letters, 299,d.
Pythagoras the Philosopher honoured with a statue at Rome, for being the wisest man, 492,i
Pythagoras of Rhegium a famous Imageur, & his works, 498,k.
Pythagoras of Samos an Imageur, and his works, 498,l,m *he resembled the other Pythagoras so neere, that hardly he could be knowne from him,* ib.
Pytheas a writer, 428.f

Pytheas an admirable grauer, 483.f. his workemanship exceeding costly, ib. his works, 483,f. 484.g
Pytheus the rich Bithynian, 480.g
Pythia, Priestresses and Propheteesss, 569,d
Pythios, a kinde of bulbe, 19.b
Pythis, an excellent mason and architect, 568.l
Pyxicanthus, a bush, the berries whereof are medicinable, 195,d.

Q V

Quadrans, a small piece of brasse coine at Rome, 463.b stamped with punts or small boats, ibid.
Quadrigati, siluer pieces of coine at Rome, why so called, 463,c.
Quæstoria, what goldsoile, 465.e
Quaking chilling for cold, how to be helped, 136.g
Quarrels and debate, what causeth, 342.i
Querne-stones ready framed, found naturally in the ground, 588,i. turning about of the owne accord, ibid.
Quartane agues vntoward to be cured in old time by any good course of Physicke, 390.h
against the *Quartan* ague, appropriat remedies, 44,l. 67,a 109,e. 120,i. 122,k. 126,k.l. 151,d. 219,e. 223,d 260,i,k. 298,c. 301,b. 302,h. 309,e. 310,i. 311,b,c 312,i. 315,a,d. 335,f. 336,g. 356,i. 390,i,k,l,m 391,a,b,c. 413,a. 432,m. 435,a. 445,f. 446,g,h,i 557,c.
Quotidian ague, how cured, 310,i. 311,b. 335,f
Quicke brimstone. See *Brimstone* and *Sulphur-vif.*
Quicke-siluer, a poyson, the remedies thereof, 121,c. 153.b 318,b. 323,a. 364,b.
Quick-siluer Naturall where it is found, 473.a
the power thereof, ib. it loueth gold, 473.b
it purifieth it, ib. the great affinitie betweene gold and it, 473,c. it is rare, ib.
Quid pro Quo in Physicke, dangerous and condemned, 348,l.
Quicke-fire stones, what they be, 589.a
good for espials in a campe, ibid.
they will strike fire, ibid.
Quinarius, a piece of siluer coine at Rome, of what value, 463,a,b.
Quinces, for what good, 163,d
oyle of *Quinces*, called *Melinum*, what vertues it hath, 64,g
Quindecemvirs at Rome, and their colledge, 295,b
Quinquefolium. See *Cinquefoile.*
Quinqueviri, 347,c. delegats chosen with good circumspection, ibid.
Quich-grasse described, 206,i. why called *Gramen Parnassi*, 206,k. the vertues that it hath, ibid.

R A

Rabirius, a writer in Physicke, 308,g
Radicula, what hearbe it is, 9,e. where it groweth, ib. what vse there is of it, ib. what names it hath, 219,l the medicinable vertues that it hath, ib. why it is called *Aureum Poculum*, ib.
Radishes described, with their properties, 16,i,k
Radishes of excessiue bignesse, 17.a
Radishes of three sorts, 16,k. the *Radish Agrion*, *Armon*, or *Armoracia*, which some call *Leuce*, 16.m
Radish seed, where to be sowne, 17.a
Radish roots how to be ordered as they grow, 17,a,b
best *Radishes* in *Ægipt*, and why, 17,c
Radish medicinable, ibid.
Radish highly esteemed among the Greeks. ibid.
Radishes cure the phthisicke, 17,d
Radish presented in gold to *Apollo*, ibid.
in the praise of *Radish* a booke compiled, 17,e
Radishes marre teeth, and polish yvorie, ib.
Radishes their medicinable vertues, 39,b
Radishes wild, and their vertues, 39,a
Radishes corrected by Hyssope, 40,g
Ragwort an hearb. See *Orchis* and *Satyrion.*
Rai-fish or *Skate*, medicinable, 439.d
Raine water kept in cesterns, whether it be wholesome or no 406,g. it altereth the nature of some riuer waters for the time, 410,k. it soonest doth corrupt, 406,k
Raisins, of what operation they are in Physicke, 148,k especially, cleansed from their stones, ibid.
Rams how they shall get none but ram-lambs, 400,g
Ramises a king of *Ægypt* erected an obelisk of one entire stone, a hundred foot high wanting one, 574.l his deuise to fasten his owne sonne to the top end of it at the rearing, 573,a,b
Ranunculus, an hearb. See *Crowfoot.*
Rapes of two kinds, 16,g
a *Rape* of lead offered to *Apollo*, 17.d
a *Rape* rosted by *Manius Curius* for his refection at the table, 38,k
Rapes medicinable, ibid.
Rasor a fish, and the nature thereof. 428.i
Rasps, why called in Latine *Rubus Idæus*, 197.a
the medicinable vertues that it hath, 197.a
Rats and mice how to be killed, 124,h. 128,l. 195,f
Rat of *Indie*. See *Ichneumon.*
Rauens thought to be ill at ease all Summer long, 355.a
Raw places how to be skinned, 565,f. See *Galls.*

R E

Reate waters medicinable, 403.c
Red gum in children, how to be cured, 127,c. 306,i. 307,b
Reeds and canes serving in Physicke, 450,i
Refrigeratiue or cooling medecins, 46,g. 47,e. 67,c. 103,e 120,k. 131,e. 136,g. 142,h. 147,a. 155,d. 167,b 189.d. 192.h. 305.a. 221.e. 223.d. 236.g. 237.e 250,g. 259.c. 287.b. 290.g. 473 d. 474.h. 475.a. 511.f 529.f. 560.i. 591.e.
the *Regard* of the eie in some cases of men held to the venomous, 298.i
Reins in the backe pained how to be eased, 37.a.e. 40.k 42.h. 53.b. 70.h. 175.b. 283.a. 304.l. 305.e. 329.e.
Reins, with what medicins they be purged, 77.e. 104,l 126,l. 443,a.
for the infirmities of the *Reins*, comfortable medicins, 148.k 171,c. 181,f. 182,g. 206,i. 248,h. 275,e. 290,i. 252,b
Reits or Sea-weeds medicinable, 276.g. 437.e. as good as treacle, ib. sundry kinds going vnder the name of *Alga*, ib. they serue the dyer for a sure colour, ibid.
Relapse in agues how to be prevented, 391,d
a *Remedy* for all diseases, 357,a

20030
copy 1

Remeus,a writer, 462.*l*
Remora,a fish. See Echeneis.
Rennet of Fawne or Hind-calfe, is most aduerse to serpents, 321.*f*
Repercussiue medecines, 139.*a*.158.*g*.174.*l*.278.*c* 284.*h*.290.*g*.424.*g*.
*Reseda,what herbe,*289.*e.the vertues thereof,* *ibid.*
Resolutiue medicines. See Discussiue.
Restauratiues for them that be falne away, 41.*c*.127.*e* 130.*i*.134.*h*.136.*g*.139.*d*.155.*d*.162.*m*.167.*c*.171.*c* 181,*d*.259,*b*.318,*g*.413,*c*.446,*i*.
*Rest harrow an herbe,*98.*l. the description,* *ibid.*

R H

*Rhacoma,*289.*b,what root,ib.the description,* *ibid.*
*Rhagion,a kind of spider,*360.*i. the description,* *ibid. the manner of pricke or sting,* *ib,*
Rham,what kind of bramble, 197.*b. their seuerall kinds, and the description,ib.the medicinable vertues,* *ib.*
Rhapeion,an herbe. See Leontopetalon.
Rhaphanos Agria,what herbe, 253 *b*
the clarified iuice thereof is medicinable, 253.*c*
the dose, *ibid.*
Rhaponticke. See Centaurie the great.
Rhetoricke,a gainfull profession in old time, 470.*b*
Rheumatismes,what they be,and how cured, 124.*b*.133,*c* 223.*c*.310.*l*.
Rheums or distillations how to be dried and staied, 43.*a*.*c* 44,*b*.53,*c*.55,*b*,*d*. 66,*g*. 70,*k*.72,*b*. 141,*a*,*b*.149,*a* 153.*f*. 159.*f*. 161,*c*. 172.*k*. 177,*d*. 197.*d*. 224,*l* 236,*i*. 249.*f*. 281,*e*. 287,*b*. 303,*c*. 309,*d*. 370,*m* 380,*m*.412,*k*.414,*h*. 437,*c*. 443,*a*. 519,*c*. 531,*c* 360,*h*.
Rheumes thin,how to be thickened, 194.*i*
Spitting Rheums,how to be staied, 183,*e*.239,*e*
Rheume into the eyes,how to be cured. See Eies watering.
*Rhexias,what herbe,*25,*b.the description,* *ibid.*
Rhinochisia, 278.*l*
Rhodites,a pretious stone, 630.*m*
Rhododaphne. See Oleandre.
Rhododendron. See Oleander.
neither of them both hath a name in Latine, 192.*g*
*Rhodope a famous harlot,built one of the Pyramides,*578*g*
Rhodora,what herbe, 205.*d*
Rhœas,what Poppie, 31.*a. how it differeth from Anemone,* 109.*d*
Rholus, one of the architects that built the Labyrinth in Lemnos, 579.*c*
Rhopalos,an herbe. See Nenuphar.
*Rhus a shrub,hath no Latin name,*193.*g. the description,* *ibid.*
ib.the medicinable vertues that it hath, *ibid.*
why it is called the Curriers shrub, *ibid.*
Rhyparographus. See Pyreicus.

R I

Ribwort. See Plantaine.
*Ricinus an herbe,*161,*a.the seed, berries, and oyle thereof, what properties it hath in Physicke,and otherwise,ibid.*
Ricini in Mulberrie trees,what they be, 170.*i*
Riding on horsebacke, in what cases good, 303.*d*
Rings of gold worne at first vpon the left hand, 455,*b*
the reason thereof, 456.*g*
Rings of yron vsed by Romans and Lacedæmonians, 455.*b*
Rings vpon the fingers a bad example, 455.*a*
the Rings of Giges, 455,*b*.
Ring diuersly named, 455,*d*
Rings of gold,to whom allowed first at Rome, *ibid.*
how vsed, 455.*e*
wedding Rings of yron, *ibid.*
golden Rings not knowne in Homers time, *ibid.f*
a law for wearing of Rings, 460.*h*
when Rings were worne ordinarily at Rome, 456.*m*
Rings worne at Rome by Senatours onely, as a badge of their honourable place, 457.*c*
when they were worne more ordinarily by Senatours,Gentlemen and Commons, 457.*e*
three modi of Rings at the battaile of Canne, *ibid.*
a Ring caused the quarrell betweene Drusus and Cœpio, from whence arose the Marsians warre, *ibid.*
ancient Senatours wearing Rings of yron only, 457.*f*
Rings with signets to seale, 458.*g*
Rings set with pretious stones, *ibid.*
Rings massie sealing without a stone, 458.*h*
Rings first put vpon the fourth finger of the left hand, *ibid.*
*an order or regularitie set downe by Tiberius,as touching the vse of Rings vpon the fingers,and whereupon,*460.*h*
the ceremonie of laying a Ring vpon the table before sitting downe to meat,for what purpose, 297.*d*
Ring with a signet or signe manuell, vpon what finger worne in Rome, 458,*k. the cause and occasion of much mischiefe,ibid.l.vsed for assurance in contracts,* *ibid.*
it began by occasion of vsurie, *ibid.*
Ringworms,by what remedies they be killed, 36,*g*.49,*e* 124,*h*. 128,*g*. 139,*a*. 146,*k*. 158,*m*. 172,*i*. 187,*e* 194,*h*. 252,*h*. 265,*d*. 285,*a*. 300,*i*. 307,*c*. 413,*b* 419,*b*.
Riparis,what Swallowes, 378,*i*
Risings in share and other emunctories,how to be represt or resolued, 122.*g*.126.*l*.137.*b*. *See more in Groine, Pushes, and Pani.*
*Riuels or wrinckles in the skin of womens faces, how to be laid euen and smooth,*38.*l*.103.*b*.127.*d*.150.*h*.161.*b* 171.*d*. 184.*h*. 268.*k*. 319.*e*. 327.*c*. 416.*b*. 437,*c*,*d* 439,*a*.441,*a*.
Riuer waters, 406.*l*
what Riuers ordinarily haue bad waters, 406.*l*
what Riuers yeeld wholesome waters, *ibid.*
Riuers at all times not of like tast, 410.*i*
the water of the same Riuer not at all times alike wholesome, 410.*i*
Riuer fresh turning to be salt, 411.*b*
Riuers of salt where, 414.*l*.*m*

R O

Rocket the herbe,good in a salad with Lettuce, 29.*a*
the medicinable vertues thereof, 55.*e*
why called by the Greekes Euzomos, 55.*f*
*Rocking,a good meanes to procure sleepe,*303,*e. good also for health,* *ibid.*
Romans a second Sun-shining to the world, 269.*e*
Romans in an ill name for couetousnesse, 463.*e*
Rome admirable for stately edifices, 581.*d*.*e*
Roofe of sores how to be taken off. 141.*d*.448.*h*
Roots of diuers kinds, 19.*d*
Roots lying hidden all winter season, 13.*d*

The Table to the ſecond Tome

Root of an herbe broken within the ground, thirty foot long, 214.g.
Roots leſſe effectuall, if the herbes be ſuffered to ſeed, 291.f
Ropes made of ruſhes and other matter, 7.a
Roſe buſhes, how to be ſet or planted, 84.h
Roſes graffed, ibid.
the Roſe buſh and the Roſe deſcribed 83.a
vſe of Roſes. 83,b
the medicinable vertues of Roſes, ib.
Roſes ſerued vp with viands, ibid.
the beſt Roſe, 83.d
Roſes, their ſeuerall parts and names to them, 102.b
their diſtinct vertues, ibid.
Roſe of Præneſte, 83.e. of Capua, Miletum, Trachinia, and Alabanda, ibid.
Roſe Spineola, 83.c
Roſe Centifolie, why ſo called, 83.d
Roſe Campion, 83.e
Greeke Roſe. ibid.
the Roſe Græcula, ib.
Roſe Moſcenton, ibid.
Roſe Coroncola, 83.f
where the beſt Roſes grow, ib.
Roſe of Campaine, 84.g
Roſe buſhes how to be ordered, 84.h
Roſe leaues how to be dried, 162.l.m. their vertues, ibid.
haſtie Roſes flouring all winter long, 84.g
Roſet oile odoriferous, 83.b
Roſet wine, 102.h
Roſet oyle, ibid.
Roſe iuice medicinable, 102.i.k
Roſe of Iericho. See Amomum.
water Roſe. See Nenuphar.
Roſemary called Libanotis, 34.g
Roſemary of two kinds, 193.a
in Roſemarie, what Cachrys is, ibid.
Roſat, a rich painters colour, 528.i
how it is made of Tripoly or goldſmiths earth died, 530.l.m
Roſet of Puteoli the beſt, and why, 531.a
the price of Roſet, ibid.
Roſins of ſundry kinds, 182.h
Roſins dry of Pine and Pitch trees, 182.h
the medicinable vertues of all Roſins, ibid.i.l
of what trees the Roſins be beſt, 182.k.l
of what countries and places the Roſin is beſt, 182.k
Roſins how to be diſſolued for plaiſters and outward medecins, 182.k. how for potions, ibid.
Roſtra, the publicke place of orations at Rome, why ſo called, 491.a
Rowing vpon the water for what diſeaſes good, 303.d

R V

Rue killed with the touch of a menſtruous woman, 308.m
Rue a medicinable herbe, 56.k
the iuice of Rue taken in great quantitie is poyſon, ib.
what is the remedy, ibid.
Rue ſtolne, thriueth beſt, 23.e
when and where to be ſowne, 29.a.b
Rue giuen in a largeſſe at Rome, 29.b
Rue and the Fig-tree, ſort well together, ibid.
Rue doth propagat, and ſet it ſelfe, 29.c
the weeding of Rue is troubleſome, ib.
how that may be helped, 56.i
Rue a counterpoyſon for Libard-baine, ibid.
Rue male and female, 57.b
Rue killeth the infant newly conceiued, 58.k.l
Rubbing of the body maketh for health, 303.d
hard and ſoft, worke diuers effects, ib.
See more in Frictions.
Rubie a pretious ſtone, 616.b
why Rubies be called Apyroty. ibid.
Rubies of diuers ſorts, ibid.
Rubies of India, ib. of the Garamants or Carchedony, ibid.
Rubies of Æthiopia and Alexandria, 616.i
Rubies Alabandines or Almandines, why ſo called, ibid.
Rubies male and female, with their deſcriptions, 616.i.k
Rubies Amethyſtizontes, which they be, 616.i
Rubies Syrtitæ, what they are, ibid.
Rubies of India called Lithizontes, 616.k
Rubies Orchomenian, ibid.m
Rubies Trœzenian, ib. Corinthian, 617.a
Rubies of Marſils and Lisbon, 617.a
Rubies are much ſophiſticated, 617.a. how the fraud is diſcouered, 617.b
Rubie minerall, called Anthracites, ibid.b
Rubies of other ſorts, ibid.f
Rubrica, a red earth or ruddle in great requeſt in Homers time, 476.g
Ruddle or Rubrica, a painters colour, 528.i
Rubrica of Lemnos counted the beſt and moſt medicinable, 528.m.
Ruddle for carpenters, which is beſt, 529.b
Rumax, what herbe, 73.b
Running of the reins how it may be ſtaied, 72.i. 130.k
Ruptures inward, ſpaſmes, and conuulſions, how to be helped, 167.f. 272.l. 385.a. 444.b
Rupture when the guts be falne downe, how cured, 444.h.i
Rupture wateriſh called Hydrocele, how to be healed, 385.c
Ruptures in young children burſten, what remedies, 397.e.f 398.h.
againſt all Ruptures in generall, good medecins, 39.e. 41.d 44,k. 48,g. 58.i. 64,k. 72,l. 75,b. 103,b. 108,k. 123,a,d 128,i,m. 129,c.f. 130,l. 138,h. 142,h. 150,g. 154,g 162,h. 178,m. 179,a,f. 180,g. 186,k. 198,i. 199,c. 248,h 254,g,h,s. 263,d. 264,g. 275,e. 283,e. 286,m. 289,c 290,i. 313,c,d. 320,g. 332,h. 398,g.
Ruſcus an hearb, 111.a. the vertues, thereof, ibid.
how it is to be prepared for medicins, ibid.
of Ruſhes or Riſhes diuers kinds, and their vſes, 100.k
Ruſt of yron, how it is ſooneſt ſcoured away, 413.c
Ruſt of yron medicinable, 516.g

S A

Sabine ſtone, how it will burne of a light fire, 588.l
Sacall: the ſame that Ambre, 606.k
Sacopenum, a phyſicall herbe, 30.l. called Sagapenum, 67.d
the vertues which it hath, ibid.
Sacrificing mans fleſh, when forbidden at Rome, 373.f
Saffron a medicinable ſpice, 104.m
Saffron the hearb and floure, 86.g
how to be ſet, ib. where is the beſt, ibid.
the manner of chooſing Saffron, 86.h.i
how it is vſed, 86.k
the manner of the growing, 99.c

20030
copy 1

Sagda, a pretious stone, 629.d
Sagitta, what herbe, 110.b
Sagmina, what they are, 115.d
Salin Crystall, what it is, 605.a
Salads of herbs commended, 12.i.k
Salamanders poyson, with what medecins represſed, 56.m 121.c. 150.l. 157.c. 160.k. 318.h. 358.m. 432.h.k 434.i.
Salamander of all serpents most dangerous, 358.k.l
he destroieth whole nations at once, ibid.
by what meanes, ibid.
his venome is Narcoticke and extreame cold, ibid.
of Salamanders, swine feed without danger, 385.l
whether his body do extinguish fire or no, 359.a
Salicastrum what plant, and why so called, 149.c. *the vertues thereof,* ibid.
Salij the priests, what chaplets of floures they wore, 82.g
Siliunca, an herbe, described, 82.h
the vse thereof, ibid. 105.f
Sal gem. 415.d
Salow. See Willow.
Sal Theriacus, or Theriacalis, a kind of medicinable salt, 366.l.m.
Salpe, a learned and expert midwife, who wrote of Physicke, 300.k
Sal-petre, 421.b. *how the best is knowne,* ibid.c
Salsugo, or Salsilago, what it is, 417.d
Salt seasoneth viands, 176.i
Salt be it naturall or artificiall, proceedeth of two causes, 414.i.
Salt in what places made by drying in the Sun, ibid.k
Salt an houshold gruell, 417.b
Salt Spanish, for what infirmities it is most medicinable, 419.a.
Salt compounded for to get an appetite, 416.l
Salt mountains, 415.a
Salt minerall, ib.
walls and houses built of Salt, ibid.
Salt for Physicke, which is best, 416.k
Salt growing sensibly in the night season, 415.b
Salt best for poudring or seasoning meat, 416.l
Salt Ammoniacke, 415.b. *why so called,* ib.
the description, ibid. it is medicinable, 415.c
light within earth, heauie aboue ground, and the reason why, ib. how it is sophisticat, ib.
pit or poole Salt, 415.c
the manifold vses of Salt in Physicke, 418.l
Salt for the kitchen, which is best, 416.k.l
Salt artificiall how it is made, 415.d. *of sea water,* ib.
out of certaine springs or wels, ibid.e.f
Salt Spring, 416.g
Salt for the table which is best, 416.k.l
Salt made by fire, 416.g
Salt blacke, ibid.
Salt made of ashes, ib. of fish pickle or brine, ibid.b
Salt water, for what garden seed it is good, 33.b
poole-Salt, which is best, 416.b
sea-water Salt which is best, ibid.
the nature and temperature of Salt, 418.l
in what seasons and constitutions of weather, Salt engendreth most, 416.i
Salt not sparkling in fire, but in water, 416.i
Salt of sundry colours, 416.k
floure of Salt, 417.b,c. *the properties thereof,* ibid.d
how sophisticated, ibid.
the nature of Salt, 418.i
Sales in Latine, what they signifie, 416.m. 417.a
Salaries, what they be, 417.a
Salaria Via, a street, why so called, ibid.
Salustius Dionysius, a famous Physitian, 440.g
Salutio, a surname or addition to the family of the Scipiones, 523.d
Samian earth of two kinds, 559.d
Samian stone, 591.a. *good to burnish gold, good also in Physicke,* ibid.
Samolus, an herbe, with what ceremonious circumstances to be gathered, 193.f
Samothracia, what they be, 458.i
Samothracia, a pretious stone, why so called, 629.d
Sampier, what herbe, 236.k. *the description,* 254.k
the manifold vses that it hath, 254.l
Sampier Sauage, 256.l
Sand of the sea shore, for what medicinable, 414.i
Sand vsed to slit and saw marble with, 572.h.i.k
Sand for mortar, which is good, 594.k
Sand of Puteoli, of a wonderfull nature, 554.l
Sand of Nilus, wherfore vsed at Rome, & elsewhere, 555.a
Sandaracha, a painters colour artificiall, 528.k
Sandaracha artificiall, how made, 530.g
the right colour and the price, ibid.
Sandaracha naturall, where it is found, 520.m. *which is best, ibid. the qualities thereof,* ibid.
Sandaresos, a kind of gem, 617.d
Sandaser, and Sandareson, 617.e
Sandastros, a kind of gem or pretious stone, of the baser sort 617.c. *called by some Garamantites,* ib.
the description thereof, and why it is much regarded by the Chaldæans, 617.d. *male and female,* ibid.
Arabian and Indian, ibid.
which Sandastros is best, 617.e
how Sandastros Sandaser, Sandareson, and Sandaresos, be distinguished, ibid.
Sandauer, 416.k
Sandix minerall, a painters colour, 528.k
Sandix artificiall, how made, 530.g
the price of Sandix, 530.h
Sandix, Virgil tooke to be an herbe, 530.g
Sandragon, a colour of painters, 528.i
Sangenon, a kind of Opal, 614.l
Sanguis Draconis, or Sandragon, what it is, 476.g
how it is sophisticated, 476.i
Sanguin-Rod, what plant, 189.b
the medicinable vertues that it hath. ib.
Santerna. See Borax of goldsmiths.
the vertues medicinable that it hath, 509.c
Sapa. See Cuit.
Sapphire, a pretious stone, 620.l
diuers sorts, and which be best, ib.
hard to be cut. ib.
which be the male, ib.
Sapron, what it is, 318.l
Sarcion, a fault in gems, 612.m
Sarcocolla, what it is, 197.e
the medicinable vertues thereof, ibid.

Sercophagus a stone, why so called, and the nature thereof, 587.d.
Sarda or Sardoine, a pretious stone called the Cornalline, 615.b. *it is the one halfe of Sardonyx,* 616.g
Sardoins or Cornalines seale faireſt of any other, 618.h
they be found much about Sardeis, and thereupon tooke their name, ibid.
from India there came Sardoins of three ſorts, 618.h
their ſeuerall differences, ibid.
male and female, 618.i
in what regard this ſtone is accepted, ibid.
Sardachates, a pretious ſtone, 623.e
Sardonyx of K. Polycrates, 601.a
Sardonyx, a pretious ſtone highly eſteemed by Scipio Africanus, 615.a. *why ſo called,* ibid.
Sardonyches blind, which they be, 615.b
Sardonyches the beſt to ſeale withall, ibid.
Sardonyches of ſundry kinds: Arabicke, Indian, Armenian, 615.b.c.d
Sardonyches artificiall, 613.e
Sarmens wrote firſt of Horſemanſhip, and therefore pourtraied on horſebacke in braſſe by Demetrius, 505.f
Sata, what they are, 6.g
Saturns well, 404.i
Satyrion, what it ſignifieth, 257.d
Satyrion, an herbe, 257.a.b. 226.l. *the deſcription,* ibid.
Satyrus a great architect, 575.c
Satyrus, a writer in Naturall Philoſophie, 615.a
Sance fleame, what cureth, 128.b
Savorie the herbe deſcribed, 30.k
Sauge, an herbe, 246.k. *the deſcription and medicinable properties thereof,* 142.k
Sauge de Bois an herbe. See Polemonia.
Savine, a plant, of two ſorts 193.c
the names that it hath, ibid.
vſed in Phyſicke for Cinamon, 193.d
Saurites, a preiious ſtone, 629.d
Sauroctones, an image of Praxiteles his making, why ſo called, 500.l
Sauros and Batrachos, two excellent workemen. See Batrachos.
Saxifrage, one of the names of Maiden-haire, and whereupon, 127.b
Saxum, the ordinarie white chanlke, 560.i
Sayles for ſhips of purple and other colours, 5.c
Sayling into Ægipt, wherefore wholeſome, 412.l
Sayling vpon the ſeas, for what diſeaſes good, 303.d
againſt Sayling and navigation, an inuective, 1.f 2.g.h.&c.

S C

Scales. See Dandruffe.
Scall of the head, how to be cured, 52.g. 56.i. 43.f. 52.i 59.d. 60.g. 72.g. 104.g. 105.e. 127.c. 133.c. 141.b 142.l. 147.b. 155.f. 157.e. 158.m. 161.b.f. 163.b 177.f. 178.g. 180.g. 191.c. 196.h. 201.e. 207.f 232.l. 249.e. 277.d. 287.e. 306.i. 324.h. 341.d 353.a.
Scalds with ſeething water, how the fire may bee taken forth, and the place kept from bliſtering, 351.e
See Burns.
Scalops medicinable, 438.k
good to cleanſe the bladder, 444.b
Scammonie an herbe, 251.b
the iuice of this herbe, ibid.c
how it is drawne, and to be choſen, 251.d
how to be vſed in purging, ibid.e
how ſophiſticated and diſcerned, ibid.
petie Scammonie, what herbe, 199.e
how it is eaten and what effect it worketh, ibid.
Scandix, the herbe, 130.g
a baſe woort, ibid.
Scarites, a pretious ſtone, 630.i
M. Scaurus his exceſſe in marble pillers vncontrolled, 563.b
his ſumptuous building compared with Nero and Caligula, 583.d.e
Sceletyre, what diſeaſe, 112.k
See Stomacace.
Scepſius a Philoſopher and writer in Phyſicke, 308.k
Schiſta, what onions, 20.b
Schiſta, what egs, 352.k
Schiſton, what kind of milke, 317.e
the making of it, ibid.
the vertues thereof, ib.
Schiſtos, a kind of Alume, 558.b
Schiſtos, a ſtone of ſaffron colour, 367.d
Schiſtos, a kind of bloudſtone, 590.g
the vertues medicinable, ibid.i
Schytanum, what it is, 471.b
Sciatica, the gout in the hucklebone, what medicines it cured with, 50.i.56.k.74.i.105.c. 108.g.134.m 141.d.155.d. 161.c. 180.g.k. 185.a. 186.k. 188.b 190.k. 192.k. 199.a. 219.e. 224.k. 238.m. 248.i 255.e. 263.e. 271.d. 273.c. 274.k. 275.a.b. 276.i 281.c.284.k.287.c.f.289.d.290.k.291.b.315.a.330.b 334.i.382.g,h,i.385.a. 418.k. 419,c,e. 431.a. 442.k 444.i.
Scincus deſcribed, 316.i
Scincus medicinable, ib. & 433.e
how he differeth from the land Crocodile, 316.i
one of the ingredients of antidots, 316.k
Scipio ſurnamed Serapio, and why, 81.f
honoured with a coronet of flowres by the people of Rome
ib. he died poore, ibid.
interred by a generall contribution of the people, 82.g
Scipio Africanus the ſecond, how much plate and coine hee had when he died, 480.m
what treaſure he ſhewed in triumph and brought into the citie chamber, 481.a
what Scipio Africanus gaue to his ſouldiers vpon the winning of Numantia, 481.a
Scipio Alobrogicus how much plate he had, ib.
L. Scipio allowed his charges by the citie of Rome for his ſolemne plaies, 480.i
Scipio Æmilianus receiued an obſidionall or graſſe coronet, 117.e
Scolecia what it is, and how made, 509.b
why ſo called, 509.c
the vertues thereof, ibid.
Scolecion, what it is, 177.e
Scolopendres, their venomous pricke how to be cured, 59,a 60,g.61,b.62,g,75,e.127,b.155,f.306,k.418,l.
Scolopendres of the ſea burſt with faſting ſpittle, 300.k
Scolymus the herbe, deſcribed, 98,i.130,m
the vertues which it hath, ibid.

20030
copy 1

Scombri fiſhes, how emploied, 418.g
Scopa Aegia, what floure, 85.e
Scopa Regia, an herbe and a kind of Achillea, good for the gargle and ſquinancie in ſwine, 216.l
Scopas, a ſingular Imageur, 566.m. *his workes,* 567,c,d,e,f *there were two of that name, both cunning workemen,* 504,k. *wherein they excelled,* ibid.
Scordium or Scordotis, an herbe found by K. Mithridates, 220,i *the deſcription by him ſet downe, ib. the vertues medicinable, ib. good for the bladder and the ſtone,* 254.g
Scordotis, 245.f
Scoria in trying of gold ore and other mettals, what it is, 467.b.
Scorpites a pretious ſtone, 630.i
Scorpion, an herbe, 230.l. *why ſo called, ibid. See Tragos.*
Scorpions hurt with Aconitum, how they be cured, 270,i
pricked once by a Scorpion, ſhall neuer after bee ſtung by Hornet, Waſpe, or Bee, 299.c
Scorpions neuer ſting the ball of the hand, 361.c
againſt Scorpions and their ſting remedies, 36,k. 39,c. 40.m 42,h. 43,a,d. 45,e. 46,l. 54,i. 55,e. 56,i,m. 59,a,b. 60.g 61,b. 62,g,k. 63,d. 64,h. 65,b,d. 69,d. 71,c. 73,b,c 74,g. 75,c. 76,m. 77,c. 101,d. 103.f. 105,c. 106,k 107,b. 109,a. 110,k,l. 113,c. 121,c. 126,h,k. 131,d 134,i. 138,l. 146,l. 153,b. 155,f. 166,l. 167,e. 168,m 170,k. 173,c,d,e. 174,i. 178,k. 179,b. 181,f. 184,k,l 194,i. 195,d. 196,g. 199,b. 206,g. 230,l,m. 237,f 246,k. 270,h. 276,g. 277,c. 288,l. 289,b. 301,a,e 322,k,l. 361,b,c,d. 413,b. 418,g,k. 424,g. 451,b,f 433,e. 434,g,i. 435,b,d,e,f. 556,m. 561,d. 624,g.
ſea Scorpion medicinable, 438,g. 444.g
Scorpionrion, what herbe, 126.i
Scorpius, an herbe, 122,l. *why ſo called, ibid, two kinds thereof,* ibid.m
Scratching of the body is healthfull, 303.d
Scyllus, an Imageur and grauer in Marble, 568.h
Scyricum, 476,l. *an artificiall painters colour, how made and vſed,* 530,h. 528.k
Scyros the Iſland yeeldeth a ſtone of a ſtrange nature, 587.d
Scythica, what herbe, and why ſo called, 223.e. *the vertues, ib. from whence it commeth,* 269.d

S E

Sea waters made hot, in what caſes medicinable, 412.k,
Sea water actually cold, medicinable, ib. outwardly applied, for what good, ibid.l
Sea water ought to be had from the deepe, farre from land, 413,a. *how to be giuen inwardly, ib. how to be tempered for procuring vomit,* ibid.
Sea water clyſterized, ibid.
Sea water artificiall how to be made, 413.d
Sea a moſt wonderfull element, 425.c.d
Sea weed called in Latine Fucus Marinus, 258.h *the deſcription, ib. three kinds thereof,* ibid.
Seale, a fiſh, his vertues medicinable, 437.g
Seale of the Romane Embaſſadour, was the image of Auguſtus Caeſar, 601.d
Secundarium, what kind of Minium, 476,k. 477.d
Sedum, an herbe. See Houſleeke.
Seeds of herbes how they differ, 23,a,b,c
garden Seed, ſome more ſtrange than other, 33.a
Seeds of herbes leſſe effectuall, after inciſion made in the roots, 292.g
Seed naturall in men what doth encreaſe, 77.f
ſhedding vnwillingly how cured, 48.g. 72.i. 130.k
Segullum, what earth it is, 466.l
Selago, an herbe like Sauin, 193,d. *with what ceremonious circunſtances to be gathered,* ibid.
Selecti at Rome, who they were, 490.g
Selenites, an admirable pretious ſtone, 629.d
Selinas and Selinoides, what kind of Coleworts, 48.k
Selinus earth, for what it is good, 559.f
Senatours of Rome how knowne from Knights or Gentlemen, 459.c
Senerio, what herbe, 238,k. *See Groundſwell.*
Sengreene. See Houſleeke.
Sences how preſerued, 74.h.i. *how ſtupified againſt cutting or ſawing off a member,* 314.l.m
Senuie the herbe how it groweth, 31,b. *the temperature and kinds thereof,* 31.b.c. *how to be dreſſed,* 31.c *threee kinds thereof,* 73.f. *the qualities that it hath,* 73.f. 74.g.
Senuie juice how it is drawne, 74.k
Seps, a venomous worme or a kind of Lizard, 157.b. 263.d *it cureth the owne bitt,* 363.d. *it is otherwiſe called Dipſas,* 173.a. *remedies againſt the venome thereof,* 157.b 434.g.
Septimuleius for couetouſnes of gold killed his deare friend C. Gracchus, 463.c
Serapias, a kind of Orchis or Stundlewort, 256,m. *the deſcription,* 257.a
Serapion, a painter, that loued to paint great pictures of Theatres, &c. but man or woman he could not draw, 544,i.
Seriphium Wormewood, the vertues that it hath, 443.d
Serpents how they are known to be retired and gone, 132.k
Serpents when they haue ſtung a man, neuer retire againe into the earth, but die as it were for remorſe of conſcience, 358.k
Serpent hardly plucked out of their holes but by the left hand, 299.c
Serpents gather together by the perfume of the bone about their owne throat, 321.d
Serpents chaſed away by the fume of an Harts horn burnt, 321.d.
what other means there be to chaſe away Serpents and reſiſt their poyſon, 38,k. 39,b. 40,h,l. 42,g,h,m. 43,a,d,e 45,e. 47,a,b. 50.g. 51,a,e. 52,l. 53,c. 54,l. 56,i,l. 57,a 56,a. 60,g,l. 61,c. 62.g. 63,b,c,d,e. 64,k. 65,b. 74.g,m 77,c. 78,h,i. 101,d. 103,a. 104,g,k. 105,c. 106,g 107,b. 108,i,l. 110,i,k,l. 118,m. 124,i. 125,a,d. 126.h 129,d.f. 131,d.f. 134,i. 135,d. 138,k. 139,b,e 142,k,l. 143,b. 148,i. 149,a. 153,b. 162,g. 165,b 168,k. 169,e. 172,l. 173,d. 177,c. 178,m. 179,a,e 180,b. 181,f. 182,h, 184,k. 186.g,h,k. 187,c,f. 188,m 189,e. 192,k. 195,d. 198,i. 199,b,c. 200.g. 201,c,d 202,k. 206,l. 212,l. 222,m. 223,d. 226,k,l. 227,a b,c,e,f. 228,k,l,m. 229,c,d. 230,h,i. 233,a. 235.e 237,b. 239,a. 254,m. 258,i. 274,i,l,m. 275,e 278,k. 282,g. 283,b. 284,k. 288,l. 289.a. 290.i 300,g,k. 301,a. 306,i,k. 307,b. 312,m. 316.g 318,h. 321,e. 322,h,i,k. 353.b. 355.d,e. 356.g.h 358,g. 359,a,b,c. 413,b. 418,l. 422,h. 431,b.f 434,g,i. 435,c. 557,d. 561,d. 573,b,c. 589,c 590,g.

Serpents

The Table to the second Tome

Serpents how to be brought asleepe, and mortified, 316.*h*
Serpyllum, what herbe it is, and the sundry kinds, 75.*d*
Serrani, a familie in Rome wearing no linnen, 2.*l*
Serratula, an herbe. See Betonie.
Serta and Serviæ, what they are, 80.*i*
Seruants many retained in one house, what abuse and inconuenience thereof, 459.*a*
M. Servilius Nonianus what a foolish ceremony he obserued to keepe himselfe from bleared eies, 298.k
Servius Tullius K. of Rome, how hee was supposed to bee conceiued, and whose sonne, 599.*d*
Sesama, the medicinable vertues that it hath, 140.*g. the disconmodities proceeding from it, ibid. the oyle thereof, ib.*
Sesamoides, an herbe, and the medicinable vertues thereof, 140.*g.h*
Seseli. See Siler.
Sesostris, a proud prince, K. of Ægipt, vanquished by Esubopes, 464.*i*
Sesterttius, a siluer piece of coine at Rome, worth what, 463.*a.b.*
Setanios, a kind of Bulbe, 19.*b*
Setwall the vertues thereof, 104.*l*
Sextius Niger, a writer in Physicke, 72.*h.* 316.k

S H

Shaddow in pictures, 528.*h*
Shaddow-like fish Sciana medicinable, 444.k
Shaking of lims how to be helped, 141.*b. See trembling.*
Sharewort, an herbe, 256.*h. the description, ibid.*
Share, and the infirmities thereof, how to be auoided, 256.*h See more in Groine and Pushes.*
Sheepe hurt by tasting Pimpernell, how they cure themselues, 234.*l*
Sheepe without gall in Pontus, and the reason of it, 276.*i*
Sheepe rotten or otherwise diseased, how to be helped, 144.*h* 221,*a. how to recouer their stomackes, and make them fall to their meat,* 351.*c*
Shels of fishes serning as trumpets to sound withall, 451.*e in stead of scoupes to lade oyle, ibid.*
Shels of egges and fishes, why crushed and broken when the meat is eaten forth of them, 296.*i*
Shields and scutcheons of armes, in memoriall of ancestors, who brought vp first at Rome, 524.*i*
Shields why called Clypei, ibid.l
Shields presented the lively images of those which bare them, ib.
Shield of Asdruball, 524.*m*
Shingles how to be cured, 44.k. 105,*a.* 122,k. 139,*a.* 143.*c* 146,k. 157,*e.* 158,*m.* 174,k. 265,*d.* 278,*l.* 284,k 287,*b.* 309,*d.* 337,*a. See more in S. Antonies fire.*
Ships prouided for transporting Obeliskes out of Ægipt to Rome, 575.*e*
Shoulder blades pained, how to be eased, 255,*e.* 312,*b* 379.*c.*
Shuds of Flax how emploied, 4.k
Shardi-Shrew biting is venomous, and the remedies against it. 43,*e.* 50,*i.* 55.*e.* 56,*m.* 71,*e.* 167,*a.* 168,*m.* 277.*c* 322,k. 360,*m.* 361,*a.*
She will not goe ouer a cart-tract, 361.*a*

S I

Sibylla, three Propheteses, their statues at Rome of Brasse, 491,*d,*
L. Siccius Dentalus, a braue warrior, 116,k. *honoured with sundry chaplets for his good seruice, ibid.*
Sicilie aire killeth scorpions, 623.*e*
Scycyone, a city famous for workemen in mettall and minerals, 564.*b*
Sicyone in name for cunning painters, 547.*b*
Sides, pain or stitches how to be eased, 57,*d.* 123,*a.* 246.*l* 247,*b,d.* 248,*h.* 275,*e.* 381,*e,f.* 442,k. *See more in Pleurisie.*
Sideritis what herbe, 123.*b. the vertues thereof respective to the eies,* 233,*f. wonderfull in staunching of bloud,* 263.*e.*
Sideritis, a pretious stone, 629.*d. the vertues thereof ib.*
Sideropœcilos, a pretious stone, 629.*d. why so called, ibid.*
Signet or signe manuell. See Ring.
Signina, what kind of workes, 554.k
Sil, a colour minerall, what it is, 484.*h*
Sil, which is best, 484,*h. the price, ibid.*
Sil Atticum, ib. the price, ibid.
Sil Scyricum, 484,*i. the price, ibid.*
bright Sil, ib.
the vse of all sorts of Sil, 484.*i*
Silanion, a fine Imageur in brasse, 502.*l. he lively expressed Apollodorus the cunning workeman, ibid.*
Silaus, an herbe, 255.*c. the description, ibid.*
Silence at the bourd from one end to the other, what it presageth, 298.*g*
Siler or Seseli, an herbe, 41.*c. the description thereof, ib. the seuerall kinds and properties that it hath, ibid.*
Siligo, the fine wheat, what medicines it doth affourd, 137,*f.*
Silphium, 8.*h. engendered by shoures of raine,* 133.*e. the medicinable vertues thereof,* 134.*g*
the root of Silphium hard of digestion, and breedeth ventosities, ib. it stoppeth the passage of vrine, ib.
Silurus a fish medicinable, 442.*h*
Silybum, an herbe, 248.*g. the vertues. ibid.*
Silybus, a base herbe, 130.*m*
Simonides, a painter, 550,*h. his workes, ib.*
Simples and compositions compared together, 135.*b*
Simples or herbes of lesse effect, the more they bee vsed, 292.*g.*
Simus a painter, 551.*h. the pictures of his drawing, ibid.*
Sinadian gray marble, 522.*i*
Sinewes shrunke, how to be mollified and drawne out, 129.*b* 134.*l.* 138.*g.* 173.*e.*
Sinewes stiffe how to be made supple, 161.*f*
Sinewes benummed with cold, what doth recouer, 74.*l*
for sinewes and their infirmities in generall, comfortable medecins, 48.*m.* 49.*b.* 137.*a.* 187.*e.* 212.*l. See more in Nerues.*
Sinopis or Sinopum, a painters colour, why so called, 528.*k of diuers kinds, ib. l. which is the best, ib. the price, ib. the vse in painting, ibid. the medicinable vertues,* 528.*l.m.*
Sinuessa, waters medicinable, 402.*l*
Sion, what herbe, 130.*k. the description, ibid.*
Siphnian stone, emploied in vessels to seeth meat, 592.*b*

Siria-

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Siriasis in children, what disease, 126.i
Sirnlugus, a strange and vnknowne beast, 399.d
Sisapone, a territory in Spain famous for a mine of Vermillion, yeelding to Rome a great rent yearely, 476.i
Sisymbrium, an hearbe described, and the vertues that it hath, 75.f
Sisyrinchios, a kind of bulbous herbe, 19.b. *the strange nature that it hath,* ibid.

S K

Skab and scurfe in man or beast how to be healed, 36.g 42,b.49,c.58,h.64,k.74.i. 128,k. 129,a. 146,i.149,c 155,f.161,a,e.166 l. 168,i,k. 169,a. 173,c. 197,d 319,f.338,l.353,a.370,l.377,d.413,b.418,i,m.419.b 420,g,l.446,m.450,h.506,k.516,h.557,c.
Skald heads how to be healed, 43,f.52,i. 59,d.60,g.72,g 105,c.127,c.133,c.141,b. 142,l. 147,b. 155,f.157,e 158,m. 161,b,f. 163,b. 177,f. 178,g. 180,g. 191,c 196,h.201,e.207,f. 232,l. 249,e. 277,d. 287,e. 306,i 324,h.341.d.357.a.
Skarefire named at the table ominous, 297.e
how the danger of a Skarefire may be auerted, ibid.
Skars and their strokes or markes remaining, how to be reduced to their naturall colour, 36.h.39.f.55,f.61.b 65,a.144,g. 149,e. 189,f. 266,h. 286,i.287,a. 319,f 328,h.339,a.394,l.
medecins skinning without Skar, 51.a
Skars or markes how to be taken out of the skin, 239.d 245.a.
Skars rising vp aboue the flesh, how to be brought downe, 430.h.448.h.475.a.518.l.
Skegs or wild Plums what vertues they affourd medicinable, 169.d
Skin of face or body blemished with spots and speckles vnseemely, by what meanes it may be cleansed, 37,a.106,i 144,g. 157,f. 160,l. 171,e. 184,k. 185,c. 200,k 207,e.268,i,k. 308,g. 311,a. 314,k. 318,m. 377,b,e 475,a.
Skin pilled and skaled, and full of scurfe, how to be mundified, 103,b.158,m.377.c.
Skin of the face rough and riueled, how to be made smooth and euen, 162,k.368,k.311,a.327,c.377,c,f.420,g 589,a.591,c.
Skin looking wan and dead, how to be made fresh and liuely 377,c
Skin red and itching how to be delaied, 337,a
Skin of the body how to be made faire, white, and smooth, 396,i.416,h.559,f.
Skin scorched with cold wines how to be helped, 311.a
Skirwort wild, the properties thereof, 41.a
Skirwort root accepted by Tiberius the Emperour, 18.h
how to Skoure clothes, 157,f

S L

Slaues three enfranchised by Claudius the Emperor, surpassed M. Crassus in riches, 479.e
Slaues who hauing bin chalked on their feet for the market became wealthy afterward, and in honourable estate, 561.a.b.
Sleepe by what meanes it may be procured, 42.g.43,d.44.l 46,g,k. 49,a 66,i. 67,e. 68.g,h,i,m. 102,k. 104,h 105,a,d.161,c. 162,g,i. 166,g. 171,d. 191,e. 234,e 249,d.259,d.260,k.277,e.303,e.341,e. 398,k.424.l 430.g.l.
Sleepe how to be discussed in a drousie disease, 144.b.398.l 446.h. *See more in Lithargie and Drowsie disease.*
Sleeping on the right side commended, 303.e. *See Lying in bed.*
how to Sleepe securely without fearefull dreames and visions, 357.a. *See Illusions.*
Sloen, their vertues in Physicke, 169.d

S M

Smaragdites, a mountaine, why so called, 612.m
Smarides, small fishes medicinable, 444.m
Smyrnium, the herbe, how strangely it groweth, 30.g. *why it is so called,* ibid.

S N

Snap-dragon, an herbe, 231.e. *the description and vertues,* ib. *See Calues snout.*
Snailes with shels excellent for the lungs, 380.i.k. *how to be dressed,* ibid. *which be the best,* ibid.l. *those of the riuer, and their medicinable vertues,* 435.e
Snake slough of great efficacie, 376.l
Snakes, whether they cast their slough at the rising of the Dog starre, or no, 376.k
Snake dedicated to the god of Physicke, 358.g
in the forme of a Snake Æsculapius came to Rome, 358,h.
Snakes when they be venomous, 358.g
for Snakes and Adders poyson, what remedies be appropriat, 226.m.227.a.294.l.358.g.435.c.
in Sneesing, why we wish health to our neighbour & friend, 297.c.
Tiberius Caesar very ceremonius in that point, of being saluted when he Sneesed, 297.c
Sneesing by what meanes it is prouoked, 55.d.109.b.193.a 218.k.232.l.239.e.291.a.430 l.
Sneesing immoderat, how to be staied, 66.i.155.e.183.c 218.l.
Sneesing in what cases wholesome, 304.k
Snow laid for and sought in Summer, 11.e
Snow water, whether it be lighter and better than spring water, 406.g

S O

Soders of sundry kinds, 472.g. *of Gold,* ibid. *of Yron,* 472.h. *of Brasse in masse,* ibid. *of Brasse in plates,* ibid. *of Lead and marble,* ibid. *of blacke Lead,* ib. *of Tinne,* ib. *of Siluer,* ib.
Sochis, a King of Ægipt that reared Obeliskes, 574.l
Socrates, a famous Imageur in marble, 569.a
Socrates a painter highly commended, 549.a.569.a. *his workes,* 549.a
Sole fish medicinable, 443.f
Solanum, what herbe, 112.h. *the hurtfull qualities that it hath,* 112.i
Soldaxella, or sea Colewort, a purgatiue, 51.c
Soldanella, 359.c
Solifuga, or Solpuga, what Insects, & the remedies against them, 145.b.361.e
Solon of Smyrna, a writer in Physicke, 71.b
Soluble, how the body may be made and kept, 74.b.121,f 122,b. 126,h. 137,a. 172,l. 164,b. 166,l. 167.a 169,c. 170.g. 172,l. 180,k. 181,a,c. 182,m. 186,g 192,l. 199,e. 250.k. 254.l. 267.c. 276,b. 277.a 279,e. 287,b. 288,g. 311,b. 317,d. 331,b. 380,l 384,k

384,k.417,d.419,c.437,c.442,l.443,c.470,k.
a Soot to beautifie and colour the eyebrowes, 324.l
Sope, whose inuention, 328,l. how it is made, ib.
Sope and scouring bals consisting of salt, 417.d
Sopewort or Fullers weed. See Cadicula.
Sophocles his foolish opinion as touching Amber, 607.a
Sopylos, a brasse painter, 551.b
Sores in face or head how to be healed, 202,h. See Vlcers.
Sorcerie condemned by Pliny, 273.e. See Charmes.
Sorel or Souredocke, 33.d.e.73.a. the description and properties thereof, 73.b
Sornatius, a writer in Physicke, 438.h
Sorusses, a fruit, their medicinable vertues, 171.b
Sorie, a minerall, 509.e.510.g. of diuers kinds which is best, 509.g. hurtfull to the stomacke, ib.
Sosimenes, a Physition and writer, 66.l
Sostratus, a famous Architect and Enginer of Gnidos, 578.h.
Sotacus, a writer, 586.m
Sotira, an expert midwife and writer in Physicke, 309.e
Sow-bread, what herbe, 229.c.d. See more in Syclaminus.
Source-milke. See Cherne-milke.
Sow-thistle, an herbe, described, 131.b. the kinds thereof and the properties, 131.b.c

S P

Spaine, a country studious in simples and herbes, 224.h
Spaine the goodliest country next to Italie, 632.m
Sparganium, what herbe, 228.l
Sparta, what they are, 6.g
of Spart, 6.g.h. the description, ibid. appropriat to Spaine, and may be called Spanish broome, ibid. the vses thereof, 6.i.k.l. the nature thereof, ib.
Spartipolios, a pretious stone, 630.m
Sparton what it signifieth in Greeke, 188.g
Spartacus forbad to haue plate of siluer or gold in his camp 463.f.
Speed or successe how to be obtained in law suites, 627.f
in warre, 628.g
Spasme. See conuulsion and Crampe.
Spels. See Charmes and Words.
Spelt. See Zea.
Sperage of the garden excessiue big, 11.d
Sperage wilde of the garden, and of a middle nature, 27.c.d Catoes rule for their ordering, 27.e.f.28.g.h. their medicinable vertues, 53.a
Sperme. See Seed Naturall.
Sphinx in brasse most curiously wrought by Phidias, 566,h
Sphinx a monstrous rocke in Ægipt, 577.b. the description thereof, ib.b.c. thought to be the monument wherin king Amasis was entombed, ib.
Sphragides, certain pretious stones that seale faire st, 620.h
Sphragis what earth, 529.a
Sphyrena, a fish. See Sudis.
Spickneil. See Meum.
Spilumene, an image of Praxiteles his making, 500.k
Spirits how reuiued and recouered, 59.c.130.h
Spirits made dull by some water, 403.e
Spitting obserued superstitiously in auerting witch-craft, 300.g. in preuenting lamenesse, ibid. in turning away the displeasure of the gods for some bold petition, ibid. in fortifying the operations of medicines, 300.h in curing the party that one hath hurt, and repented therefore, ibid. in helping a beast swaied or hipped by a blow giuen, 300,i. in giuing a shrender blow to an enemie. ib.
Spittle conueighed backward behind the eare, what it signifieth, 297.d
Spittle fasting of what vertue, 300.g.k
Spittle fasting of a woman medicinable, 308.h
Spittle of certaine men, medicinable against serpents, 299.a.
Splanchnoptes, an image in brasse curiously wrought by Stipax, 502,l. why so called, ibid.
Splanchnoptes, 123.e
for the Spleen pained, swelled, hard, obstructed, or otherwise diseased, proper remedies, 39.d.40,k.45,c.49,f.51,b 52.g.56,h,i,60,g.61,a.62,l.64,l. 67,d.73,d.75,e 101,b. 103,b. 104,g. 105,c. 119,d. 121,e. 122,g 124,l.127,e.128,l.130,k.143,b.144,h.146,k.150.g,i 164,g. 167,c. 169,f. 173,d. 178,g. 180,k. 187,c 188,b. 189,e,f. 190,i,l. 193,a. 196,l. 198,i. 207,d 208,g. 216,m.253,d,e,f.254,g.263,c.274,l. 275,e 277,c.287,e.288,b.289,d.290,i. 291,c.313,b. 318,i 330,h,i,k.341,d.352,i. 381,d,e.424,h.430,g.431,e 443,f.444,g.447,a.516,i.529,b.
Splenion, what herbe, and why so called, 217.a
Sploches swert in the skin, how to be brought to a fresh colour, 339.a
Spodium of Lead, 520,g. how washed, ib.
for Spodium a succedan, 158.l
Spodos what it is, 511,f. the nature of it, ibid.
Spodos of sundry sorts, 512.g. how to be washed, ibid,h. the vertues, ibid,
Spodos Lauriotis, ibid.
the best Spodos, ib.
what things serue in stead of Spodos, 512.i
Spondylium, an herbe, 181,a. the vertues thereof in Physicke, ib.
Spondylus, a fish medicinable, 446.i
Spongiæ in Sperages, what they be, 27.d
Spongites, a pretious stone, why so called, 629.d
Spots and speckles blacke in the skin, how to be taken out, 62,i.161,e.266,h.314.k.377.d.
Spots or yron moles how to be taken out, 47.d.161.e
Spraines of sinewes how helped, 334.m
of Springs and fountaines a discourse, how to find them, 408.i.k.l.m.409.a.b.
Springs of waters arising vpon the stocking vp and cutting downe of woods, 410.k
Sprots salted, medicinable in some cases, 434.h
Spuma Argenti. See Litharge.
Spunge of fresh water, a kinde of herbe, 280,g. why called Conferua, ibid.h
Spunge of male sex, 423,a. it was wont to be died purple, ibid.
Spunges of female sex, 423.b
Spunges how they are made white, ib.
Spunges haue a sensible life, ibid.
Spunge stones what they be, 589.d. why they be called Tecolithi, ibid.
Spunges vsed in frictions, and rubbing of mens bodies, 424,k.

20030
copy 1

whether Spunges haue hearing or no, 423,c
which Spunges be best, ibid.
the generall vse of all Spunges, 423,d,e
they serue in stead of Lana Succida or vnwashed greasie wooll in wounds, 424.g
Spunge ashes medicinable, 424.i
Spunges commonly diuided into Africane and Rhodiack. 424.k.
where the finest and most delicat Spunges be found, ib.
Spurge, an hearbe, 284,i. *the description,* ibid.
Spurges. See Tithymales.
Spiders venome, what remedies for it, 65,b.187,d.196,i 431,f.433,f.

S Q

Squatina, a fish, the skin whereof is medicinable, 444.l
Squilla or sea Onion, 18,l. *the description & properties,* ib. *more qualities that it hath,* 99,e. *the sundry kinds,* 18.m *how to be ordered,* 19,a
Pythagoras wrote a booke of Squilla, 18,m
Squilla male and female, 51,c. *how to be prepared,* ib. *how to be boiled or calcined,* 51,e
Squilla the lesse. See Pancration.
Squilliticke vineger the vertues thereof, 156.l
Squinancie, a disease of the throat, with what medicines it is cured, 36,l.39,d.42,k.44,g.61,c.66,g.75,e.76,i 103,e.134,l.135,d.147,e.157,b.158,g.172,b.183,c,e 196,g.205,e.212,l. 245,b,d. 277,d. 287,d. 301,d,e,f 311,b.328,k.378,b,k,l. 419,b. 422,k. 432,i.442,g,b 471,e.510,i.
Squinanth rish described, with the kinds and vertues thereof, 101,f.102,g

S T

Stachys the herbe described, 199,c. *the vertue thereof,* ib.
Stag, Hind, Hart, red Deere, enemies euery way to serpents, 321,d. *their hornes,* ib. *skin,* ib.e. *rennet of a Hind-calfe* 321,f.
genetours of a Stag, and his pizzle, ib. *rim of the paunch* ib. *teeth,* ib. *their bloud draweth serpents together,* ibid.
Staining of clothes in Ægypt, how it is practised, 550.c
the commoditie of clothes so Stained by seething, ibid.d
Staphis, or Astaphis Agria, what hearbe it is, 248.l
Starre-fish medicinable, 433,f
Starch-floure, the properties of it, 140.l
Stateræ, what drinking cups or mazers they were, 482,h
Statice, what hearb, 250.h
stately Statues first when they came vp at Rome, 482,l
Romanes honoured at Rome with Statues by strangers, 493,d.
Statues erected for them at Rome who were killed in embassage or seruice for the state, 491.f
the measure ordinarily of Statues, three foot, 492.g
Statues on foot at Rome, 492.l
Statues of siluer when first admitted in Rome. 482.m 483,a.
three Statues of Anniball euen in Rome, 493,e
Statues on horsebacke, a deuise comming from the Greekes, 490,l.
women honoured with statues on horsebacke, 492.l
Statues riding triumphant, or otherwise in charriots, when they were first seene at Rome, 490,m
Statues erected vpon columns, are of great antiquity, 491.a *what they signified,* 492,k
Statues without any robe, 491.e
Rome full of Statues and images, 494,i
Statues Thuscanica, ibid,h
Stauisacre described, 148,l. *it is not Vva Taminia,* ibid. *where it loueth to grow,* ibid.m. *the kernils dangerous inwardly taken,* 149,a. *the medicinable vertues,* ibid.
Steatites, a pretious stone, 630,h
Steatomata, what kind of wens and how cured, 265,c
Steele what it is, 514,i. *diuers kinds,* ibid.k
Stellio, a word odious what it importeth, 388.i
Stellions (the Lizards) their venomous, spightfull, and enuious nature to mankind, 388,i. *most aduerse to scorpions,* 361,b. *how they cast their slough or skin,* 388,k.l. *the same is medicinable,* ibid.i
the diuerse names and description of these starre-Lizards Stellions, 361.b
against the sting and poyson of Stellio, remedies, 140.g
Stephanomelis, what hearb, 263.f
Stepanoplocos or Stephanopolis, a picture of Glycera, 80.l *made by Pansias the painter, who loued Glycera,* 546.l
Stephusa an image of Praxiteles his making, 500,k. *why so called,* ibid.
Sterelitis, what kind of Litharge, 474.k
Stergethron, an hearb. See Housleeke.
Q. Stertinius, a famous Physition at Rome, and a great taker of fees, 344,k. *he and his brother rich, sumptuous, and died wealthie,* 344,l
Stian, or such like hardnesse rising in the eielids, how to bee cured, 324.m
Stibi or antimonie, 366.g
Stibium. See Stimmi.
Stitches in sides how to be eased, 104,b.120,l.121,e 126,k.193,a.202,g.516.g. *See Sides and Plurisie.*
Stiffe and starke for cold, how restored, 263.a
Stiffenesse of lims how to be made limmer & supple, 422.k
Stilo Præconinus his merrie scoffe vpon a Spaniards signet 601,e.
Stimma, a minerall, 473,d. *of two kinds,* ib. *their description,* ibid. *their medicinable vertues,* 473,d,e. *principall for the eies,* ib. *how to be prepared,* 473,f.474,b
Stinking smell of any part of the body, how palliated, 128.h 161,d.
Stipax, a curious imageur and his workes, 502,l
Stipendium and Stipend, whereof these words are deriued, 462,l.
Stœbe, what hearb, 120,l
Stœchas, an hearb, where it groweth, 289.f
Stomacacum, what disease, 110,k. *See Sceletyrbe.*
anguish of Stomacke is most painfull next vnto strangurie, 213,c.
Stomacke weake and feeble how to be comforted, 289,c 383,b.437,c.558,k.591,a.624,l.
paine of Stomacke how eased, 76,l.102,k.l.106,m.138,m 163,e.172,m.186,l.196,b.283,a.312,h.
for Stomack infirmities and diseases in generall, appropriat remedies, 37,f.38,i.41,a.42,k.46,g.47,e.48,h.k,l.50.l 51,d.52,g.55,e.57,c. 60,i. 63,a.70,h. 74.g.k. 76,i 77,e.78,m.102,k.l.111,c.119,c.122,g.129,a.130,g,i 141,f.142,g. 147,a, b.158,g. 161,f. 163,b. 164,i,k 170,h.174,k.197,f,200,k,m.246,l.m. 288,i. 380,l,m 424,g.432,g.609,c.

Sto-

Stomacke exulcerat how cured, 329,d
Stomacke gnawing how to be pacified, 283,a.329.d
Stomatice, what composition, and the vse thereof, 164,m
the reason of the name, ibid.
Stomatice, Panchrestos, and other stomaticals, how made, 170,b.192,b.
Stone Sauge, in herbe. See Sederitis.
Stone that scorneth fire, 593,d,e
a Stone swimming whole, sinking broken, 587,d
Stones are not of like nature to abide the weather, in building, 593,c,d,e
aire of a diuers nature and constitution for building, 588,d
Stone in bladder or kidnies how to be broken and expelled out of the body. 39.d.54.h.60.k.66.i.72.k.73.d.74.l 76.h.77.f.78.g.101.a.d.104,h.111.a.f.120.i.k.122,b 125.e.127.b,128.l.130.l.143.a.173.b.175.b.192.m 195.d.196.k.206.l.254.g.i.255.c.d.281.b.283.b 284.m.289.a.301.c.313.b.332.l.m.
the paine of the stone how eased, 194.h.384.g.h.i.402.l 403.b.430.g.443.e.444.g,h.i.489.d.629.f.
a Stone voided out of the body medicinable, 301.c
Stones suspected for building, how to be prepared that they may serue, 593.e
a Stone dog-bitten, causeth dissention in what house soeuer it is, 303.d
the Vulgar Stone, what vertues it hath, 285.a
Stone cutting and grauen more antient than painting or casting brasse, 565.c
Storax the gum how to be chosen, 180.l. the vertues that it hath, ibid.
Storax, ibid.
Strawberie tree. See Arbur.
Strangurie counted the most painefull disease, 213.c
for strangurie or pissing dropmeale, the remedies, 40.k.41.d 54.i.78.g.106.i.111.a.d.119.d.127.c.131.d.157.f 179.b.185.a.188.h.195.c.199.c.202.g.h.216.h 254.g.h.255.b.274.k.283.b.284.m.290.m.316.m 356.i.384.g.h.
Strangurie what causeth, 384.h
Stratiotes, what herbe, 204.m. the description, 205.a
the vertues medicinable that it hath, ibid.
Stratonice the Queene, wife to K. Antiochus, pictured vnseemely by Clesides, 549.e
Stratonicus, a cunning grauer, 483,e. his workemanship, ibid.
Streames of riuers how to be staied, 316.h
Strictura in yron what they be, and why so called, 514.i
Strigiles of gold, what they be in Spaine, 465.e
Streking of the head at such a day of the Moone obserued for what purpose, 298.i
Strombi, certaine Winkles or shel-fishes medicinable, 446.i
Strongyle, what Alume, 558,l. of two sorts, and their description, ibid.
Strophia and Strophiola, what they be, 80,i
Strumea. See Crowfoot.
Strumus, what herbe, 280,g
Struthium, what herbe 10.g
Strychnos, 280,g. what herbe, 112,h
Styx, a fountain yeelding a venomous water, 400,h.405.a

S V

Sualternicum, what it is, 606.h
Successe in petitions how obtained, 314,g
Successe against aduersary at the barre, and enemy in field, how to be procured, 315,d,e.354,i.357,b. See more in Speed.
Succinum Amber, why so called, 607.e
Sudines, a writer, 573.e
Sudis, a fish, 452.l. the nature of it and the description, ibid.
Suilli, what kind of Mushromes, 132,m. their deadly poyson, 133.a
Sullanders in horses, 338.l
Sulphur-vif is naturall, 556,i. why it is called Apyron, ibid. See more in Brimstone.
Sumach of curriers, 192.g
Sumach of the kitchen, ibid.b
Sun-burning how to be taken away, 161,b.306,h.327,e.
Sup and salt singular for the gout, 419.b
Suns gem, a pretious stone, why so called, 629,c
Superstition of Pagans in their diuine seruice, 294.l.m
their Superstitious ceremonies, obserued at their meat, 297,e.f.
as touching Superstitious ceremonies, Seruius Sulpitius wrot a booke, ibid.f.
Suppuration how to be discharged out of the breast, 200.l
Surbatting of the feet how to be helped, 185.b
Surfet vpon fish how to be helped, 362.k
Surfets in generall what doth resist, 119.d
Suthernwood the herbe, described, 91.b.c. the vertues that it hath, ib.
the degrees in goodnesse, 108,i

S W

Swallowes young that be wild, are better for Physick than other, 378,i. those called Ripariæ be best, ibid. how to be calcined, ibid.
Swelling occasioned by windinesse, how cured, 136,k. See Ventosities.
Swellings hard how to be allaied, 337,b. See Tumours.
Sweat of certaine mens bodies medicinable, 299.a
Sweats how to be procured, 67,b.103,c.122,h.160,l 162,k.167,a.182,g.187,c.193,c.202,h.233,c.284.k 290.k.
Sweats symptomaticall, diaphoreticke, stinking, and immoderat, how to be represt, 58.k.78.k.102.m.153.c 160.i.161.e.174.k.341.e.421.f.558.k.560.i.
Swimming in water for what it is good, 414.g
Swine how they will follow one, 399.f
how cured of squinsies, 268.l
Swine how to be cured of all their diseases, 206,b.450,k
Sword-fish his names. 428.i. his description and nature. ib.
Swouning or fainting of the heart how to be recouered. 55.b 180.g.381.b.

S Y

Sybaris, a riuer. 403.c. the water thereof is of wonderfull operation. ibid.
Syce, what it is. 42.d
Syce. See Peplos.
Sycitis, a pretious stone. 631.a
Sycomore, what tree, and the vertues in Physicke. 169.e
Sylla Dictatour the richest Romane that euer was, 479.d
Sylla Dictatour honoured with a chaplet of greene grasse, 117.c.d.

20030
copy 1

he signed with the image of King Ingurtha prisoner, 601.*e.*
Syluer when it was first stamped into coine at Rome, 462.*m.*
Romanes imposed their tribute to be paid in Syluer, and not in gold, 464.*b*
Caeser Dictator furnished the solemnity of the cirque games all with Syluer, 464.*k*
C. Antonius exhibited his plaies vpon a scaffold of Syluer, ibid.
C. Caligula set for pageants all of Syluer, 464.*k*
Syluer tried out of gold ore, 467.*b*
Syluer found onely by digging pits, 472.*i. cannot be tried without lead or lead ore,* 472.*k*
Syluer mines found in all places, but the best in Spaine, ibid
dampe in Syluer mines pernicious, but to dogs especially. 473.*a.*
Syluer of two kinds, 478.*g. how the best is knowne, ibid.*
Syluer in plate painted by the Ægiptians, and why, 478.*l*
Syluer images enamelled blacke by what meanes, 478.*m* 479.*a.*
Syluer for shift worne in stead of gold, by whom, 483.*a.b*
Syluer much vsed by souldiours, ibid.b
Syluer employed in base and vncleanely vses, 483.*b.c*
Symbolum, what it signifieth, 455.*b*
Symmetrie obserued by Lysippus the Imageur, 499.*e*
Symmetrie is a tearme that cannot be expressed by a Latin word, ibid.
Sympathies obserued, 175.*f*
Sympathie in naturall things, 35.*c*
Symphonia, an hearb, 247.*f. the description and vertues, ibid.*
Symphitum Petræum, an hearb, 275.*d. why called Symphytum, ib. why Petræum, ibid.*
Synaristeusæ, 174.*h*
Syngenicus, a picture, 550.*h*
Synochitis, a pretious stone and the vertue of it, 631.*a*
Synodontes, certaine fishes, 629.*e*
Synodontites, a pretious stone, ibid.
Syriation, a writer in Physicke, 59.*d*
Syrium or Syreion, the juice extracted of Lillie flowres, 103.*b. the vertues thereof, ibid.c*
Syron what hearb, 247.*a*
Syropicon, a kind of Samian earth, 559.*d. the vse in Physicke and how it is knowne, ibid.*
Syrtitæ, pretious stones, 629.*e*
Syssetieteris, a magicall herb, and the effects thereof, 204.*g why so called, ibid. why named Protomedia, ibid.*
Σχῖνος, *what it signifieth,* 7.*a*

T A

Tables at Rome twaine, all of siluer, 481,*e*
Tæda or Torch-wood, what vertues medicinable it hath, 148.*g*
Tænia, a sea-fish. 439.*d*
Talc, or glasse-stone, where it is found, 592.*i.k. the nature of it and manner of engendring, ib. exceeding durable in all weathers,* 592.*l*
the vse of Talc reduced into flakes and smaller pieces, 592.*l.*
Talent simply signifieth the Attick Talent, 548.*k. what it amounteth to, ibid.*
Talent Ægiptian what it weigheth, 464.*i*
Tallow or sewet of the same nature that greace, 320.*k how to be ordered and prepared, ibid. which is the best, ibid.*
Tamaricus a riuer, the fountaines whereof foretell future euents, 404.*l*
Tamarix or Tamariske, a plant, 188.*k the sundry kinds and names thereof, ibid.*
Tamariske, how it is employed, 188.*h. the medicinable vses thereof, ib. the antipathie between it and the spleene, ib.i why called the vnluckie tree,* 188.*k*
Tamnacum, what hearb, 111.*e*
Tangle, a sea-weed, 437.*e. See Reits.*
Tanos, a bastard Emerand, 613,*a*
Taos, a pretious stone, 630.*k*
Taperwort, an hearb. See Mullen and Longwort.
Taphiusius, a kind of Ægle stone, 590.*b. why so called, ibid.*
Taphosiris, a citie in Ægipt, 277.*e*
Tar, what medicinable vertues it hath, 183.*e. how it is made Palmipissa, ibid.*
Taracia Caia, a benefactresse to Rome, honoured with a statue, 492.*h*
Tarentum the citie had the name for making the best candlesticke shankes of brasse, 488.*l*
K, *Tarquinius Priscus, by what policie he kept his people at worke vnder ground about his vaults and sinks,* 582.*k.l.*
K. Tarquinius Priscus his rampiers, a wonderfull piece of worke, 582.*h. the foundation of the Capitoll, and the vaulted sinkes which he made, are admirable,* 582,*h.*
Tast in the mouth how to be recouered and seasoned, 148.*g* 183.*e.*
Tast iudiciall of bitter and sweet, why not in all persons alike, 136.*b*
Tattæus salt, most medicinable in what cases, 419.*a*
Tauri flies, a kind of Beetles, 379,*c. why so called, ib. they be named also Pedunculi Terræ, ibid.*
Tauriscus of Tralleis, a grauer in marble, 569.*b*
Tauriscus a cunning grauer in brasse, 483.*e*
Tauriscus a painter renowmed for his workes, 550.*i*
Tazil, what herbe, 239.*c. the description, ibid.* 280,*k. the vertues, ibid.l*

T E

Teats of milch-beasts sore, how to be healed, 148.*g*
Tecolithi. See Spunge stones, good to expell and breake the stone in mans body, 629.*f*
for all accidents of the Teeth, a remedy, 443.*b*
eye-Teeth of man or women dead, supposed to bee of great vertue, 302.*g*
Teeth how they may be made white, and so kept, 64,*l.* 129,*a* 140.*i.* 160.*i.* 168.*g.* 326.*i.* 352.*l.*
Teeth corrupt, hollow, worme-eaten, and stinking, by what meanes cured, 159.*b.* 168.*k.* 239.*b.c.* 252.*b.* 440.*k* 624.*i.*
Teeth how to be preserued from rottennesse and the worme, 168.*g.* 190.*i.* 419,*b.*
Teeth rotten and hollow, how they may be broken and had out by peecemeale, 179.*c.* 190.*i.* 239.*e*

The Table to the second Tome

Teeth hollow and rotten, how they will fall out with ease, 138.h.159.d.179.e.302.g.376.i.k.l.440.g.
Teeth hollow in paine how to be eased, 276.h.440.k
ach of the grinders or great iaw Teeth, how to be remedied, 440.h
Teeth loose by what meanes they may be set fast, 38.g.h 41.e. 70.g. 72.g.73.e.109.e.124.h. 156.h.m. 159.b.c 160.g.164.l.165.d.184.h.196.h.197.a.238.i.239.b.c 326.i.k.l.351.b.377.a.440.i.
Telephanes, a famous Imageur and his works, 500.h.i
Telphium, an hearb, thought to be Orpine, 290.l
the description and vertues, ibid.
Telicardios, a pretious stone, 629.d
Telirrhizos, a pretious stone, ibid.e
Telmessus, a superstitious city, addicted to soothsaying and magicke, 372.l
Tempest and thunder how to be raised, 315.c
Temple of Diana in Ephesus how long a building, 580.h.i how it was founded and scituat, ibid. the description thereof, ibid.
Temple of Cyzicum and the description thereof, 581.a. by whom built, ibid.
Temple of Diana Anaitis, religious and sacred, 470.g spoiled by Antonie the Triumvir, ibid.
Temple of Peace built by Vespasian the Emperour, a stately piece of worke, 581.f
Temple of Fortuna Sera, built by Nero the Emperor, all of Phengites stone, 592.m
Tephria, what kind of Marble, 573.c
Tephritis, a pretious stone, 629.f. the description, ibid.
Tepula, a water serving Rome, 585.d
Terebinth or Terpentine tree, what medicinable vertues it hath, 181.c
Terpentine rosin is the best, 182.k. good to nourish the body and make it fat, ibid.l
Terra Sigillata or Lemnia, 529.a. it was sealed in old time, and thereupon called Sphragis, ib. the medicinable vertues thereof, 529.a
Terraces, whose invention, 596.i
for Tertian agues, what remedies are conuenient, 70.l 112.g.122.k. 125.a. 126.k.l. 205.b. 223.d.260.h.k 287.c.d. 302.h. 309.e. 310.i. 391.c. 403.b. 424.i 446.i.
Testiculus Canis, an hearb, 279.d. the description, ib. a double root it hath like to dog stones, ib. the different vertue and operation of these roots, ib.
Tethea, what fishes, 442.k. their description and vertues medicinable, 443.c.d
Tetradoron, what kind of bricke, 555.d
Tetragnathium, a kind of Phalangium or venomous spider 360.k. the manner of their pricke and the accidents ensuing thereupon, ibid.
Tetters called Lichenes, disfiguring the face, how cured, 156.g.173.a.183.c.192.k.244.l m. 245.a.b.377.c.e 556.l.557.d.560.h.
for other tettars, meet remedies, 36.g.45.c.49.e.52.i.56.k 72.g. 75.b. 103.b.124.h. 128.k. 142.l.143.c.144.l 146.i. 157.e. 166.l.m. 168.k. 169.a. 172.i. 187.e 252.h.300.i.413.b.419.b.
Teuca queene of the Illyrians, put Romane embassadours to death, 491.f
Teucer, a famous graver, 484.g
Teucria, an hearb, 247.b. a speciall hearb for the liuer, ib.
Teucrion, an hearb, why so called, 216.l. the description and vertues, ibid.m

TH

Thalassegle, what hearbe, 203.e. why called Potamantis, ib. the strange effects thereof, ibid.
Thalassomeli, a syrrup, how to be made, 413.d.e. the singular vertues thereof, ibid.
Thalictrum or Thalictrum, an hearbe, 291.a. the description and vertue, ibid.
Thapsia, an hearbe, the root whereof is medicinable, 245.b.
Theamides, contrary in nature to the Loadstone, and reieteth yron, 587.c
Theangelis, a magicall hearbe, and the vertues thereof, 203.f.
Theatre of M. Scaurus, a most wonderfull and sumptuous piece of worke, 583.e. with the description thereof, ib.
Thebais salt, for what infirmities good, 419.b
Thebes a city in Ægipt built hollow vpon vaults, 580.h it had about it an hundred gates, ibid.
Thelygonum, what hearbe, 257.d. the vertues that it hath, 268.h
Thelyphonon, what hearbe, 230.l. the description, ib.l.m the reason of the name, ib.
Thelypteris, a kind of Fearne, 281.d
Themison, a professour in Physicke, 344.i. he wrote a Treatise in praise of Plantaine, 223.b scholler to Asclepiades, ib. he reiected his masters Physicke, and brought in new, 344.i
Theodorus, a writer in Physicke, 52.i
Theodorus, a most curious and fine Imageur and grauer in brasse, 503.a. he cast his owne image and a coach, &c. most artificially, ibid.
Theodorus one of the Architects that built the Labyrinth in Lemnos, 579.c
Theodorus, a painter, for what pictures hee was famous, 550.h.i.
Theombrotion, a magicall hearbe, described, 203.c the nature thereof, ibid.
Theomenes his opinion as touching Amber, 606.l
Theon, a painter, and his workes, 550.i
Theophrastus his opinion of Amber, 606.k
Theophrastus wrote of floures and hearbes, 82.l
Theriace, a kind of grape, 148.i. the medicinable vertues thereof, ibid.
Theriaci, what troches, 357.e.f. how they be made, ib. their vse in preseruatiue antidots, ib.
Therionarca, a magicall herbe, the strange effects thereof, 203.d.
Therionarca, another herbe described, 229.c the reason of the name, and the effects that it hath, ib.
Theseus, a picture of Euphranor his doing, compared with another that Parasius made, 547.d
Thesium, what hearbe. 127.e
Thesmophoria, what feasts, 187.b
Thespiades the nine Muses wrought in brasse by Enthicratus, 500.g
Thespiades also engrauen in marble, 570.g
Thessalie practised Magicke, whereupon Magicians were called Thessalians, 377.i

20030
copy 1

Theſſalica, a comedie of Menander, detecting the vanities of Magicke, 372.m
Theſſalus, a Phyſician, 344.l
when he flouriſhed, ibid.
he altered the Phyſicke of his predeceſſors, 344.m
he inveyghed openly againſt them, ib.
he entituled himſelfe vpon his tombe Iatronices, 345.a
Theudactylos, a pretious ſtone, 930.b
Theutalis, an herbe, 287.a
Thiatis, what moneth in Ægipt, 286.g
againſt Thirſtineſſe appropriat remedies, 43.b.51.e.60.h.i 67.b. 70.g. 73.a. 120.h. 129.b. 171.c. 275.e 624.g.
Thlaſpi or Thlaſpe, what herbe, 291.a
of two kinds, ibid.
their deſcription, ib. why ſo called, ibid.
Thorne Arabian, the medicinable vertues that it hath, 194.i.
Thracia, a pretious ſtone of three kinds, 629.f
Thracian ſtone ſooneſt burneth by the meanes of water, 472.b.
Thraſillus, a writer in Phyſicke, 435.d
Three-leaſe graſſe. See Trefoile and Clauer.
a fiſh bone ſticking in the Throat, how to be remoued, 302.l 328.k.
Throat ſwelled, how to be aſſuaged, 158.i
Throat ſore and exulcerat, how to be healed, 418.b.328.i 378.g.589.b.609.b.
for Throat infirmities generall remedies, 41.f.59.e.74.k 120.b. 123.c. 157.b. 180.l. 245.b. 246.i. 317.a 328.i.
Thryallis, what herbe, 230.k
Thumbe of of K. Pyrrhus medicinable, 295.f
Thumbe hending downward, a ſigne of approbation, 297.d
Thurianus, a famous potter, 553.a
he made the Image in the Capitoll of Iupiter in clay, ib.
Thunderbolts do ſent or ſmell of brimſtone, 557.a
Thuſcanica, what petie images, 494.g
Rome full of them, ibid.h.i
Thyme of Attica is beſt, and therfore the hony from thence is chiefe, 90.k.l
Thyme of two kinds, ibid.k
when it floureth, and how, ib. 107.c.d
by it is knowne what a yere will be of hony, ibid.
the deſcription and nature of Thyme, 90.k
the vertues, 107.d
running Thyme, 75.d, why it is called Serpyllum, ib.
wild Thyme, where and how it groweth, 31.c.d
the properties that it hath, 75.d
Thymbraum, what herbe, 233.e. the vertue, ibid.
Thyſſelinum, what herbe, 233.e. the vertue, ibid.
Thyſtles, and their ſundry kinds, 98.g.h
Thyſtles wild of two ſorts, 78.l
Thyſtles forbidden to be eaten by Roman Commoners, 11.d

T I

Tiberius Cæſar a grim ſir, yet delighted in pictures, 527.f
See Tyberius.
Tier of Flax, 4.i.k
Tikes in dogs how to be killed, 124.i
Tikes highly eſteemed by Magicians, 387.b.c
their fooleries in the vſe of Tikes, ibid.
Timagoras, an antient painter, 537.d
Timæus, a naturall Philoſopher, 666.i
Timanthes, an excellent painter, 536.k. famous for the picture of Iphigenia in Aulides, ib. a man of fine conceit, ib.
Timarete, a paintreſſe famous for her penſill, 534.g. 551.a
her picture, ibid.
Timomachus, a painter of good note, 548.k
his pictures, ib.
Timotheus, a famous Imageur and cutter in ſtone, 568.l
rich Tinctures, which three be principall, 88.k
Tineſmus, what diſeaſe it is, 249, a. the remedies thereof, 44.i.49.e. 55.c. 66.i.70.h.72.k.73.d.126.g. 143.a 172.h.249.b.278 l.283.b. 318.k. 332.h.359.c.382.k 413.a.437.c.443.d.e.474.h.520.i.
Tin-glaſſe. See Leadwhite.
Tin of diuers kinds, 517.c.d
ſundry vſes of Tin, ibid. how it is ſophiſticat, ibid.
Tin Tertiarium, what it is, 517.d. the vſe thereof, ib.
Tin Argentarium, what mettall and how emploied, 517.e
Tiſſie, 466.g
Tithymales, a kind of wild Poppie, 69.c
Tithymalus, what herbe it is, 251.e. the ſundry names thereof, ib. what is practiſed with the milkie iuice of it, 251.e.f.
Tithymall of many kinds, ibid.
1. Tithymalos Characias, 251.f. the deſcription, ib.
the iuice extracted, 292.g. the vertue, ib.
2. Tithymalos, Myrſinites, or Caryites, 252.i.k. the reaſon of both names, ib. the doſe thereof, ibid.
3. Tithymalos Paralius, or Tithymalis, 252.l. the deſcription and doſe, ibid.
4. Tithymalus Helioſcopius, 252.l. the de deſcription, ib. the reaſon of the name, ib.m. the vertue that it hath, ib. the doſe, ibid.
5. Tithymalos Cypariſſias, why ſo called, 253.a, the deſcription and operation, ibid.
6. Tithymalos Platyphyllos, 253.a. the reaſon of that name, ib. why it is alſo called Corymbites, ib. why named Amygdalites, ib. the vertues, ib.
7. Dendroïdes, Cobion, or Leptophyllon, the deſcription and effects, 253.a.b
Titius, a man noted for being full of the foule Morphew, 403.a.
Tiwill in young children hanging forth, how to be reduced, 451.e. *See Fundament.*
Tlepolemus, a Phyſician, 67.a

T O

Toads or venomous frogs deſcribed, 434.l. why called in Latine Rubeta, ib. wonders written of them, ib. a bone in one of their ſides of great efficacie, ib. and 435.a
how to be found, 434.m
againſt the venome or poiſon of theſe Toads, remedies, 119.a 223.d. 231.a.b. 232.g. 300.k. 307.e. 431.f. 434.i 435.b,c.
Toads flax, an herbe, 286.l. See Oſyris.
Toadſtooles, 7.f. 132.l.m. See Muſh.romeri
Tongue of man medicinable, and of power to auert ill fortune, 300.m
Tongue bliſtered and ſore, how to be cooled & healed, 328.i 377.a.
Tongue furred and rough how to be mundified, 59.e.192.i 419.b.
Tongue ſpeechleſſe how it may be recouered, 60.k

Tongue palsie how to be cured, 134.*m*
against an vntemperat and lying Tongue, a remedy, 316.*h*
Tonos in painting, what it is, 528.*h*
Tonsils, what they are, 135.*d. inflamed or sore how cured,* 183.*c.* 196.*g.* 197.*d.* 378.*g.h.* 437.*d.* 442.*g.* 507.*f* 509.*e.*510.*i.*607.*f. See Amygdales.*
Toothing in children how to be eased, 105.*b.*341,*b,c,d* 376.*h.*397.*e.*398.*g.i.*449.*e.*
*Tooth or biting of man or woman mad, is venomous,*301.*a the same in some cases is medicinable,* *ibid.*
in a fit of a Tooth one killed himselfe, 135.*a*
*for the Toothach proper remedies,*36,*g.*38,*g,h.*40,*m.*42,*h* 44,*g* .45,*b.* 47,*b.* 53,*d.*56,*i.*57,*d.* 62,*l.* 64,*l.* 65,*b,c* 70.*g.* 72,*g.* 73,*c.*74,*g,k.*102,*l.* 109,*e.* 123,*a.*128,*i* 149,*a.* 161,*c.* 168,*k.* 169,*a.* 171,*a.* 178,*g.* 179.*c* 180,*k.* 181,*c.* 184,*g,h,l.* 187,*l.* 190,*g.*199 *f.* 201.*f* 206,*l.* 238,*h,k.* 239,*b,e.* 252,*h.* 273,*c.*274,*k.*286.*i* 302,*g.* 312,*g,h.* 316,*l.* 326,*i,k.l.m.* 327,*a.* 375,*e,f* 367.*g.h.i.k.l.m.*419.*f.* 422,*g.* 431,*c.* 432,*i.* 440,*g,h* 510,*h.*557,*d.*589.*c.*
*Topaze thought to be the Chrysolith, a pretious stone,*618*k where it was first discouered,* *ibid.k l*
it was first graced by queene Berenice, *ib.*
the image of queene Arsinoe, wife to Ptolomæus Philadelphus, made of the Topaze, *ib.d.*
Topaze of two kinds, to wit, Prasoides, and Chrysopteros, 618,*m. it is filed, ib. it weareth with vse,* *ibid.*
Topazos, an Island why so called, 618.*l*
Tordile, what it is, 206.*h*
Tordilion, what it is, 74.*h*
Tortoises line both in land and water, 431.*d*
their manifold vses, *ibid.*
Tortoises of diuers kinds, *ibid.*
land Tortoises, their flesh, bloud, &c. medicinable, 431.*e*
their vrine also is effectuall in Physicke, according to the Magi, 432.*g*
sea-Tortoises medicinable, 432.*h.*438.*g*
their blond, 132.*i*
their gall, *ib.*
moore Tortoises, described, with their properties, 432.*l*
riuer Tortoises, and their vertues, 432.*m*
Tortoises how to be dressed to cure the quartane ague, 433.*a. how to be let blond artificially,* 433.*b*
a Tortoise foot in a ship hindered her course, *ibid.*
Tortoises are medicinable, *ib.e*
they be fishes seruing for roiot and wantonnesse, 451.*b*
Tortoise-worke when vsed at Rome, 482.*g*
*Touchstone,*477.*f. where it is found,* *ibid.*
how to be chosen and vsed, 472.*g*
*Tow of flax, what it is,*4.*i. how emploied,* *ib.*
Toxica be poysons, what remedies against them, 119.*a* 150.*m.*177.*d.*180.*h.*323.*d.*355.*c.*364.*h.*
Toxicon, a kind of Ladanum, 249.*d*

T R

Trachinia, an herbe, 291.*c. the incredible effects which Democritus attributeth to it,* *ib.*
Tragacantha, a great healer, 264.*k*
Tragi, what Spunges, 423.*b*
*Tragion or Tragonis, an herbe,*291.*c. the description, ibid.*
*Tragopogon, an herbe,*291.*d. the description,* *ibid.*
Tragoriganum, an herbe, 64.*h. the description and the vertues,* *ib.*
*Tragos, an herbe,*291.*d. the description,* *ibid.*
Transplanting cureth many diseases in herbes, 33.*d*
Trauellers, what wine they may drinke, 155.*d*
Treacle or Theriaca, the composition thereof, 79.*b*
it was K. Antiochus his counterpoyson, *ibid.*
another Treacle or Theriaca reproued, and the composition thereof, 348.*i*
Trebius Niger, a writer, 428.*i*
Trees how they proone harder to be hewed, and wax drier, 176.*g.*
Treasure at Rome of gold and siluer, 464.*l m.*465.*a*
Trembling of ioints, or shaking of lims, how to bee cured, 49.*d.*67.*d.*141.*b.* 155.*d.* 162.*h.* 183.*e.*219.*d.*262.*m* 283.*f.*312 *i* 359.*c.*431.*a.*447.*a.*
Trembling of the heart how to be cured, 48.*h.*49.*f.*174.*i*
Tribuni æris, what they were at Rome, 459.*f*
Trichites, a kind of Allum, why so called, 558.*k*
Trich-madame. See Prick-madame.
Trichomanes, what kind of Maiden-haire, 127.*a*
Trichrus, a pretious stone, 629.*e*
the description, *ib.*
Tricoccum, 126.*g*
Tridachna, certaine Oisters, 437.*b*
Triens, a small piece of brasse coine at Rome, 463.*b*
the Triens or brasse piece of the Servily at Rome, and the wonderfull nature thereof, 513.*a.b*
fed with siluer or gold, *ibid.*
Trifoile or Trifolie of three kinds, 90.*b*
the vertues thereof, 107.*b*
supposed by Sophocles and others to bee a venomous herbe, 107.*b*
not to be vsed but as a counterpoyson, 107.*c*
Triglites, a pretious stone, 630.*i*
Tripatimum, what, 554.*g*
Triophthalmos, a pretious stone, 630.*b*
Triorches, what herbe, 221.*b*
Triorchis the Hawke defendeth the herbe Centaurie Triorches, 221.*c*
Tripoli or Goldsmiths earth, 530.*l*
how it is coloured, and which is best, *ibid.l.m*
Tripolium, what herbe, 247.*e*
the description, *ib.*
the vertues, *ibid.*
Tritianum, what kind of Colewort, 26.*i*
Triticum, the Wheat, whereto it serueth in Physicke, 138.*g.*
Tritum, a kind of painters colour, 435.*a*
the Price, *ibid.*
Triumphall Coronets, 115.*f*
Triumphant captaines, why they rode painted with Vermillion, 475.*c*
Troschiskes of Elaterium, for what they are good, 36.*g.*
Trochiskes of Poppie, in what cases vsed, 68.*g*
Troches of Cyclamine, whereto emploied, 234.*b*
Trochiskes of Scammonie, 151.*c*
Trochiskes Theriaci, 357.*e*
Trœzen, a territorie, wherein the people be subiect to the gout, and the reason why, 403.*b*
Trogus, a writer, 424.*l*
Trossuli at Rome who they were, 461.*a*
why the horsemen were so called, *ibid.*

20030
copy 1

Trychnos, an herbe. See Strychnos.
Tryxalis, a kind of Insect, and the vertue thereof in Physicke, 381.b

T V

Tuccia, the Nun or vestall votarie, put to proue her virginitie, 295.a. *she carried water in a sieue,* 295.b.
Tullus Hostilius K. of Rome killed with lightening, and wherefore 295.c.d
for hard Tumors and swelling bunches, appropriat remedies, 37.a.44.k.45,c.64,b.65,c.66.l.73,a.77.f.105.d 108,g.110,i. 111,a. 122.k. 123,c. 135,d. 136,k 138,k. 141,c. 142,g. 146,i,l. 159,a, 160,l. 160,m 166,i. 168,k. 174,i. 178,b. 181,b. 185,d. 186.i 189,c. 193,d, 195,e. 218,k. 223,e. 236,i. 245,e 250,e. 262,i. 337,b. 349.f. 392,h. 531,c. 448 g 475.a.
how such hard Tumors or schirrosities may be evaporated and dissolued, 139.f.412.l.419.f.424.i.560.b 588.m.
Tungri, a city famous for hot baths, naturall and medicinable waters, 403.b
Tunie fish salted, called Cybium, medicinable, 434.b 440.g.
Turbot fish medicinable, 444.g
Turbystum, what it is, 471.b
Turneps. See Rapes.
Turning the body about, was the gesture of worshipping the gods, 297.e
Turnsoll, an herbe, 126.g. *two kinds thereof, Tricoccum, Helioscopium, ib. the description,* ibid.
Turpilius, an excellent painter and yet left handed, 526.b
Turquois or Callais, a pretious stone, 619.a
the description, ib. which be the richest, ibid.a.c
where they grow and how they be gotten, ib.b
how the Indians weare them, 619.b
what hurteth them, and how they be falsified, ibid.c
Turrets and watch-towers raised of earth turfe, most durable, 555.c
Turrets in Cyzicum rendering ecchoes, 581.c
Tussilago. See Folefoot or Coughwort.
Tutelar god, or the protectour and patron of Rome city, not knowne and diuulged, 296.i. *the reuson thereof,* ibid.

T Y

Tyberius Cæsar, the first knowne sicke of the collicke at Rome, 242.g. *See Tiberius.*
Tyllet. See Linden tree.
Tympanie what cureth, 219.d
Tyridates K. of Armenia, a famous Magitian, 374.m *he trauelled out of his owne kingdome to Rome by land for to doe homage to Nero,* 375.a. *why he tooke not the sea, ib. he instructed Nero in the principals of art Magicke,* ibid.

V A

VAlens Vectius a Rhetorician and Physitian, 344.l *inward and over familiar with Messalina the empresse, ib.* 347.e. *he erected a new sect and schoole of Physicke,* 344.l
Valerian, an herbe. See Setwall.
Vallare chaplets what they were, 115.e
Vanitie of Magicians reckoned vp and derided, 302. *per totam page,* 310.b
Varro, a writer in Physicke. 42.k

V E

Veientana, a pretious stone, 630.g
Veines swelling called Varices, how to be eased, 120.k 123,e.164.g.257.e.279.b.334.l.385.e.
Veine broken by ouerstraining the voice or sides, how to bee knit againe. 264.g
Velinus, a lake medicinable, 402.l
against the danger of venomous arrowes, 316.a
against the pricke and poison of venomous beasts, remedies, 41.f.42,m.43,e.55,c. 57.a. 69,e. 113,c.118.m. 127,f 134,i. 155,f. 157,c. 173,d. 187,d. 231,c. 434.g 435,c.
Venison, how the Frenchmen make more tender, 210.g
Ventosities in stomacke, bellie, or elsewhere by what meanes discussed, 46,g.50,g,l.53,a. 55,b. 57,c. 61.b.d. 62.i 63.a.66,b,i,m. 67,c. 77,b .102,g. 105,c.106,l. 107,f 108,m.119,c.121,e.125,c.129.f.143,c. 153,c.154.g 160,l.186,i.187,c. 195,c. 196,l. 219,e. 237,a. 250,l 253,c. 259,c. 277,a,b. 289.d. 290,k. 332,g. 359,c 363,e.383,b,c.422,l.431,a.443,a,c.
Venus-haire, a pretious stone, blacke, and shining withall, 629,f.
Venus of Apelles, i. the grace of his pictures, which the Greekes call Charis, 563.f.
Venus Palatina, who was called, ibid.
Venus, i. lone affection, how to be abated, 435,b. *how to be forgotten for euer* 450.b
Venus-Nauill, an herbe. See Vmbilicus veneris.
Venus, for lust to the act of generation, by what meanes incited, 38,l.40,g.43,b,d.44,l,m. 52,k.53,b,c.55,d 56.g. 67,b. 72,i. 105,a. 126,l. 128,k. 129,c. 130,i 131,a. 144,k. 181,c. 189.a. 191,d. 200,g. 226,l 256,l,247,a,b,c,d.279,d.310,m. 312,l. 316,i 341,e.f 342,g. 359,a. 398,l. 399,a,b. 432,g.435,a.450,g,b *by what meanes represt,* 53.d.56.g.70.i.113.d 187.a.b.d.189.a. 257.a.b.d. 279.d. 316.k.l.m. 341.b 342.g. 398.l.m.399.a f.404.b.432.g.435 a. 450.g.b 518.l.
condemned by Democritus, and wherefore, 304.l
it helpeth some infirmities, 301.e
moderately vsed it is wholesome, 304.l
Venus, an Image in Marble knowne by the name of Aphrodite ἐν κήποις at Athens, whose workemanship it was, 563.d
Venus, an Image wrought by Agoracritus, 565.e. *by what occasion called Nemesis,* ibid.
Venus of Gnidos naked, wrought in marble by Praxiteles, an admirable piece of worke, 566,i. *a wanton fellow enamoured on her,* ibid.l
Venus vailed, by him also made, 566.k
Venus naked wrought by Scopas, 567.e
Veratrum, what herbe, 218.g
Verbascum, an herbe. See Longwort.
Verbena, what they were, 115.d
Verbenarius, what officer at Rome he was, ibid.
Verd de Azur, a painters rich colour, 528.i
why called Armenius Lapis, 531.c. *the price,* ibid.

the vse in Physicke, ibid.
Ver de gris, what it is, 507.c.508.g. Achilles first vsed it in a cure, 216.i
Verd de Terre, a painters colour, 528,i. See Borax.
Verjuice of grapes, 146,g. the medicinable vertues, 146,m.
Vermillion the best is sophisticated with a second kind, 476.l. with Scyricum, ibid.
which is the best Vermilion, and how knowne, 476.m 477.a.
Vermillion a minerall, 454.g
workemen about Vermillion, are masked, and why, 477.b
in great account among the Romanes, 475.f. and Æthiopians, ibid.d. when it came first into vse, 475.e
vsed in limming bookes and sepulchres, 477.c
what it is and how prepared, 475.e
the lustre of Vermillion hurt by Sun and Moone, 477.a
how that may be prevented, ibid.b
Vermillion, a ranke poison, taken inwardly, 476.h.477,e
where the best Vermillion is, 476.i
Vermillion reckoned for a rich and liuely colour, 528.i
Vermillion how carefully it is looked vnto, and sent sealed from Sisapone to Rome, 476.k
Vermine, as ants, Cankerwormes, and such, how to be driuen out of a garden, 32.k
against all such Vermine and wormes, 42.k
Verres proscribed by Antonie the Triumvir for his faire Corinthian vessell, 487.d
Verrius Flaccus, a Romane writer of Chronicles, 296.h 466.g.
Verrucaria, an herbe, why so called, 126.h
Vervaine, an herbe, 228.g. the sundry names that it hath, ibid. much esteemed among the Romanes, ibid. the diuers kinds, ibid. the vanity of the Druids and Magi about this herbe, ibid.h.i
Vessell in the kitchen of siluer, by Calvus the Oratour his daies, 580.l
Vestaes chappell at Rome couered with brasse, 489.b
Veterum Delubrum, a temple, 428.l
Vettonica, an herbe. See Betonie.

V I

Vibones, what they be, 112.l
Victoriatus, what piece of siluer coine at Rome, 463.c. why so called, ibid.
Victorie in the field how it may be obtained, 357.c. See Speed and successe.
Vindex Iulius how he deceiued Nero the Emperour with his pale lookes, 61.e
Vine compared with other trees, 146.g. the vses thereof in Physicke, ibid.h
Vinegre, the nature and properties thereof, 155.d.e
the inconvenience and discommodities, 156.h
the force of Vinegre, ibid.i
Vinegre of hony, or honied, medicinable, 96.g
Vinegre dregs, the nature and vertues, 158.g
Vinegre squilliticke how it is made, 51.d
the vertues thereof, ibid.
Violets of sundry sorts, 85.d
March Violets, ib.
yellow Violets or wall-floures, ibid.
Tusculane Violets, ibid.
sea-Violets, ibid.
Calathian Violets, ibid.
the medicinable vertues of Violets, 103.e
Violet floures best dried, 104.g
Vipers venome, by what medicines it is killed, 64.h.125.b 173.a.357.d. they yeeld remedies for their owne stings. 357.d
Vipers how to be prepared for meat at the table, and to preserue eye-sight, 367.a
decoction of Vipers, for what it is medicinable, ib.
Virginitie or the contrary, what doth shew and bewray, 589.c.
Virgo a water seruing Rome, 408.h
why so called, ibid.
Viriæ, what ornaments they are, 462.g
why called Celticæ, ibid.
Viriolæ, what ornaments they be, 462.g
why called Celtibericæ, ibid.
Visage in some countries painted with the juice of certaine herbes, 114.l
Visage how to be preserued from Sunne burning, 351.e
Visage and countenance how it may be preserued youthfull, 65.e.101.b.
Visage how to be cleansed from speckes, scales, freckles, red pimples, and such like blemishes, 76,h.94,k.103,d 107,c.108,h.127,e.130,l.141,b.145,b.149,e.161.b 185,c.186,l.187,a.197,d.290,l.308,g.310,l.314,k 328,g.351,e.
how it may be made to shew fresh, fair, and lonely, 171.d 341,c.
Vitellius the Emperor his monstrous charger or platter of earth, 554,h. his excesse and vanitie that way, noted by Mutianus, 554.h
Vitex, what tree, and the vertues thereof, 187.a. why called Agnos or Chast-tree, ibid.b
Vitriol naturall, a minerall, 530.i. the wonderfull nature of it, 510,l. how engendered, 510.l.m.511.a. of two kinds, and how engendred, 536.i
Vitriol so astringent, that it will bind Beares and Lions mouths like a muzzle, 511.d
Vitriol or blacke, a painters colour artificiall, 528.k
Vitriol Stalagmias, what it is, and why so called, 511.a
Vitriol Leucoion, ibid.
the best Cyprian Vitriol, the medicinable vertues of it, 511.b.

V L

Vlcers cancerous, corrosiue, and eating deepe, as wolues and such like, by what medicines cured, 40.g.k.42.g.45.b.c 46,i.47,c.49,a.50,g,m.56,k.62,m.70,l.72,m.76,k 101,e.103,b.106,i,l.107,a.122,b.125,e.138,m 143,b.144,i.149,d.150,i.158,l.160,b.162,g,k 163,b.165,a,d,e.168,l.173,c.174,k.178,g.180,g 181,a.183,d.184,g,k.188,b,l.189,c.190,k.192,b,i 193,d.194,m.197,d.206,g,b.207,b.208,g.263,d 264,k,l.265,c,e.266,g.285,c.287,d.300,i.301,b 302,b.306,i.320,b.338,b,i,k.393,d,e,f.394,g.418,k 419,b,d.422,b.443,a.447,e.559,b.510,k.516,k 519.d.559,b.595,c.
Vlcers of inward parts by what meanes healed, 103.a 154,g.317,d.
Vlcers filthie, full of dead flesh, and tending to mortification, how to be mundified and cured, 43.c.44.l.69.e.70.b 105.c.109.f.121.d.125.e.128.g.133.c.147.b 159.a.b

20030
copy 1

159,a,b,f.161,c.162,a,b. 165,d.167,f.171,e,179,d 183,c.191,d.193.d.198,i,l.264,t,k.165,a,b,d,278,h 279,c.282,b.283,b.287,e.338,h.447 f.448,g.470,k 471,e.510,k.512,b 588,g.
Vlcers rheumaticke, and in moist parts how to be dried and healed, 69,e.123,c.143.f.146,m.147,b. 155,f.174,l 184,g.197,d.265,c 311,c.422,l.423,e.441,b. 528,m 531,c.
Vlcers old and long festered, by what meanes cured, 129,a 138.k.139,a.220.g.264.k.265.b. 279.c. 350.g.450.i 588.g.
Vlcers Cacoethe, morimals, and untoward to heale, by what meanes cured, 140,g.174.h.177.c.190.h.264.k 265.c.e.281.f.287.d.338.k.394.i.449.b.588.g.
Vlcers desperat what medicines heale, 370.l.394.h
Vlcers breeding vermin, how to be cleansed, 265,a,d.393,e 447 f.
hollow Vlcers and fistulaes how to be incarnat, 123.d.124.d 140.l.178.i.291.a.338.h.i.393.d.
Vlcers carbuncled, how to be cured, 45,e.338.l
Vlcers in the head and privie parts, what meanes to heale, 591.d.
Vlcers in gristly parts what doth cure, 40.l
Vlcers occasioned by edged weapons, how healed, 338.l
Vlcers superficially healed, how to be opened againe, and so kept, 189.b
Vlcers in bodies of children and old folke, what medecins do heale, 303.b
Vlcers in shins and legs, what appropriat medecines they require, 338.h
Vlcers mortified, and growne to a gangrene, how to be recovered, 143.e.265.d.338.i
in Vlcers the excrescence of proud flesh, how to be consumed and taken away, 393.d.e.419.e.441.b.509.c.510.k 511.c.519.d.588.g.
tumors incident vnto Vlcers how to be assuaged, 393.e
callosities in Vlcers, how to be helped, 393.c.394.g.i
rouses and eschares about Vlcers, what doth rid away. 394.i.
for all Vlcers in generall, good medicines, 393.f.394.h 418.i.440.d.443.c.559.b.
Vlex, a shrub, receiuing gold from the cloven mountaines, when they are scoured and washed with a current for the ore, 469.a. *how to be ordered for the trying of gold out of it,* 469.b
Vlophonon, one of the kinds of the herbe Chamæleon, why so called, 124.i
Vlpicum a kind of Garlicke, 21.e

V M

Vmbilicus veneris, what herbe, 237.b. *the description,* ib. *why called Cotyledon,* ibid.
Vmbrian earth or chalke, for what it is good, 560.k

V N

Vncomes or dangerous felons, how brought to an head, 422.h. *how broken,* ib. *how cured,* 188.m.300.b
Vnction or annointing of the body, maketh for health, 303.d
Vngnis in a Rose floure, what it is, 102.b
Vngulus, what it is, 455.d

V O

Voice, by what medicines it is cleared and strengthened, 43,b,d. 44,h. 59,e. 64,l. 70,g. 120,h. 134,k 141,b,d.204,l.256,l.442,h.518.m.521.a.
Voice helped by some waters, 403.e
what hurteth the Voice, 443.a
straining and exercising the Voice maketh for health, 303.d.
Volva, what it is, 132.b
Vomits what medicines do stay, 37.c.41.b.47.c.52.g.55.e 59.e.60.k.62.b. 66.i.70.h. 75.e. 76.a. 105.f. 140.g 146.l.156.m.164.i.174.k. 206.l. 219.b.248.h. 274.g 275.b.
Vomit by what means it may be prouoked, 37.c.40.g.67.a 71 c.105.d.121.e.128.i. 136.i. 173.b. 173.g. 204.m 218.l.248.g.252.i.k.253.c.289.b.291.b. 413.a.442.b 471.e.507.a.511.b.
aptnesse to heaue, cast, and vomit, how to be helped, 148.b 253.c. 155.d.181.c.184.h.198.i.219.e. 224.b. 247.a 287.c.303.d.305.c.312.h.352.l.
Vomiting was taught vs by dogs, 355.c
Vomits bitter how to be allaied, 148.g
Vomits ordinary, in cure of diseases, condemned worthily by Asclepiades, 243.f
Vomit now and than is healthfull, but not vsually, 303.e
Vomiting at sea for what it is good, 412.l
Vomiting of bloud out of the stomacke, how to be cured, 329.d. *See Bloud casting and Reaching.*
Vowels in the proper name of persons, significant for their fortune, according to Pithagoras, 299.d

V R

Vranoscopus, what fish, 438.i
Vrceolaris, what herbe. 123.d
Vrchins head of singular operation to preuent shedding of haire, and to recouer it againe, 364.l
Vrchin, the strange nature both of him & his vein, 364.g.h
sea Vrchin medicinable, 436.h.438.g.l
Vri what beasts. See Buffles and Bisontes.
Vrine and the speculation thereof obserued in the iudiciall part of Physicke, 306.k
of Vrine authours haue written, ibid.g
Vrine white and cleare what it betokeneth, ibid.
deepe coloured and yellow, ibid.
red Vrine, ib.306.l
blacke Vrine, ib.
full of Bubbles, ibid.
full of froth, ibid.
Vrine of a thicke substance, what it importeth, ibid.
hypostasis of Vrine heauie, what it signifieth, ibid.
hypostasis or sediment white, what it doth betoken, ibid.
Vrine greenish, what it presageth, ib. pale, ibid.
contents in Vrine, brannie, brackish, and cloudie, what they presage, ibid.
Vrine of children ought to be thin and waterish, ib.
in others what it sheweth, ib.
Vrine, what medecines do procure, 37,b.39,a,b. 40.k 41,b.45,f. 47,b,c. 51,f. 53,b,d.54,h.55,c.56,i.60.k 62,i.63.e.64,k. 65,d.67,b. 72,l.73,d.74,b. 75,c,e 76,h.77,b,e. 101,d. 102,g,l. 103.f. 104,i.105.a 108,k. 110,g,h,k. 111,b.122,h.124.g.125,e.127.f 128,i. 129,d. 130,g,k. 131,a. 142,i,l. 150,g 162,i. 164,i, 167,a,e. 171,a,d. 172,l. 174,i 181,c. 182,m.184,g,h. 185,e.187,c.189,d.192,i.l 194,g. 195,d. 196,g. 198,i,k. 199,b. 200,k

249,c. 250,g. 254,h. 255,a,d. 263,d. 271,d. 273,b 277,a,d. 286,l. 288,h. 290,h. 362,i.
stopping of Vrine and difficultie in making water, how to be cured, 143,a,c. 147,a. 175,b. 181,c,f. 201,f. 206,l 254,h. 232,l. 333,c. 384,k. 591,a. 609,a.
incontinencie of Vrine in such as cannot lie drie, nor hold their water how cured, 58,h. 62,g. 305,c. 313,d 333,b,e. a charme thereto belonging, ibid. 385,d 445,a.
Vrine smelling strong how to be rectified, 175,b
Vrine hot and scalding how to be delaied, 62,g
Vrine of mankind medicinable, 305,f
in deliuerie of Vrine, or making water, the Magicians were very ceremonious, 306,m. it was forbidden against the Sunne and Moone, ibid. vpon the shadow of any person, ibid.
Vrbium defect or imperfection of the earth, 468,l

V S

Vsurers at Rome fined, 457,d

V V

Vua Taminia, what plant, 149,b
Vultures, their parts medicinable, 367,c. 381,e
Vvula enflamed swollen, or fallen, how to be helped and eased, 51,b. 59,e. 64,k 67,c. 70,k. 74,g. 120,c. 122,h 134,k. 163,c. 165,e. 169,a,c. 170,h. 173,e,f. 177,f 183,e. 196,i. 197,a. 301,e. 305,b 378,g. 419,b. 437,c 509,e. 511,c. 559,c.

W A

WAy-bread, an herbe. See Plantaine.
Wake-Robin, an herbe, 19,b. the description and nature, ibid. it differeth from Dragons, 200,h highly commended by the Greekes for the medicinable vertues, 200,i,k
Wals of sundry makings, 555,b,c
Wals of houses in Rome of what thicknesse they were allowed, 556,g
in Wals how stones should be laied and couched, 594,g
Walking, an exercise that maketh for the health of the body 303,d.
Wal-lice what killeth, 282,g. 356,k. they are thought to be medicinable in many respects, 356,g,h
Walnut oyle what vertue it hath, 161,d
Walnuts, whereupon they took their name in Greeke, 172,g their hurtfull properties, ibid. their medicinable vertues, 172,h
Walnuts good to be eaten after Onions, ibid.
Walnut tree, an enemy to the Oke, 176,g
Walwort, an herbe described, 276,g. appropriat for the inward and secret maladies of women, ib. what medicinable vertues it hath besides, 185,e. 230,i soueraigne for the dropsie, 261,a
Washing bals to scoure the skin, 286,l
Water Persely, an herbe. See Thysselinum.
Water-Speeke, what herbe, 250,g. the description and vertues, ib.
a fresh Water spring in Germanie dangerous to drinke, 112,k.
Waters distinguished by degrees of persons, 11,d,e
Water which is best for gardens, 33,b,c
how and when gardens are to be Watered, 33,c
Waters brackish how to be made fresh and sweet, 176,i
drinke of Water how it nourisheth, 152,g
offence by vnwholesome waters how to be helped, 60,l
Waters running how to be diuided, that the same may bee seene bare, 316,h
Water how to be laden out of pits, where it commeth vpon the pioners, 469,a
good Waters from bad, how trauailers may discerne and know, 414,g
Waters change their colour at certaine times, 411,c
Waters when heauiest, ib.
Water maintained and cherished by ploughing of the ground, 410,l
Water creatures are medicinable, 400,l
Waters, some cold in the Spring, others in the Dogge daies, 409,e,f.
Water a powerfull element, 400,l,m. 401,a,b
Water suspected, how it may be altered and made good, 407,e.
of well VVaters or pit waters, 407,c
Waters where they be exceeding hot actually, 404,h
Waters deadly, 405,a,b
Water faire to sight, yet hurtfull both to man and beast, 405,b.
Waters growing to a stonie substance, 405,b,c,d
Water cold what operation it hath, 407,f
Waters of a corrosiue and fretting qualitie, 405,c
Water how it may be made most cold actually, 407,d,e
standing VVaters condemned, 405,f
a discourse, what VVater is best, 406,g
Waters which are knowne to be cold, ibid. m
Waters which are to be reiected, 406,g. 407,a
Waters salt and brackish, how they may be soone made potable, 407,a
Water ought to haue no taste at all, ib,b
Water best, which commeth neerest to the nature of aire, 407,b.
Waters not to be tried by the ballance, 407,c
how the triall is to be taken, ibid.
Watery humors what medecines purge downeward out of the body, 108,g. 110,m. 130,l. 149,b. 174,g. 181,c 182,g. 185,c,e. 186,g. 190,g. 252,g. 253,a. 281,b,e 284,i. 442,l.
Wax how it is made, 96,g
Wax Punica the best, 96,h
Wax of Pontica, ib.
Wax of Candie, ibid.
Wax of Corsica, ibid.
the white wax Punica how it is wrought, ib. best for medicines, ibid. i
how wax may be made blacke, ib. how it may be coloured, ibid.
how wax may be brought to any colour, ibid.
the vses of wax, 96,k
the properties of Wax, 137,a,b
Wax contrary in nature to milke, ib.i

W E

Wearie vpon trauell or otherwise how to be refreshed, 64,m 66,l. 121,e. 160,k. 161,e. 173,d,e. 180,k. 187,c. 289,b 319,d. 400,g. 419,e. 422,i. 624,h. how to be prenented, 266,i

20030
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Weazils armed with rue against they should fight with serpents, 56.*m*
Weazils how they are brought together from far, 316.*g*
Weazils of two kinds, 533.*e*
Weazels Ichides, their gall is both a poyson and also a countrepoison, ibid.
Weazils flesh medicinable, ibid.
Weazils wild be venomous, 363.*e*
what remedy therefore, ibid.
Wens called Ceria, by what means cured, 37.*c*.167,*a* 168,*k*.
Wens named Meliceridæ, how to be cured, 73,*d*.107,*a*
Wens Stratomata, how cured, 265.*c*
Werts, what meanes to take away and cause to fall off, 55.*d* 58,*b*. 105,*d*. 108,*g*. 125,*h*,*l*. 127,*e*. 142,*m*. 146,*i* 166,*l*. 168,*h*. 185,*b*. 198,*m*. 218,*k*. 266,*h*. 280,*l* 302,*k*. 307,*b*. 335,*a*. 370,*k*.386,*l*,*m*. 414,*h*. 448,*h* 470,*k*.
Werts beginning to breed, how represſed, 418.*m*
Wertwals what doth cure, 75.*c*
Weſand, appropriat remedies therefore, 167.*c*
See Throat.
against the enuie of the Weſps ſting, 40.*h*.56.*m*.63.*f*.71.*c* 106.*k*.153.*b*.166.*l*.173.*b*.361.*d*.418.*m*.

W H

Whales and ſuch other fiſhes fat, how emploied by merchants, 427.*c*
Wheales angry, ſmall pocks, and ſuch like eruptions, how to be cured, 46.*k*.70.*g*.140.*i*.*l*.161.*c*.173.*f*.174.*k* 178.*g*.183.*b*.187.*c*.219.*f*.317.*d*. 320.*h*. 337.*a*.421.*e* 443.*b*.437.*d*.558.*i*.559 *b*.589.*b*.
Wheazing in the cheſt, how helped, 134.*l*.154.*g*
Whey of cows milke for what medicinable, 318.*i*
Whelpes or young puppies ſucking, were thought fine meat at Rome, 355.*b*
they ſerued there for an expiatory ſacrifice, ib.
they made a diſh of meat at their ſolemne feaſts, 355.*c*
Whetſtones of ſundry kinds, 593.*a*
which be vſed with water, & which with oyle, 593.*a*.*b*
Spaniſh White. See Ceruſe burnt.
Spaniſh White, or Ceruſe naturall, 529.*e*
Whites in women, how repreſſed, 516.*h*. *See more in Women.*
Whiteflaws about the nailes how to be healed, 75.*c*.105.*d* 141.*a*.147.*b*.158.*k*.160.*g*.174.*l*. 177.*f*.272.*k*. 300.*l* 516.*h*.
Whiteſtones, 588.*i*

W I

Wild-fires and ſuch like fretting humors, how to be extinguiſhed, 72.*g*.75.*b*.106.*i*.124.*h*. 146.*k*.157.*e*.265.*d* 287.*b*.529.*b*.
Wildings or crab-apples and their nature, 164.*i*
Wild-vine called Ampelos Agria, deſcribed, 149.*b*.276.*h*
the vertues, ibid.
Wild-vine Labruſca, 149.*b*
Wild white vine Ampeloleuce, 149.*c*
the root hath many vertues, 149.*d*
herbe Willow. See Liſimachia.
Willow or Withie, what medicinable vertues it hath, 186.*l*
Willow yeeldeth a juice of three kinds, 186,*l*
Wine of Bacchus, what, 403.*a*
Wines how they may be ſoone refined and made readie to draw, 176.*i*
See more in Wyne.
for to cleanſe and diſcharge the Windpipes being ſtuffed, appropriat remedies, 133,*e*.148,*k*.194,*g*.277,*b*.329.*e*
Windpipes enflamed and exulcerat, how to be cured, 140.*l* 328.*i*.
for all infirmities of the Windpipes, conuenient remedies, 122,*g*.134,*k*.138,*m*.170,*h*.289,*e*.
how a horſe will proue broken Winded, 342.*h*.*i*
broken Wind in horſes, how to helped, 246.*h*
holding of the Wind in what caſes good, 305.*d*
ſhortnes of Wind, by what medicines it may be helped, 37.*a* 39,*c*.44,*g*.52,*g*.56,*h*.57,*d*.58,*h*.61,*b*.65,*c*.70,*g*.73.*a* 104,*b*.105,*d*.107,*e*.109,*a*.127.*c*.144,*i*.150,*g*.154.*g* 162,*g*.164,*g*.167,*c*. 173,*b*. 180,*g*,*k*. 183,*e*. 192.*l* 193,*a*.200,*l*.201,*f*.247,*a*,*b*,*d*.248,*h*. 263,*d*.274,*g* 289,*d*.329,*c*.359,*c*.381,*a*.422,*k*.432,*i*. 442.*h*.521.*a* 556,*m*.557,*d*.
what mooueth to breake Wind vpward, 237.*a*.253,*e* 277,*b*.290,*k*.
Winter-cherrie, why called Verſicaria, 112.*h*
the deſcription thereof, ibid.
Wiſards, prophets, and Phiſicians, put downe by Tiberius Cæſar, 374.*g*
Wit helped by ſome water, 403.*e*
bereſt of Wit, how to be cured, 52,*l*.260,*l*.306.*k*.*l*
Withwind, an herbe, and the floure thereof, deſcribed, 84.*l*
Withie. See Willow.
Witchcraft condemned by Pliny, 213.*c*
Witchcraft and enchantments forbidden expreſſely by the lawes, at Rome, 296.*h*
Witchcraft and ſorcerie anaile not, nor be of force, where no regard is made thereof, 296.*g*
against the practiſe of Witches, good preſeruatiues, 108.*m* 300,*g*.

W O

Woad, an herb, the properties medicinable that it hath, 45.*c*
bodies of men or women painted or died therewith in old time, 114.*l*
Wooll reuerently regarded among the ancient Romanes, 349.*e*.
the ſide poſts of the bridegrooms doore bedecked with wooll by the bride on the wedding day, 349.*e*
the vſe of Wooll ibid.351.*h*
Wooll vnwaſhed, medicinable, 351.*k*
Wooll of a ſheep greaſie, is medicinable 350.*g*.*h*.*i*
Wooll vnwaſhed and greaſie, doth mollifie, 424.*g*
Wooll greaſie of a ram is effectuall in Phyſicke, 350.*h*
Wooll of the necke is beſt, ibid.
from what countries, ibid.
Wooll greaſie, how to be ordered for vſe in Phyſicke, 350.*i*.*k*
how it is calcined, 350.*k*
the aſhes thereof is medicinable, ibid.
fleece Wooll waſhed, and the vſe thereof, 351.*b*
Woooll-beards or Caterpillers called Multipedæ, deſcribed, 369.*e*.
a Wolues ſnout why it is ſet vſually vpon the gates of countrey ferme houſes, 323.*a*
Wolues dung medicinable, 324.*k*
the bones found in their dung likewiſe, 332.*i*
the ſtrange operations of the Wolfe, and parts of the bodie, 323.*a*

Wolues, how they may be kept out of a territorie, 342.*l*
Wolues greace much esteemed in old time, 320.*k*
the bride therwith striked the dore sides of her husbands house, *ibid.*
Wolues, i. sores, how to be cured, 149.*d*.300.*m*.265.*d*
See more in Vlcers cancerous and eating deepe.
Wombe. See Bellie and Guts.
Women with child longing and hauing a depraued appetite, how to be helped of that infirmitie, 155,*d*.277,*a* 307,*c*.164,*i*,*l*.
Womens breasts aking, how to be assuaged, 340.*g*
Womens breasts or paps enflamed, swollen, hard, sore, and impostumat, by what means cured, 167,*d*.143,*b* 148,*i*.182.*h*.183.*e*.266,*k*.279.*c*.307,*d*.320.*g*.
issue of bloud out of Womens breast heads, how to be stanched, 263.*f*
Womens breasts ouer big, how to be brought downe, 340.*g*
haire springing abont their breast nipples, how to be rid away. 268.*i*
for all infirmities of Womens breasts in generall, conuenient remedies, 70.*g*.72,*h*,*m*.104,*h*.108,*h*.138,*m*.142,*g* 157,*d*.161,*a*.164,*g*.172,*h*.169,*i*.274,*g*.
Womens purgations vpon their new deliuerance, how to be procured and helped forward, 59,*b*.63,*e*.65.*a*.*d*,340.*g*
Womens infirmities of the matrice in generall, how to be remedied, 266,*i*,*k*.276,*h*.290,*k*. *See more in Matrice.*
Womens infirmities following child-birth, how to be cured,
Womens flux of whites or reds, immoderat, how by what means staied, 39,*a*.59,*d*.102,*k*.110,*i*,*k*.130,*h*.267,*g* 340,*l*.396,*g*.516,*i*.529,*b*.
Women with child, their swawms and faintings, how to be helped, 146.*k*
Women how they may preserue the skin of their faces, faire, 149.*b*.276.*h*.286.*l*.
Women by what meanes they shall looke young, faire, and full, without freckles and wrinkles, 440.*m*.559.*f*
Women who cannot deliuer their vrine but dropmeale and with difficultie, how to be cured, 395.*d*
how a Woman shall forme and bring forth a boy child, 395.*d*.
Women how they may keepe their skin supple and soft, 319.*e*.
Women by what meanes they may cleanse the skin of their face from morphew, 149.*b*.276.*h*.286.*l*
Women become soone barraine by hard trauaile in childbirth, 340.*k*
how a Woman may haue speedie deliuerance of childbirth, 395.*d*.*e*.
what comforteth a Womans backe and loines in labour, 395.*e*.
Women hauing an inordinat iteh in their secret parts, how to be eased, 396.*i*
hauing vlcers and vntoward sores in their priuities, by what meanes to be cured, 449.*b*
Womens bodies yeeld medicines, 307.*a*
a Womans haire-lace or fillet, what it is good for, 308.*h*
Women in time of their monethly sickenesse worke wonders, 308,*i*.
Womens lazie feuers, how to be cured, 74.*l*
Women more skilfull in witchcraft, and fitter instruments therefore, than men, 210.*k*
Women and ancient matrons at their deuotions, what Imageurs delighted to expresse in brasse, 503,*e*,*f*.504.*i*
Womens excesse and prodigall wast of gold in Plinies time, taxed, 462,*g*,*h*,*i*,*&c*,
Women excellent paintresses, 551.*a*
Wood-evill in sheepe, how to be helped, 218.*k*
Wood-soure or wood-sorrell, an herbe. See Oxys.
Woodbind, an herbe, 288,*g*. *the description* *ib*.
the vertues, *ibid.h*
Words pronounced in charms or spels, whether they should be strange or familiar, 296.*l*
whether Words barely vttered anaile not in curing diseases or no, 294.*k*
a set forme of Words in praier, inuocations, and exorcisms, held to be materiall in many respects, 294,*k*
Worms of diuers sorts medicinable, 393.*f*
Worms in the bellie how to be killed and chased out, 39.*e* 41,*e*.44,*i*.45,*f*.47,*a*.71.*e*.55.*e*.56,*h*.59,*c*.60,*h*.70,*i* 105,*b*.108,*l*.122.*g*.124,*g*.126,*i*.143,*c*.160,*k*.165,*b* 166.*g*.170.*g*.172,*i*.179,*e*.190,*g*.192.*g*.249.*b* 250,*k*.253,*e*.277,*a*.*f*.281,*c*.332.*h*.419,*c*.443,*d* 511.*b*.
Wormewood, an herbe, 276,*i*. *the sundry kinds,* *ibid.*
Santonicum, why so called, *ibid.*
Ponticum, why so named, *ibid.*
Seriphium, why so named, 277.*a*
in Pontus, the sheepe feed fat with wormewood, 276.*i*
Wormewood not so common, but it is as wholesome, 276.*i*
Wormewood, why it was giuen in drinke to the winners at the charriot running, 276.*k*
Wormewood wine, *ibid.*
Wormewood drinke, how it is made by way of decoction, *ib*. *the vertue thereof,* 277.*a*
the infusion of Wormewood, 276.*l*
the iuice of wormewood by way of expression, *ibid.*
a Syrrup of wormewood made of the iuice, 276.*m*
hurtfull to stomacke and head, 277.*a*
the manifold vertues of the ordinary drinke or decoction of Wormwood, 277.*a*
how it was giuen for a purgatiue, 277.*b*
Wormewood Seriphium, called likewise See-wormewood, 277,*f*. *the description, ib*. *an enemy to the stomacke,* *ib*. *it looseth the belly,* *ibid.*
decoction of Wormewood, how to be made, 278.*g*
Wounds in the head how to be healed, 183.*a*.192.*i*.233.*d* 301,*b*.307,*c*.365,*e*.412,*m*.
Wounds fresh made, how to be kept from inflammation, 423,*e*. *how from swelling,* 338.*k*
Symptoms following vpon Wounds, how cured, 72.*l*
paine of Wounds and their smart what assuageth, 302.*k*
Wounds how to be cleansed, 471.*e*.511.*c*
Wounds bleeding excessiuely, stanched with a charme by Vlyxes 297.*m*
Wound-salues or vulnerarie medecins, 160.*l*.182.*l*
Wounds more angry by the presence of those that haue been stung by serpents, or bitten by mad dogs, 299.*b*
Wounds-greene, by what means healed, 38,*b*.43,*b*.45,*b* 49,*a*.50,*l*.52,*s*.63,*b*.68,*b*.70.*k*.73,*a*.103,*b*.*d*.104,*i* 111,*d*.146,*k*.159,*d*.163,*b*.169,*f*.177,*e*.178,*b*.185,*c*,*d* 193,*b*.194,*b*.197,*b*.253,*e*.263,*e*.264,*l*.265,*b c*.266*g* 272,*i*.277.*a*.283,*e*.289.*c*.290,*k*.*l*.305,*e*.338,*g* 350.*g*,*i*.370,*l*.393,*c*.*f*.394,*g*,*b*,*i*.403.*b*.404,*g*.418,*i* 516,*i*.557,*e*.

20030
copy 1

Wounds made by sword or edge weapon, what healing medecines they require, 338.k
Wounds occasioned by the whip or scourge, together with the wales of their lashes remaining after, blacke, & blew, how to be healed. 394.k
Wound-hearbes, and great healers, 201,e.202,g.204.m 205,a 215,a.264,l.272,i.273,d.274,g.275.f.

W R

Wrath and rigour of pimples, how to be appeased, 357.b 359.b.
Wrestlers and champions, what imageurs delighted to represent in brasse, 503.e.f.504.g
Wrings in the bellie and guts, how to be appeased, 40.h 49,b. 57,d. 67,c. 75,c. 119,c. 128,m. 155,d. 160,k 165,b. 171,c. 173,f. 186,k. 188,i. 190,h. 193,c 195,d. 198,k. 202,g. 206,l. 219,e. 247,d. 249,b 250,g.k.l. 253,c. 274,l. 275,e. 277,a. 283,a. 287.f 289,d. 313,e. 318,l. 330,h. 331,c. 353,e. 383,b,c 413,c.419,c.430,g 422,i.431,a.443,c,e. *See Bellieach.*

W Y

Wyne, whether more wholesome or hurtfull to mans body, 151.a.
Wyne of Dates, wherefore good, 155.c
of VVine, Asclepiades compiled one entire treatise, 151.b
Wynes medicined with marble, plaster, and quickelime, hurtfull, 153.e
Wyne tunned up or delayed with sea-water, 153.e
touching Wines, which be best, great varietie and discension of authours, 151.b,c
what VVyne is most wholesome, 153.e
Wynes dressed with rosin, how they be wholesome, and how hurtfull, ibid.
Wyne Falerne, the properties thereof, 151.d
the discommodities that it bringeth, 151.e
Wyne Albane, the operations of it, and the discommodities, ibid.
Wynes Helvenaca, 154.b
Wyne Surrentine wholesome, 151.e
Wyne Cœcubum out of use. ibid.
Wyne Setine the vertues thereof, ibid.
Wyne wherein rosin hath beene newly put, is unwholsome, 153.f.
Wynes Statane their properties, 151.f
as touching the vertues of VVyne in generall, a discourse, 152.g.
the conuenient time to drinke VVyne, 155.a
Asclepiades his proud praise of VVyne, 151.b
Wynes artificiall, needlesse and superfluous, 155.b
which Wyne beareth most water, 152.i
what VVynes least inebriat, ibid.
which be easiest of concoction, ibid.
what VVynes be not nutritiue, ibid.
which most unwholesome, 152.k
Wynes not to be mixed, 152.l
VVyne drunke upon an emptie stomacke, hurtfull both to body and mind, 152.m.153.a
Wyne Merum, what it is, and the operation thereof, 153.b
when VVyne is to be delayed with water, ibid.
Wyne in what measure and proportion to water, wee ought to drinke, 155.b
Wyne somewhat delaied with water, wherefore good, 153.b
what persons may drinke VVyne, 155.a
the drinking of wyne hindreth the growth of certain beasts, as apes, &c. 153.d
Wyne of Campaine, for gentlemens tables, 153.d
mixing, bruing, and medecining wynes unwholesome, 153.e
Wynes prepared with pitch alone, 154.g
Wyne Picatum, what it is, 154.b
whether Wyne may be giuen to a patient in an ague or no, 154.b.
whether women in childbed may drinke Wyne, 154.i
who are forbidden and in what cases to drinke Wyne, 154.i

X A

Xanthus, an ancient Chronicler, 211.b
Xanthus, a pretious stone. See Henui.

X E

Xenocrates, an imageur and writer of imagerie, 503.b

X I

Xiphion, what herbe, 233.b. *the description,* ibid.

X Y

Xyris, a wild floure-de-lis, the vertues that it hath, 105.e
to be vsed with great ceremony, ibid.
Xystion a gem, common among the Indians, 622.

Y A

Yarrow, an herbe, 201,e. *the description thereof, and the vertues,* ibid.
why it is called Myriophyllon, Millefolium, and Millefoile, ibid.
mans Yard exulcerat how to be healed, 272.i

Y C

Yce water, what is to be thought of it, 406.g,h

Y E

Yeels wearing earings & taking meat at mans hand, 428.l
Yellow colour very ancient, 89.m
Yest. See Barme.
Yeugh tree, the vertues that it hath, 195.f
Yex or Yox, by what meanes it is staied, 50.g.59.e.66.h 67.c.76.a. 102.g. 130.g. 155.e. 218.l. 248.h. 274.l 289,d.304,k.342,h.431,c.444.b.

Y N

Ynke-blurs, how to be taken out, 306.b

Y O

Youth and youthfull countenance, how it may be preserued, 65.e.101.b.167.b..

Y R

Yron praised and dispraised, 513.c.d.e
Yron scales, the medicinable vses thereof, 516.i
of Yron and steele the vse in Physicke, 515.e
Yron how preserued from rust, ibid.d
Yron forbidden but in tillage of the ground, 513.e
quicke Yron, what it is, 515.b
of Yron and steele drinking cups, 514.g
Yron reuenged of it selfe by the rust, 514.g
Yron mines in all countries to be found, 514.b
Yron ore, how to be burnt, tried and fined, ibid.
Yron tried by the means of one onely riuer in Cappadocia, 514.h.

of

of Tron sundry sorts, 514.h.i.k
Tron, better or worse by reason of the water, 514.k
for good Tron and steele countries renowmed, ibid.
of Tron sundry degrees in goodnesse, 413.k.l
edged tooles of Tron, how to be hardened, 513.m
Tron blade having once shed mans bloud, giuen euer after to rust and canker, 515.a
Tron what vertue it receiueth from the loadstones, ibid.
Yvorie. See Elephants tooth.
Yway. See Darnell.

Z A

Zachalias a Babylonian and writer in magicke, 627.e
Zanthenes, a pretious stone, 630.g
Zaratus a magitian, 372.i
Zarmocenidas, a magitian, ibid.

Z E

Zea or Spelt, a graine, what vertue it hath in Physicke, 138.l
Zedoarium. See Setwall and Phu.
Zeno the Philosopher his image, Cato would not sell with other pillage, 504.m
Zenodorus, an excellent imageur and engrauer, 496.g
he made the Colosse of Mercurie at Auvergne in France ibid. how long hee was about it, and what paiment hee had for it, 496.h
Zenon, a writer in Physicke, 131.e
Zenothemis, a writer in Naturall Philosophie. 606.h
Zeros, a pretious stone, 623.c
Zeuxis, a most renowmed painter, 534.h. whon he flourished, ibid. his praise, ib. i. his wealth, ibid. his bountifull mind and high opinion of his owne pictures, ibid. his Mot vnder Penelope by him drawne in a picture, ib. his other works, 534.l
what was his faults, 534.l.535.a.b.c

Z M

Zmilaces, a pretious stone, 630.g
Zmilus, one of the architects that made the Labyrinth in Lemnos, 579.c

Z O

Zoophthalmos, what herbe, 237.c
Zopirus, a notable grauer, 483.f
two cups of his making of great price, ibid.
Zopissa, what it is, 184.g. which is best, ib. the vertues, ibid.
Zoroastres first practised art Magicke, 372.h
Zoronisios, the Magicians gem, 630.g

Z V

Zura, what it is, 145.b

Z Y

Zythus, a kind of ale or drinke made of corne, 145.b

20030
copy 1

An Aduertiſement.

WHereas in the former edition this page was ſtuffed full of Errata, which were occaſioned by reaſon of the various matter and words vſed in this Hiſtorie, not common obvious in other Authors; ſuch care in this ſecond Edition hath beene taken, as that they haue all beene amended, whereby the Readers paines to mend, or be offended with them, is taken away. This I thought good to giue notice of, leaſt any ſhould thinke them omitted, not amended.